



February 2019

Greek enterprises: A two-year endeavor to cover lost ground

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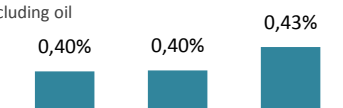
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Issue in focus:

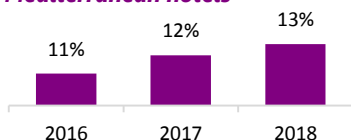
Greek market share...

... in EU exports of goods*

* excluding oil



... in Mediterranean hotels



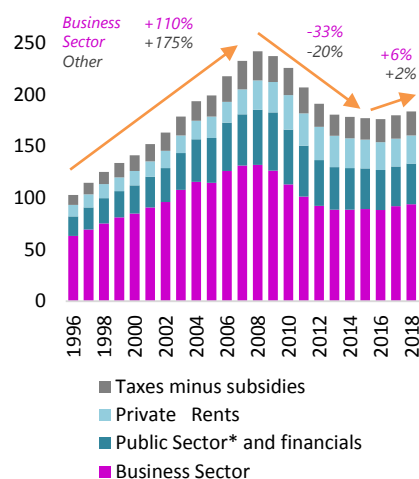
Sources: Eurostat, NBG estimates

- By turning to foreign markets, over the two-year period 2017-2018 Greek enterprises have been striving to regain the lost ground of the crisis years. Specifically, exports of non-oil goods posted an average annual growth of 10 per cent, and tourism receipts an average annual growth of 11 per cent. As a result, Greek companies have succeeded in gaining market share in international markets and have resumed investment plans.
- The recovery appears to be broad-based and covers virtually all sectors of the Greek economy:
 - Most export-oriented sectors managed to increase market share in European markets, led by (i) olive oil, (ii) materials (steel, marble, aluminium, copper), and (iii) services (hotels and airports) boosted by the growth trend in Greek tourism.
 - Demand growth was also reported by the majority of sectors that focus mainly on the domestic market – whether due to structurally higher demand (e.g. renewable energy and IT) or a corrective shift away from the bottom of the crisis (e.g. car trade, food services).
- As for 2019, domestic momentum is expected to shield against external pressures stemming from the global slowdown:
 - Stronger consumer confidence (buoyed by stronger disposable income) should help support private consumption.
 - Investment sentiment is positive, showing a tendency to cover the gap left by the years of economic crisis.
- In the medium-term, two interrelated parameters will determine the momentum behind the recovery of the Greek economy:
 - i. The speed of consolidation of the business sector (as small enterprises are struggling to keep up with larger businesses in returning to their pre-crisis operating status).
 - ii. The speed at which reforms to boost competitiveness are implemented, leading to higher foreign investment. Based on global competitiveness indicators, although there has been some improvement, the institutional deficit against the EU remains substantial.

By turning their attention to foreign markets, over the two-year period 2017-2018 Greek enterprises have been striving to regain the lost ground of the crisis years

Business sector activity

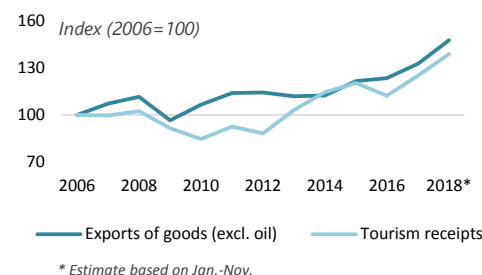
Value added in billion €



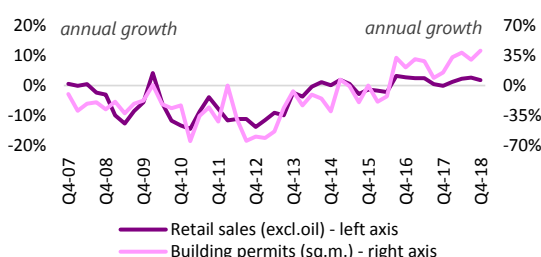
* including health and education activities

Sources: Eurostat, Bank of Greece, Hellenic Statistical Authority, NBG estimates

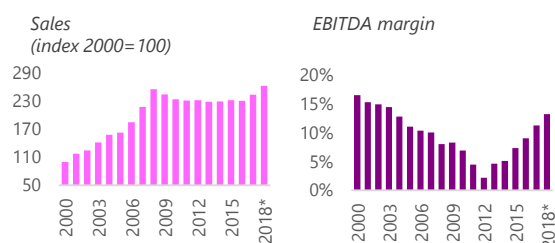
External demand



Domestic demand

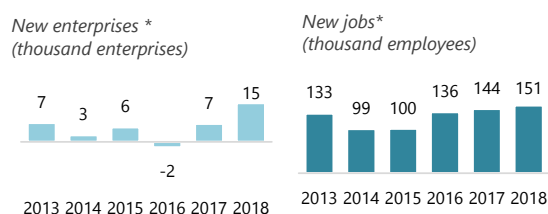


Listed companies



Sources: Eurostat, Bloomberg, NBG estimates

Net increase in enterprises and employment



* Data refer to net changes (additions minus losses)

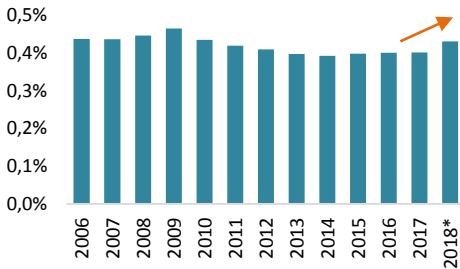
Sources: Eurostat, European Commission, NBG estimates

- Business activity entered a **path to recovery** during 2017-2018, with the value added of the business sector growing at 3 per cent annually. The upward trend is reflected in both (i) the creation of new firms and new jobs, and (ii) the positive performance of listed companies in 2018.H1 (turnover up by 8 per cent and operating profit margin up from 19 per cent to 21 per cent since 2017.H1).
- A key supporting factor in this recovery was **external demand**, which presented an upward trend through much of the crisis, with a strong performance in the past two years, especially non-oil exports of goods (+10 per cent annually) and tourism receipts (+11 per cent annually).
- A significant factor has also been the recent recovery in sectors related to the **domestic economy**, which, following the strong pressure of the past years, seem to be returning to positive growth patterns – though still remaining below pre-crisis levels. In this regard, note that:
 - ✓ The gradual improvement in **consumer confidence** has given a boost to retail trade (+2 per cent in 2018, from +1.3 per cent in 2017), which has contracted to 3.1 per cent of GDP compared with 4 per cent on average in the EU.
 - ✓ Visible signs of recovery can be seen in the Greek **real estate market**, with residential building permits growing by 35 per cent in 2018 (after a decade of cumulative contraction in the order of 80 per cent). Here we should mention the significant support that has stemmed from the growth in tourism and the penetration of the phenomenon of short-term rental.

Businesses have managed to gain market share in international markets and have resumed investment plans

Greek exports' market share

% of EU non-oil exports of goods

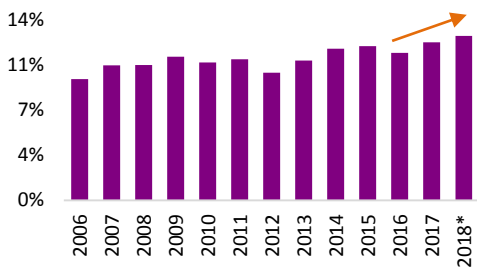


* estimate based on Jan.-Nov.

Sources: Eurostat, NBG estimates

Greek hotels' market share

% of Mediterranean hotel arrivals^[1]



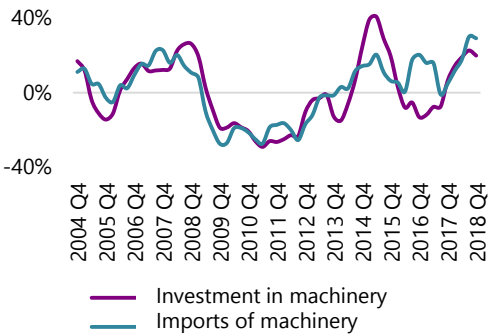
* estimate based on Jan.-Oct.

[1] we examine the Mediterranean market consisting of Greece, Italy, Spain, Portugal, Croatia, Cyprus, Malta

Sources: Eurostat, NBG estimates

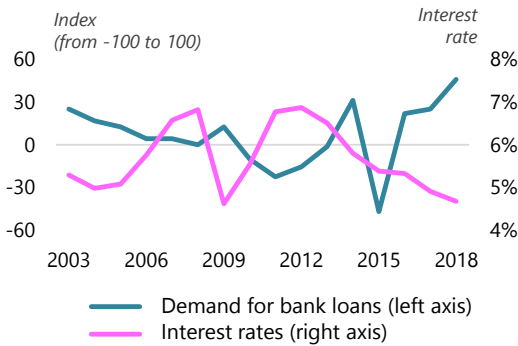
Business Investment

Annual change



Sources: Bank of Greece, NBG Estimates

Demand for financing



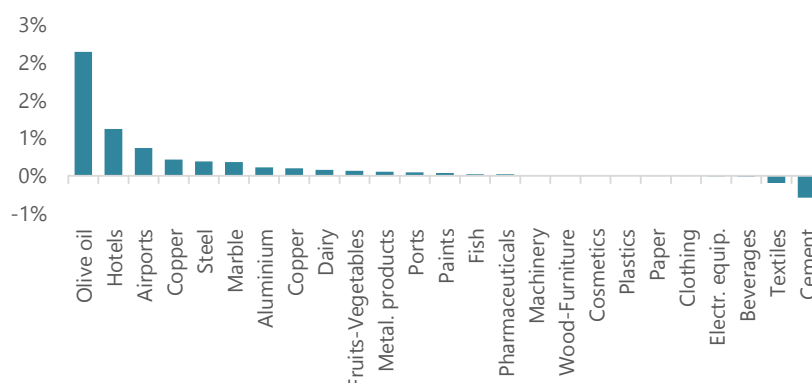
Sources: Bank of Greece, NBG Estimates

- Greek enterprises managed to tap into the favourable international environment, **capturing market shares** and thereby covering:
 - ✓ 0.43 per cent of European exports, up from 0.40 per cent in 2017, and
 - ✓ 12.7 per cent of arrivals at hotels in the Mediterranean in 2018, up from 12.2 per cent in 2017 and 11.4 per cent in 2016.
- In addition, there is **higher mobility in terms of business investment**, as:
 - ✓ Both machinery investments and machinery imports were on an upward trend in 2018, with an annual growth of about 20 per cent and 30 per cent respectively.
 - ✓ Financing conditions appear more favourable for investment, given the ongoing reduction of lending rates on business loans (4.7 per cent in 2018, from 4.9 per cent in 2017), leading to higher demand for financing by Greek enterprises.

The recovery appears to be broad-based, covering virtually all sectors of the economy

Exporting sectors

annual change in the Greek market share* in the EU



* Hotels: Greek share in foreign tourist nights spent in European hotels

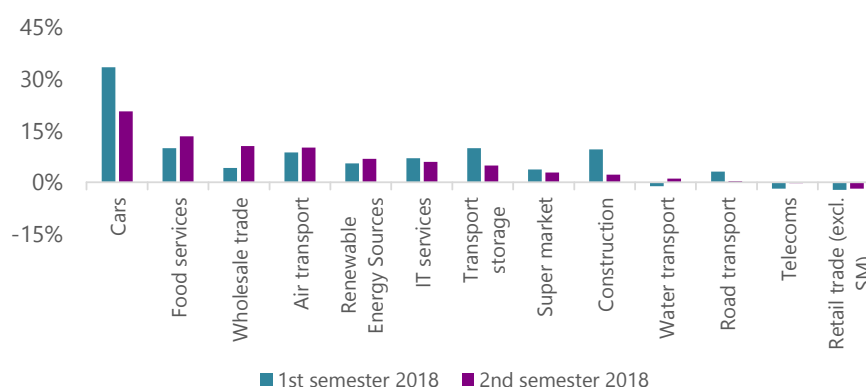
Airports: Greek share in air passengers in EU airports

Ports: Greek share in the gross weight of cargo handled in EU ports

Other: Greek share in EU exports

Sectors supported by domestic demand

annual change in the volume of activity*



* Air transport: annual growth in the number of air passengers

Renewable Energy: share of renewable energy in total electricity installed capacity in Greece

Construction: annual growth in construction volume (average index of ii) public investment program and ii) residential building permits (sq.m.)

