

NATIONAL BANK OF GREECE Economic Analysis Department

> Survey of Greek SMEs Special focus:

Food industry

Jessie Voumvaki Head of Entrepreneurship & Business Analysis (+30210) 334 1549 e-mail: <u>fvoumv@nbg.gr</u>

Athanasia Koutouzou (+30210) 334 1528 e-mail: <u>koutouzou.ath@nbg.gr</u>

Georgios Sakkas (+30210) 334 1547 e-mail: <u>sakkas.georgios@nbg.gr</u>

Niki Konstantopoulou (+30210) 334 1646 e-mail: <u>konstantopoulou.niki@nbg.gr</u>

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In brief (1/2)

- The food & beverage industry proved to be resilient during the crisis. With its turnover stable close to €15 billion, the industry's contribution to the total business sector sales increased to 7 per cent in 2017 from 5 per cent in 2008. The main supporting factor was exports, which with an increase of 45 per cent helped offset the impact of slightly lower domestic consumption (-11 per cent over the last decade). Despite the robust sales, the ROA level of 5.4 per cent (vs an average of 9.6 per cent in the EU) is not sufficient to fully meet the obligations arising from borrowing (with the debt/equity ratio at 1.7 vs an average of 1.2 in the EU).
- Even though the share of food SMES in total sales in the sector declined to 32 per cent in 2017 from 41 per cent in 2008 (mainly due to the closure of enterprises), the NBG field survey on a sample of 200 food SMEs indicates that food SMEs that survived the crisis managed to increase their sales by about 10 per cent over the last decade (corresponding to the sales pattern of larger enterprises).
- In particular, SMEs that have survived the crisis appear to have been able to capitalize to some extent on the upward trend in the global food trade (which has grown by 80 per cent over the last decade). The undoubtedly positive rise in exports by Greek food SMEs by 30 per cent over the past decade has not been enough, however, to maintain their share in the (expanded) international markets (which has declined to 0.12 per cent in 2017 from 0.16 per cent in 2008). Specifically, only 11 per cent of small businesses and 27 per cent of medium-sized enterprises stated they had gained market shares abroad over the last decade.
- At this point, it is important to note that other Greek food exporters have managed to keep their international market shares steady (at 0.36 per cent) – indicating that Greek food is inherently competitive in the international marketplace.

- In light of the above, it is important to give strategic emphasis to the issues that need improvement so as to identify clearly the inherent comparative advantages of Greek products. Specifically, improvement measures should initially be carried out in those sectors where the majority of businesses are export-oriented:
 - Olive oil is the product of the Greek food sector with the strongest competitive advantage, and accordingly presents the biggest opportunity for generating additional value added. The changes needed to upgrade the segment focus mainly on the need to reduce exports in bulk form (in other words, to promote branded products). However, it should be noted that strong competitiveness already ensures healthy profitability, meaning that companies have little appetite to invest in further improvements.
 - On the other hand, wine & dairy are two segments that are receptive to change and mature enough for restructuring. Since they have already adopted best practices at the level of individual businesses (focusing on quality and targeting developed markets), emphasis should now be on correcting shortcomings at the level of sector's overall strategy. In wine, consolidation is a key prerequisite so as to achieve economies of scale, while in dairy, partnerships could help to upgrade the distribution network.
 - In fruit & vegetables, the changes required are more wide-ranging. Besides a radical realignment in product strategy, significant investments are needed to improve production technology (mainly in order to reduce seasonality) and expand the distribution network (with a focus on Western European markets). Emphasis should be placed on effective promotion of fresh products (along Italian and Spanish standards), which offer the potential for higher value added than preserved foods (e.g. canned fruit). The endeavour to carry through restructuring of the sector, although ambitious, can likely gain momentum thanks to (i) the notable willingness of businesses to collaborate, as well as (ii) the strong international demand for the product.
 - □ Accordingly, on the back of the successful effort of food SMEs to increase extroversion in the midst of crisis (exports have actually risen by $\notin 0.3$ billion in the last decade), now is the right time to develop healthy structures and well designed strategies so as to fully exploit the competitive advantage of Greek food products. A recovery in the share of Greek food SMEs in the global market could increase Greek exports by $\notin 0.5$ billion annually.

