



MULTINATIONALS: FINANCIAL AGGREGATES (2017)

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(390 COMPANIES)**

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an R & S publication

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FOREWORD

This is the twenty-second edition of R&S's annual survey of major multinational companies. It covers 390 firms, 320 of which have industrial activity as their core business (manufacturing and energy), 26 of which provide telecommunications services, while 23 are utilities operating on an international scale and 21 are software & web companies. Of the 320 industrial multinationals, 248 are located in what we call the triad regions (i.e. Europe, North America and Japan), 50 in the Asian-Russian area, and 22 in the rest of the world. A description of the geographical areas is provided in the table at the end of this foreword.

In Section I we highlight the conclusions emerging from our analysis of the data. Long-term trends are illustrated, as are earnings and financial data for the industrial multinationals in the triad regions (Europe, North America and Japan), the Asian-Russian area and the rest of the world, the telecommunications, the utilities and the software & web companies.

Section II contains statistical tables providing aggregate sales, earnings and financial data, flows of funds and other financial indicators, with breakdowns by country and industry. Aggregates for Austrian, Canadian, Irish, Spanish, and the individual Asian-Russian and rest of the world countries have been omitted, on the grounds that they are relatively few when taken in isolation. Figures for all the companies cover the 2012-2016 period.

Section III describes the principles and methods employed to select the companies and restate their figures. The tables at the end list the companies included in the survey, and chart the mergers and acquisitions that took place in the period from 2012 to 2016.

* * *

This report may be downloaded in pdf format free of charge from website www.mbres.it. The statistical tables for individual countries and sectors may also be downloaded from this site.

GEOGRAPHICAL AREAS

Europe	Triad regions		Asia-Russia	Rest of world
	North America	Japan		
Austria (AT) *	Canada (CA)	Japan (JP)	China (CN)	Australia (AU)
Belgium (BE) *	U.S.A. (US)		India (IN)	Brazil (BR)
Denmark (DK)			Israel (IL)	Colombia (CO)
Finland (FI) *			Malaysia (MY)	Mexico ¹ (MX)
France (FR) *			Philippines (PH)	South Africa (ZA)
Germany (DE) *			Russia (RU)	Venezuela (VE)
Ireland (IE) *			Saudi Arabia (SA)	
Italy (IT) *			Singapore (SG)	
Liechtenstein (LI)			South Korea (KR)	
Luxembourg (LU) *			Taiwan (TW)	
Netherlands (NL) *			Thailand (TH)	
Norway (NO)				
Spain (ES) *				
Sweden (SE)				
Switzerland (CH)				
United Kingdom (UK)				

* Eurozone.

¹ Mexico was excluded from North America as its GDP level is not consistent with that of the U.S.A. and Canada.

GLOSSARY

Automotive	Road transport vehicles (cars, industrial vehicles, buses).
Capital invested (CI)	Calculated as net worth plus borrowings.
Capital turnover	Value added as a percentage of capital invested.
Cash flow	Annual cash flow generated by operations. Calculated as current profit plus depreciation/amortization.
Current pre-tax profit (loss)	Profit (loss) for the year before extraordinary income and expenses and income tax.
Export sales	Sales abroad by a national company forming the group.
Gross operating margin (GOM)	Difference between value added and labour costs.
Intangible assets	Balance-sheet items arising against outlays incurred in respect of charges or non-tangible goods (goodwill included).
Investment rate	Capital expenditure as a percentage of gross tangible fixed assets.
Net operating margin (NOM)	Gross operating margin less depreciation and amortization.
Net tangible fixed assets	Book value of tangible assets with a useful working life of more than one year.
Net value added	Value added less depreciation and amortization.
Net worth	Capital, reserves and profit (loss) for the period and minority interests. Corresponds to the difference between total assets and total liabilities.
Non-domestic sales	Sales abroad to third parties by national companies forming part of the group plus sales by foreign subsidiaries to third parties outside the parent company's home country.
Return on equity (ROE)	Profit or loss for the period as a percentage of company capital plus reserves (net of profit or loss for the period).
Return on investment (ROI)	Net operating margin plus interest income and other profits and losses of a financial nature as a percentage of capital invested.

Tangible capital invested	Capital invested less intangible assets.
Tangible net worth	Net worth less intangible assets.
Tax rate	Income taxes as a percentage of pre-tax profits.
Telecommunications	Telecommunications and internet services.
Turnover rate	Net sales as a percentage of capital invested.
Transport sector	Means of transport: automotive, aerospace and shipbuilding.
Utilities	Public utility services, i.e. production and distribution of electricity and gas to end-consumers, integrated water resource management, and environmental services. Telecommunications are excluded.
Value added (VA)	Net sales plus other operating revenues less purchases and sundry operating expenses.
INTENSITY OF TECHNOLOGY (Eurostat method)	
High technology industries: HT	Pharmaceuticals, electronics, aerospace and defence, medical and optical instruments, watches and clocks.
Low technology industries: LT	Food and drinks, textiles and clothing, paper, printing and publishing, wood and furniture, hide and leather, other manufacturing industries (eyewear, jewellery, tobacco, buildings etc.).
Low-medium technology industries: LMT	Metallurgy, energy, construction industry products, glass and tyres, ship-building.
Medium-high technology industries: MHT	Mechanical and electro-mechanical engineering, vehicles, chemicals and cables.

I. SUMMARY OF RESULTS

SYMBOLS AND ABBREVIATIONS

The followings conventional symbols have been used:

- null data
- ... unknown or insignificant data
- n.c. not calculated

Some column totals may not correspond owing to figures being rounded up or down.

1. FIVE-YEAR PERIOD 2012-2016

This survey covers the leading industrials, telecommunications, utilities and software & web companies in the world, considered at group level. The methods of selection are illustrated in Section III.

1.1 Distribution and relevance of multinationals

The aggregate turnover recorded in 2016 by companies covered by the survey amounts to €12,903bn €10,604bn of which is generated by the industrial groups, €1,118bn by the telecoms companies, €623bn by the utilities, and €558 by the software & web companies (Table 1). Their aggregate total assets excluding intangibles amount to €17,240bn, and together they employ a total of around 33 million staff (for a detailed list of the companies, see Table III.5).

TABLE 1 - MULTINATIONALS IN 2016: HIGHLIGHTS

	No. of companies	Net sales in EUR bn	Total assets ¹ in EUR bn	No. of employees in '000
Europe	146	3,666	4,636	10,113
North America	64	2,834	3,204	6,165
Japan	38	1,417	1,780	3,955
Total, triad regions.....	248	7,917	9,620	20,233
Asia-Russia	50	2,314	3,086	6,678
Rest of world.....	22	373	772	1,418
Total industrials.....	320	10,604	13,478	28,329
Software & Web	21	558	822	1,260
Telecoms.....	26	1,118	1,613	2,927
Utilities	23	623	1,327	1,000
Total	390	12,903	17,240	33,516

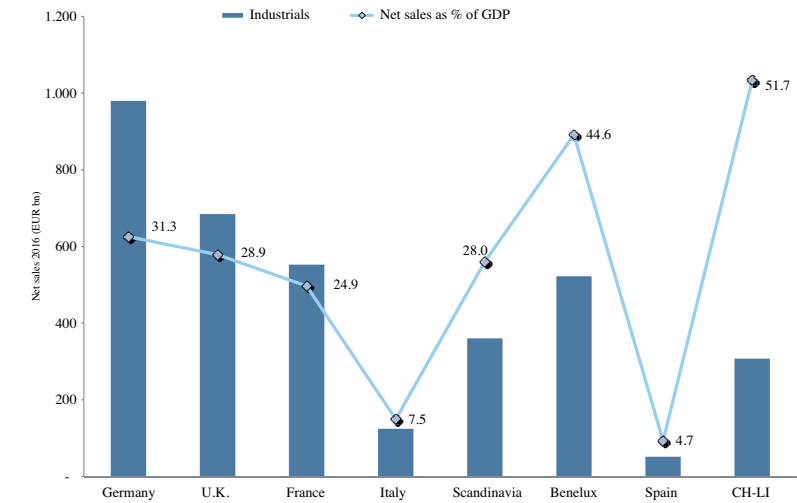
¹ Excluding intangibles.

The companies analysed here do not show the same degree of domestic presence. Measured by net sales as a percentage of GDP in their respective home countries, Switzerland-Liechtenstein has the highest concentration of industrial multinationals in Europe (sales to GDP ratio equal to 51.7%), followed by Benelux (44.6%) and Germany (31.3%); Italy and Spain have the lowest, featuring prevalently small and medium-sized enterprises. The European industrial companies together generated consolidated value added equal to approx. 9% of European GDP in 2016.

By stock market value for the respective countries too, Switzerland-Liechtenstein stand out because their industrial multinationals account for the highest share of the country's overall value (59.5%), and Italy (24.7%) and Spain (4.3%) account for the lowest (Fig. 1).

A similar conclusion can be reached by investigating the density of the multinationals in their home countries in proportion to population (Fig. 2): according to this ratio, in Europe the density of industrial multinationals is highest in Switzerland, followed by Benelux and Scandinavia. In terms of employment in the country where the parent company's head office is located, France and Germany are the European countries where industrial multinationals offer most employment opportunities to their own citizens: 14 German and 9 French citizens per 1,000 inhabitants respectively work in a multinational of their country. At the opposite end of the spectrum are, once again, Italy and Spain, where just 2 and 1 workers respectively find jobs in Italian and Spanish multinationals. Companies with head offices in Switzerland, Scandinavia and Benelux have the highest propensity to expand abroad by establishing new affiliated production firms outside their home country, due to the small size of their internal markets. Due to the predominant weight of the oil industry in the UK, where total net sales are by far higher than manufacturing industry, the British industrial multinationals as a whole have a high significance in terms of country's GDP, but a lesser impact on employment.

Fig. 1
Importance of multinationals in Europe
Net sales of industrial multinationals in Europe in 2016
(countries in decreasing order in terms of GDP from left to right)



Stock market value of industrial multinationals in Europe in 2016
(countries in decreasing order in terms of stock market size from left to right)

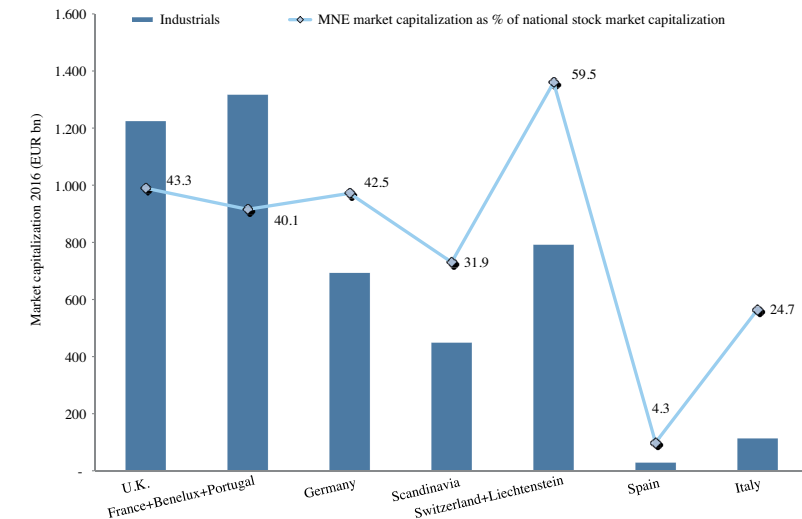
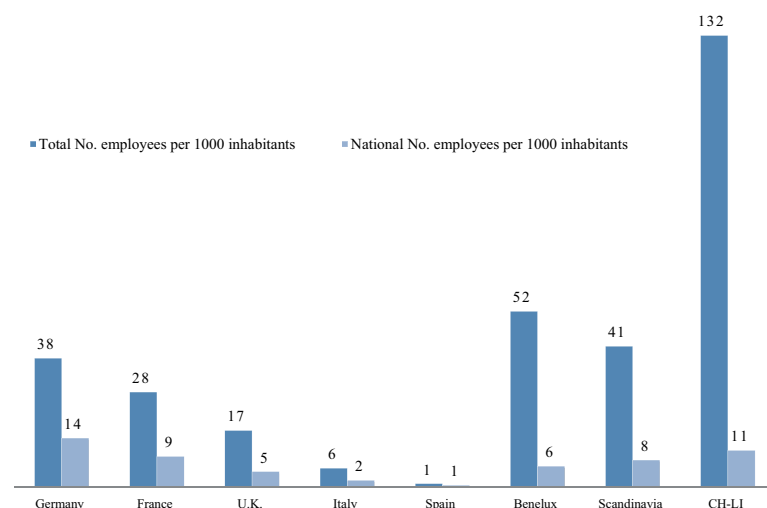


