

New data from group profiling: a larger share of manufacturing, better-performing enterprises, but a poorer ability to finance investment and greater indebtedness

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This report analyses the first major profiling experience developed at INSEE. The contours of enterprises in the major groups were defined individually and using consolidated information produced in collaboration with representatives from the groups. These new data redefine part of the economic fabric and have a dual effect: a concentration effect in larger enterprises, and reallocation on a sectoral basis, especially of subsidiaries from services and trade sectors into manufacturing and construction enterprises. Consolidating economic results has a significant effect. After eliminating internal flows within enterprises, the revenue of the processed units was reduced by 13%, the equivalent of 1.5% of turnover for all non-farm and non-financial market enterprises. Consolidation was found to have a considerable effect on enterprise cash-flow, equity capital and debt. By changing the unit of observation and measurement in this way, economic analysis became more coherent. The share of manufacturing in the economy increased, as did the productive efficiency of enterprises, measured by the value added rate. However, compared with the vision in terms of legal units, their ability to finance investment, measured as the self-financing rate, and their debt ratio appear to have worsened.

Like all the other European statistical institutes, in order to achieve a better economic analysis of the productive system, INSEE has established an economic definition of the enterprise (see *Box*). To implement this new definition, the legal units that make up a group are brought together and "profiling" is carried out. This consists in looking at groups to identify the relevant enterprise(s) on which to carry out an economic analysis, as defined by Decree no.2008-1354 implementing the Economic Modernisation Act of 2008, and then reconstituting their consolidated accounts. This profiling can be carried out automatically (see Report "An economic definition of enterprises for a clearer vision of France's economic fabric" in this document); however, for the most complex groups, individual face-to-face profiling is recommended. First, INSEE profiled 43 groups face-to-face, selected according to their size or complexity. This report describes the impact of this new statistical measurement in terms of its economic diagnosis both at the level of the enterprises concerned and more generally at the level of all non-farm and non-financial market enterprises, irrespective of the involvement in the profiling process.¹

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1. Due to the very specific features of the groups processed, the results presented here cannot be extrapolated to all groups. The report "An economic definition of enterprises for a clearer vision of France's economic fabric" documents the effects of an automatic profiling simulation carried out to cover all groups.

Box

The profiling of large groups developed by INSEE

Profiling a group of companies consists in defining a statistical unit best suited to observing its "true" economic activity as a whole. Statistical observation of the group based on its structure in legal units (companies with a legal identity) is put to one side. Instead, intermediate statistical units are defined, which may or may not be different from the group. These may be "operational divisions", sub-groups, or *ad hoc* divisions, defined in collaboration with the group. These enterprises comply with the legal definition in the 2008 Economic Modernisation Act (Loi de Modernisation de l'économie): "the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain autonomy in decision-making, especially for the allocation of current resources".

The profiling of large groups is the best way to comply with this definition as each group is processed individually, in consultation with the groups. Forty-three groups were broken down into 105 profiled enterprises. The new set of enterprises represented a turnover of 368 billion euros, gross value added of 121 billion euros, and they employed one million full-time equivalent (FTE) payroll workers. These enterprises made 28 billion euros of investment and exported goods and services to the value of almost 73 billion euros. Manufacturing concentrated 42% of turnover for these groups, construction 11%, services 26% and wholesale/retail trade 21%. At a more detailed level, the main sectors were retail trade, the production and distribution of electricity and telecommunications.

The structure of the groups and their operational divisions were taken into account, and a dialogue was established in order to break them down into one or more profiled enterprises. The accounts of these enterprises were then constructed within the perimeter of France using one or other of these methods:

-With the "bottom up" method, the profiler builds up the consolidated accounts of the profiled enterprises from tax returns and intragroup flows provided by company representatives;

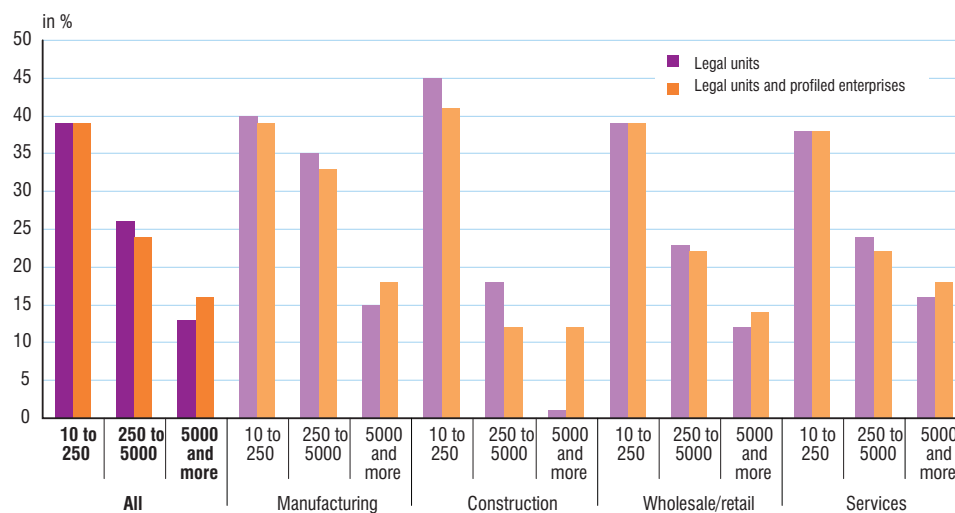
-With the "mixed" method, the profiler starts with elements of the consolidated accounts provided by the groups in accordance with the accounting standards in force, then reconciles these with tax return data from the legal units that constitute the group. For additive variables such as value added and headcount, the information obtained by aggregating the tax returns is preferred. For variables relating to balance sheet, the information provided by the groups is used.