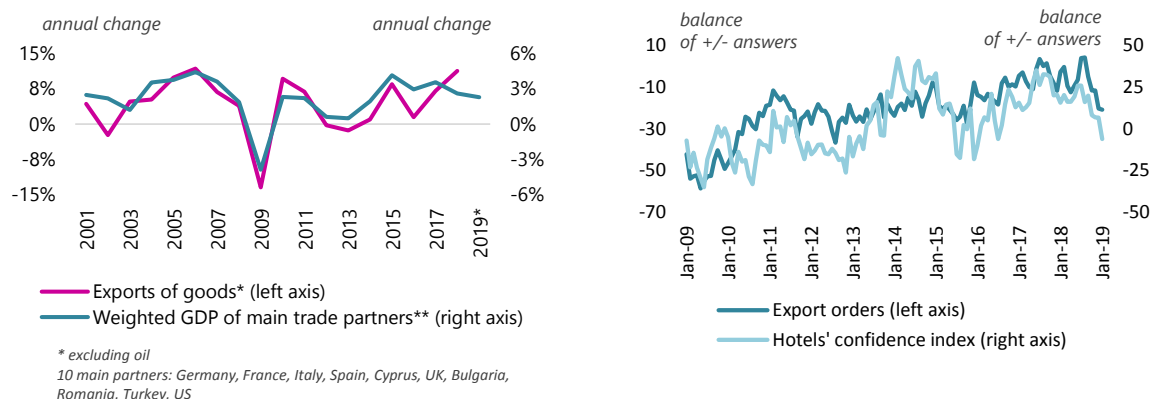
Other: annual growth of published volume indices (or deflated turnover indices)

Sources: Eurostat, Hellenic Statistical Authority, NBG estimates

- Taking a closer look at the various key sectors of the Greek economy we see that the majority followed an upward path, or at least stabilized, in 2018. For example:
 - i. Among **export-oriented sectors**, most managed to increase market share in European markets, led by (i) olive oil, (ii) materials (steel, marble, aluminium and copper), and (iii) services (such as hotels and airports, boosted by the growth trend in Greek tourism).
 - ii. Growth in demand was also reported by the majority of **sectors mainly supported by the domestic market** – whether due to structurally higher demand (e.g., RES and IT) or a corrective shift away from the lows of the crisis (e.g., motor vehicle trade, restaurant services).
- Losses were identified in only a few sectors, with cement and textiles losing market share in European markets, while telecoms and retail trade (excluding supermarkets) were under pressure.

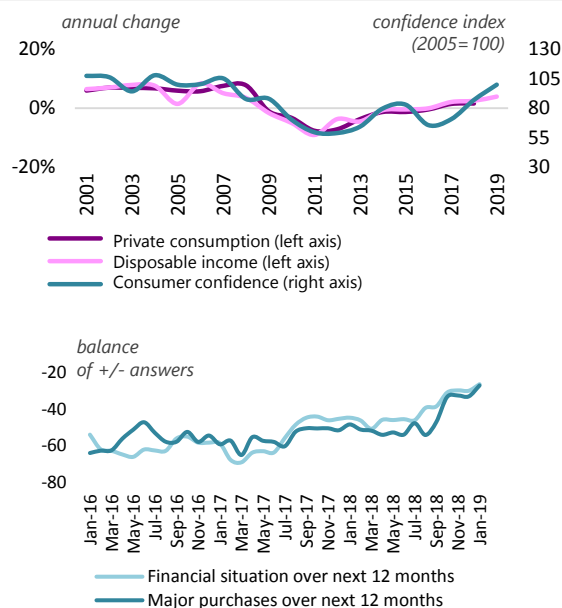
In 2019, domestic momentum should help shield against some of the external pressures stemming from the global slowdown

External demand



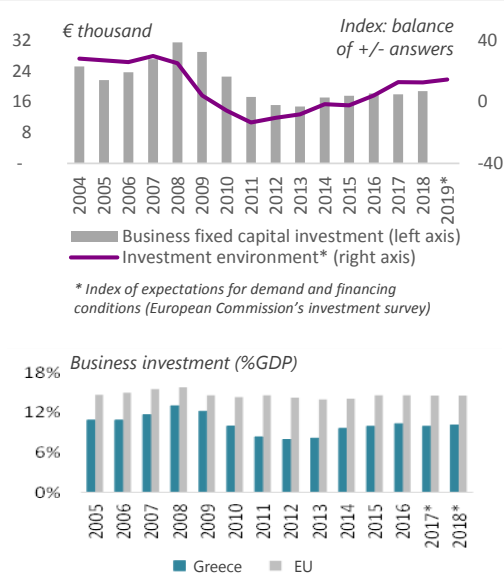
Sources: Eurostat, European Commission, Hellenic Statistical Authority, NBG estimates

Consumption



Sources: Eurostat, European Commission, Hellenic Statistical Authority, NBG estimates

Investment



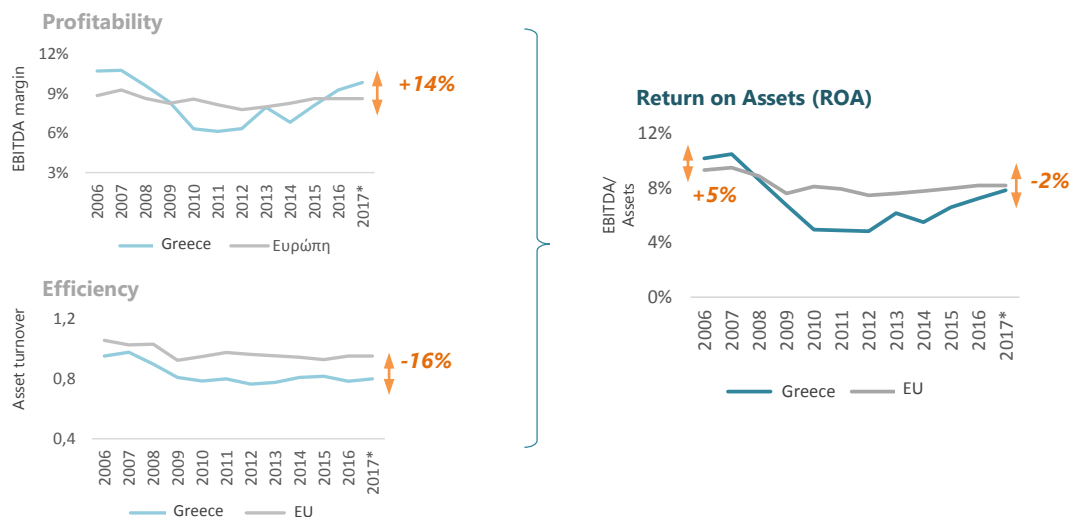
* Index of expectations for demand and financing conditions (European Commission's investment survey)

* 2017,2018 corrected for statistic adjustments in Q3:2017
** investment in fixes assets excluding real estate and water transport (mainly ships)

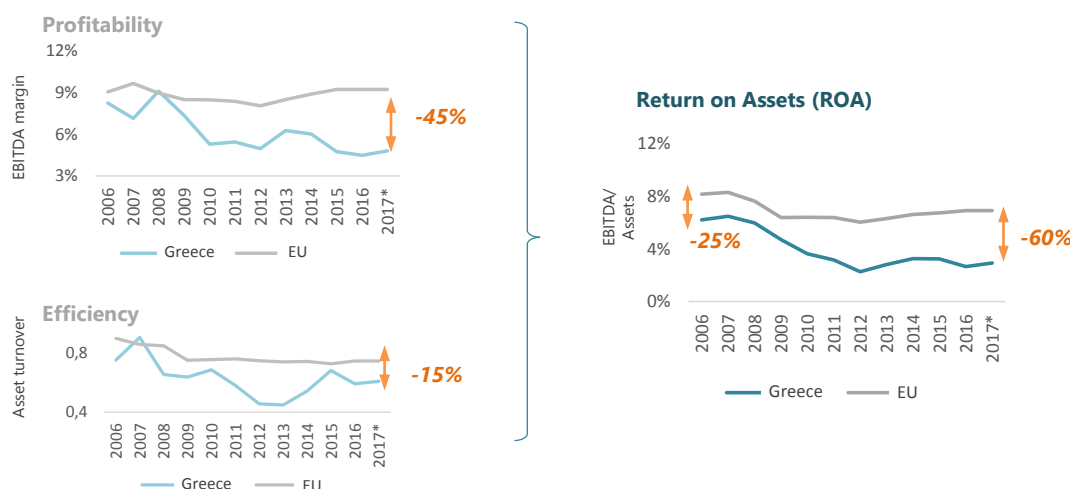
- In recent years, Greek businesses have managed to find support in foreign markets – and in 2018 they took a step further, gaining market shares in decelerating markets. But 2019 presents challenges as **the key markets for Greek products will likely show slower growth rates** (with average growth in the top 10 destination markets – accounting for ¾ of Greek exports – slowing to 2.3 per cent in 2019 from 2.6 per cent in 2018 and 3.6 per cent in 2017).
- Exporters in Greece are already under pressure, as reflected in recent results for business confidence in manufacturing sectors (mainly in terms of export orders) and hotels.
- On the other hand, **domestic demand is likely to have a positive impact:**
 - i. Private consumption will be buoyed by higher disposable income (on the back of a rising trend in wages) – a trend that has already fed into consumer confidence indices.
 - ii. The anticipated growth in investment activity (as reflected in investment expectations) is critical for covering the investment gap created over the years of crisis (with investments covering 10 per cent of GDP in 2018, vs. 13 per cent in 2008 and 15 per cent in the EU).

In the medium term, two parameters will determine the momentum behind the recovery of the Greek economy: (i) the speed at which the business sector consolidates...

Medium/Large enterprises*



Small enterprises*



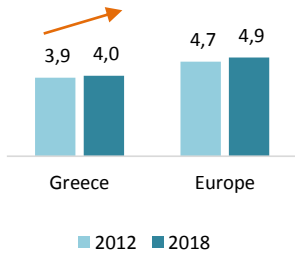
* Sizes based on the number of employees:
Small (<10 empl.), Medium (10-50 empl.), Large (>50 empl.)

Sources: Eurostat, ICAP Data, Bach Database, NBG estimates

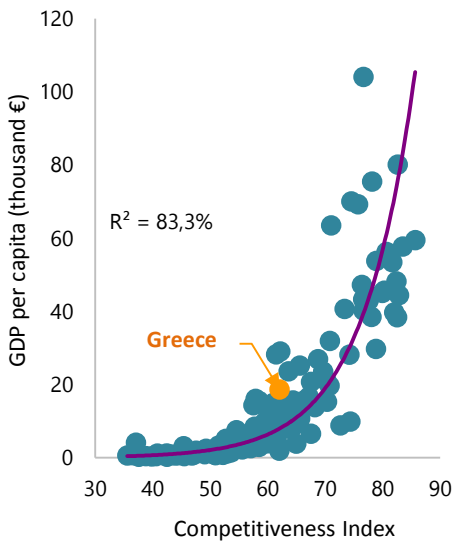
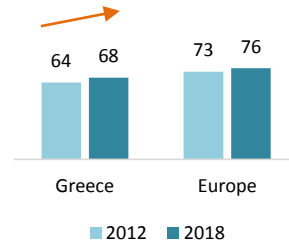
- Besides current trends and the international climate, the strength of the recovery depends to a large extent on the **financial health of Greek enterprises**. On this front, we see an ongoing widening of divergence between small and medium/large enterprises. For instance, when we look at the financial performance of enterprises across various scales of turnover, we see that:
 - ✓ Return on assets (ROA) in **medium and large enterprises** (with more than 10 employees) has almost returned to pre-crisis levels, i.e. close to the European average.
 - ✓ By contrast, **small enterprises** lag behind Europe by 45 per cent in terms of operating profitability and 15 per cent in terms of efficiency, meaning that ROA is 60 per cent lower than the European average (vs -25 per cent before the crisis).
- The current picture of a two-speed business sector is indicative of the need for further reorganization, consolidation and reform.