Food & beverage industry– focus on SMEs

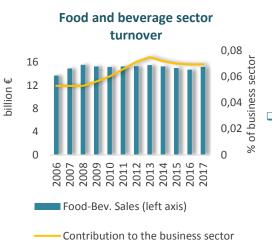
Outlook & challenges by product

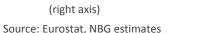
- Value added
- Exports
- Business performance
- The importance of branding

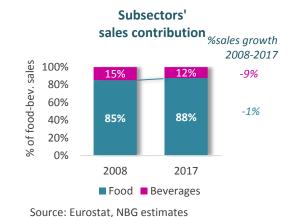
- Olive oil
- Wine
- Dairy
- Fruit & vegetables

Annex

- Mapping the SME segment in Greece
- Sample description
- Constructing the business confidence index for SMEs
- Survey ID

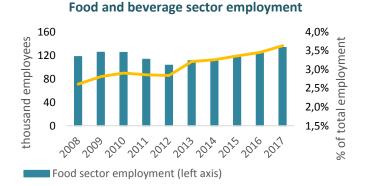






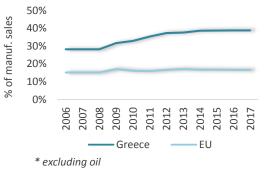
Meanwhile, the relative position of the food sector in total manufacturing has improved, accounting for almost 40 per cent of manufacturing turnover (excluding oil) in 2017 vs 28 per cent in 2008 (and vs 17 per cent on average in the EU), as the constraining impact of the crisis was less intense:

- Domestic demand for food products contracted less than overall domestic consumption (-11 per cent vs -22 per cent in 2008-2017).
- The share of food products in global markets posted a decline of circa 16 per cent during 2009-2017 (from 0.6 to 0.5 per cent) vs a decline of circa 24 per cent in other goods (from 0.2 to 0.1 per cent), enabling food products to better leverage the upward trend in the global market (+80 per cent in during 2009-2017). As a result, Greek food exports grew by 45 per cent in the past decade (vs 37 per cent for exports overall).



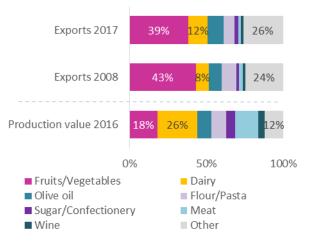
% contribution of the sector to total employment (right axis) Source: Eurostat, NBG estimates



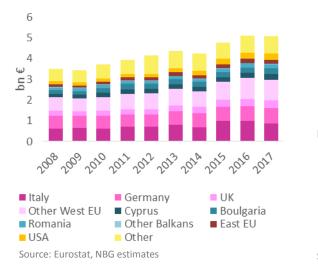


Despite the adverse economic environment, the domestic food & beverage industry managed to keep its turnover close to €15 billion during 2008-2017 (with a small drop in the contribution of beverages to 12 per cent in 2017 vs 15 per cent in 2008). Accordingly, the sector's share in total business sector sales rose to 7 per cent in 2017 from 5 per cent in 2008. The resilience of the sector is also reflected in its employment figures, which (following a small decline during 2011-2015) returned to pre-crisis levels (circa 130,000 workers) – thereby increasing the sector's share in overall employment to 3.6 per cent in 2017 (vs 2.6 per cent in 2008).