Any divergence from the results produced from the tax returns may be the result of various factors. First, the fact that these variables are non-additive means that the aggregation of tax return results may lead to overestimation compared with the consolidated information provided by the groups. Second, the accounting standards in force (IFRS) may have an effect compared with social concepts behind the tax returns (e.g. valuing fixed assets at market price rather than purchase price). Information may also prove to be more comprehensive in terms of the units covered compared with the tax returns. Stock variables such as debts or claims are also consolidated between units.

A redefinition of the economic fabric

By basing the process on groups' productive organisation, profiling eliminates any arbitrary segmentation between legal units in the same group, instead redefining boundaries that make economic sense. As a result, this produces a substantial concentration effect. The 3,500 legal units in the first groups processed were reassigned to 105 profiled enterprises. Whereas only 11% of these legal units had 250 employees or more, this was the case for 95% of the profiled enterprises. The distribution of payroll workers was also modified: 94% were now concentrated in enterprises with 5,000 employees or more, compared with only half with the legal units approach. Given the economic weight of the profiled enterprises in market enterprises as a whole, 16% of full-time equivalent (FTE) payroll workers were now concentrated in enterprises with 5,000 employees or more (see *Figure 1*). Before profiling,

1. By profiling large groups, some large-sized enterprises emerge, to the detriment of intermediate-sized enterprises, especially in construction



Scope: all non-farm and non-financial legal units or profiled enterprises, excluding sole proprietors and micro-enterprises in the fiscal sense (industrial and commercial profits and non-commercial profits).

How to read this chart: in construction, legal units with 5,000 employees or more employ 1% of the FTE workforce. After profiling the large groups, enterprises with 5,000 employees or more employ 12% of the FTE workforce.

Source: Esane.

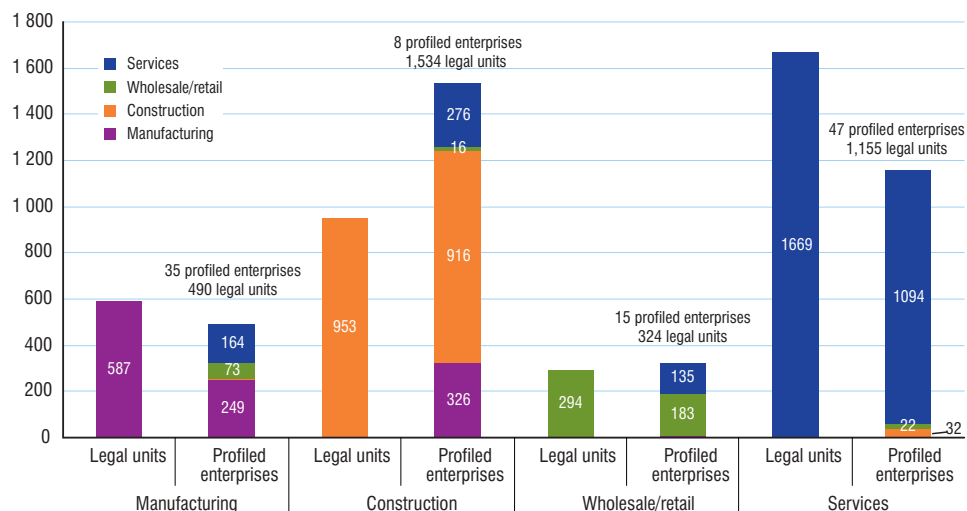
this proportion was 13%. This effect was particularly marked in construction, where large groups were profiled: the proportion was 12% compared with 1% previously.

In addition to grouping the legal units together, another effect emerged during profiling, that of "sectoral reallocation". When links of economic subordination were taken into account, secondary activities that serve a principal activity, and which are often isolated in subsidiary companies, could now be grouped with a profiled enterprise carrying out a different principal activity. For the 43 groups concerned, sectoral reallocation had a considerable effect: 30% of their legal units were reassigned to profiled enterprises in major sectors - manufacturing, construction, wholesale/retail, services - that were different from their original sector of attachment in terms of legal units (see Figure 2). When the sectors were defined at a more detailed level, this proportion was more than half.