... and (ii) the speed at which reforms designed to cover the institutional deficit vs the rest of Europe are implemented

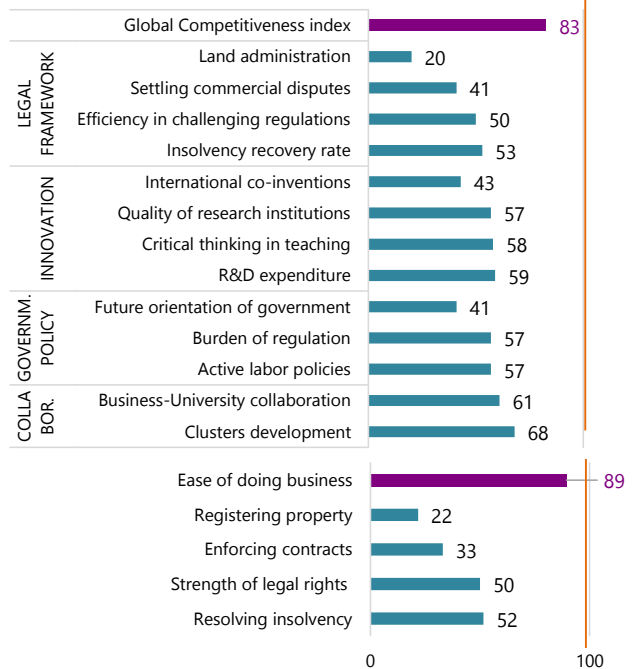
Global Competitiveness Index
Scale from 1 to 7 (best)



Ease of Doing Business
Scale from 0 to 100 (best)



The most pressing reforms*



* Performance of Greece compared with the EU average (=100) in the main factors with large gaps

Sources: World Economic Forum (Global Competitiveness Report 2018), World Bank (Doing Business Report 2019), NBG estimates

- Under such conditions, it is of vital importance to **continue the drive for reforms** so as to improve competitiveness and attract the investment that the country needs.
- There are some **signs of improvement** in the two relevant key global indicators i) Global Competitiveness, and ii) Doing business, which both posted an increase in 2012-2018 (by 4 per cent and 7 per cent respectively), thus implying that the institutional deficit against Europe is decreasing – though it is still at high levels.
- The **parameters with the highest priority** concern the following:
 - i. Legal, judicial and institutional gaps (related to key areas such as land use and insolvency)
 - ii. Trailing behind in innovative activities (e.g., patents)
 - iii. Quality of government policy (as regards clarity/stability of targeting and bureaucracy)
 - iv. Lack of cooperation and trust (whether between businesses, or between the business and academic communities).

CHARTBOOK |



- ◇ BUSINESS ACTIVITY
- ◇ INVESTMENTS

BUSINESS SECTOR



- ◇ BUSINESS ACTIVITY
- ◇ EXPORTS
- ◇ FOOD
- ◇ METALS
- ◇ MINERALS
- ◇ CHEMICALS
- ◇ PHARMACEUTICALS
- ◇ PLASTICS
- ◇ CLOTHING

INDUSTRY



- ◇ HOTELS
- ◇ TRANSPORT
- ◇ CONSTRUCTION

SERVICES



- ◇ RETAIL
- ◇ WHOLESALE & MOTOR VEHICLE

TRADE

BUSINESS SECTOR

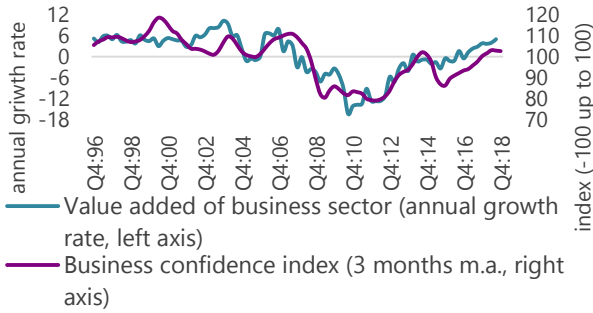
SHARE
in GDP



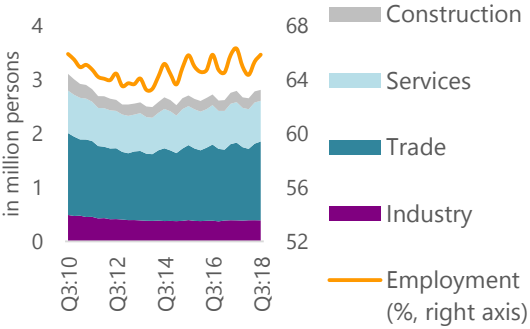
For the fifth consecutive quarter **the business confidence index remains in positive territory**, above the 100 point threshold. Positive developments in terms of employment, which posted an annual increase of 1 per cent in the first 9 months of 2018.

Value added & business climate

Employment



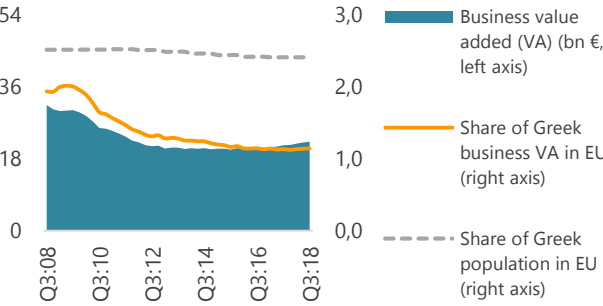
Sources: Eurostat, Comtrade, NBG estimates



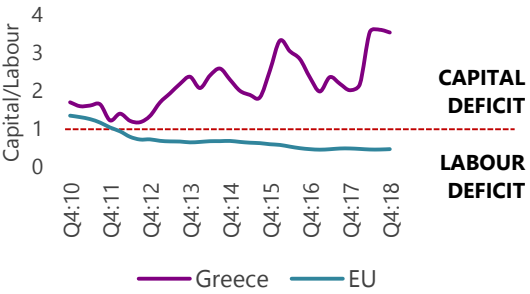
Sources: Eurostat, European Commission, NBG estimates

Business Sector Production

Main deficit factor ^[1]



Sources: Eurostat, Comtrade, NBG estimates



Sources: Eurostat, Comtrade, NBG estimates

Business sector: Main sectors^[2]

In 2017	Value added				Employment			
	Share		Annual growth ^[3]		Share		Annual growth ^[3]	
	Greece	EU	Greece	EU	Greece	EU	Greece	EU
Manufacturing	27%	32%	+4.6%	+11.4%	18%	26%	+1%	+1%
Construction	4%	8%	-3.8%	-0.3%	6%	10%	+1%	+1%
Trade	20%	17%	+3.6%	+4.8%	29%	21%	+4%	+1%
Transport	12%	7%	+5.0%	+2.3%	8%	8%	-3%	+2%
Tourism	12%	5%	+11.1%	+7.5%	17%	8%	+10%	+2%
ICT & Telecoms	6%	7%	+1.5%	-3.3%	3%	4%	+13%	+2%
Scientific services	10%	16%	+4.2%	+0.6%	13%	15%	+3%	+2%
Other	9%	9%	-0.1%	+0.6%	6%	9%	+5%	+2%
Total business sector	100%	100%	+4.2%	+4.6%	100%	100%	+4%	+1%
% of business sector	65.0%	72.4%			62.7%	66.2%		

Sources: Eurostat, Hellenic Statistical Authority, NBG estimates

^[1] percentage of SMEs with key obstacle the lack of funds/ percentage of SMEs with key obstacle to lack of operations

^[2] excluding the agricultural, financial and public sector (including education & health services, as well as rents of individuals

^[3] Annual growth rate| Last available observation| Added value: 2017, Employment: Q3.2018

BUSINESS INVESTMENT

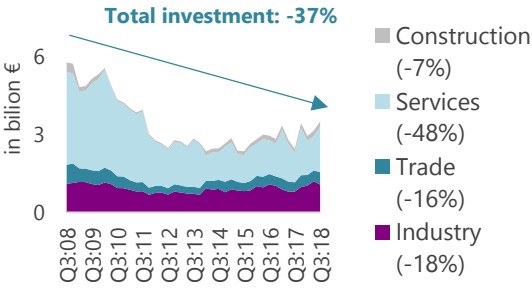
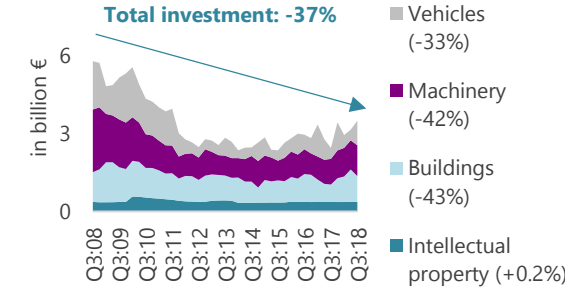
SHARE
of TOTAL
INVESTMENTS



Investment activity in the business sector has showed signs of recovery over the last 12 months, up by an aggregate 14 per cent in the period 2017.Q4 – 2018.Q3, led by investments in buildings and machinery (+26 per cent and +24 per cent respectively) and - on a sectoral level - construction and manufacturing (+23 per cent and +22 per cent respectively).

Business investment by type ^[1]

Business investment by sector^[1]

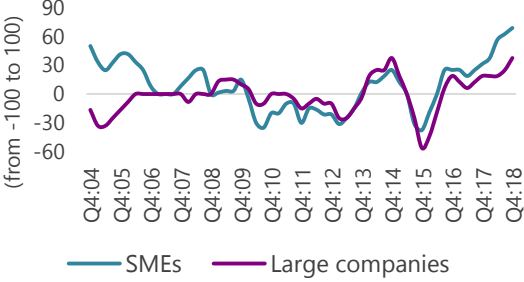
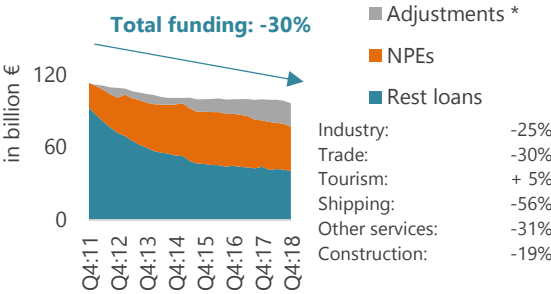


Sources: Eurostat, Comtrade, NBG estimates

Sources: Eurostat, Comtrade, NBG estimates

Financing of business sector

Demand for financing



Source: Bank of Greece, NBG Estimates

Source: Bank of Greece, NBG Estimates

Business sector: Investments

	Share of annual investments		Annual change (2015 – 2016)		Investments/ Added value (2016)		Added value/ Capital stock (2016)	
	Greece	EU	Greece	EU	Greece	EU	Greece	EU
Manufacturing	29%	35%	-15%	+14%	15%	30%	23%	23%
Construction	5%	4%	-10%	+16%	17%	15%	22%	38%
Trade	13%	8%	+4%	+15%	10%	14%	42%	60%
Transport	27%	11%	+37%	+20%	30%	41%	11%	16%
Tourism	5%	2%	-3%	+24%	5%	15%	37%	39%
ICT & Telecoms	7%	9%	+1%	+15%	15%	35%	13%	40%
Scientific services	8%	18%	+1%	+29%	11%	29%	37%	44%
Other	6%	13%	+25%	+53%	11%	40%	26%	22%
Total business sector	100%	100%						
% of business sector to total investments	52.0%	62.7%						

Sources: Eurostat, Hellenic Statistical Authority, NBG estimates

^[1] Changes refer to the period 2008 – 2017

^[2] Adjustments include write-offs, reclassifications and loan repayments

INDUSTRY

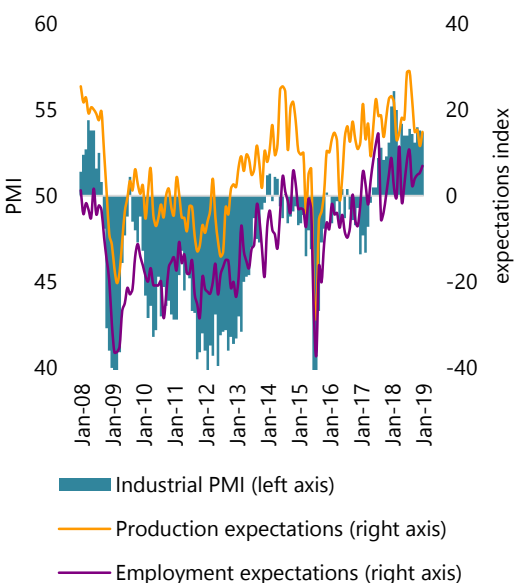
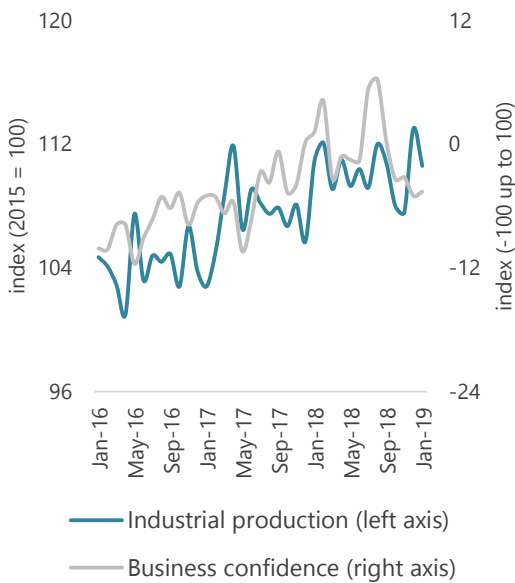
SHARE
in GDP

10%

Industrial production grew by 2.0 per cent annually in 2018.Q4 (vs 2.7 per cent in Q3). However, under the pressure of increased uncertainty in the global economy, the confidence index has pursued a downward path in the last 5 months – reflecting expectations of a slower pick-up in production.