Fig. 2
Density of industrial multinationals in Europe in 2016
(countries in decreasing order in terms of population from left to right)



1.2 Breakdown of multinationals by sector and geographical area

Globally, the majority of industrial activities as measured by total net sales are located in Europe (34.8%), followed by North America (26.6%) (Table I.1). It is worth noting the low presence of electronics in Europe, where this sector accounts for just 6.8% of aggregate world net sales, the lowest percentage in the world; at the opposite end of the spectrum is North America (38.7%), followed by the Asian-Russian area (37.2%). Europe leads North America especially in tyres and cables (55.2%), chemicals and pharmaceuticals (46.6%), in the iron and steel sector (44.7%), in the food and drinks industry (39.8%) and in mechanical engineering (39.6%). Japan leads North America in the automotive sector, with 27.7%, but its share is below that of the European countries (38.9%). Despite the presence of several major players, the North American energy industry accounts for less than in Europe, where the two UK-based oil companies play a leading role.

In Europe the sector which generates the highest levels of net sales is the energy industry (21.7% of the total), the percentage accounted for by which varies according to changes in oil prices, while in North America it is electronics (23.7%). The automotive sector ranks first in Japan (35.7%), followed by electronics (21%), while energy is of limited importance (Table I.2). The energy industry is particularly

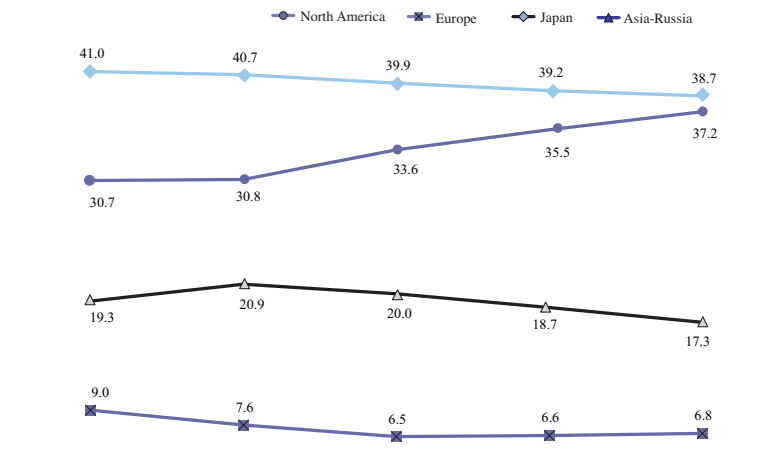
important in the United Kingdom (71.3% of aggregate UK net sales), essentially due to the presence of Royal Dutch Shell (joint UK/Dutch-owned) and BP, while the automotive sector dominates in Germany (43.9%). Switzerland is distinguished by the significant presence of the chemical-pharmaceutical sector (41.7%) and food industry (25.7%), the latter represented by Nestlé, the largest food multinational in the world by net sales, with Barry Callebaut and Lindt & Sprungli (chocolate). Much of the turnover generated by the countries which go to make up the Benelux region comes from the automotive (26.2%), as a result of the presence of Exor (which changed the location of its parent company's head office from Italy to Netherlands in December 2016), and the food and drinks industry (21.7%).

In Asia-Russia, the sectors yielding the highest net sales levels are energy, which accounts for almost half of the aggregate turnover, followed by electronics, which represented more than one-quarter in 2016 (Table I.4). Energy is clearly concentrated in Russia (100%) and predominant in China (63.6%), while electronics is high in Taiwan (92.4%) and South Korea (44.1%) where automotive is also important (accounting for more than one-fifth of revenues), in particular as a result of the presence of Hyundai Motor. The sectors from which the Asian-Russian multinationals are virtually absent are paper, textiles, construction materials and the tyres and cable industries.

In the rest of the world too, the energy sector is by far the most important, followed at some distance by food and drinks. The two leading multinationals by revenues are Brazilian Petrobras and Venezuelan PdV, both state-owned oil companies. Mexico is distinguished by the food and drinks industry which is mostly concentrated in this country.

For the 2012-2016 period, the Asian-Russian area has shown a gradual increase in the percentage accounted for by electronics (its share having increased by 6.5 percentage points), compared with a reduction in other areas (Fig. 3), and it has almost reached the North America percentage of the aggregate world net sales in electronics (38.7% North America and 37.2% Asia-Russia in 2016).

Fig. 3
Electronic: % of aggregate world net sales



1.3 Size of companies

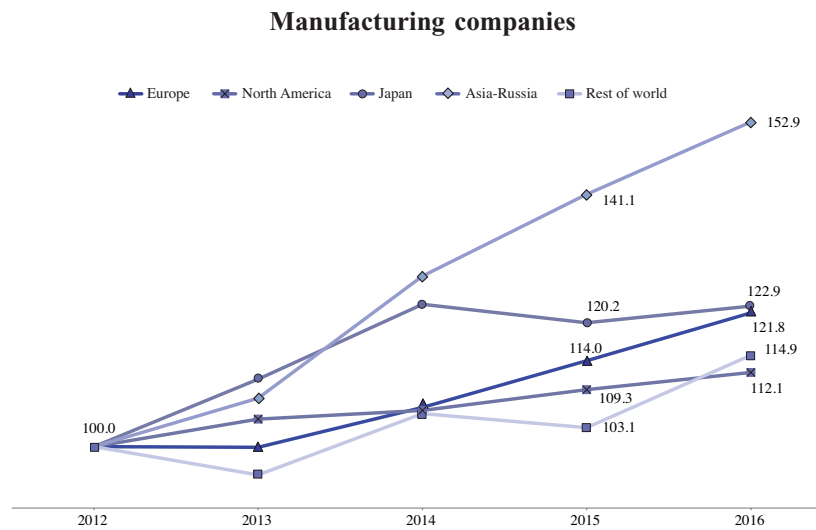
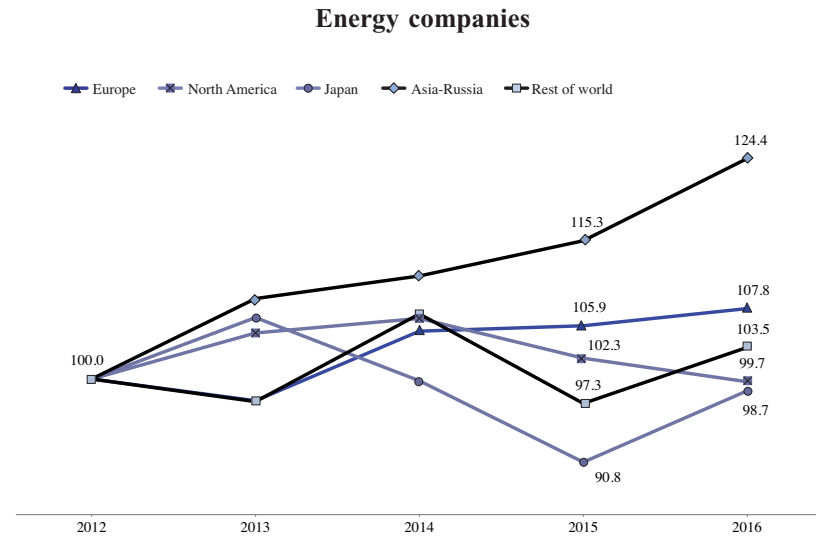
In the five years between 2012 and 2016, the average size of the companies by total tangible assets and by number of employees (where exchange rate differences have no impact) increased, with the exception of the utilities (Table 2). Energy groups continue to be the largest by total tangible assets (above €100bn) and telecoms the largest when measured by number of staff (over 110,000), but the strongest growth both in terms of assets and employees was reported by software & web firms. It is worth noting that the energy multinationals increased in average size between 2012 and 2016 in terms of total assets, but the rise was almost non-existent if size is measured by rate of employment. In 2016 the manufacturing companies were the smallest companies among multinationals by total tangible assets, and utilities are the smallest companies among multinationals by number of staff (in 2012 they were the software & web firms).

TABLE 2 - AVERAGE SIZE OF MULTINATIONALS

	Average size of multinationals					
	By total assets (excluding intangibles)			By number of employees		
	2012	2016	change 2012-2016	2012	2016	change 2012-2016
	EUR m	EUR m	%	No.	No.	%
World energy companies	90,116	106,225	17.9	98,871	99,016	0.1
Telecoms	49,926	62,049	24.3	109,882	112,577	2.5
Utilities	61,757	57,681	-6.6	54,155	43,485	-19.7
Software & Web.....	15,860	39,163	146.9	33,378	60,010	79.8
World manufacturing companies.....	24,659	32,165	30.4	84,999	86,898	2.2

In the years from 2012 to 2016, the strongest growth in terms of tangible assets was reported by companies located in Asia-Russia (Fig.4). Manufacturing companies operating in Asia-Russia in particular have increased their size by total assets (up 52.9%), and the significant growth posted by energy groups in the Asian-Russian area should also be noted, measured at 24.4% by tangible assets.

Fig. 4
Growth by industrial companies
(total assets excluding intangibles) - index numbers 2012=100



1.4 Net sales

If the net sales figures for 2012 constitute 100, the 2016 index closes above 100 only for Japanese industrials, software & web companies and telecoms (Table 3). The software & web multinationals record the highest value (225.2), followed by telecoms (117.6). The highest increases in net sales are reported by the mechanical engineering (122.8) and transport sector (117.7), while energy companies are the worst performers following the decrease in oil prices (Table III.4).

TABLE 3 - NET SALES

	Net sales index 2012=100				
	2012	2013	2014	2015	2016
Industrials					
Japan	100.0	113.2	116.9	116.9	110.6
Asia-Russia	100.0	100.7	109.7	99.8	99.8
Europe	100.0	96.4	98.2	94.7	91.6
North America	100.0	99.3	97.9	87.4	84.1
Rest of world	100.0	90.5	98.1	78.0	82.7
Software & Web	100.0	111.1	145.6	186.4	225.2
Telecoms	100.0	95.2	102.4	113.2	117.6
Utilities	100.0	98.4	95.1	95.0	88.6
Industrials-triad regions					
Mechanical engineering	100.0	96.8	107.2	118.2	122.8
Transport	100.0	96.9	103.3	115.3	117.7
Chemical and pharmaceutical	100.0	95.8	102.9	108.6	108.9
Electronics	100.0	91.6	96.0	108.8	107.9
Food and drinks	100.0	97.6	105.4	108.9	105.4
Tyres and cables	100.0	95.4	96.3	105.4	103.7
Paper	100.0	99.2	99.1	103.6	101.7
Construction materials	100.0	96.1	92.5	95.7	97.1
Iron and steel	100.0	96.1	102.2	100.3	96.2
Energy	100.0	91.3	93.2	67.5	59.2

NB: Calculated in local currency for Japan and North America.