Manufacturing is the main sector concerned by the different reallocations

For the groups that were analysed, the scale of the reallocations was most pronounced in manufacturing; in the manufacturing enterprises that were formed, one in two legal units was non-manufacturing (see Figure 2). At the same time, almost 60% of legal units involved in manufacturing activity were reallocated to enterprises in other major sectors, mainly construction. This shift shows the vertical integration of groups, which is important in construction: manufacturing affiliates and subsidiaries produce materials, the intermediate consumptions of these enterprises. Two thirds of these manufacturing legal units that were reassigned to the construction sector by profiling work in "Quarrying stone, sand and clay" and in the "Manufacture of abrasive products and non-metallic mineral products" for enterprises in "Construction of roads and railways". While these manufacturing units may seem secondary, with 12% of FTE employees and 15% of value added for the construction enterprises to which

2. Reallocation of 30% of legal units between the main sectors



Scope: legal units and enterprises in large profiled groups. How to read this chart: in large profiled groups there were 587 legal units in manufacturing. After profiling, there were 35 manufacturing enterprises composed of 490 legal units. Of these, 249 derived from manufacturing (out of the original 587), 73 from wholesale/retail trade, 4 from construction and 164 from services.

Note: for some of the most complex groups, legal units can carry out transversal functions and be counted in different divisions in the group. Profiling can result in several profiled enterprises being defined, among which the legal units are distributed. In this Figure, the breakdown of the profiled enterprises into legal units by sector takes into account the segmentation of some legal units between several profiled enterprises when defining their perimeter. For greater legibility, figures corresponding to movements of less than ten units are not shown.

Source: *Ésane*.

they were attached, more than half of gross operating surplus is concentrated here, along with one third of investment and **fixed assets**. Their economic results therefore differ considerably from the other legal units of these construction enterprises. By incorporating them, the average results of the constituent units increased significantly: the **margin rate** and the **investment rate** were raised by 3 percentage points, economic profitability by 1 point and productivity by 3%.² Through profiling, a significant share of profits and investment made upstream in their production chain was re-assimilated into construction enterprises.

Conversely, manufacturing enterprises are the main beneficiaries of the reallocation of wholesale/retail units. 38% of these are reassigned, two thirds to manufacturing enterprises. These are subsidiaries created by the large groups to carry out marketing functions, mainly in wholesale trade, downstream in the production chain, and especially enterprises in the manufacture of food products and in chemicals. Compared with the results from the manufacturing enterprise units as a whole, these units in the wholesale/retail sector accounted for 13% of turnover and exports, 9% of gross operating surplus and 12% of **cash-flow** for 7% of value added (at factor cost), 1% of investment and 5% of FTE employees. While their **export rate** was very similar to that of the other manufacturing enterprise units, they stood out with their higher productivity (+47%) and margin rate (+5.8 points). Taking them into account resulted in an increase in these ratios (0.4 points for margin rate and 3% for productivity). When they were included, the average **self-financing rate** for manufacturing enterprise units increased from 157% to 177%, because they had substantial cash-flow and invested little.

2. Productivity is measured here as the ratio of value added (excluding tax) to FTE payroll workers.

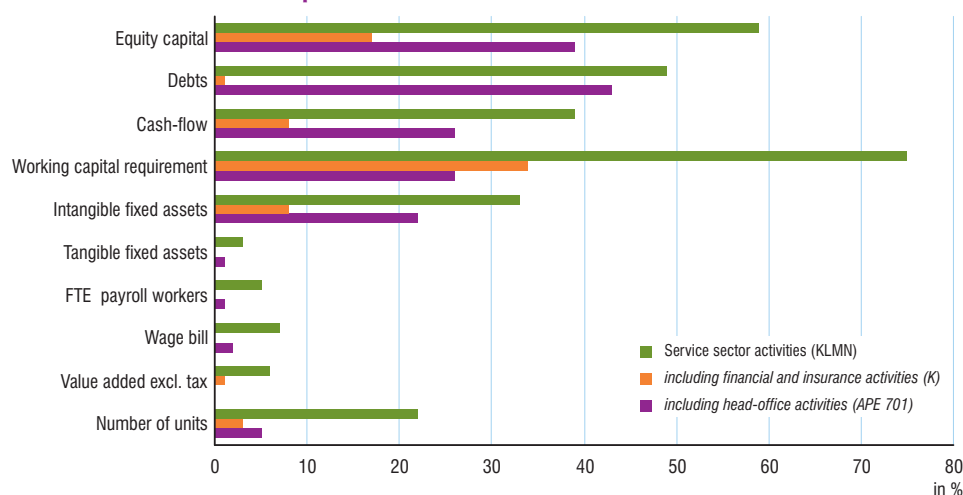
The importance of including head-office activities in the profiled enterprises

One third of legal units with a service sector activity were reassigned to enterprises in other sectors. Construction enterprises control almost half of these service sector subsidiaries. 30% were attached to manufacturing enterprises and 20% to wholesale/retail enterprises. These units were concentrated mainly in specialised activities, scientific and technical activities, real-estate activities, financial activities and administrative and support services. At a more detailed level in the classification, "activities of head offices", "renting and operating of real estate" and "architectural and engineering activities" represent more than half the activities for these units. Of course they contribute little to value added for the manufacturing, wholesale/retail or construction enterprises in which they are included (6%) (see Figure 3); however, these service units as a whole make up 39% of cash-flow and carry half of the debt and the equity capital of these enterprises (49% of debts, 59% of equity capital). Logically, these service sector subsidiaries are not much concerned with productive capital holdings of the enterprises that control them - the share of tangible fixed assets held by these units is 3% - but they hold more intangibles (patents, etc.), with one third of intangible fixed assets. These units also manage most of the cash holdings and they account for 75% of **working capital requirements**.