Industrial production

Employment ^[1]



Sources: Eurostat, European Commission, NBG estimates

Sources: Eurostat, European Commission, NBG estimates

Key macroeconomic indicators ^[2]

Key financial indicators ^[3]

	% of Industry	Production		Exports	
		12M	3M	12M	3M
Greece		+2.1%	+2.0%	+10.6%	+6.8%
Europe		+2.5%	+0.3%	+4.0%	+3.5%
Food	24.3%	-0.2%	-0.4%	+8.5%	+1.8%
Beverages	4.6%	+6.5%	+6.3%	+0.7%	+3.0%
Clothing	2.2%	+0.8%	-0.2%	+6.5%	+5.0%
Wood & furniture	2.0%	+10.5%	+4.3%	+16.6%	+17.3%
Chemicals	5.6%	+4.7%	+4.8%	+10.3%	+13.4%
Pharmaceuticals	5.2%	+16.8%	+17.4%	+20.8%	+20.4%
Plastics	4.2%	+1.2%	+1.9%	+4.9%	+7.7%
Minerals	4.9%	+1.2%	-0.1%	+4.0%	+0.4%
Metals	2.2%	+4.2%	+7.1%	+20.5%	+7.6%
Metal products	7.9%	+1.5%	+2.3%	+2.4%	-0.4%
Electrical goods	1.9%	-16.3%	-21.5%	-2.9%	-8.3%
Machinery	3.5%	-0.3%	-5.6%	+8.5%	+11.9%

	EBITDA margin	Asset Turnover	Debt to EBITDA
Greece	8.5%	0.64	7.00
Europe	8.7%	0.90	3.93
Food	7.2%	0.80	6.1
Beverages	10.8%	0.65	4.1
Clothing	6.3%	0.52	9.2
Wood & furniture	4.8%	0.39	24.5
Chemicals	9.8%	0.94	4.5
Pharmaceuticals	10.2%	0.77	3.7
Plastics	7.9%	0.86	3.6
Minerals	10.7%	0.62	4.8
Metals	11.8%	0.41	6.1
Metal products	7.1%	0.54	9.5
Electric equipment	6.8%	0.74	5.1
Machinery	6.3%	0.40	9.7

Sources: Eurostat, Hellenic Statistical Authority, NBG estimates

Source: Icap database, NBG estimates

^[1] The employment rate is ahead by 4 quarters.

^[2] Last available observation i. Production in Greece December 2018, EU November 2018, ii. Exports of Greece estimate December 2018, EU November 2018.

^[3] Data for 2016.

EXPORTS

SHARE in
EU EXPORTS



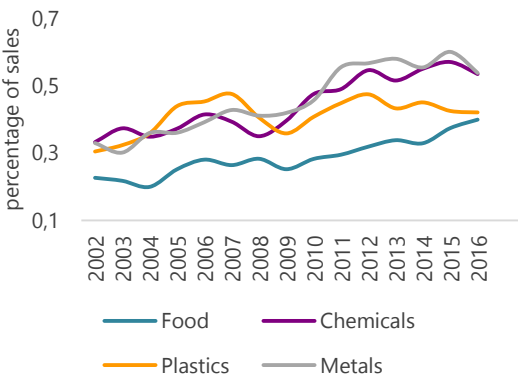
Exports continue to grow (+11 per cent annually^[1,3]); however, the slowdown in the global economy has put a sharp brake on expectations, thus reducing the export order index by 16 points in Q4.

Export orders & production



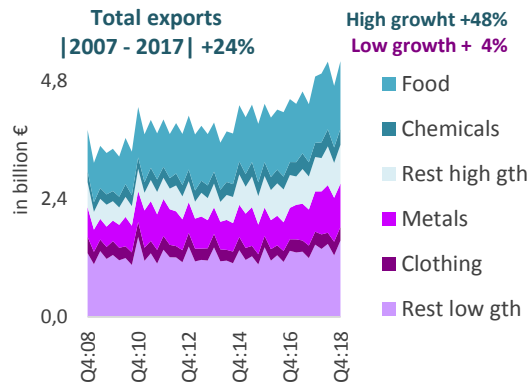
Sources: Eurostat, Comtrade, NBG estimates

Export profile ^[2] of industry sectors



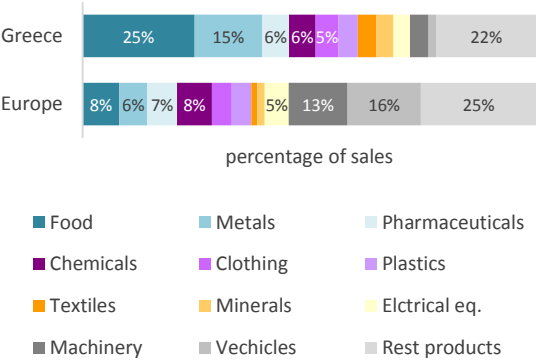
Source: Eurostat, NBG estimates

Greek exports ^{[3][4]}



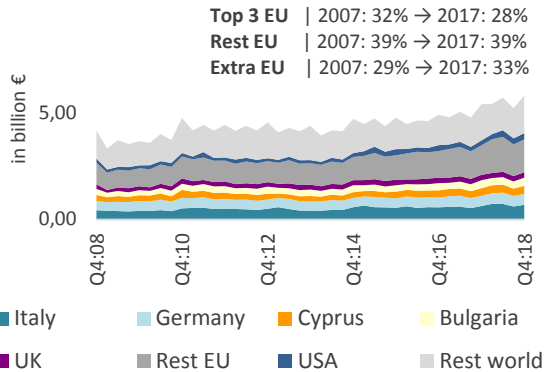
Source: Eurostat, NBG estimates

Export structure ^[2]



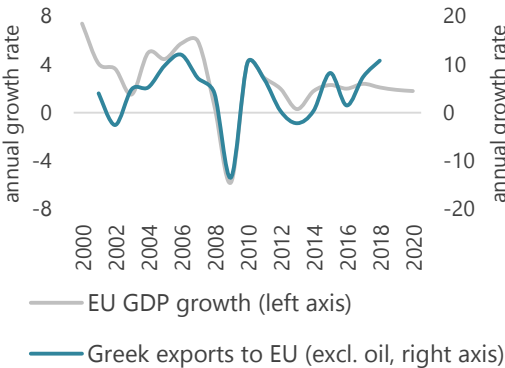
Source: Eurostat, NBG estimates

Greek exports of goods ^[3]



Source: Eurostat, NBG estimates

Greek exports to Europe



Sources: Eurostat, Ameco, NBG estimates

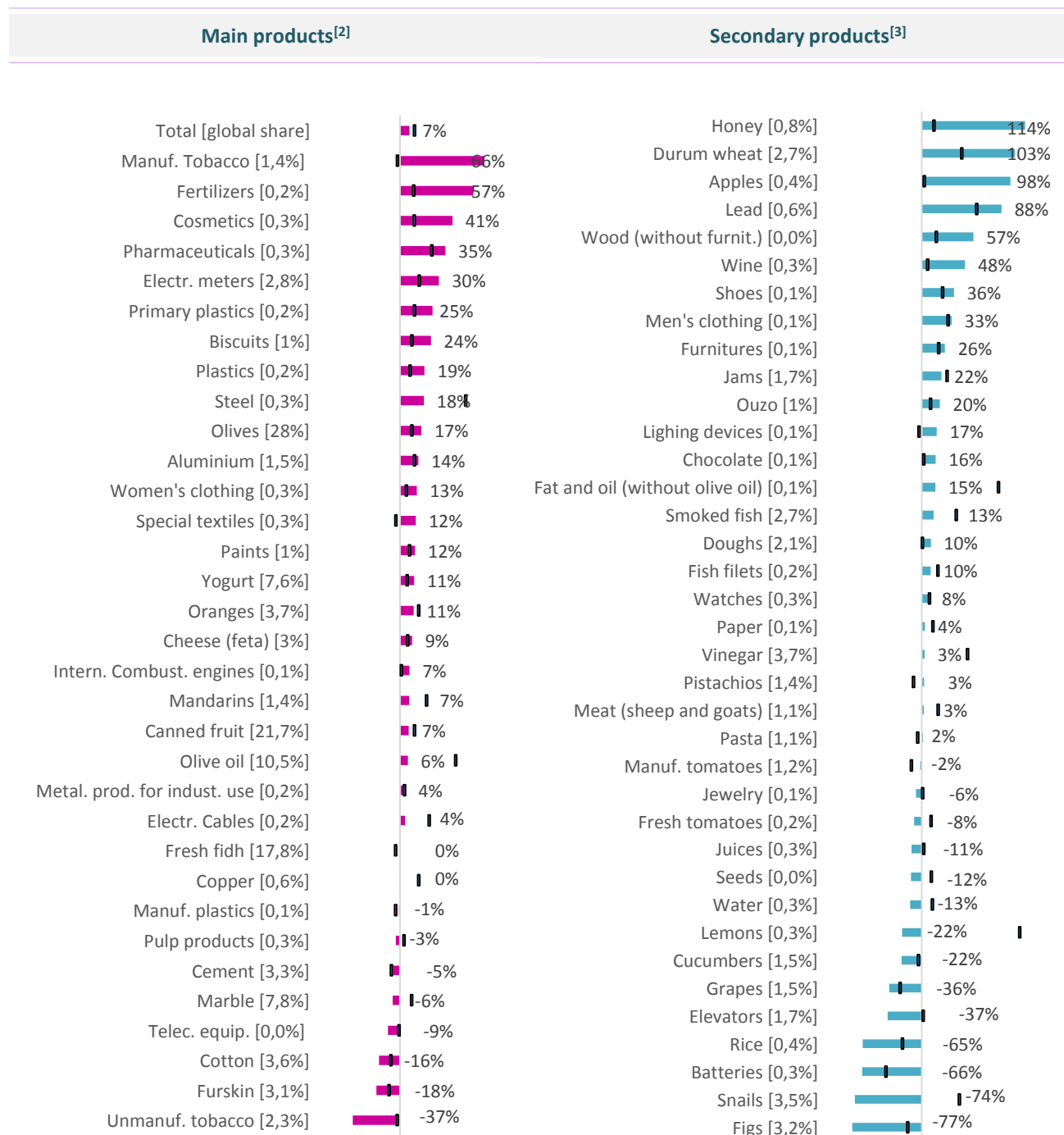
^[1] Annual growth rate, last available observation: December 2018
^[2] Exports as a percentage of total sales
^[3] Excluding petroleum products
^[4] Sectors of high (low) potential are sectors with export growth higher (lower) than the total average exports

MAIN EXPORT PRODUCTS

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The growth trend of Greek exports seems to be well rooted, as **the majority of products followed an upward course** both in the last quarter and over the last 12 months. The rebound of processed tobacco in the last months of 2018 (upon completion of the relevant investments in the sector) stands out positively, while olive oil and steel show the highest growth rate over a 12-month horizon (+ 43 per cent and + 51 per cent, respectively).



* The bars show the annual change in exports in the last quarter and the lines represent the respective annual change in exports over the last 12 months

^[1] Last observation: November 2018

^[2] Products with share in Greek exports over 0.5%

^[3] Products with share in Greek exports below 0.5%

Sources: Eurostat, Comtrade, NBG estimates

FOOD

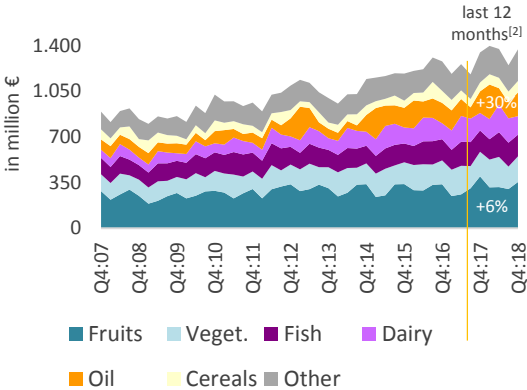
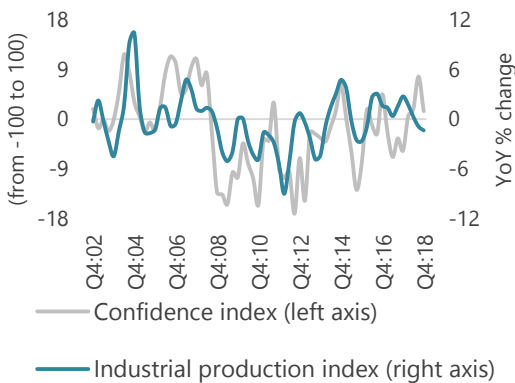
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in EXPORTS



The growth in exports (+8.5 per cent annually) doesn't seem to have been enough to give the industry significant momentum, with production growing by just 0.2 per cent annually in the past 12 months. Olive oil stands out (+30 per cent annually), while the Italian market is a particularly dynamic destination (+25 per cent annually). The downward trend in prices mainly reflects a correction in last year's highs for olive oil and, to a lesser extent, lower dairy prices.