Multinationals increased the international dimension of their activities during the 2012-2016 period (Table I.6). Japan groups recorded the highest growth rates in the ratio of non-domestic sales to total sales over the five-year period (up 6.2 percentage points, to reach 59.3% of net sales in 2016). Net sales generated by companies based in Europe outside their respective home countries have increased too (up 3.2 percentage points, to reach 85.8% of net sales in 2016). The multinationals with the most

extensive non-domestic sales in the Eurozone continue to be those based in Ireland and in the Benelux region, along with those in Switzerland-Liechtenstein, Denmark and Sweden. Spanish and Norwegian multinationals are the companies with the lowest share of non-domestic sales in the Eurozone and in Europe respectively.

Among the countries which go to make up the Asian-Russian area, China is by far the least globalized, chiefly because of the state oil companies Sinopec, CNPC and CNOOC; by contrast, the Taiwanese firms show the highest degree of globalization, with non-domestic sales accounting for 76.9% of their net sales. The last area, the rest of the world, is less globalized, with growth rates for the companies in this area still wide; Brazilian companies in particular are the least globalized, largely due to Petrobras, without which their share of non-domestic sales would be just below that of the Mexican based companies.

Non-domestic sales have the index with 2012 as its base exceeding 100 in all the areas in 2016, with the exception of the rest of world companies. Japan records the highest value (113.6) (Table 4).

TABLE 4 - NON-DOMESTIC SALES

	Non-domestic sales index 2012=100				
	2012	2013	2014	2015	2016
Industrials					
Japan	100.0	92.3	100.6	115.3	113.6
Asia-Russia	100.0	104.5	113.3	100.2	101.6
North America	100.0	94.4	105.1	102.2	101.0
Europe	100.0	97.6	98.1	102.1	101.0
Rest of world.....	100.0	102.1	108.0	87.7	95.4

In terms of large geographical areas, net sales outside their respective home macro-area account for 49.8% of total net sales for the North American manufacturing firms and 57.3% for the European manufacturing multinationals (Table 5). Looking at the world market as a whole, European companies sell their products to Asia and Oceania more than the North American firms do: 20.8% versus 19.6% (the percentage recorded by Japanese corporations is the highest: 51.9%, due to geographical proximity); conversely, North American companies sell their products to Central and Latin America more than the European firms do: 5.7% versus 5.2%. Moreover, net sales to North America account for 25.7% of total net sales for the European multinationals and net sales to Europe account for 21.7% of total net sales for the North American multinationals. The companies headquartered in the rest of the world generate 42.1% of their total net sales in the markets of Central and

Southern America, 36.8% in North America and only 10% in Europe. Conversely, Europe is an important end-market not just for the European and North American multinationals, but also for the Asian-Russian groups as well (which generate 13.2% of their income there).

TABLE 5 - NET SALES BY GEOGRAPHICAL AREA

	% breakdown of 2016 manufacturing - net sales by geographical areas (by customer location)				
	Europe	North America	Asia and Oceania	Central and Latin America	Other areas
Austria	75.3	2.7	6.3	–	15.7
Benelux	29.5	34.6	20.3	10.5	5.1
France	48.3	22.1	18.5	2.0	9.1
Germany.....	50.1	21.9	21.4	4.1	2.5
Italy.....	42.6	20.2	23.0	10.9	3.3
Scandinavia	45.8	22.7	18.5	5.1	7.9
Switzerland and Liechtenstein.....	29.9	31.9	23.0	5.4	9.8
United Kingdom.....	33.1	29.1	28.4	0.5	8.9
Europe	42.7	25.7	20.8	5.2	5.6
North America	21.7	50.2	19.6	5.7	2.8
Japan	11.5	30.5	51.9	0.2	5.9
Asia-Russia	13.2	28.0	55.6	0.7	2.5
Rest of world.....	10.0	36.8	8.5	42.1	2.6

NB: Partial data, for the most part referring to more than half of the sample.

1.5 Labour

Compared to 2012 levels, the work force grew in all geographical areas, with the exception of North America where it fell 6.3%; even utilities recorded a reduction in employment, while the software & web multinationals recorded the highest increase in their headcount (up 88.8%) (Table 6).

TABLE 6 - EMPLOYEES

	Employees index 2012=100				
	2012	2013	2014	2015	2016
Industrials					
Rest of world.....	100.0	105.4	107.6	109.4	110.2
Japan	100.0	101.2	102.7	102.6	102.8
Europe	100.0	101.0	100.7	101.4	101.4
Asia-Russia	100.0	100.2	103.6	100.6	100.7
North America	100.0	100.0	97.9	96.0	93.7
Software & Web	100.0	112.1	137.1	157.8	188.8
Telecoms	100.0	95.6	97.7	107.1	102.5
Utilities	100.0	93.7	90.9	91.0	87.9

In the five years from 2012 to 2016 the largest increases in work force were recorded by the Irish and German companies (with the European firms alone accounting for around half of the triad) (Table I.15). By contrast, the British, Spanish, French and Austrian companies reduced their work force by 11.3%, 7.5%, 6.3% and 2.3% respectively, partly because these countries feature a strong presence of energy corporations, which tend to cut staff levels more than manufacturing firms do. By macro-area in the last five years, the highest increases in employment have been recorded by the companies based in the rest of the world and Asia-Russia (up 10.2% and 0.7% respectively).

With reference to the globalization process, there appears to be an established trend towards reducing domestic employment levels. This is the case for the North American companies in the five-year period under review, with the domestic employment rate reducing by 1.8 percentage points, from 42.7% in 2012 to 40.9% in 2016; domestic employment in North America for the five years is down 10.3%, while non-domestic recruitment decreases by just 3.4%. A similar trend is seen in Europe, where the domestic employment rate reduces by 1.2 percentage points, from 31% in 2012 to 29.8% in 2016; the fall in domestic employment is 2.5%, against 3.2% growth in non-domestic employment.

The progressively increasing globalization of multinationals impacts on productivity and labour costs; the most reliable method of measuring productivity is by value added (net of depreciation and amortization) calculated on a per capita basis.¹ In manufacturing, this indicator shows an increase of 9.5% for the European multinationals between 2012 and 2016, against a rise in the cost of labour per employee of 8.3% (Table 7). This has driven an improvement in margins for the European companies: in the last five years, the ratio between the increase in per capita value added and per capita labour cost is 1.1.² In Europe the largest gains in terms of productivity are by the French companies, for which the increase in per capita value of production is 9.2 times the rise in salaries.

Looking at the productivity figures for 2016 in Europe, Switzerland-Liechtenstein has the highest level, Italy the lowest; the cost of labour per employee is lowest once again in Italy. Measured by values per staff member, the British manufacturing firms, whose staff costs absorb the lowest amount of value added per employee, were the most competitive of the European companies in 2016, with the Italian firms the least competitive in this area. Looking at the services groups, software & web companies, whose staff costs absorb only the 48.8% of value added per employee, are the most competitive (Fig. 5).

1 It is very hard to measure productivity from the financial statements of multinationals, as the companies concerned operate in different countries, and the calculations are made based on data stated at current prices; indeed, it is impossible to identify a suitable deflator, precisely because the businesses are spread across different countries.

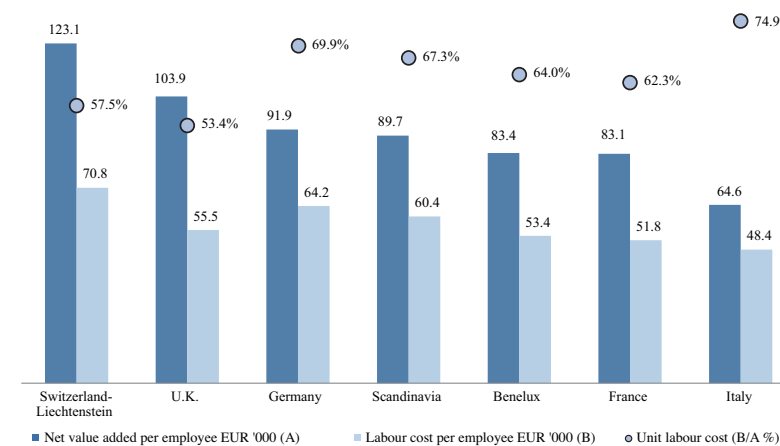
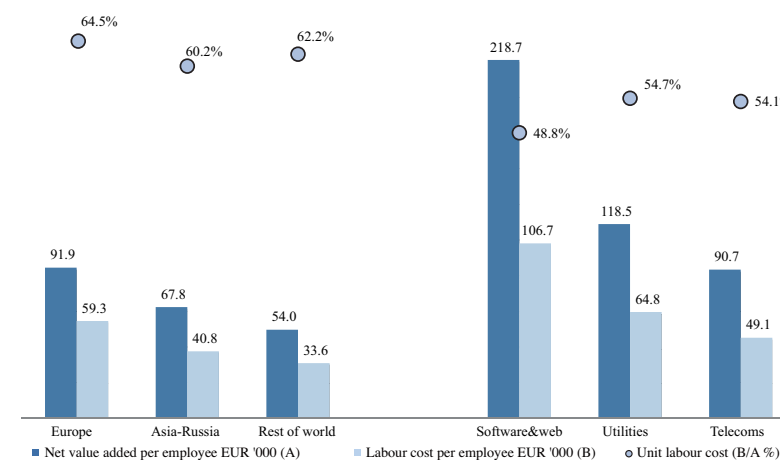
2 Data on cost of labour is not available for Japan and US companies, which means it is not possible to calculate value added data either.

TABLE 7 - NET VALUE ADDED AND COST OF LABOUR

	Net value added per employee			Cost of labour per employee			a / b	a' / b'	ULC - unit labour cost	
	2016	% change vs 2012		2016	% change vs 2012				2012	2016
	EUR '000	EUR	Local currency (a')	EUR '000	EUR	Local currency (b')			Cost of labour per employee/Net value added per employee %	
Manufacturing companies										
Switzerland and Liechtenstein	123.1	+10.4	-1.7	70.8	+19.3	+6.2	0.5	n.c.	53.3	57.5
United Kingdom	103.9	-0.4	+4.5	55.5	+9.4	+14.8	n.c.	0.3	48.6	53.4
Germany	91.9	+8.9	-	64.2	+9.2	-	1.0	-	69.7	69.9
Scandinavia	89.7	+11.7	-	60.4	+3.2	-	3.7	-	72.9	67.3
Benelux	83.4	+13.3	-	53.4	+9.9	-	1.3	-	66.0	64.0
France	83.1	+11.9	-	51.8	+1.3	-	9.2	-	68.9	62.3
Italy	64.6	-12.5	-	48.4	-9.7	-	n.c.	-	72.8	74.9
Europe	91.9	+9.5	-	59.3	+8.3	-	1.1	-	65.3	64.5
Asia-Russia	67.8	+40.2	-	40.8	+45.2	-	0.9	-	58.2	60.2
Rest of world	54.0	+6.5	-	33.6	+5.9	-	1.1	-	62.5	62.2
Triad energy companies²										
.....	147.2	-51.9	-	99.0	+19.4	-	n.c.	-	27.1	67.3
Software & Web³										
.....	218.7	+27.7	-	106.7	+15.1	-	1.8	-	54.1	48.8
Telecoms										
.....	90.7	+7.7	-	49.1	+21.5	-	0.4	-	48.0	54.1
Utilities										
.....	118.5	-2.7	-	64.8	+10.5	-	n.c.	-	48.1	54.7

1 Data on cost of labour not available for Japan and US companies, which means it is not possible to calculate value added data either.
 2 European companies only (see note 1).
 3 Data refer to 14% of the companies.