Clearly, these service-sector units must be taken into account when defining the contours of manufacturing, wholesale/retail and construction enterprises to analyse their financial results: the self-financing rate is increased by half; the ratio of debt to value-added is almost doubled. Economic profitability is slightly reduced, however, as these affiliates and subsidiaries generate little operating surplus. At the same time, these service sector legal units invest less and so the average investment rate is reduced.

At a more detailed level of activity of the subsidiaries and the enterprises that control them, these service-sector affiliates illustrate some of the particular features of the way groups are

3. In groups, service units account for most of the balance sheet in manufacturing, construction and wholesale/retail enterprises



Scope: legal units of profiled enterprises in manufacturing, construction and wholesale/retail.

How to read this chart: in profiled enterprises in manufacturing, construction and wholesale/retail, 22% of legal units are in service activities: professional, scientific, technical, real-estate, financial activities, administrative and support services (sections KLMN in NAF in 21 items). These units account for 6% of value added excluding tax for the legal units of these profiled enterprises, 7% of their wage bill, 5% of their FTE payroll workers, 3% of their tangible assets. In contrast, they include 33% of their intangible fixed assets, 75% of their working capital requirement, 39% of their cash-flow, 49% of their debt and 59% of their equity capital.

Source: Esane.

organised. The majority of the enterprises had a subsidiary for head-office functions (62 out of 105 enterprises profiled). This type of organisation was less common (a little less than half) among the manufacturing enterprises, but the financial concentration effect was more marked: for manufacturing enterprises organised with a subsidiary for head-office functions, 59% of equity capital was concentrated in these subsidiaries and 83% of debt.

Engineering service subsidiaries in construction and manufacturing, real-estate rental service subsidiaries in wholesale/retail

In manufacturing construction and wholesale/retail enterprises, one in five service subsidiaries is in real-estate activities, mainly in "the letting of land and other own property".

The majority of these subsidiaries belong to wholesale/retail enterprises and play an important role among the subsidiaries of these enterprises. For instance, they may be subsidiaries that rent commercial space or goodwill. They represent 44% of the service-sector subsidiaries of commercial enterprises and 18% of their legal units, but they do not account for much turnover and value added for enterprises in wholesale/retail (1% and 4% respectively). However, as their wage bill is small, they ultimately concentrate 25% of gross operating surplus for these enterprises. When they are included, they raise the margin rate by four points.

Large groups have also spun off their engineering activities and technical studies. After head-office and land rental subsidiaries, this is the third category of service-sector subsidiaries in construction, manufacturing and wholesale/retail enterprises, accounting for 15% of these subsidiaries and 20% of their value added. The phenomenon is more widespread in the construction sector. The majority of construction enterprises have one or more engineering units, mainly micro-enterprises and SMEs, and they account for more than two thirds of this type of service-sector unit. The practice is less common in manufacturing and service enterprises, with about a quarter of the enterprises profiled having this type of subsidiary. However, manufacturing enterprises include some large ISEs in these activities which concentrate more than half of turnover, value added and wage bill for engineering services. In the manufacturing enterprises that have them, these subsidiaries generate 7% of value added and pay 11% of wages. In the case of service enterprises, none had engineering as their principal activity. The weight of value added from subsidiaries carrying out this activity is very low (1%), and this practice is virtually non-existent for wholesale/retail enterprises.

Improved turnover measurement, consolidated within profiled enterprises

In addition to reassigning subsidiaries to enterprises carrying out the activity to which they contribute, this redefinition of the contours of enterprises requires new information on their results. For this first operation, the enterprises are processed individually with new data collected directly from the groups and made compatible with data from the tax returns of their legal units. Measurement is therefore improved, it is more consistent with the accounting standards in force and, most important, it produces consolidated results for legal units in the same profiled enterprise (see *Box*).

By eliminating internal flows within enterprises, turnover was reduced by 56 billion euros, being 13% compared with total turnover of the legal units concerned by profiling and 1.5% compared with all the legal units in non-farm and non-financial market sectors (see *Figure 4*).