Production ^[1]

Exports of main products

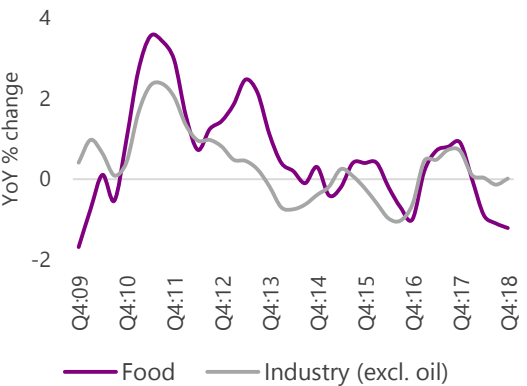
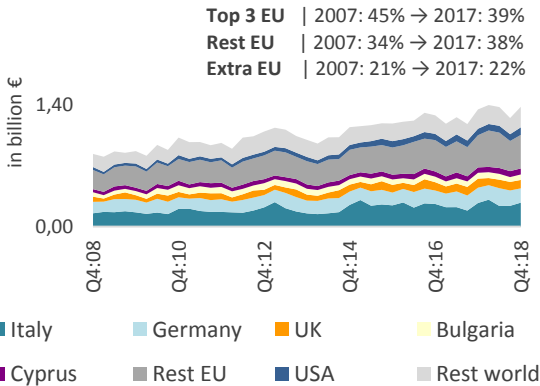


Sources: Eurostat, European Commission, NBG estimates

Source: Eurostat, NBG estimates

Main export markets

Producer price index



Source: Eurostat, NBG estimates

Source: Eurostat, NBG estimates

Key financial indicators ^[3]

Key macroeconomic indicators ^[3]

	Greece	Europe
ROA	5.8%	9.6%
EBITDA Margin	7.2%	6.9%
Asset turnover	0.8	1.4
Debt to equity ratio	1.4	1.4
Debt to EBITDA	6.1	2.9.
Receivables (%sales)	29%	14%
% change in fixed assets	3%	8%

		Greece	Europe
Contribution to GDP		2.8%	1.7%
Industrial production	12 months ^[2]	-0.2%	+0.5%
	3 months ^[2]	-0.4%	-0.1%
Producer price index	12 months ^[2]	-0.8%	+0.2%
	3 months ^[2]	-1.2%	-0.1%
Exports	12 months ^[2]	+8.5%	+0.2%
	3 months ^[2]	+1.8%	-0.8%

Sources: ICAP Database, BACH Database, NBG estimates

Sources: Eurostat, Hellenic Statistical Authority, NBG estimates

^[1] The Industrial Production Index is the moving average of 2 quarters, Confidence index 2018.Q4, last observation December 2018

^[2] Annual growth rate, last observation: December 2018 (EU exports, November 2018)

^[3] Reference years| Key financial indices 2016, GDP: 2017

BASIC METALS

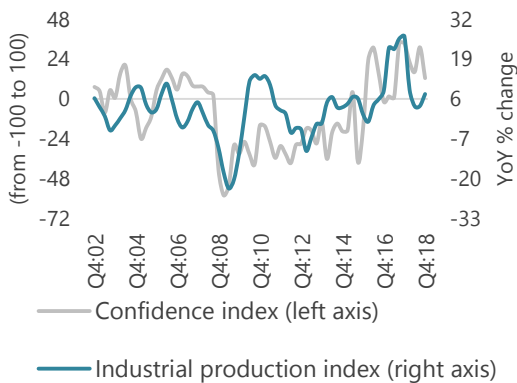
SHARE
in EXPORTS

15%

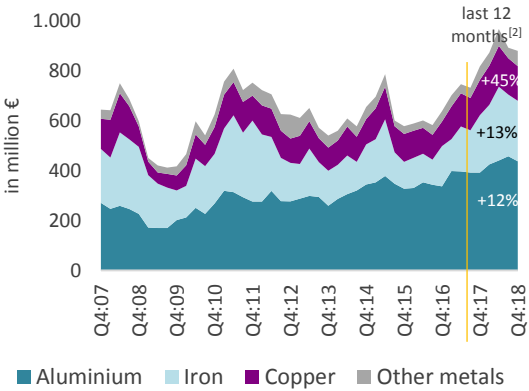
Despite the **gradual weakening of the upward momentum**, industrial production continued to grow (+5.3 per cent annually and +7.0 per cent q-o-q), assisted by exports, which have continued to grow at 21 per cent over the last 12 months – with **steel leading the way** +45 per cent annually).

Production ^[1]

Exports of main products



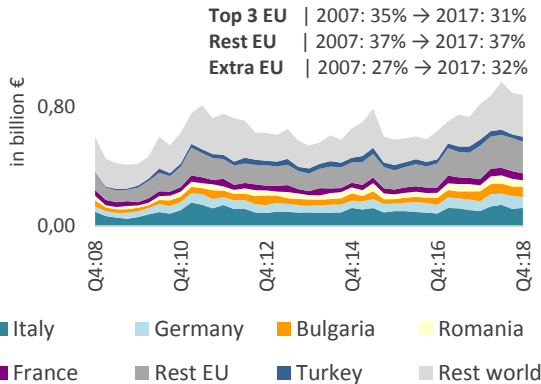
Sources: Eurostat, Comtrade, NBG estimates



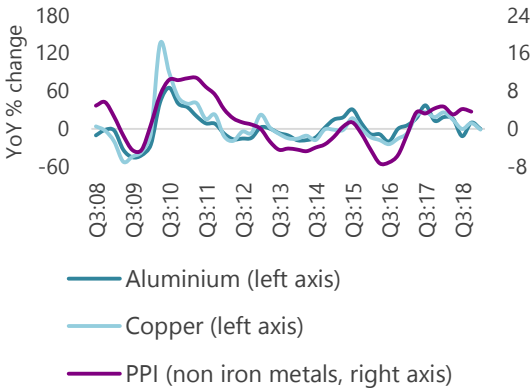
Source: Eurostat, NBG estimates

Main export markets

Producer price index ^[3]



Source: Eurostat, NBG estimates



Sources: Eurostat, Bloomberg, NBG estimates

Key financial indicators ^[4]

Key macroeconomic indicators ^[4]

	Greece	Europe		Greece	Europe
ROA	2.1%	7.0%	Contribution to GDP	1.3%	0.6%
EBITDA Margin	4.5%	6.0%	Industrial production	12 months ^[2]	+4.2%
Asset turnover	0.5	1.2		3 months ^[2]	+7.1%
Debt to equity ratio	1.7	1.7	Producer price index	12 months ^[2]	+3.4%
Debt to EBITDA	20.7	4.0		3 months ^[2]	+2.5%
Receivables (%sales)	26%	16%	Exports	12 months ^[2]	+20.5%
% change in fixed assets	-42%	13%		3 months ^[2]	+7.6%

Sources: ICAP Database, BACH Database, NBG estimates

Sources: Eurostat, Hellenic Statistical Authority, NBG estimates

^[1] The Industrial Production Index is the moving average of 2 quarters, Confidence index 2018.Q4, last observation December 2018

^[2] Annual growth rate, last observation: December 2018 (EU exports, November 2018)

^[3] The prices in metals are preceding by two quarters

^[4] Reference years | Key financial indices 2016, GDP: 2017

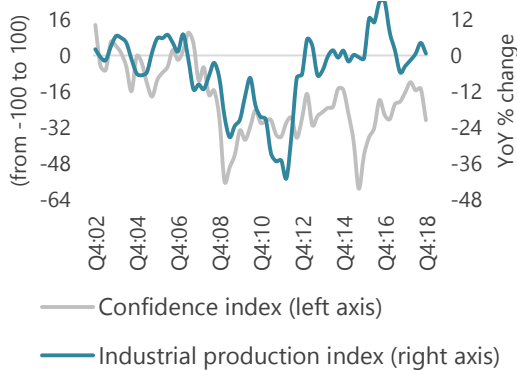
NON-METALLIC MINERALS

SHARE
in EXPORTS

4%

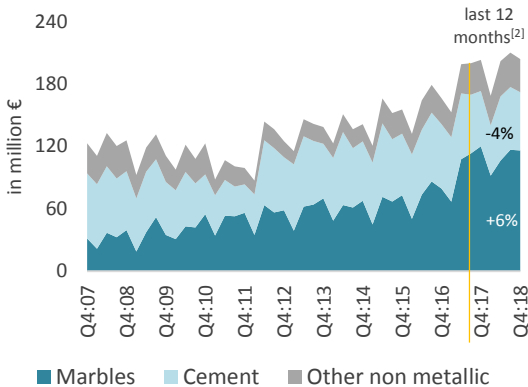
The industrial production index continued to grow for the sixth consecutive quarter (+0.7 per cent) driven by **robust export performance, especially for marble products** (+6 per cent annually). The Chinese market has proved to be particularly dynamic (+14 per cent annually in the past 12 months).

Production ^[1]



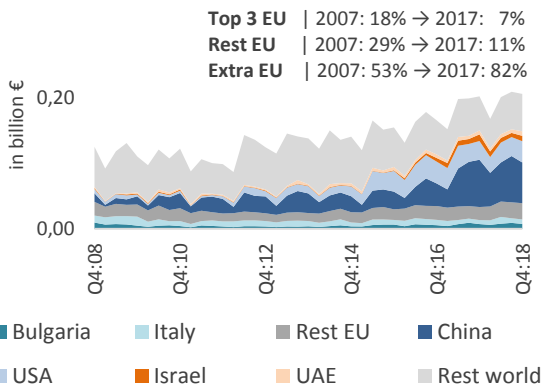
Sources: Eurostat, Comtrade, NBG estimates

Exports of main products



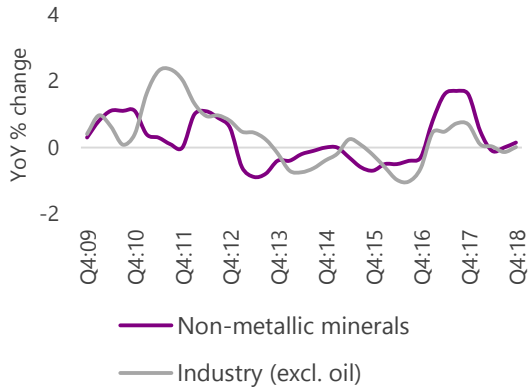
Source: Eurostat, NBG estimates

Main export markets



Source: Eurostat, NBG estimates

Producer price index



Source: Eurostat, NBG estimates

Key financial indicators ^[3]

	Greece	Europe
ROA	4.8%	7.1%
EBITDA Margin	11.8%	9.9%
Asset turnover	0.4	0.7
Debt to equity ratio	0.8	1.2
Debt to EBITDA	6.1	4.0
Receivables (%sales)	32%	22%
% change in fixed assets	-2%	4%

Sources: ICAP Database, BACH Database, NBG estimates

Key macroeconomic indicators ^[3]

		Greece	Europe
Contribution to GDP		0.6%	0.6%
Industrial production	12 months ^[2]	+1.2%	+2.0%
	3 months ^[2]	-0.1%	+1.3%
Producer price index	12 months ^[2]	+0.1%	+1.8%
	3 months ^[2]	+0.2%	+2.5%
Exports	12 months ^[2]	+4.0%	+1.8%
	3 months ^[2]	+0.4%	-0.3%

Sources: Eurostat, Hellenic Statistical Authority, NBG estimates

^[1] The Industrial Production Index is the moving average of 2 quarters, Confidence index 2018.Q4, last observation December 2018

^[2] Annual growth rate, last observation: December 2018 (EU exports, November 2018)

^[3] Reference years | Key financial indices 2016, GDP: 2017

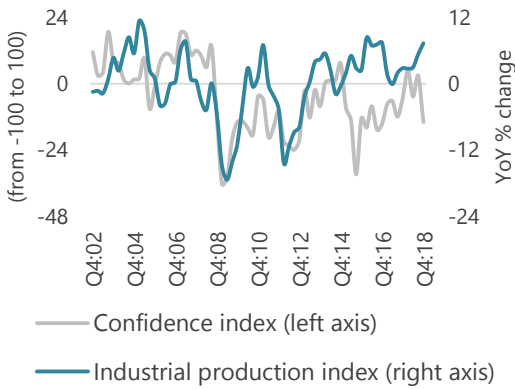
CHEMICALS

SHARE
in EXPORTS



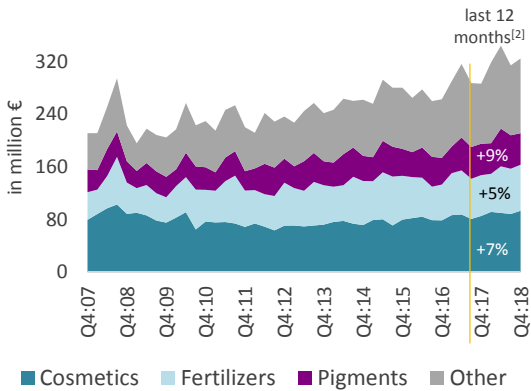
Robust export performance – with upward momentum (+10 per cent in the past 12 months and +13 per cent in the past quarter) has helped support efforts to revive the sector over the past 18 months, as reflected in the industrial production index (+4.7 per cent annually). The Italian market stands out positively (+20 per cent annually in the past 12 months).