Fig. 5
 Net value added, cost of labour per employee and unit labour cost (ULC) in 2016
 (manufacturing companies)



1.6 Earnings results

Net profit earned by the triad industrial multinationals reached €545bn in 2014 (the high figure in the five years) and €502bn in 2016, around €4bn more than the previous year. If we look at net profit as a percentage of net sales, in 2016 this ratio was 6.3% (6.2% in 2015 and 6.8% in 2014).

If we look at the European industrials, in 2016 the highest indicators in terms of net operating margins and current pre-tax profits as a percentage of net sales were recorded by Swiss firms (around 16%, for both net operating margin and current profit), due to the major presence of the food and pharmaceutical sectors in this country (i.e. the two most anti-cyclical sectors), and French corporations (around 10%, for both net operating margin and current profit) (Table 8). All the other countries were below the European average, while North America showed higher levels (around 12%); Japan was the exception, with ratios around 6%. The performance recorded by industrial companies located in Asia-Russia and the rest of the world was less than the triad average. The margins generally remained below 2012 in all geographical areas with the exception of France, Benelux, Germany and Japan, which showed increases in both net operating and current profit margins (Table 8). In the 2012-16 period, the levels of current pre-tax profit as a percentage of net sales reported by the North American manufacturing multinationals have at all times been higher than those of the European and Japanese companies (Fig. 6). The North American companies generally show higher indicators than those based in Europe and Japan, also considering ROI and ROE (Table 9).³ In the same five-year period, the levels of NOM as a percentage of net sales posted by the energy multinationals have been higher than those of the manufacturing companies only in 2012-2013 (Fig. 7).

As for taxation, the tax rate, which is calculated excluding loss-making companies, in the last two years has stabilized at around 23% for industrial firms in the triad regions, with a decrease of 6.3 percentage points compared to 2012. Japan companies show the highest level in 2016 in the triad regions, while firms based in North America show the lowest.⁴

³ As usual, the figures for ROI and ROE should be treated with caution, as they are affected by the different accounting standards and policies adopted by the various companies (see Section III).

⁴ The tax rates recorded reflect average charges resulting from the different tax regimes in force in the various countries where the companies belonging to the groups included in the survey are headquartered. Trends should therefore be viewed in the light of the increasingly international nature of operations, which means that income is also increasingly subject to different tax regimes.

TABLE 8 - NOM AND CURRENT PRE-TAX PROFIT

	As % of net sales 2016		2016 as % of 2012	
	NOM	Current pre-tax profit	NOM	Current pre-tax profit
Switzerland and Liechtenstein.....	16.5	15.5	92.6	91.2
France.....	10.5	10.1	102.8	100.3
Scandinavia.....	9.2	8.4	76.5	76.3
Benelux.....	9.1	7.0	116.7	112.1
Germany.....	8.6	8.2	103.9	101.1
United Kingdom.....	7.2	5.6	58.5	43.2
Italy.....	6.0	4.3	46.0	35.1
North America.....	12.3	12.2	92.1	85.8
Europe.....	9.3	8.3	86.8	79.6
Japan.....	6.2	6.1	132.1	119.5
Total, triad regions.....	9.8	9.3	93.1	86.3
Asia-Russia.....	7.9	7.8	93.2	88.5
Rest of world.....	7.7	4.1	53.3	34.5

Fig. 6

Current pre-tax profit as % of net sales - Manufacturing companies

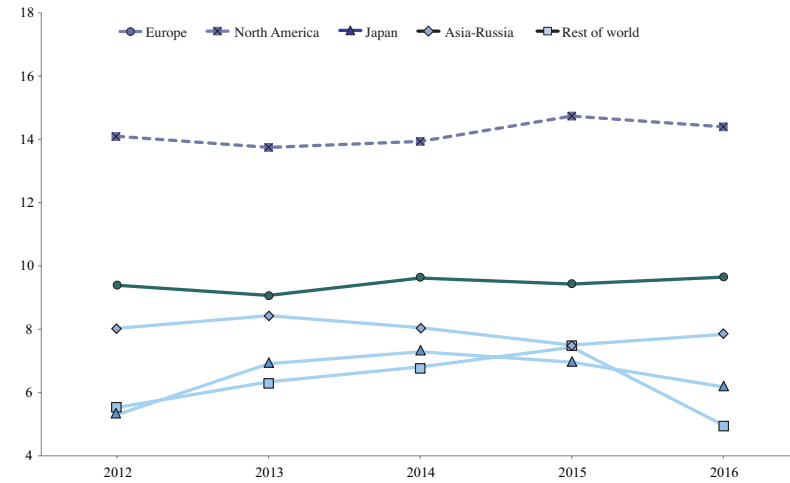


Fig. 7

NOM as % of net sales - Triad companies

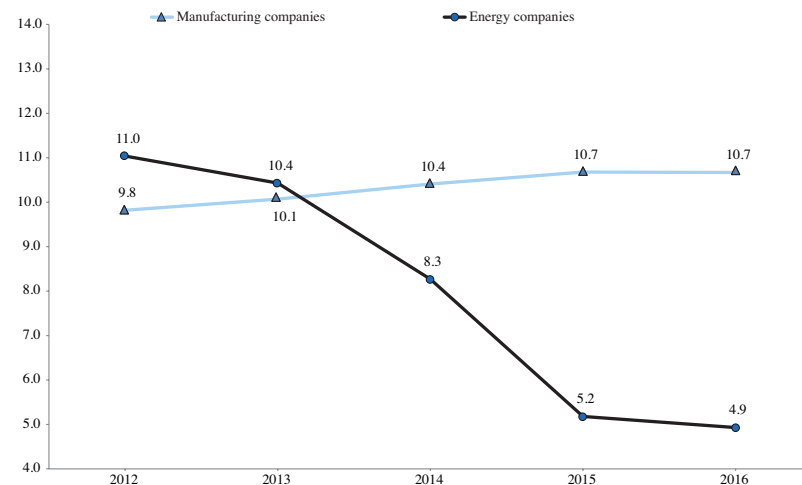


TABLE 9 - ROI-ROE-TAX RATE

	Industrials				
	2012	2013	2014	2015	2016
	ROI (%)				
North America	22.0	18.9	18.7	15.4	13.6
Europe	14.6	13.0	12.3	9.7	9.2
Japan	6.7	8.5	8.0	8.3	7.1
Total, triad regions	15.4	14.2	13.7	11.5	10.4
Asia-Russia	12.4	11.6	10.0	8.9	8.6
Rest of world	11.4	12.2	10.6	5.5	5.9
	ROE (%)				
North America	25.6	24.2	24.5	21.1	20.3
Europe	14.5	13.8	12.8	9.5	9.6
Japan	4.7	10.2	8.4	8.8	8.2
Total, triad regions	16.4	16.8	16.1	13.5	13.1
Asia-Russia	13.2	13.1	9.3	8.1	8.2
Rest of world	8.8	10.2	4.3	-2.8	1.3
	Tax Rate (%) ¹				
Japan	32.1	30.8	29.3	29.1	28.2
Europe	33.7	31.4	30.2	23.5	24.6
North America	23.7	26.2	25.9	21.5	20.4
Total, triad regions	29.3	29.0	28.0	23.2	23.0
Rest of world	31.4	36.2	36.5	31.8	33.2
Asia-Russia	23.9	22.3	24.6	22.4	23.6

¹ Tax rate calculated excluding loss-making companies.

If we look at the industrials in the triad regions by sector, in 2016 the highest indicators in terms of net operating margin and current pre-tax profit as a percentage of net sales were recorded by the chemicals-pharmaceuticals firms (around 19-20%), followed by the food and drinks industries (12-13%), while the companies reporting the least satisfactory performances were the energy firms (Table I.7); the latter sector is also the furthest away from recovering its 2012 net operating margins, having dropped 9.2 percentage points. Conversely, the best recovery was recorded by the chemical-pharmaceutical industry, for which the net operating margins were almost 3 percentage points above the 2012 levels. It is worth noting that if the pharmaceuticals and mining sectors' results are stripped out from the aggregate chemicals and energy industries' data, these two industries show the highest ratios of all in terms of NOM as a percentage of net sales, at 25.4% (above the software & web companies' Ebit margin) and 14.5% respectively in 2016. In Asia-Russia the electronic sector shows the highest returns, but with lower ratios than those posted by the electronic companies in the triad regions. Looking at the services groups, the telecommunications companies rank midway between the levels reported by the software & web companies (which are always the highest) and the utilities.

1.7 Sources and applications of funds

Table I.8 and Table I.9 provide an overview of the sources and applications of funds for the last four years covered by our survey. The main issues relating to sources of funds are described below:

- i) The funds available to multinationals are basically generated from cash flow. For the last three-year period, cash flow reaches 104.8% of the North American companies' total funds, a much higher figure than the approx. 83-92% reported by the European, Japanese and Asian-Russian groups. Cash flow always comfortably exceeds the outlays made in respect of capital expenditure, leaving ample room for financial investments.
- ii) In the last three years, European companies have increased their borrowings, reaching 14.8% of total funds; North American groups have increased their borrowings, reaching 23.2% of total funds. Japanese firms' borrowings have reached levels equal to 9.7% of total funds. For the multinationals in Asia-Russia and the rest of the world, borrowings represented approx. 16-26% of the total funds available to them in the last three-year period.
- iii) The balance of contributions from shareholders for companies located in the triad region is negative during the last three-year period, and North American multinationals show a particularly high value for treasury share buybacks; in the same period only companies based in Asia-Russia record a propensity to implement right issues (1.1% in 2013-16).

As already suggested, the area most affected by treasury share buybacks is North America, which over the five years accumulated an amount of USD 899bn; European companies recorded lower amounts of buybacks (Table I.10). The amount spent on share buybacks by European and North American multinationals reached their highs in 2014. The trend shown by the North American companies is different from the one shown by the European firms, for which the amount spent in buybacks is always lower than that in dividends paid out. The share buybacks are generally made in order to support share offerings made on the stock market, increase earnings per share, and reduce the degree of capitalization, and hence also the weighted average cost of capital. For the North American companies, the balance between rights issues, share buybacks and dividends paid totalled USD 1,474bn in the 2012-2016 period, accounting for 48.9% of cash flow, compared with around half for the European firms (24.1%).

As far as applications of funds by the industrial companies in the triad regions are concerned, the main points are described below:

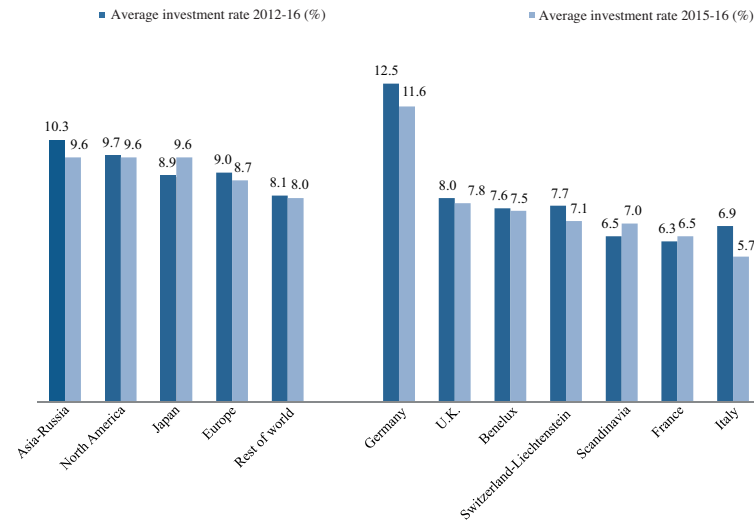
- i) Capital expenditure for the European and North American companies has reached 44.7% and 33% of total applications of funds in the last three-year period. Capital

expenditure is the main item only for Japanese companies, whereas in Europe and North America financial investments are equally significant: they account for 32.7% and 40.9% respectively of total applications of funds in 2013-2016. These latter percentages are higher than the ratios recorded by the rest of the world area (10.5%), where capital expenditure is still relevant (72.1%). Japanese companies have generally shown a low propensity for acquisitions: their financial investments continue to show the lowest level of the triad regions (21.6% in 2013-2016).