The degree to which turnover was consolidated proved to vary considerably. For almost half of the enterprises profiled, turnover was consolidated by less than 5%, but for about thirty of them consolidation of turnover exceeded 15%. And for about a dozen profiled enterprises it was even over 40%. This rate of consolidation did not seem to be correlated particularly with

4. Macroeconomic impact of consolidating the balance sheet of enterprises when profiling large groups

	2013 gap compared with legal units of groups (in €bn, in thousands of jobs)	2013 gap compared with legal units of groups (in %)	Weight of legal units of groups in 2013 compared with legal units in the scope of coverage (in %)	2013 gap compared with legal units in the scope of coverage (in %)	Impact on 2013 / 2012 changes (in points)
Turnover	-56	-13	11	-1.5	0.1
Value added excl. tax	0	0	12	0.0	0.0
Gross operating margin	0	0	15	0.0	0.0
FTE payroll workers	0	0	8	0.0	0.0
Fixed investment	0	0	15	0.0	0.0
Exports	-5	-7	13	-0.8	0.0
Cash-flow	-20	-35	20	-6.8	-1.2
Total fixed assets	-52	-9	20	-1.7	0.0
Debts	-95	-24	23	-5.6	0.4
Equity capital	-196	-34	27	-9.1	-0.3

Scope: non-farm and non-financial market sectors, also excluding sole proprietors and micro-enterprises in the fiscal sense (industrial and commercial profits and non-commercial profits).

How to read this chart: the switch to profiled enterprises shows a reduction in turnover of 56 billion euros, being 13% of turnover of the legal units of the profiled groups. This turnover represents 11% of all units within the entire scope of coverage. Compared with all units within the scope of coverage, profiling results in a consolidation of turnover of 1.5%. With profiling in 2012 and 2013, the rate of growth of turnover increased by 0.1 point. In 2013, the scope of coverage was 2,767,023 legal units.

Source: Esane.

size (turnover of legal units, FTE payroll workers) or the apparent complexity of the productive organisations (based on the number of constituent legal units).³ Enterprises with intermediate turnover consolidation rates - between 5 and 15% - tended to be larger. Their average turnover was 6.5 billion euros against 2.7 billion for enterprises with less than 5% consolidation and 3.8 billion for enterprises with more than 25% consolidation.

Consolidation of turnover was on average a little more marked in wholesale/retail and manufacturing (-15% and -14% of turnover respectively for units within the contours of the profiled enterprises) than in construction and services (-9% and -11% respectively), although these deviations were not significant. The importance of internal flows within the enterprises are therefore related to factors that are more specific to the productive organisations than to their size, their apparent complexity or their sector. In retrospect, these initial observations on the difficulty in defining systematically the scale of consolidation validated the decision to consider the accounts individually, at least for the large groups.

A macroeconomic impact on indebtedness and equity capital

Other economic and financial flows were also impacted by applying the new calculations derived from profiling. Exports, as shown in the enterprise tax return data, came down by 5 billion euros. Manufacturing enterprises that combined legal units from manufacturing and wholesale/retail were particularly affected. The reason may be that these two types of legal unit each declare exports in their accounts, whereas it is the wholesale/retail subsidiary that in fact does the exporting. Cash-flow is very sensitive to the consolidation of flows between units. It shrank by almost 20 billion euros, i.e. 35% of the total for the legal units in the groups

3. The correlation coefficient for turnover consolidation rate to number of legal units is 0.3%. For total headcount, it is negative at -9.6%. In an explanatory model of consolidation rate, number of units and size did not emerge as significant.

profiled. Because of the economic weight of the groups that were analysed, cash-flow for the whole scope of coverage fell by 7%.

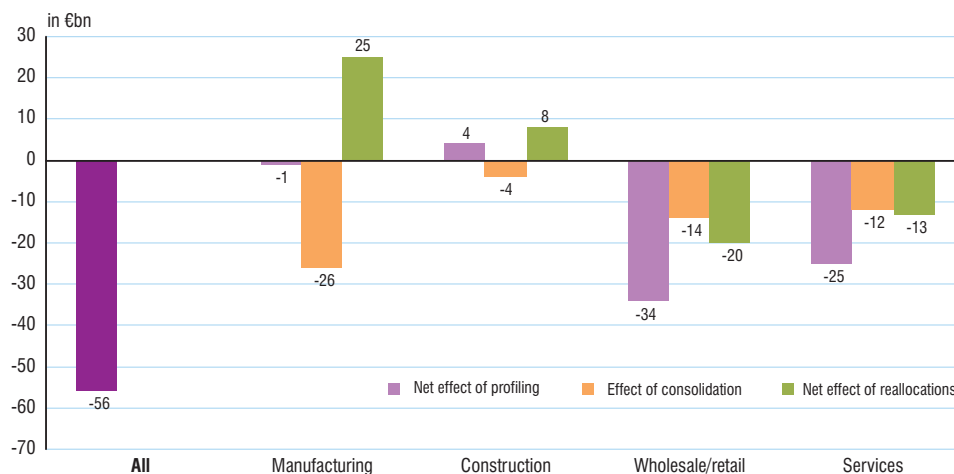
Profiling has an important impact on the variables in enterprise balance sheets. Commitments that were cross-referenced in assets and liabilities between legal units in the same enterprise were cancelled out. Compared with the sum of the results for the legal units in the groups, equity capital and debt in the profiled enterprises were reduced by 34% and 24% respectively.⁴ Across all non-farm and non-financial market enterprises, debt was reduced by 6%, and equity capital by 9%. All of these effects are therefore biases that are corrected after consolidating results between legal units. The impact of profiling from one year to another, however, is limited.