Production ^[1]



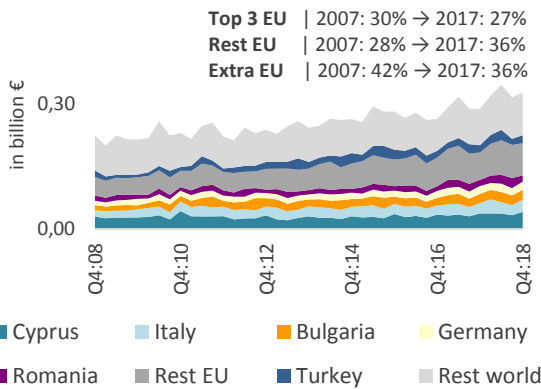
Sources: Eurostat, Comtrade, NBG estimates

Exports of main products



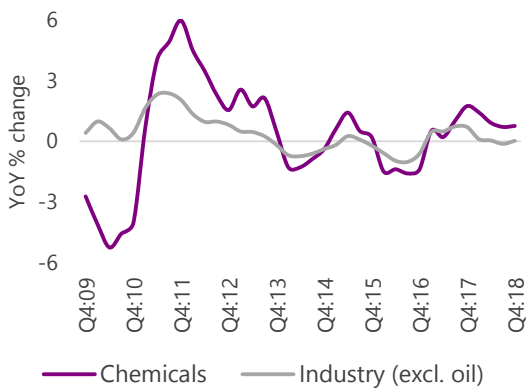
Source: Eurostat, NBG estimates

Main export markets



Source: Eurostat, NBG estimates

Producer price index



Source: Eurostat, NBG estimates

Key financial indicators ^[3]

	Greece	Europe
ROA	7.8%	10.2%
EBITDA Margin	10.2%	14.2%
Asset turnover	0.8	0.7
Debt to equity ratio	1.2	1.1
Debt to EBITDA	3.7	2.8
Receivables (%sales)	34%	16%
% change in fixed assets	-11%	7%

Sources: ICAP Database, BACH Database, NBG estimates

Key macroeconomic indicators ^[3]

		Greece	Europe
Contribution to GDP		0.7%	1.2%
Industrial production	12 months ^[2]	+4.7%	-0.3%
	3 months ^[2]	+4.8%	-3.6%
Producer price index	12 months ^[2]	+0.9%	+3.1%
	3 months ^[2]	+0.7%	+4.2%
Exports	12 months ^[2]	+10.3%	+7.5%
	3 months ^[2]	+13.4%	+7.4%

Sources: Eurostat, Hellenic Statistical Authority, NBG estimates

^[1] The Industrial Production Index is the moving average of 2 quarters, Confidence index 2018.Q4, last observation December 2018

^[2] Annual growth rate, last observation: December 2018 (EU exports, November 2018)

^[3] Reference years | Key financial indices 2016, GDP: 2017

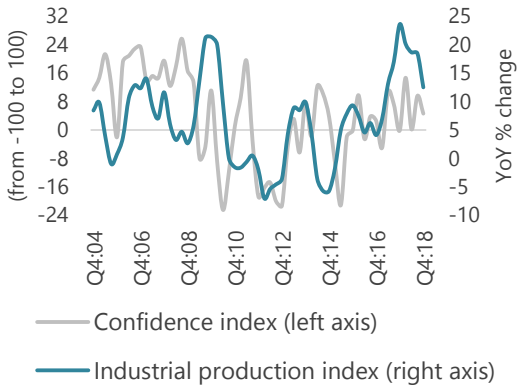
PHARMACEUTICALS

SHARE
in EXPORTS

6%

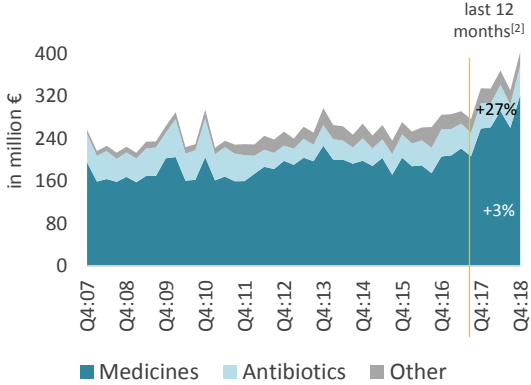
The pharmaceutical industry **continues to grow** (industrial production +17 per cent annually), **driven by exports** which grew by 21 per cent annually and gaining pace (+20 per cent in the last quarter). However, there is still downward pressure on prices (-3.8 per cent annually in the past 12 months).

Production ^[1]



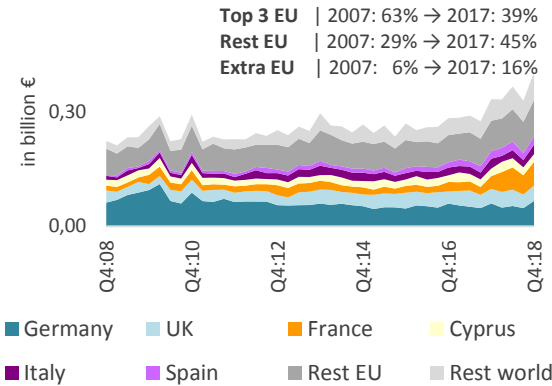
Sources: Eurostat, Comtrade, NBG estimates

Exports of main products



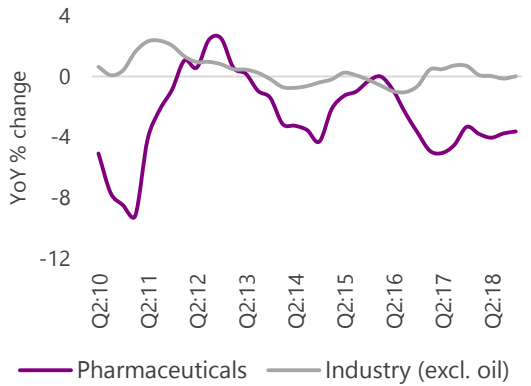
Source: Eurostat, NBG estimates

Main export markets



Source: Eurostat, NBG estimates

Producer price index



Source: Eurostat, NBG estimates

Key financial indicators ^[3]

	Greece	Europe
ROA	6.8%	11.2%
EBITDA Margin	7.9%	19.5%
Asset turnover	0.9	0.6
Debt to equity ratio	1.6	0.9
Debt to EBITDA	3.6	2.3
Receivables (%sales)	30%	18%
% change in fixed assets	-13%	12%

Sources: ICAP Database, BACH Database, NBG estimates

Key macroeconomic indicators ^[3]

		Greece	Europe
Contribution to GDP		0.3%	0.8%
Industrial production	12 months ^[2]	+16.8%	+4.9%
	3 months ^[2]	+17.4%	+3.9%
Producer price index	12 months ^[2]	-3.8%	-2.6%
	3 months ^[2]	-3.6%	-3.3%
Exports	12 months ^[2]	+20.8%	+8.4%
	3 months ^[2]	+20.4%	+12.3%

Sources: Eurostat, Hellenic Statistical Authority, NBG estimates

^[1] The Industrial Production Index is the moving average of 2 quarters, Confidence index 2018.Q4, last observation December 2018

^[2] Annual growth rate, last observation: December 2018 (EU exports, November 2018)

^[3] Reference years| Key financial indices 2016, GDP: 2017

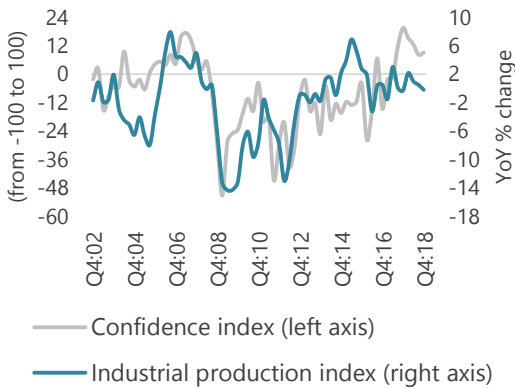
PLASTICS

SHARE
in EXPORTS



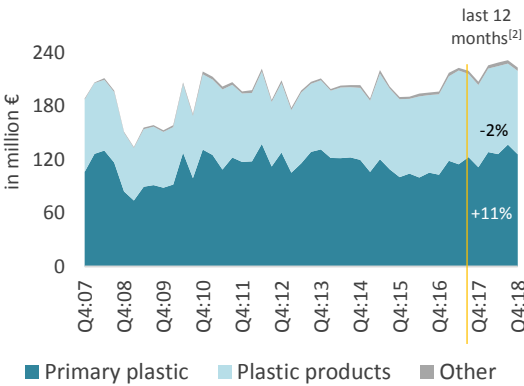
The sector has continued its **positive performance** (+1.2 per cent in the past 12 months) despite the decline in the confidence index, on the back of export growth, which proved to be particularly robust in the last quarter (+8 per cent), led by the Bulgarian market (+18 per cent annually and +24 per cent in the last quarter).

Production ^[1]



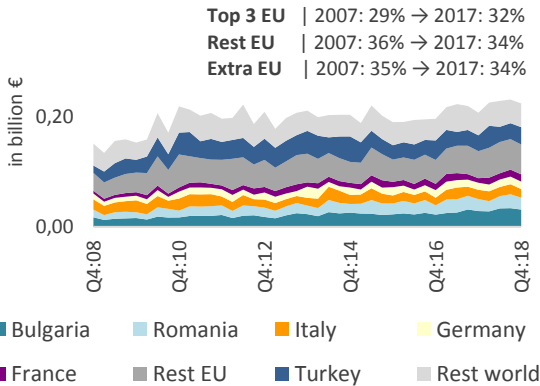
Sources: Eurostat, Comtrade, NBG estimates

Exports of main products



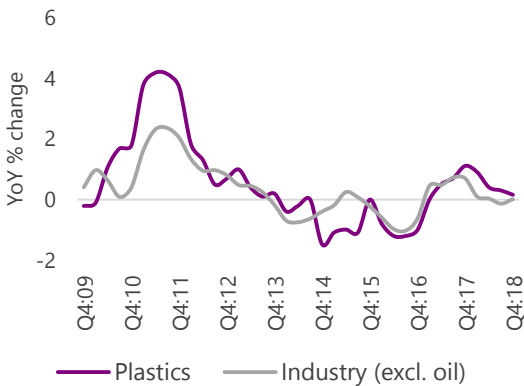
Source: Eurostat, NBG estimates

Main export markets



Source: Eurostat, NBG estimates

Producer price index



Source: Eurostat, NBG estimates

Key financial indicators ^[3]

	Greece	Europe
ROA	6.6%	12.0%
EBITDA Margin	10.7%	10.1%
Asset turnover	0.6	1.2
Debt to equity ratio	1.0	1.3
Debt to EBITDA	4.8	2.2
Receivables (%sales)	35%	18%
% change in fixed assets	20%	6%

Sources: ICAP Database, BACH Database, NBG estimates

Key macroeconomic indicators ^[3]

		Greece	Europe
Contribution to GDP		0.2%	0.8%
Industrial production	12 months ^[2]	+1.2%	+1.2%
	3 months ^[2]	+1.9%	-1.4%
Producer price index	12 months ^[2]	+0.5%	+1.2%
	3 months ^[2]	+0.2%	+1.4%
Exports	12 months ^[2]	+4.9%	+3.2%
	3 months ^[2]	+7.7%	+1.3%

Sources: Eurostat, Hellenic Statistical Authority, NBG estimates

^[1] The Industrial Production Index is the moving average of 2 quarters, Confidence index 2018.Q4, last observation December 2018

^[2] Annual growth rate, last observation: December 2018 (EU exports, November 2018)

^[3] Reference years| Key financial indices 2016, GDP: 2017

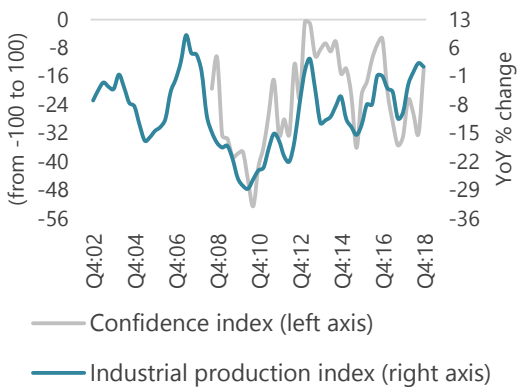
CLOTHING-FOOTWEAR

SHARE
in EXPORTS

5%

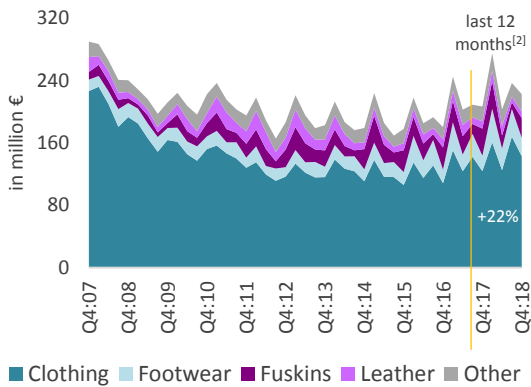
Ongoing upward momentum in **exports** (+7% annually and +5% in the last quarter) has contributed to the gradual recovery of the sector since hitting very low levels in 2010, with the industrial production index achieving a 5-year high in 2018.H2. The Italian market appears to be particularly dynamic (+34% annually).