- ii) Dividends account for a significant proportion of multinationals' outlays (North American and European in particular). In cash terms, for the North American and European companies, they reached 27.2% and 20.8% respectively of total applications of funds in the last three-year period. In 2013-2016, the same indicator for the multinationals based in Asia-Russia and the rest of the world totals around 10.5% and 17.1% respectively. The North American firms confirm their policy of reducing risk-taking by returning capital to shareholders. At the opposite end of the scale are the Japanese firms, whose dividends paid account for 10.3% of their total applications of funds.

The average triad investment rate (capital expenditure as a percentage of gross tangible fixed assets) for the manufacturing companies in the last two-year period is equal to 7.9%, as compared with 8.7% in 2012-2016. By macro area in the triad regions, North America has the highest investment rate, along with Japan in 2015-2016 (9.6%), while European investment rate is the lowest (8.7%) (Fig. 8). Of the European countries, Germany records the highest investment rate in 2015-2016 (11.6%) by far. In 2012-2016 the investment rate by Asian-Russian manufacturing companies is the highest in the world, at 10.3%, while firms based in the rest of the world show 8.1%.

Fig. 8
Average investment rate - Manufacturing companies



1.8 Financial structure

In the five years from 2012 to 2016, the industrial companies in the triad regions increased their capital invested by 28.7% to reach €7,918bn in 2016, the highest figure for the period. This growth was driven by a 45.5% rise in borrowings, while net worth has grown more slowly, by 18.6%. For the same period, the highest increase in capital invested was recorded by the companies in the Asian-Russian area, up 35%, far higher than the 28.7% growth shown by those in the triad regions. In the five-year period, the increase in capital invested in these geographical areas is the result of growth in both the net worth and borrowings components. Conversely, in the same period, ROI decreased in all macro-areas, as already seen, because of the decrease in operating margins as well.

As for the manufacturing companies, in 2016 tangible capital invested was financed by net worth as to 36-63% for Asian-Russian and the rest of world companies; while North American and European multinationals' tangible capital invested was financed as to just 1% and 18.8% respectively by net worth, and as to the remainder by borrowings. In the triad regions, Japanese manufacturing corporations reflect the highest level of financial solidity in 2016, with capital invested financed as to 55% by net worth (Table I.11). Unlike what is generally the case with smaller-sized companies, the capital of multinationals is mostly absorbed by fixed assets (plants, build-

ings, investments), and the share represented by working assets is lower; for North American companies the liquid component (cash and cash equivalents) is particularly significant, representing more than one-quarter of tangible capital invested. Tangible net worth is therefore not sufficient to cover the applications of fixed assets; hence substantial long-term borrowings are required, which exceed short-term borrowings (59-85% of total borrowings) in all the geographical areas; if we add net worth, medium/long-term resources cover more than 76% of the tangible capital invested. This prevalence of medium-/long-term borrowings over short-term term ones is another distinguishing feature of multinationals compared to smaller-sized companies. In multinationals all over the world, the difference between working assets and short-term borrowings as percentage of tangible capital invested is generally reassuring: 32.1% for North American corporations (the maximum) and 14.6% for European firms (the minimum).

In order to evaluate debt repayment capability, it is useful to consider the borrowings/cash flow ratio. In 2016 North American and European companies show levels of 2.3 and 2.9 times respectively; indeed, in the event that net working capital could not be liquidated, these firms could repay their outstanding borrowings with the cash flow generated in the space of roughly two and three years respectively; the companies based in the rest of the world do not fare so well, in that they would take around five years to repay their borrowings (borrowings/cash flow ratio equal to 5.0 times).

Energy and services companies are a different case, in that their financial structure is rather different. Telecoms, software & web corporations and energy groups in all the geographical areas show the highest levels of financial solidity in 2016, with capital invested mostly financed by net worth. Capital of energy companies is mostly invested in fixed assets, and the share represented by net working assets is negligible; hence tangible net worth plus medium/long-term resources are sufficient to cover the applications of fixed assets. In the event that net working capital could not be liquidated, these firms could repay their outstanding borrowings with the cash flow generated in the space of around three years (almost six years for companies based in the rest of world). Conversely, tangible capital invested of the telecoms and utilities is mostly financed by borrowings: the telecoms show the lowest levels of financial solidity (tangible net worth is negative) along with utilities (only less than one-third of capital invested is financed by net worth). Their capital is predominantly invested in fixed assets (mostly network infrastructure and technical equipment), and the share represented by net working assets is lower. Tangible net worth is therefore not sufficient to cover the applications of fixed assets; so substantial long-term borrowings are required which are much higher than short-term borrowings (82-83% of total borrowings). Unlike the case of the industrial multinationals, the balance between working assets and short-term borrowings is not acceptable because it is negative for telecoms and low for utilities. As for the borrowings/cash flow ratio, in the

event of net working capital not being able to be liquidated, utilities firms could repay their outstanding borrowings with the cash flow generated in the space of roughly five years. Software and web companies are well capitalized (more than half of tangible capital invested is financed by tangible net worth) and their capital is predominantly invested in net working assets; moreover they generate a substantial amount of cash flow, so in the event that net working capital could not be liquidated, these firms could repay their outstanding borrowings with the cash flow generated in the space of only one year and half.

The composition of capital invested has changed since 2012, albeit with differing trends in the various areas (Table I.12 and Table I.13). Net worth still accounts for the lion's share. For the European companies the changes in this item have been relatively modest, with the structure of capital invested characterized by a decrease in the incidence of net worth during the 2012-2016 period (by roughly three percentage points); consequently, borrowings (essentially bonds) increased in the same period by roughly three percentage points too. A similar and even sharper trend is seen in the North American companies which continue to favour bond issuance. In 2016 in Europe, the German companies reported the lowest level of net worth and Benelux the highest level of bond issuance.

As for the composition of capital for the multinationals based in the Asian-Russian area, net worth again represents the lion's share (with 70.6% of capital invested in 2016), more so than for the corporations based in the triad region and along with the levels of software & web groups. The multinationals in this area use bond issuance less than those based in the triad regions, in particular those based in Russia, South Korea and Taiwan. By individual countries, in Asia-Russia the Chinese and Taiwan companies show the highest levels of net worth as a percentage of capital invested. In the rest of the world, the Australian and Central South American companies show the highest levels of bond issuance.

1.9 Research and development expenditure

According to the Eurostat method of classifying R&D expenditure based on intensity of spending, it is possible to divide the companies' activities into four different industrial groupings based on how technology-intensive they are.⁵ Sales with high or medium-high technology content account for 76.6% of the total net sales by manufacturing multinationals in the triad regions (Table 10).⁶ The European companies' presence in these groupings is the lowest at 69.6%, with the exception of the German companies (85.4%) which rank above the level of the Japanese corporations, whose commitment to electronics is significant in this respect. The electronic industry is of absolute importance for Asia-Russia too, which confirms its status as the area with the highest net sales levels from HT activities (57.2%), whereas the rest of the world reflects a bias towards the more traditional sectors (LMT and LT), as the iron and steel and food industries dominate. Italy appears to be the weakest country in the HT-MHT grouping (42.9%). United Kingdom, Switzerland-Liechtenstein and Benelux show the highest high-technology component: the United Kingdom and Switzerland due to the pharmaceutical component, Benelux due to the presence of supranational entities (mostly electronics and aerospace companies).⁷

5 The term "research and development" (R&D) comprises three different types of research (Frascati manual): basic research (i.e. experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application in mind), applied research (i.e. original investigation undertaken in order to acquire new knowledge, but directed towards a specific and practical objective), and experimental development (i.e. systematic work drawing on existing knowledge gained from research and practical experience directed to producing new materials, products, processes or services, or to substantially improving those already produced or installed). For an analysis of R&D centres run by triad multinationals see MFA (2011), p. LXVI.

6 The classification has been made based on income per segment. Source: figures based on Eurostat classification (Eurostat indicators of High-tech industry and knowledge - intensive services, February 2015 - Annex 3 - High-tech aggregation by NACE Rev. 2).

7 The aerospace company is Airbus Group (formerly EADS-European Aeronautic Defence and Space Company), which is the entity resulting from the merger in July 2000 between *Aérospatiale* Matra SA of France, *Construcciones Aeronáuticas* SA of Spain, and *DaimlerChrysler Aerospace* AG of Germany.

TABLE 10 - TECHNOLOGY INTENSITY BASED ON % BREAKDOWN OF 2016 NET SALES

	Manufacturing multinationals					
	Triad regions	Japan	North America	Europe	Asia-Russia	Rest of world
HT	39.1	29.6	55.4	29.6	57.2	24.0
MHT	37.5	53.9	25.6	40.0	28.0	–
HT-MHT	76.6	83.5	81.0	69.6	85.2	24.0
LMT.....	6.1	7.5	0.7	10.0	6.9	23.4
LT.....	17.3	9.0	18.3	20.4	7.9	52.6
LMT-LT	23.4	16.5	19.0	30.4	14.8	76.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

of which: Europe

	of which: Europe						
	Germany	Scandinavia	Benelux	Switzerland	France	United Kingdom	Italy
HT	19.4	24.0	38.5	43.6	27.6	55.4	28.6
MHT	66.0	42.2	26.8	19.2	35.2	5.2	14.3
HT-MHT	85.4	66.2	65.3	62.8	62.8	60.6	42.9
LMT.....	3.6	10.3	11.9	8.1	15.3	7.9	25.3
LT.....	11.0	23.5	22.8	29.1	21.9	31.5	31.8
LMT-LT	14.6	33.8	34.7	37.2	37.2	39.4	57.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Based on the rankings in terms of R&D spending as a percentage of net sales, Swiss companies lead the way, followed by firms based in UK and Germany (Table 11). Scandinavia and Switzerland-Liechtenstein show the highest percentages for the HT segment. At the global level, triad region corporations rank above the Asian-Russian companies, whereas R&D spending by firms based in the rest of world is the lowest.