Increase in construction turnover and in manufacturing balance sheet, to the detriment of the service and wholesale/retail trade sector

The sectoral reallocations described above were combined with the consolidation effect. Ultimately, profiling had virtually no impact on turnover in manufacturing (see Figure 5)⁵. In construction, it resulted in an increase in turnover of 4 billion euros, which was 10% of the "initial" turnover of the legal units analysed in this sector.

Conversely, the effects of consolidation and reallocation were also combined in the services and wholesale/retail trade sectors and contracted by 25 and 34 billion euros respectively, i.e. -21% and -30% of total turnover for the units in these sectors before profiling. The effects of the reallocations accounted for more than half of this total.

5. Turnover in manufacturing virtually stable, increase in construction, contraction in wholesale/retail and services



Scope: enterprises and legal units of large profiled groups.

How to read this chart: the switch to profiled enterprises reduced turnover by 56 billion euros. In construction, it increased by 4 billion euros. This effect can be broken down into an 8 billion euro increase linked with the reallocation of legal units from other sectors in profiled enterprises in construction and consolidation of 4 billion euros of turnover from legal units controlled by profiled enterprises in construction.

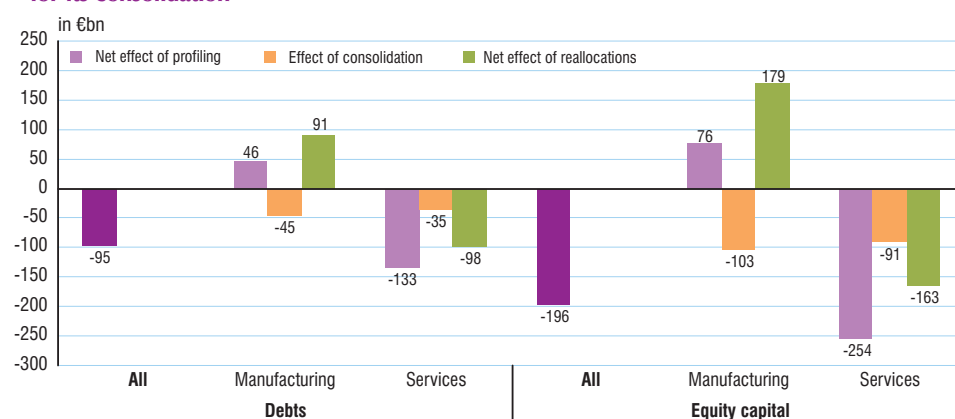
Source: Esane.

4. Equity capital is composed of own funds (social capital, issue premium, etc.) and other types of equity capital (product of participating share issues, conditional advances).

5. For the groups analysed, this was the difference between turnover of the profiled manufacturing enterprises and turnover of the manufacturing legal units.

For equity capital or debt, reallocating legal units from services to manufacturing enterprises overcame the effect of consolidation, even though this was substantial (see Figure 6). Thus the debt of manufacturing enterprises increased by 46 billion euros, or +52% compared with the total for manufacturing legal units, whereas for service-sector enterprises it contracted by 133 billion euros, or –45% compared with the total for legal units. For equity capital, the variation was +80% in manufacturing against –57% in services.

6. Transferring part of the services sector balance sheet to manufacturing more than compensates for its consolidation



Scope: enterprises and legal units of large profiled groups.

How to read this chart: the transition to profiled enterprises reduced debt by 95 billion euros. In manufacturing, it increased by 46 billion euros. This effect can be broken down into debt consolidation of 45 billion euros for legal units controlled by the profiled manufacturing enterprises and a rise of 91 billion euros linked with the reallocation of legal units from other sectors in the profiled manufacturing enterprises. In the services sector, reallocations resulted in a fall in debt by a similar amount, of 98 billion euros.

Source: ESANE.

Because of its more favourable trend in relation to consolidation overall, the share of manufacturing increased in the total for profiled groups: +5.4 points for turnover, +3.9 points for value added, +2.3 points for FTE payroll workers, +9.3 points for exports, +22.5 points for debt and +28 points for equity capital (see Figure 7). The share of construction increased but to a lesser extent. The shares of wholesale/retail and services contracted.