Production ^[1]



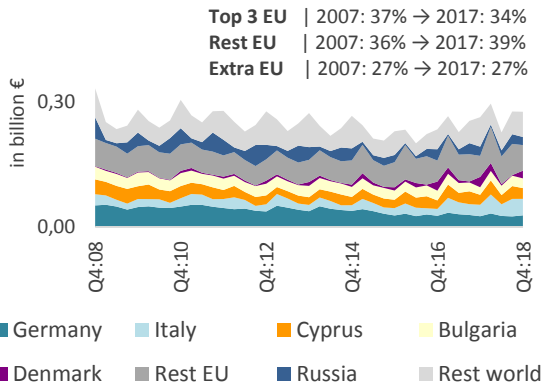
Sources: Eurostat, Comtrade, NBG estimates

Exports of main products



Source: Eurostat, NBG estimates

Main export markets



Source: Eurostat, NBG estimates

Producer price index



Source: Eurostat, NBG estimates

Key financial indicators ^[3]

	Greece	Europe
ROA	3.3%	9.7%
EBITDA Margin	6.3%	8.4%
Asset turnover	0.5	1.2
Debt to equity ratio	1.5	1.7
Debt to EBITDA	9.2	2.4
Receivables (%sales)	64%	23%
% change in fixed assets	4%	5%

Sources: ICAP Database, BACH Database, NBG estimates

Key macroeconomic indicators ^[3]

		Greece	Europe
Contribution to GDP		0.2%	0.3%
Industrial production	12 months ^[2]	+0.8%	+0.2%
	3 months ^[2]	-0.2%	-0.9%
Producer price index	12 months ^[2]	-0.5%	+0.6%
	3 months ^[2]	-0.6%	+0.8%
Exports	12 months ^[2]	+6.5%	+4.2%
	3 months ^[2]	+5.0%	+3.5%

Sources: Eurostat, Hellenic Statistical Authority, NBG estimates

^[1] The Industrial Production Index is the moving average of 2 quarters, Confidence index 2018.Q4, last observation December 2018

^[2] Annual growth rate, last observation: December 2018 (EU exports, November 2018)

^[3] Reference years| Key financial indices 2016, GDP: 2017

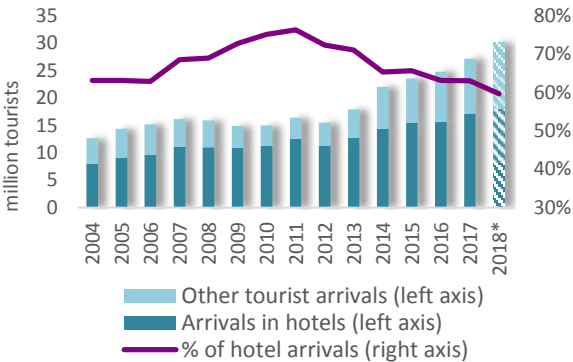
HOTELS

SHARE in EU
BOOKINGS



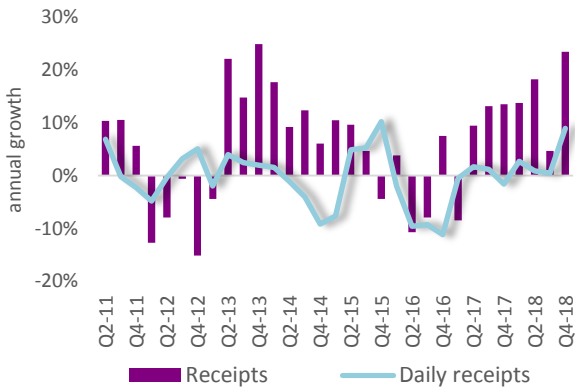
Greek tourism is heading for **record levels**, with **tourism receipts increasing by 10.8 per cent annually**^[1], although momentum slowed in Q3 (+5.6 per cent annually vs +20 per cent in Q2 and Q4) reflecting the downward trend in seasonality. Sources of anticipated pressure are the slowdown in the European market and growing competition from Turkey and Egypt.

Tourist arrivals



** estimates based on November 2018*
Sources: Bank of Greece, Eurostat, NBG Estimates

Tourist receipts (annual growth)



Source: Bank of Greece, Eurostat, NBG Estimates

High season: May-September

Country of Origin	Receipts ^[2]		Arrivals	Receipts/ arrival
	€ billion	% change ^[1]	% change ^[1]	% change ^[1]
Germany	2.4	18%	24%	-5%
United Kingdom	1.7	-7%	-1%	-6%
France	0.8	-8%	5%	-12%
USA	0.7	16%	22%	-5%
Russia	0.3	-21%	-15%	-7%
Other EU	4.5	27%	21%	5%
Other non-EU	2.8	1%	-5%	7%
Greece total	13.2	9.8%	10.1%	-0.3%

Sources: Bank of Greece, Eurostat, NBG Estimates

Main competitors

Country of Destination	Receipts ^[2]		Nights	Receipts/ night
	€ billion 2017	12m ^[1]	12m ^[1]	12m ^[1]
Spain	60	3%	-1%	4%
Italy	39	7%	3%	4%
Turkey	20	11%	22%	-11%
Portugal	15	13%	-2%	15%
Croatia	10	7%	3%	4%
Competitors' Average	29	8%	5%	3%
Greece	15	11%	10%	1%

Source: Bank of Greece, Eurostat, Turkish Ministry of Tourism, NBG Estimates

Key financial indicators

	Greece	Europe
ROA	5.3%	7.0%
EBITDA Margin	26.3%	16.4%
Asset turnover	0.2	0.4
Debt to equity ratio	1.0	1.6
Debt to EBITDA	8.4	6.0
Receivables (%sales)	18%	8%
% change in fixed assets	-1%	-5%

Sources: ICAP Database, BACH Database, NBG estimates

Key macroeconomic indicators

		Greece	Competitors*
Contribution to GDP ^[3]		2.8%	1.6%
Occupancy rate	12 months ^[1]	8.0%	2.7%
	3 months ^[1]	-0.7%	2.2%
Arrivals at hotels	12 months ^[1]	5.3%	1.7%
	3 months ^[1]	3.2%	1.0%
Length of stay in hotels	12 months ^[1]	-3.8%	-0.7%
	3 months ^[1]	-2.9%	-1.3%

** Spain, Italy, Turkey, Portugal, Croatia*

Source: Eurostat, Hellenic Statistical Authority, NBG estimates

^[1] Annual growth rate (Last observation: Earnings, Arrivals: November 2018, Arrivals, Bookings, Occupancy: October 2018)

^[2] Earnings from foreign tourists (excl. cruise).

^[3] GDP: 2017.

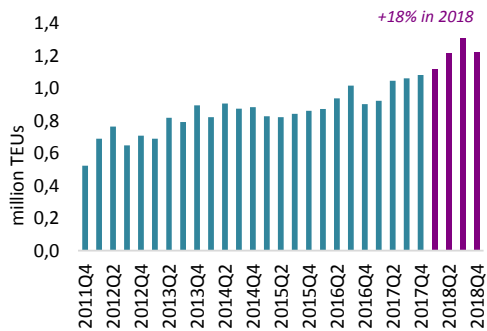
TRANSPORT

SHARE in
EU MARITIME
TRANSPORT

4,3%

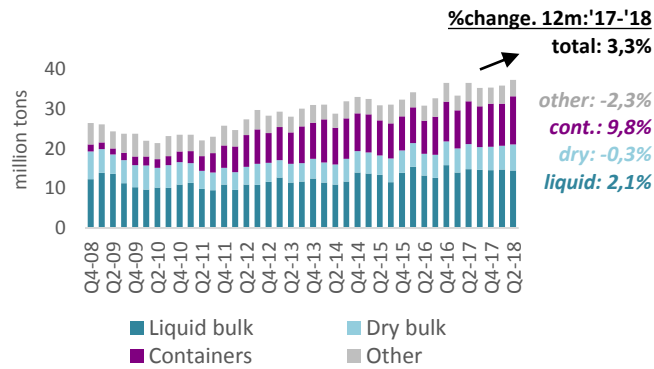
Over the last 12 months, the **freight transport** posted growth^[1], with road haulage up 6.5 per cent annually, and maritime transport up 3.3 per cent annually, mainly driven by containers (+9.8 per cent). With regard to passenger transport, **Greek airports** continue to benefit from international arrivals (+12.2 per cent annually^[2] vs 4.9 per cent in domestic air passenger traffic).

Container transport in Piraeus



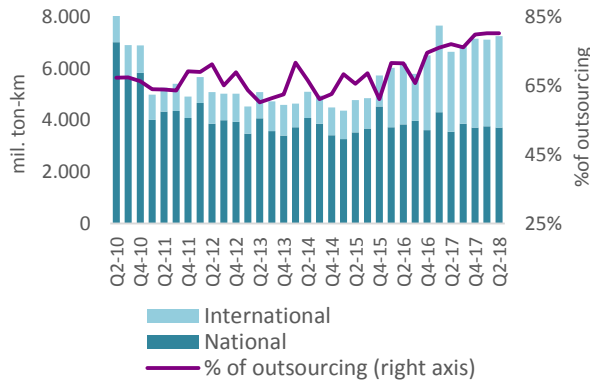
Source: Eurostat, NBG estimates

Maritime freight transport



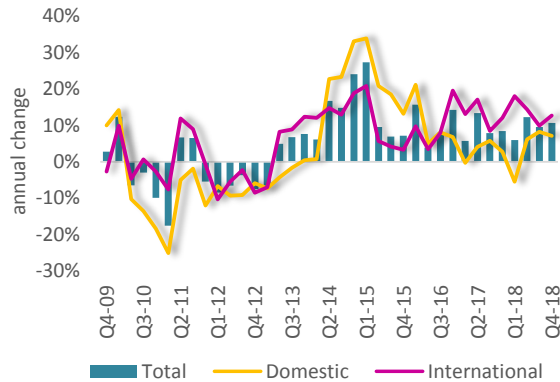
Source: Eurostat, Hellenic Statistical Authority, NBG estimates

Road freight transport



Source: Eurostat, NBG estimates

Air passenger transport



Source: Civil Aviation Authority, NBG Estimates

Key financial indicators

In 2016	Greece	Europe
ROA	6.7%	8.2%
EBITDA Margin	11.7%	12.8%
Asset turnover	0.6	0.6
Debt to equity ratio	1.2	1.8
Debt to EBITDA	4.8	4.4
Receivables (%sales)	25%	18%
% change in fixed assets	-8%	15%

Sources: ICAP Database, BACH Database, NBG estimates

^[1] Annual growth rate (last observation: June 2018)

^[2] Annual growth rate (last observation: Air passenger transport: December 2018)

^[3] Annual growth rate (last observation: Maritime, road transport: June 2018, Employment: September 2018)

Key macroeconomic indicators^[3]

	Greece		Europe	
Contribution to GDP	6.2%		4.5%	
	3m	12m	3m	12m
Employment	-4.0%	-1.4%	2.2%	2.7%
Freight transport				
Road	9.0%	6.5%	5.1%	4.5%
Maritime (containers)	12.5%	9.8%	8.9%	6.0%
Maritime (other)	-2.2%	0.7%	0.9%	1.9%

Source: Eurostat, NBG estimates

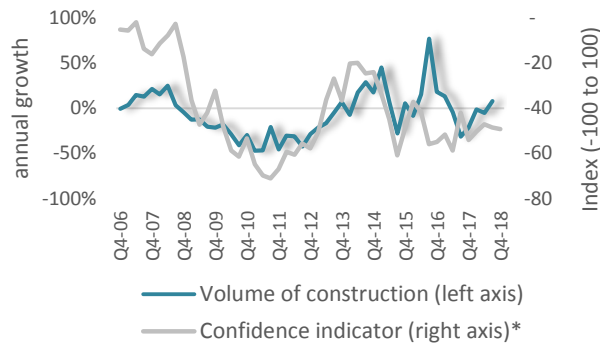
CONSTRUCTION

SHARE
in GDP



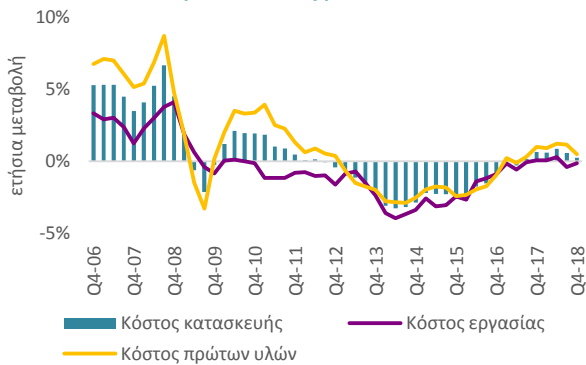
Construction activity pursued a **growth path** in the last quarter^[1] due to the recovery in **residential building** (+12.3 per cent annually in the last quarter and +10.8 per cent annually over the last 12 months), while the pressure on **infrastructure construction** has eased (+4 per cent annually in the last quarter and -19.3 per cent annually over the last 12 months).