TABLE 11 - R&D SPENDING AS % OF 2016 NET SALES GROUPINGS BY TECHNOLOGY INTENSITY

	Manufacturing multinationals					Total
	HT	MHT	LMT	LT		
Switzerland and Liechtenstein...	17.9	3.5	0.5	1.8		8.5
United Kingdom.....	14.1	1.8	1.7	0.5		8.0
Germany.....	12.6	5.5	3.5	0.9		5.8
Scandinavia.....	16.4	3.4	0.6	0.7		5.4
France.....	9.7	3.8	1.9	0.7		4.1
Italy.....	11.4	0.6	3.1	1.2		4.2
Benelux.....	7.3	2.7	0.4	0.5		3.2
North America.....	8.5	4.5	2.6	0.7		6.0
Europe.....	13.0	4.4	1.9	1.0		5.4
Japan.....	6.0	4.4	1.8	2.9		4.6
Total, triad regions	9.2	4.4	1.9	1.0		5.4
Asia-Russia	5.8	1.5	0.6	0.4		3.8
Rest of world	5.5	0.5	0.1	0.6		1.2

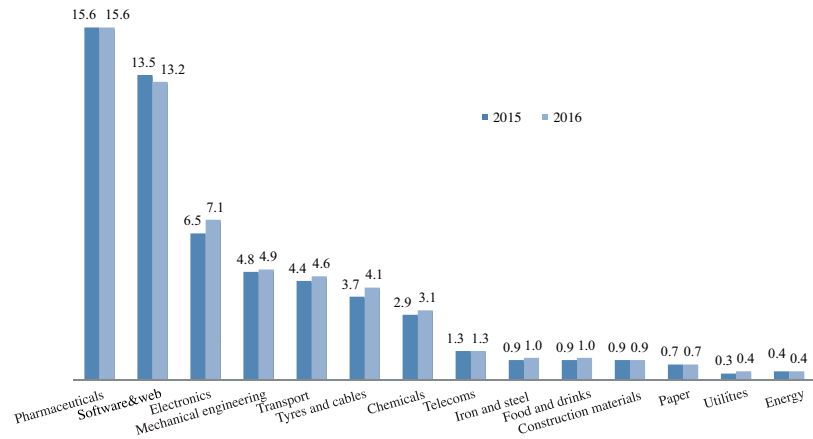
Table 12 shows the leading industrial groups in the world in decreasing order in terms of R&D spending as a percentage of net sales in 2016 and 2012. Looking at the data for 2016, there is clear dominance by the pharmaceutical companies: AstraZeneca ranks first, followed by Bristol-Myers Squibb and Eli Lilly.

TABLE 12 - TOP 10 MANUFACTURING MULTINATIONALS BY R&D SPENDING AS % OF NET SALES

	2016		2012
AstraZeneca (UK).....	25.6	STMicroelectronics (NL).....	28.4
Bristol-Myers Squibb (US).....	25.4	Eli Lilly (US).....	23.3
Eli Lilly (US).....	24.8	Bristol-Myers Squibb (US).....	22.2
Roche Holding (CH).....	22.8	Roche Holding (CH).....	21.0
Intel (US).....	21.5	Takeda Pharmaceutical (JP).....	20.8
Nokia (FI).....	20.8	Amgen (US).....	19.6
Boehringer Ingelheim (DE).....	19.6	Boehringer Ingelheim (DE).....	19.0
STMicroelectronics (NL).....	19.2	Intel (US).....	19.0
Novartis (CH).....	18.6	AstraZeneca (UK).....	18.7
Takeda Pharmaceutical (JP).....	18.0	Gilead Sciences (US).....	18.1

As for the breakdown of R&D spending between sectors in the triad area, the pharmaceutical industry, considered separately from the chemical industry, once again shows the highest R&D spending level (Fig. 9), followed by the software & web companies.

Fig. 9
R&D spending as % of net sales in 2015 and 2016 (triad companies)



If we look at the manufacturing aggregate by macro-area, in the last five years the trend of R&D spending in the triad regions has always seen North American corporations above their European and Japanese counterparts; European companies have increased their R&D levels, but not enough to catch up with the North American firms; indeed the gap between European and North America R&D levels has increased (by 0.2 percentage points in 2012 and 0.6 percentage points in 2016) (Fig. 10).

The breakdown of European R&D spending in 2016 sees Germany first (38%) and Italy (1.3%), with Austria-Ireland-Spain (0.5%) bringing up the rear (Fig. 11).

Fig. 10
R&D spending as % of net sales by manufacturing companies

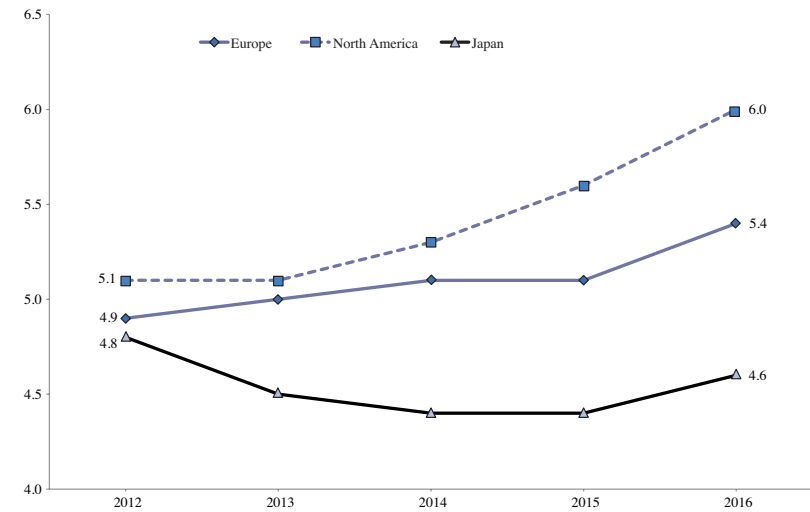
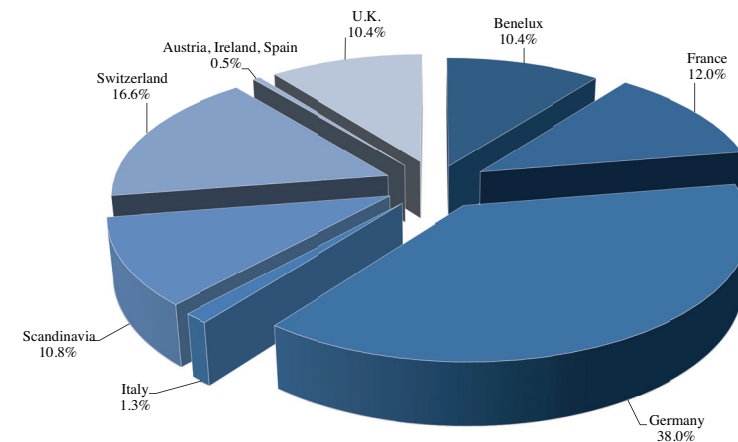


Fig. 11
European industrial companies: breakdown of R&D spending in 2016



TABLES

TABLE I.1 - MULTINATIONALS: % BREAKDOWN OF 2016 NET SALES BY GEOGRAPHICAL AREAS

	Triad regions				Rest of world	Total
	Europe	North America	Japan	Asia-Russia		
Oil, energy and mining	32.9	15.1	3.6	41.1	7.3	100.0
Iron, steel and non-ferrous metals	44.7	–	22.4	22.4	10.5	100.0
Chemicals and pharmaceuticals....	46.6	35.0	6.5	8.9	3.0	100.0
Tyres and cables.....	55.2	15.6	29.2	–	–	100.0
Mechanical engineering.....	39.6	26.6	22.5	11.1	0.2	100.0
<i>automotive</i>	38.9	18.5	27.7	14.9	–	100.0
<i>aerospace and shipbuilding</i>	34.3	59.3	2.2	2.8	1.4	100.0
<i>domestic appliances</i>	34.8	21.9	28.1	15.2	–	100.0
<i>other engineering</i>	43.9	29.1	20.3	6.7	–	100.0
Electronics	6.8	38.7	17.3	37.2	–	100.0
Building and civil engineering	–	25.6	35.2	39.2	–	100.0
Cement, glass and bdg. products ..	80.2	–	4.0	3.5	12.3	100.0
Paper, printing and publishing	58.3	35.3	–	1.8	4.6	100.0
Food and drinks	39.8	36.6	2.1	10.2	11.3	100.0
Textiles and clothing	61.5	38.5	–	–	–	100.0
Other mfg. industries	48.2	30.3	17.9	2.5	1.1	100.0
Services industries	36.2	19.6	29.0	10.7	4.5	100.0
Total industrial companies.....	34.8	26.6	13.4	21.7	3.5	100.0
Software & Web	4.0	77.8	1.1	17.1	--	100.0
Telecoms.....	27.4	27.5	18.1	21.4	5.6	100.0
Utilities	86.9	10.2	--	1.6	1.3	100.0
Total companies	35.3	28.2	12.6	20.6	3.3	100.0

TABLE I.2 – INDUSTRIAL COMPANIES (TRIAD REGIONS): % BREAKDOWN OF 2016 NET SALES BY SECTOR

	Europe										North America					
											Switzerland and Liechtenstein		USA		Japan	
	Austria	Benelux	France	Germany	Ireland	Italy	Scandinavia	Spain	U.K.	Total	Canada	USA	Total	Japan	Total	
Oil, energy and mining	51.0	2.0	22.4	0.3	—	41.1	15.4	93.6	—	71.3	21.7	20.9	12.8	13.0	6.2	15.8
Iron, steel and non-ferrous metals	29.9	11.6	—	0.8	—	3.2	8.6	6.4	—	2.2	3.6	—	—	—	4.7	2.5
Chemicals and pharmaceuticals	19.1	17.3	18.5	18.0	—	6.0	7.3	—	41.7	10.4	16.7	—	16.9	16.3	6.0	14.6
Tyres and cables	—	—	4.6	1.1	—	10.9	—	—	—	—	1.4	—	0.5	0.5	1.9	1.2
Mechanical engineering	—	39.0	30.1	66.0	—	21.0	35.8	—	19.6	6.3	34.9	55.4	29.7	30.6	51.1	36.3
<i>automotive</i>	—	26.2	16.1	43.9	—	—	13.7	—	2.1	—	19.4	—	12.4	12.0	35.7	19.7
<i>aerospace and shipbuilding</i>	—	12.8	4.0	—	—	—	—	—	0.4	4.8	3.8	17.1	8.2	8.5	0.6	4.9
<i>domestic appliances</i>	—	—	—	1.8	—	—	3.5	—	0.3	—	0.8	—	0.7	0.7	1.8	1.0
<i>other engineering</i>	—	—	10.0	20.3	—	8.0	18.6	—	16.8	1.5	10.9	38.3	8.4	9.4	13.0	10.7
Electronics	—	7.7	1.3	1.4	—	—	13.0	—	1.5	0.8	3.2	6.3	24.3	23.7	21.0	13.7
Building and civil engineering	—	—	—	—	—	—	—	—	—	—	—	3.9	—	0.1	0.3	0.1
Cement, glass and bldg. products	—	—	6.7	1.4	50.1	—	—	—	8.1	—	2.7	—	—	—	0.4	1.3
Paper, printing and publishing	—	—	1.3	1.0	19.7	—	9.9	—	—	—	1.6	—	1.4	1.3	—	1.2
Food and drinks	—	21.7	6.1	—	14.8	7.9	8.1	—	25.7	3.1	8.0	—	9.9	9.6	1.1	7.3
Textiles and clothing	—	—	4.9	2.0	—	2.5	—	—	0.4	—	1.4	—	1.2	1.2	—	1.1
Other mfg. industries	—	—	1.3	2.3	—	7.4	1.7	—	3.0	4.9	2.4	—	2.0	2.0	2.3	2.2
Services industries	—	0.7	2.8	5.7	15.4	—	0.2	—	—	1.0	2.4	13.5	1.3	1.7	5.0	2.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE I.3 – MULTINATIONALS: % BREAKDOWN OF 2016 NET SALES BY COUNTRY OF LOCATION