7. Increased share of manufacturing to the detriment of services

in points

Impact of profiling	Turnover	Value added excl. tax	Gross operating surplus	FTE payroll workers	Investment	Exports	Cash-flow	Total fixed assets	Debts	Equity capital
On profiled groups										
Manufacturing	5.4	3.9	2.9	2.3	0.7	9.3	23.7	5.5	22.5	28.0
Construction	2.4	1.6	0.8	2.2	1.1	0.5	-1.9	0.2	-1.7	-2.0
Wholesale/retail	-5.2	-2.1	-1.8	-1.3	0.8	-8.0	-3.3	0.6	0.1	0.7
Services	-2.6	-3.4	-1.9	-3.2	-2.6	-1.8	-18.5	-6.3	-20.9	-26.7
On entire scope of coverage										
Manufacturing	0.4	0.4	0.5	0.2	0.1	1.1	3.0	0.8	4.0	6.1
Construction	0.2	0.2	0.1	0.2	0.2	0.1	-0.2	0.0	-0.3	-0.4
Wholesale/retail	-0.3	-0.2	-0.3	-0.1	0.1	-0.9	0.0	0.3	0.4	1.0
Services	-0.3	-0.4	-0.3	-0.3	-0.4	-0.3	-2.8	-1.1	-4.1	-6.7

Scope: non-farm and non-financial market sectors, also excluding sole proprietors and micro-enterprises in the fiscal sense (industrial and commercial profits and non-commercial profits).

How to read this chart: after profiling large groups, the share of manufacturing in the turnover of the enterprises analysed increases by 5.4 points. For the entire coverage, the effect is 0.4 point.

Source: Esane.

Across all non-farm and non-financial market enterprises, the introduction of these profiling data for large groups had a noticeable effect: in the case of turnover, +0.4 points for manufacturing, +0.2 points for construction, -0.3 points for wholesale/retail and also for the services sector. The sectoral effects are greatest for balance-sheet variables and can be summed up as a transfer from services to manufacturing: -4.1 points / +4.0 points for the share of debt of non-financial companies.

Increased coherence in data for an economic analysis of enterprises

Profiling provides a more coherent vision of the productive system. On the one hand, the observation unit, the profiled enterprise, becomes a more relevant basis for economic analysis. Within a single enterprise, the different structures serve an overall objective yet have different roles. As we have seen above, in manufacturing enterprises, commercial units focus on exports, service units focus partly on debt and equity capital, while value added is mainly produced by the manufacturing legal units. The overall results from the legal units, provided by economic and financial ratios (value added rate, margin rate, exportation, self-financing rate, debt ratio, etc.- see *Definitions*) may differ significantly from the enterprise results and can prove to vary greatly between legal units in the same enterprise. These results are reconciled by aggregating them at the level of the profiled enterprise and comparisons between enterprises are then more coherent since individual organisational decisions in terms of legal units are no longer to be taken into account.

On the other hand, information is improved, especially by consolidation. The organisational choices that enterprises make result in flows between units, flows that have no economic reality and which do not contribute in any way to the overall results. For example, the value added rate, which compares value added generated to turnover, gives an indication of the productive performance of an economic unit. In cases where the same activity is segmented across several units, turnover is multiplied according to the flows between these units, yet these operations have no effect on the value added created. By basing the analysis on legal units, the value added rate was underestimated.

These two effects, changing the observation unit and consolidating information, can be demonstrated by comparing distributions of value added rates when using different approaches. Depending on the distribution of their value chain, profiled enterprises may have subsidiaries with very varied productive performances, and depending on the analyses, the choice of observation unit may skew the conclusions. For example, one might draw a more optimistic conclusion about the economic fabric; 20% of the units have a value added rate below 11%, yet when analysis is based on the enterprises that control them, 80% of the units are in enterprises with a value added rate higher than 22%. In addition, an unconsolidated measurement of turnover at unit level can result in an under-estimation of the value added rate for the entire distribution. With profiling, the rate of value added, as a measure of the productive system, increases on average from 29% to 33%. This effect is more marked in the services sector (from 49% to 57%). Across the entire scope of coverage, the value added rate increases by 0.4 points (see *Figure 8*).

The advantages to analysing results at a more aggregated level than the legal unit are more straightforward for additive economic variables and for ratios not affected by consolidation, such as the margin rate. In this way, 19% of the legal units analysed produced a negative margin. At this level of observation, we might conclude that almost one in five was experiencing financial difficulties.

However, 90% of these units with no profit margin were in profiled enterprises which generated a positive margin. In fact, this was the case for the majority of profiled enterprises (70%), with these controlling enterprises having an average margin rate of 28%. It is clearly an

advantage to change the level of observation when measuring investment or exports, which are more concentrated in some units within the groups. Among the enterprises that were profiled, one third of their subsidiary legal units did not make any investment in 2013 and the vast majority of profiled enterprises have at least one such subsidiary (4 out of 5). At the same time, almost all of the controlling profiled enterprises invested, with an average investment rate of 18%. Similarly, only 22% of the subsidiary legal units of the profiled enterprises were exporters but, conversely, only 16% of the legal units were controlled by profiled enterprises that were not exporters.