Construction activity



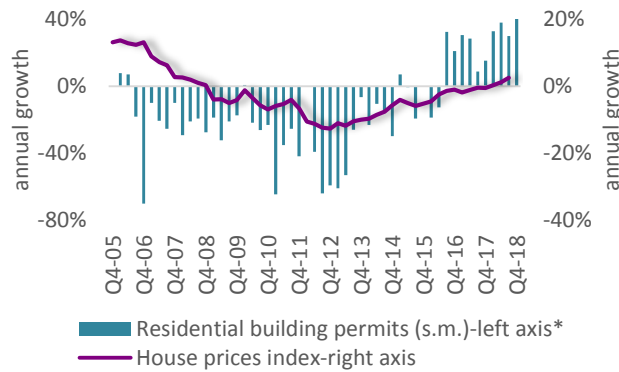
Sources: Eurostat, European Commission, NBG estimates

Construction costs of new residential buimdings



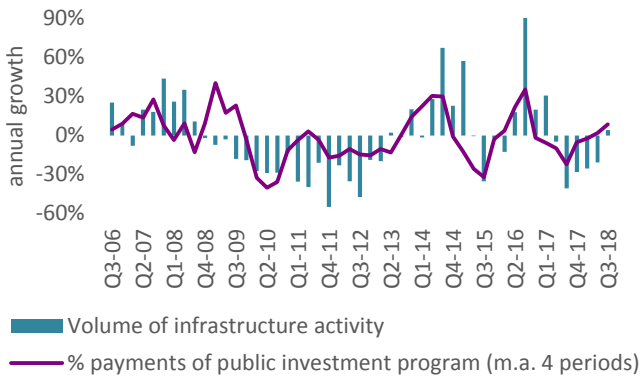
Sources: Eurostat, Bank of Greece, NBG estimates

Residential construction



Sources: Eurostat, Hellenic Statistical Authority, Bank of Greece, NBG estimates

Infrastructure



Sources: Eurostat, Hellenic Statistical Authority, Bank of Greece, NBG estimates

Key financial indicators

In 2016	Greece	Europe
ROA	4.0%	5.5%
EBITDA Margin	9.3%	8.2%
Asset turnover	0.4	0.7
Debt to equity ratio	1.0	2.5
Debt to EBITDA	7.8	5.5
Receivables (%sales)	43%	28%
% change in fixed assets	7%	4%

Sources: ICAP Database, BACH Database, NBG estimates

^[1] Annual growth rate (last observation: Activity volume, Employment: Sep. 2018, Building permits: Nov 2018, Cost of construction: Dec 2018).
^[2] Annual growth rate (last observation: Dec. 2018).

Key macroeconomic indicators^[1]

	Greece		Europe	
Contribution to GDP	2.5%		5.3%	
	3m	12m	3m	12m
Employment	-3.2%	0.4%	1.1%	1.8%
Activity volume	8.0%	-6.1%	3.3%	3.0%
Buildings	12.3%	10.8%	2.5%	2.8%
Infrastructure	4.0%	-19.3%	5.7%	3.8%
Building permits (sq.m.)	37.7%	29.1%	3.3%	7.6%
Cost of construction	0.2%	0.6%	3.1%	2.9%

Sources: Eurostat, Bank of Greece, NBG estimates

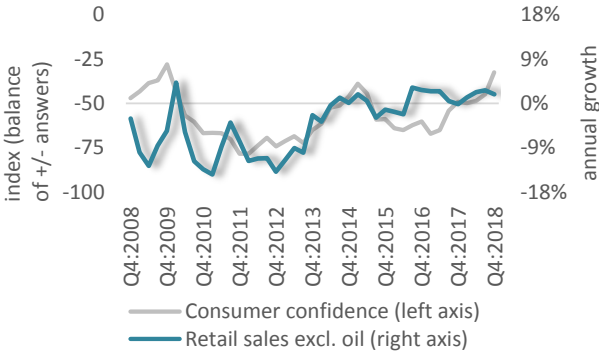
RETAIL TRADE

SHARE
in GDP



Driven by **stronger consumer confidence**, **retail sales volume rose** by 1.9 per cent annually over the last 12 months^[1]. **Supermarkets (+3.3 per cent annually) continue to gain market share**, while other food and department stores posted a decline. Prices posted a marginal increase of 0.7 per cent over the last 12 months^[2], mainly in beverages and pharmaceuticals.

Retail sales and consumer confidence



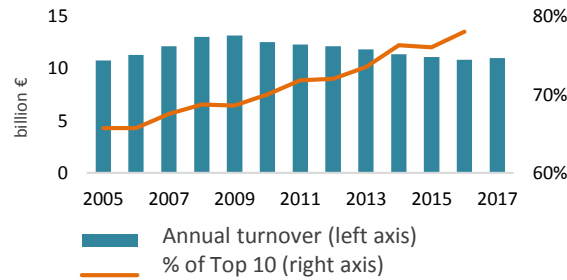
Source: Eurostat, NBG estimates

Retail sales index (volume)^[1]

	2017 weighting	3m	12m
Retail trade	35%	1.5%	1.9%
Supermarkets	44%	2.7%	3.3%
Department stores	6%	-5.8%	-0.2%
Specialized stores			
Food	4%	0.5%	-3.3%
Clothing	8%	1.4%	1.1%
Pharmaceuticals– Cosmetics	9%	-2.0%	2.0%
Electronic equipment	3%	3.7%	6.0%
Household appliances	6%	3.7%	6.0%

Source: Eurostat, NBG estimates

Greek supermarkets



Source: Eurostat, NBG estimates

Consumer price index ^[1]

	2018 weighting	3m	12m
Total goods	71%	0.2%	0.7%
Food	36%	1.9%	0.5%
Beverages (alc)	10%	1.2%	2.4%
Personal effects	1%	-2.2%	-1.2%
Clothing	7%	-0.1%	-0.7%
Pharmaceuticals	3%	2.2%	1.8%
Entertainment	7%	-0.5%	-1.0%
Household appliances	6%	-1.9%	-1.6%

Source: Eurostat, NBG estimates

Key financial indicators

In 2016	Greece	Europe
ROA	2.6%	8.3%
EBITDA Margin	2.9%	4.5%
Asset turnover	0.9	1.9
Debt to equity ratio	1.7	1.9
Debt to EBITDA	9.3	3.2
Receivables (%sales)	10%	5%
% change in fixed assets	20%	5%

Sources: ICAP Database, BACH Database, NBG estimates

Structure of retail trade value added

	Greece			Europe
	2000	2008	2017	2017
Contribution to GDP	7.8%	3.6%	3.1%	4%
Supermarkets	22%	25%	44%	31%
Household appliances	25%	21%	6%	12%
Entertainment- Technol.	7%	7%	12%	7%
Clothing	16%	12%	8%	10%
Food	10%	10%	4%	6%
Medicines – Cosmetics	7%	6%	9%	8%
Internet	0%	0.2%	16%	4%

Source: Eurostat, NBG estimates

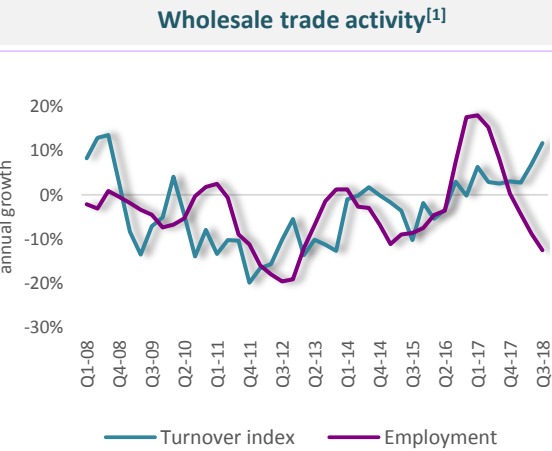
^[1] Annual growth rate, last available observation: Retail sales volume: November 2018, CPI: January 2019)

WHOLESALE TRADE & MOTOR VEHICLE TRADE

SHARE
in GDP

6,0%

Wholesale trade pursued a growth path over the last 12 months, with sales rising by 6.1 per cent^[1] (+12 per cent in Q3), while employment followed a corrective course after the sharp increase in 2017. **New car registrations continued to grow** in Q4, with 2018 closing with a total increase of 26 per cent.

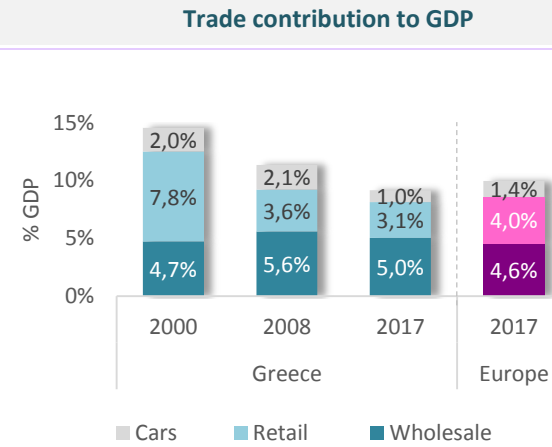


Source: Eurostat, NBG estimates

Structure of wholesale trade value added

	Greece			EU
	2000	2008	2017	2017
% GDP	4.7%	5.6%	5.0%	4.6%
Food	27%	24%	28%	20%
Household appliances	30%	21%	16%	16%
Pharmaceuticals	20%	15%	19%	13%
Machinery	8%	9%	11%	16%
Electronic equipment	6%	5%	6%	9%
Other	9%	25%	21%	25%

**excl. fuel and agents*

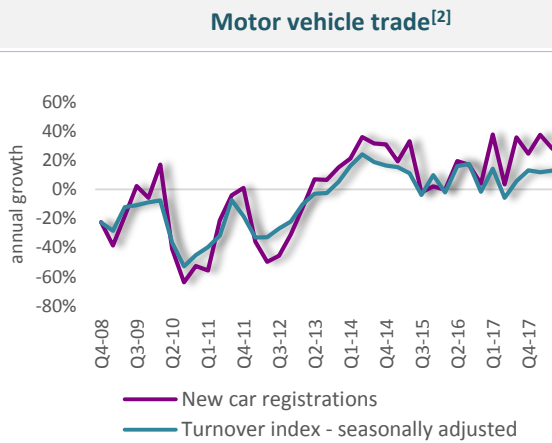


Source: Eurostat, NBG estimates

Key financial indicators (wholesale)

In 2016	Greece	Europe
ROA	5.2%	7.9%
EBITDA Margin	5.5%	4.7%
Asset turnover	0.9	1.7
Debt to equity ratio	1.5	1.6
Debt to EBITDA	5.1	2.8
Receivables (%sales)	31%	17%
% change in fixed assets	13%	4%

Sources: ICAP Database, BACH Database, NBG estimates



Source: Bank of Greece, ELSTAT, NBG estimates

Key financial indicators (motor vehicle)

In 2016	Greece	Europe
ROA	1.2%	6.2%
EBITDA Margin	1.4%	3.1%
Asset turnover	0.8	2.0
Debt to equity ratio	3.5	2.4
Debt to EBITDA	39.0	4.4
Receivables (%sales)	22%	9%
% change in fixed assets	12%	3%

Sources: ICAP Database, BACH Database, NBG estimates

^[1] Annual growth rate, last available observation: wholesale trade activity: Sept. 2018, Car registrations: Dec. 2018)

February 2019



**NATIONAL BANK
OF GREECE**

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