	Europe										North America							
											Switzerland and Liechtenstein		USA		Japan		Other countries*	
	Austria	Benelux	France	Germany	Ireland	Italy	Scandinavia	Spain	U.K.	Total	Canada	USA	Total	Japan	Total	Other countries*	Total	
Oil, energy and mining	1.5	0.8	10.3	0.2	—	4.1	4.4	3.5	—	38.8	—	63.6	1.5	27.8	29.3	7.1	—	100.0
Iron, steel and non-ferrous metals	5.6	30.3	—	3.8	—	2.0	15.5	2.0	—	7.4	—	66.6	—	—	—	33.4	—	100.0
Chemicals and pharmaceuticals	0.6	7.8	9.2	15.2	—	0.7	2.3	—	11.0	6.1	—	52.9	—	39.7	39.7	7.4	—	100.0
Tyres and cables	—	—	28.9	11.6	—	14.7	—	—	—	—	—	55.2	—	15.6	15.6	29.2	—	100.0
Mechanical engineering	—	7.1	6.0	22.3	—	0.9	4.5	0.2	2.1	1.5	—	44.6	1.7	28.3	30.0	25.4	—	100.0
<i>automotive</i>	—	8.7	6.0	27.4	—	—	3.2	—	0.4	—	—	45.7	—	21.7	21.7	32.6	—	100.0
<i>aerospace and shipbuilding</i>	—	17.1	5.9	—	—	4.2	—	—	0.3	8.3	—	35.8	4.0	57.9	61.9	2.3	—	100.0
<i>domestic appliances</i>	—	—	—	23.2	—	—	16.6	—	1.2	—	—	41.0	—	25.9	25.9	33.1	—	100.0
<i>other engineering</i>	—	—	6.9	23.4	—	1.2	7.8	0.5	6.1	1.2	—	47.1	4.1	27.0	31.1	21.8	—	100.0
Electronics	—	3.7	0.7	1.2	—	—	4.3	—	0.4	0.5	—	10.8	0.5	61.1	61.6	27.6	—	100.0
Building and civil engineering	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100.0
Cement, glass and bldg. products	—	—	37.4	13.9	19.9	—	—	—	24.0	—	—	95.2	—	—	—	4.8	—	100.0
Paper, printing and publishing	—	—	7.5	10.5	8.3	—	36.0	—	—	—	—	62.3	—	37.7	37.7	—	—	100.0
Food and drinks	—	19.5	6.1	—	1.1	1.7	5.0	—	13.6	3.7	—	50.7	—	46.7	46.7	2.6	—	100.0
Textiles and clothing	—	—	33.5	22.8	—	3.8	—	—	1.4	—	—	61.5	—	38.5	38.5	—	—	100.0
Other mfg. industries	—	—	4.2	12.6	—	5.2	3.5	—	5.4	19.1	—	50.0	—	31.4	31.4	18.6	—	100.0
Services industries	—	1.8	7.7	26.6	3.0	—	0.3	—	—	3.3	—	42.7	5.8	17.3	23.1	34.2	—	100.0
Total industrial companies	0.5	6.6	7.3	12.2	0.5	1.6	4.5	0.7	3.9	8.6	—	46.4	1.1	34.5	35.6	18.0	—	100.0
Software & Web	—	—	—	4.0	—	—	—	—	—	—	—	4.0	—	—	—	—	—	100.0
Telecoms	—	1.9	3.6	6.5	—	1.7	1.3	4.6	1.0	6.8	—	27.4	1.4	26.1	27.5	18.1	—	100.0
Utilities	—	—	28.6	23.9	—	11.1	3.6	8.4	—	7.9	—	86.9	5.4	4.8	10.2	—	—	100.0

* Australia, China, India, Mexico, Singapore, Saudi Arabia, South Africa and South Korea.

TABLE I.4 – INDUSTRIAL COMPANIES BASED IN ASIA-RUSSIA AND REST OF WORLD: % BREAKDOWN OF 2016 NET SALES BY SECTOR

	Asia-Russia					Rest of world						
	China	India	Russia	South Korea	Taiwan	Other countries *	Total	Brazil	Mexico	Australia	Other countries **	Total
Oil, energy and mining	63.6	47.3	100.0	7.5	7.6	37.3	43.4	52.4	9.5	–	84.0	47.8
Iron, steel and non-ferrous metals.....	–	14.9	–	6.7	–	1.0	2.9	7.1	5.8	47.2	–	8.4
Chemicals and pharmaceuticals.....	5.2	5.8	–	0.4	–	24.9	5.1	6.7	6.6	52.8	9.6	10.7
Tyres and cables.....	–	–	–	–	–	–	–	–	–	–	–	–
Mechanical engineering	14.0	29.7	–	35.7	–	–	15.6	2.9	–	–	–	1.6
<i>automotive</i>	14.0	23.8	–	21.2	–	–	11.9	–	–	–	–	10.3
<i>aerospace and shipbuilding</i>	–	–	–	2.3	–	–	0.5	2.9	–	–	–	1.6
<i>domestic appliances</i>	–	–	–	2.7	–	–	0.6	–	–	–	–	0.5
<i>other engineering</i>	–	5.9	–	9.5	–	–	2.6	–	–	–	–	2.3
Electronics	14.8	1.0	–	44.1	92.4	9.4	27.9	–	–	–	–	24.1
Building and civil engineering.....	–	–	–	1.1	–	–	0.2	–	–	–	–	0.2
Cement, glass and bdg. products	–	–	–	–	–	1.8	0.2	1.8	18.4	–	–	4.1
Paper, printing and publishing	–	–	–	–	–	0.8	0.1	–	–	–	6.4	1.3
Food and drinks	2.4	–	–	–	–	22.8	3.3	28.8	39.3	–	–	22.6
Textiles and clothing	–	–	–	–	–	–	–	–	–	–	–	–
Other mfg. industries	–	0.7	–	0.4	–	0.4	0.2	0.3	2.4	–	–	0.5
Services industries	–	0.6	–	4.1	–	1.6	1.1	–	18.0	–	–	3.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Israel, Malaysia, Saudi Arabia, Philippines, Singapore and Thailand.

** Colombia, South Africa and Venezuela.

TABLE I.5 – INDUSTRIAL COMPANIES BASED IN ASIA-RUSSIA AND REST OF WORLD: % BREAKDOWN OF 2016 NET SALES BY COUNTRY OF LOCATION

	Asia-Russia					Rest of world						
	China	India	Russia	South Korea	Taiwan	Other countries *	Total	Brazil	Mexico	Australia	Other countries **	Total
Oil, energy and mining	45.6	8.2	18.4	3.2	1.9	7.6	84.9	9.2	0.5	–	5.4	15.1
Iron, steel and non-ferrous metals.....	–	30.9	–	34.9	–	2.3	68.1	14.9	3.7	13.3	–	31.9
Chemicals and pharmaceuticals.....	27.9	7.6	–	1.3	–	38.0	74.8	8.8	2.6	9.2	4.6	25.2
Tyres and cables.....	–	–	–	–	–	–	–	–	–	–	–	–
Mechanical engineering.....	32.2	16.5	–	49.7	–	–	98.4	1.6	–	–	–	1.6
<i>automotive</i>	43.0	17.6	–	39.4	–	–	100.0	–	–	–	–	100.0
<i>aerospace and shipbuilding</i>	–	–	–	66.2	–	–	66.2	33.8	–	–	–	33.8
<i>domestic appliances</i>	–	–	–	100.0	–	–	100.0	–	–	–	–	100.0
<i>other engineering</i>	–	20.0	–	80.0	–	–	100.0	–	–	–	–	100.0
Electronics	19.5	0.3	–	34.8	41.9	3.5	100.0	–	–	–	–	100.0
Building and civil engineering.....	–	–	–	100.0	–	–	100.0	–	–	–	–	100.0
Cement, glass and bdg. products	–	–	–	–	–	22.1	22.1	18.9	59.0	–	–	77.9
Paper, printing and publishing	–	–	–	–	–	28.3	28.3	–	–	–	71.7	71.7
Food and drinks	12.8	–	–	–	–	34.5	47.3	37.3	15.4	–	–	52.7
Textiles and clothing.....	–	–	–	–	–	–	–	–	–	–	–	–
Other mfg. industries.....	–	21.0	–	32.1	–	15.2	68.3	9.3	22.4	–	–	31.7
Services industries	0.9	3.2	–	55.6	–	10.5	70.2	–	29.8	–	–	29.8
Total	31.5	7.6	8.1	19.0	10.9	9.0	86.1	7.8	2.3	1.0	2.8	13.9

* Israel, Malaysia, Saudi Arabia, Philippines, Singapore and Thailand.

** Colombia, South Africa and Venezuela.

Table I.6 - NON-DOMESTIC SALES

	Non-domestic sales ¹ as % of total net sales		Change (percentage points) 2012-2016
	2012	2016	
Industrials			
Ireland.....	97.1	97.7	0.6
Benelux.....	93.0	93.1	0.1
Finland.....	87.9	89.5	1.6
Austria.....	71.7	84.1	12.4
Germany.....	80.6	83.1	2.5
France.....	81.7	83.1	1.4
Italy.....	74.2	71.1	-3.1
Spain.....	56.6	49.1	-7.5
Eurozone²	81.8	84.2	2.4
Switzerland and Liechtenstein.....	97.5	97.7	0.2
Denmark.....	94.3	94.9	0.6
Sweden.....	94.4	94.7	0.3
United Kingdom.....	88.9	89.5	0.6
Norway.....	38.6	51.0	12.4
Europe²	82.6	85.8	3.2
Japan	53.1	59.3	6.2
North America²	54.9	52.7	-2.2
Asia-Russia²	51.4	54.1	2.7
of which: Taiwan.....	65.1	76.9	11.8
South Korea.....	59.6	64.9	5.3
Russia.....	65.9	64.0	-1.9
India.....	56.1	54.7	-1.4
China.....	35.8	37.0	1.2
Rest of world²	40.9	47.4	6.5
of which: Mexico.....	54.4	57.0	2.6
Brazil.....	32.7	40.1	7.4

1 Exports from home country plus sales by foreign subsidiaries outside home country.

2 Sales generated by companies based in this macro-area outside their respective home countries.

TABLE I.7 - INDICATORS BY SECTOR IN 2016

	As % of net sales 2016		As % of net sales 2012		2016	
	NOM	Current pre-tax profit	NOM	Current pre-tax profit	ROI	ROE
Industrials						
Triad regions						
Chemical and pharmaceutical	20.3	19.3	17.5	16.5	16.7	22.9
Food and drinks.....	13.5	12.0	12.5	12.0	8.6	8.2
Electronics.....	11.3	10.2	10.7	10.5	7.3	6.8
Tyres and cables.....	11.1	10.0	8.6	7.6	17.2	18.2
Paper.....	10.6	9.5	7.9	6.3	11.0	13.7
Construction materials.....	8.6	6.9	8.3	5.6	14.3	22.0
Mechanical engineering.....	8.1	7.7	7.8	8.3	10.6	12.2
Transport.....	6.9	7.0	6.1	6.6	9.4	14.2
Iron and steel.....	4.5	3.6	1.8	0.5	6.8	6.0
Energy.....	2.2	2.5	11.4	12.7	3.0	1.7
Asia-Russia						
Electronics.....	8.1	8.1	6.9	7.0	14.6	16.2
Energy.....	7.9	7.7	9.0	9.3	7.1	5.5
Iron and steel.....	7.1	4.2	7.0	4.5	5.3	2.5
Transport.....	5.5	6.6	6.9	9.4	8.6	11.7
Rest of world						
Energy.....	6.6	3.1	18.3	15.5	4.7	-0.1
Food and drinks.....	5.9	2.9	5.7	5.2	8.2	5.6
Iron and steel.....	4.0	1.7	2.0	0.1	5.8	-5.6
Software & Web	18.5	18.4	24.2	24.2	14.7	20.7
Telecoms	15.0	12.0	14.4	12.6	10.1	12.2
Utilities	10.3	6.7	11.1	7.8	8.1	3.2

TABLE I.8 - INDUSTRIAL COMPANIES: SOURCES OF FUNDS IN 2013-2016

	Cash flow	New equity issues *	Change in borrowings	Total
Europe (EUR bn).....	2,259	-45	386	2,600
%	86.9	-1.7	14.8	100.0
North America (USD bn)	2,363	-629	520	2,254
%	104.8	-27.9	23.2	100.1
Japan (JPY bn).....	83,258	-1,884	8,746	90,120
%	92.4	-2.1	9.7	100.0
Asia-Russia (EUR bn).....	1,190	14	223	1,427
%	83.3	1.1	15.6	100.0
Rest of world (EUR bn)	269	-6	93	356
%	75.5	-1.6	26.1	100.0

* Net of share buybacks.