8. With these new data, better productive efficiency but a reduced ability to finance investment and a higher debt ratio

	Value added rate	Margin rate	Investment rate	Exportation rate	Self-financing rate	Debt ratio
in %						
Enterprises in profiled groups						
All	33	35	23	20	136	78
Manufacturing	30	39	35	32	114	78
Construction	28	12	9	4	84	41
Wholesale/retail	13	18	17	3	78	27
Services	57	40	17	20	188	82
Legal units in profiled groups						
All	29	35	23	18	207	68
Manufacturing	26	41	38	30	89	93
Construction	25	10	7	3	339	48
Wholesale/retail	11	20	12	8	263	26
Services	49	39	17	18	374	65
Effect of profiling (in points)						
All	4	0	0	2	-71	10
Manufacturing	4	-2	-3	2	25	-15
Construction	3	2	2	1	-255	-7
Wholesale/retail	2	-2	5	-5	-185	1
Services	8	1	0	2	-186	17
Scope of coverage (profiled enterprises and legal units)						
All	28.1	26.8	17.4	15.9	150.0	82.5
Manufacturing	24.7	26.4	20.7	32.9	124.4	67.2
Construction	32.7	15.9	8.3	1.9	172.4	67.8
Wholesale/retail	14.6	24.0	8.5	9.4	199.6	57.9
Services	48.4	30.0	20.9	11.3	153.1	96.3
Legal units in scope of coverage						
All	27.7	26.8	17.4	15.8	160.9	79.4
Manufacturing	24.2	26.4	21.0	32.5	117.1	68.3
Construction	32.4	15.9	8.1	1.8	201.3	64.4
Wholesale/retail	14.5	24.1	8.3	9.7	217.1	57.4
Services	47.6	29.9	20.9	11.3	170.9	88.1
Effect of profiling (in points)						
All	0.4	0.0	0.0	0.1	-10.9	3.1
Manufacturing	0.5	0.0	-0.3	0.4	7.3	-1.1
Construction	0.3	0.0	0.2	0.1	-28.9	3.4
Wholesale/retail	0.1	-0.1	0.2	-0.3	-17.5	0.5
Services	0.8	0.1	0.0	0.0	-17.8	8.2

Scope: non-financial companies, non-farm and non-financial services.

How to read this chart: across all non-financial companies, non-farm and non-financial services, profiling data increased value added rate by 0.4 point. The self-financing rate decreased by 10.9 points and debt ratio increased by 3.1 points.

Source: ESANE.

As mentioned above, the impact of profiling is seen most clearly in financial variables such as cash-flow, debt and equity capital. For enterprises, cash-flow, measuring the ability to finance investment, is significantly reduced with the resolution of double counting. Whereas it was more than double the investment made when calculating with legal units, it is only 136% with profiled enterprises. For the entire scope of the coverage, the effect remains: the ratio is reduced from an ability to finance 1.6 times to 1.5 times the investment made. This effect is particularly pronounced in construction. Across the entire scope of the coverage, this was reduced from more than double the investment made to 1.7 times. With profiling, equity capital contracts more than debt. The resulting **debt ratio** then increases: in the profiled enterprises, it increased on average by almost 10 points and by 3.1 points across the entire scope of the coverage. The debt ratio rose 8.2 points in the services sector and 3.4 points in construction.

Some of the results are very much determined by the characteristics of the profiled groups in this first stage. The report on the economic definition of enterprises in this same issue simulates rolling out profiling to all groups and the results seem very similar. However, this simulation is based on automatic profiling, where it is not possible to go very far in uncovering and suppressing intragroup flows, and this is a considerable limitation when analysing the largest groups. With face-to-face group profiling we can refine the consolidations with variables which, as we have seen, have a very strong impact. ■

Definitions

Value added rate: ratio of gross value added to turnover. The higher this rate, the more the enterprise contributes to creating value for the same volume of business. An enterprise that manages its entire production chain internally will have a higher value added rate than one which subcontracts certain stages, turnovers being equal. The value added rate measures the performance of the production tool, and the degree to which an enterprise is integrated into a production industry.

Margin rate: ratio of gross operating surplus to value added at factor cost. It measures the share of value added after compensation for the labour factor.

Investment rate: ratio of investment to gross value added.

Exportation rate: ratio of exports to turnover.

Cash-flow is the sum of the enterprise's net profit and non-cash charges. It can be used for investment, to pay off debt, to pay dividends to shareholders.

Total **fixed assets** are the sum of tangible and intangible fixed assets and the working capital requirements. An enterprise's tangible fixed assets are physical assets intended to be used over the long term as a means of production. They mainly include constructions, technical facilities, industrial equipment and tools. Intangible fixed assets are assets without physical substance: installation costs, research and development costs, concessions, patents, etc.

The **working capital requirements** are an enterprise's cash requirements to fund its activity according to production lead times, storage, payment terms for customers and its own deadlines for paying suppliers.

Self-financing rate: ratio of cash-flow to investment. This measures the share of investment that the enterprise is able to finance without resorting to a loan.

Debt ratio: ratio of indebtedness to equity capital. This measures the ability to repay debts by resorting to equity capital.