TABLE I.9 - INDUSTRIAL COMPANIES: APPLICATIONS OF FUNDS IN 2013-2016

	Capital expenditure	Financial investments *	Dividends paid	Other flows	Total
Europe (EUR bn).....	1,161	851	541	47	2,600
%	44.7	32.7	20.8	1.8	100.0
North America (USD bn)	743	925	612	-26	2,254
%	33.0	40.9	27.2	-1.1	100.0
Japan (JPY bn).....	53,810	19,454	9,282	7,574	90,120
%	59.7	21.6	10.3	8.4	100.0
Asia-Russia (EUR bn).....	657	461	150	159	1,427
%	46.1	32.3	10.5	11.1	100.0
Rest of world (EUR bn)	257	37	61	1	356
%	72.1	10.5	17.1	0.3	100.0

* Includes change in sundry residual items.

TABLE I.10 - EUROPEAN AND NORTH AMERICAN INDUSTRIAL COMPANIES: NEW EQUITY ISSUES, SHARE BUYBACKS AND DIVIDEND PAYOUTS

	Rights issues (a)	Share buybacks ¹ (b)	Dividends paid (c)	Balance (d=b+c-a)	Cash flow (e)	d / e %
European industrials (EUR m)						
2012	9,151	1,489	116,868	109,206	620,386	17.6
2013	14,506	23,936	117,909	127,339	568,153	22.4
2014	13,209	32,696	142,582	162,069	589,141	27.5
2015	5,685	26,184	144,054	164,553	546,714	30.1
2016	17,040	12,380	136,187	131,527	554,234	23.7
Total	59,591	96,685	657,600	694,694	2,878,628	24.1

North American industrials (USD m)

2012	30,515	140,664	123,068	233,217	650,184	35.9
2013	48,230	175,812	135,020	262,602	632,289	41.5
2014	28,104	224,862	149,412	346,170	627,465	55.2
2015	29,250	182,129	159,879	312,758	568,987	55.0
2016	23,523	175,395	167,348	319,220	534,615	59.7
Total	159,622	898,862	734,727	1,473,967	3,013,540	48.9

¹ Net of treasury shares sold.

TABLE I.11 - CAPITAL STRUCTURE INDICATORS IN 2016

	Manufacturing companies				
	Europe	North America	Japan	Asia-Russia	Rest of world
<i>% of tangible capital invested</i>					
Short-term borrowings.....	24.2	14.7	18.4	15.0	11.9
Medium- and long-term borrowings	57.0	84.6	26.6	23.1	60.2
Tangible net worth	18.8	0.7	55.0	61.9	27.9
Total.....	100.0	100.0	100.0	100.0	100.0
<i>represented by:</i>					
Fixed assets	61.2	53.2	64.3	60.6	73.1
Net working assets	38.8	46.8	35.7	39.4	26.9
<i>of which: cash and cash equivalents.....</i>	<i>20.8</i>	<i>26.8</i>	<i>14.8</i>	<i>18.3</i>	<i>15.9</i>
Medium- and long-term borrowings + tangible net worth as % of tangible capital invested	75.8	85.3	81.6	85.0	88.1
Medium- and long-term borrowings as % of borrowings.....	70.2	85.2	59.1	60.6	83.5
Working assets less short-term borrowings as % of tangible capital invested.....	14.6	32.1	17.3	24.4	15.0
<i>Borrowings/cash flow (times)</i>	<i>2.9</i>	<i>2.3</i>	<i>3.1</i>	<i>2.0</i>	<i>5.0</i>

	Energy companies					
	Triad regions	Asia-Russia	Rest of world	Software & Web companies	Telecoms	Utilities
<i>% of tangible capital invested</i>						
Short-term borrowings.....	6.8	9.0	4.4	8.4	18.4	11.6
Medium- and long-term borrowings..	29.1	19.0	44.4	34.5	85.5	57.9
Tangible net worth	64.1	72.0	51.2	57.1	-3.9	30.5
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
<i>represented by:</i>						
Fixed assets	88.0	85.1	88.7	35.3	96.1	86.5
Net working assets	12.0	14.9	11.3	64.7	3.9	13.5
<i>of which: cash and cash equivalents</i>	<i>8.9</i>	<i>11.1</i>	<i>4.2</i>	<i>26.6</i>	<i>11.8</i>	<i>8.8</i>
Medium- and long-term borrowings + tangible net worth as % of tangible capital invested	93.2	91.0	95.6	91.6	81.6	88.4
Medium- and long-term borrowings as % of borrowings	81.1	67.9	91.0	80.4	82.3	83.3
Working assets less short-term borrowings as % of tangible capital invested.	5.2	5.9	6.9	56.3	-14.5	1.9
<i>Borrowings/cash flow (times)</i>	<i>3.0</i>	<i>2.6</i>	<i>5.7</i>	<i>1.5</i>	<i>2.7</i>	<i>5.0</i>

TABLE I.12 - INDUSTRIAL COMPANIES IN TRIAD REGIONS: CAPITAL INVESTED AT YEAR-END

		Capital invested		
		Net worth	Total borrowings	<i>of which: bonds</i>
<i>as % of capital invested</i>				
Europe	2016	57.2	42.8	30.7
	2015	58.2	41.8	29.8
	2012	60.6	39.4	27.2
<i>of which:</i>				
Benelux	2016	47.0	53.0	39.5
	2015	48.9	51.1	35.3
	2012	54.1	45.9	30.8
France	2016	63.6	36.4	25.6
	2015	64.4	35.6	26.8
	2012	62.6	37.4	27.6
Germany	2016	47.3	52.7	33.4
	2015	47.4	52.6	32.8
	2012	49.2	50.8	30.5
Italy	2016	62.7	37.3	21.4
	2015	63.0	37.0	20.0
	2012	67.7	32.3	21.6
Scandinavia.....	2016	66.6	33.4	21.6
	2015	64.1	35.9	22.4
	2012	65.0	35.0	16.4
Switzerland and Liechtenstein	2016	70.8	29.2	24.2
	2015	70.6	29.4	23.9
	2012	67.6	32.4	26.7
United Kingdom	2016	59.0	41.0	35.2
	2015	61.2	38.8	33.9
	2012	67.5	32.5	27.9
Japan	2016	58.4	41.6	17.6
	2015	58.3	41.7	16.9
	2012	55.7	44.3	18.1
North America	2016	57.8	42.2	38.4
	2015	61.2	38.8	36.4
	2012	70.1	29.9	27.8
Software & Web	2016	70.7	29.3	23.8
	2015	73.2	26.8	22.1
	2012	79.7	20.3	16.4
Telecoms	2016	49.3	50.7	37.1
	2015	49.8	50.2	38.4
	2012	56.5	43.5	31.7
Utilities	2016	45.4	54.6	41.9
	2015	44.5	55.5	42.8
	2012	44.7	55.3	40.1

TABLE I.13 - INDUSTRIAL COMPANIES IN ASIA-RUSSIA AND REST OF WORLD: CAPITAL INVESTED AT YEAR-END

		Capital invested		
		Net worth	Total borrowings	of which: bonds
<i>as % of capital invested</i>				
Asia-Russia	2016	70.6	29.4	13.7
	2015	71.5	28.5	14.0
	2012	72.7	27.3	11.8
<i>of which:</i>				
China	2016	75.1	24.9	12.7
	2015	77.9	22.1	13.6
	2012	74.3	25.7	15.0
India.....	2016	54.8	45.2	18.6
	2015	53.6	46.4	17.2
	2012	54.5	45.5	13.1
Russia.....	2016	72.1	27.9	10.9
	2015	69.4	30.6	13.4
	2012	84.8	15.2	7.5
South Korea.....	2016	71.7	28.3	11.2
	2015	70.9	29.1	12.6
	2012	69.1	30.9	13.5
Taiwan.....	2016	73.6	26.4	11.2
	2015	71.6	28.4	8.4
	2012	63.8	36.2	2.9
Rest of world	2016	51.0	49.0	29.2
	2015	49.1	50.9	30.7
	2012	64.4	35.6	19.6
<i>of which:</i>				
Africa.....	2016	65.9	34.1	18.5
	2015	67.6	32.4	19.8
	2012	73.2	26.8	19.9
Australia	2016	50.3	49.7	26.6
	2015	48.9	51.1	28.9
	2012	47.4	52.6	44.1
Central South America	2016	50.3	49.7	29.9
	2015	48.4	51.6	31.2
	2012	64.8	35.2	18.4

TABLE I.14 - RESEARCH AND DEVELOPMENT EXPENSES AS % OF NET SALES

	Breakdown by geographical area				
	2012	2013	2014	2015	2016
Industrials					
Switzerland and Liechtenstein.....	7.5	7.6	7.9	7.9	8.5
Germany.....	5.0	5.3	5.5	5.5	5.8
Scandinavia.....	3.9	3.9	3.9	3.9	4.6
France.....	3.5	3.4	3.4	3.6	3.4
Benelux.....	2.7	2.8	2.7	2.9	3.1
United Kingdom.....	1.5	1.5	1.7	2.3	2.4
Italy.....	1.5	1.6	1.5	1.7	2.0
North America	3.8	3.9	4.2	4.8	5.2
Japan	4.4	4.1	4.1	4.2	4.3
Europe	3.4	3.5	3.6	4.0	4.3
Triad: manufacturing companies	5.0	4.9	5.0	5.2	5.4
Triad: industrial companies	3.7	3.7	3.9	4.3	4.6
Asia-Russia	1.8	1.9	2.1	2.6	2.8
Rest of world	0.9	0.7	0.7	0.8	0.8
Breakdown by sector					
	2012	2013	2014	2015	2016
Industrials					
Triad regions					
Chemical and pharmaceutical ...	8.6	8.6	9.0	9.5	9.8
Electronics	6.6	6.4	6.5	6.5	7.1
Mechanical engineering.....	4.8	4.8	4.8	4.8	4.9
Transport	4.4	4.4	4.4	4.4	4.6
Tyres and cables.....	3.2	3.3	3.6	3.7	4.1
Food and drinks.....	0.8	0.8	0.8	0.9	1.0
Iron and steel.....	1.0	0.8	0.8	0.9	1.0
Construction materials.....	0.8	0.8	0.8	0.9	0.9
Paper.....	0.6	0.6	0.7	0.7	0.7
Energy.....	0.3	0.3	0.3	0.4	0.4
Asia-Russia					
Manufacturing.....	2.9	3.1	3.3	3.6	3.8
Energy.....	0.4	0.2	0.2	0.3	0.5
Rest of world					
Manufacturing.....	0.8	0.9	0.9	1.2	1.2
Energy.....	0.9	0.7	0.7	0.7	0.6
Software & Web companies	12.9	12.6	13.0	13.5	13.2
Telecoms	1.3	1.3	1.3	1.3	1.3
Utilities	0.3	0.3	0.4	0.3	0.4