Exports and production value per good



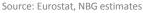
Source: Eurostat, NBG estimates

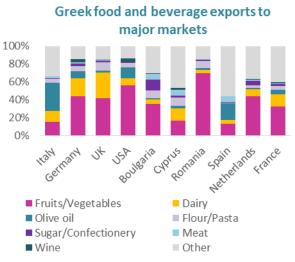


Greek food and beverage exports

- The most important Greek food export product is fruit & vegetables, covering almost 40 per cent of food exports (vs 18 per cent in terms of production). However, the highest increase in exports over the last decade was achieved by dairy (accounting for 12 per cent of food exports over the past two years, vs 8 per cent in the period) and olive oil (accounting for 10 per cent of food exports over the past two years, vs 8 per cent pre-crisis).
- With regard to the destination countries, Western Europe holds the leading position absorbing 60 per cent of Greek food exports (vs circa 40 per cent for other Greek exports) 3/4 of which go to Italy, Germany and the UK.
- Specifically, Italy imports mainly Greek olive oil (32 per cent of Greek food exports to the country), Germany imports mainly fruit and vegetables (44 per cent of Greek food exports to the country), and the UK imports mainly fruit & vegetables and dairy (42 per cent and 29 per cent, respectively, of Greek food exports to the country).







*71 per cent of Greek exports in 2017 Source: Eurostat, NBG estimates

Greek food products as a whole have lost market share in the international markets (mainly the fruits), though certain products have stood out for positive performance: olive oil, olives, yoghurt, and pistachios

Market share of greek food and beverage to the world



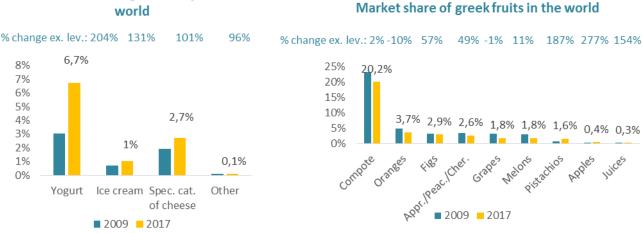
Source: Eurostat, Comtrade, NBG estimates

Market share of greek dairy in the

Despite the growth in the level food exports during the crisis, the Greek market share dropped marginally both in Europe (to 1 per cent in 2017 vs 1.2 per cent in 2009) and worldwide (by 16 per cent to 0.5 per cent in 2017 vs 0.6 per cent in 2009). The biggest loss in market share was posted by fruit and vegetables, with Greece accounting for just 1 per cent of world exports in 2017 vs 1.4 per cent in 2009. Specifically, international competition is strong in fruit where Greece presents relatively high market shares (e.g. oranges, peaches/apricots, grapes and melons), as it is under pressure by some emerging Latin American and South African countries.

□ However, certain products stood out achieving to raise international market shares during the crisis:

- ✓ Greek olive oil covered 7.9 per cent of the global market in 2017 vs 7 per cent in 2009.
- ✓ Greek yoghurt provided 6.7 per cent of the global market in 2017 vs 3 per cent in 2009, while feta cheese led the Greek share in special cheese types to 2.7 per cent in 2017 vs 1.9 per cent in 2009.
- ✓ Positive exceptions of fruit and vegetables that managed to increase their market share are olives (26 per cent in 2017 vs 19 per cent in 2009), pistachios (2 per cent in 2017 vs 1 per cent in 2009), apples (0.4 per cent in 2017 vs 0.3 per cent in 2009) and juices (0.3 per cent in 2017 vs 0.2 per cent in 2009).



Market share of greek vegetables in the world



6,7%

Yogurt

8%

7%

6%

5%

4%

3%

2%

1%

0%

Source: Eurostat, Comtrade, NBG estimates

Source: Eurostat, Comtrade, NBG estimates

Melons

Source: Eurostat, Comtrade, NBG estimates

The crisis has had a negative impact in terms of profitability, while SMEs have lost market share in the Greek food industry

- The resilience of the sector is reflected in SMEs performance, with sales falling just 2 per cent from 2008 to 2017 (-1 per cent in food and -9 per cent in beverages), vs -29 per cent for the manufacturing sector. However, while the sector managed to increase its asset turnover (to 0.82 in 2017 vs 0.72 in 2008), the crisis seems to have had a cost in terms of profitability, with EBITDA dropping by 4 pp (to 6.6 per cent in 2017 vs 7.9 per cent in manufacturing). Under the influence of these two opposing forces, ROA contracted by 2 pp (remaining marginally above the manufacturing sector average). In addition, the increasing leverage of the sector affected its relative position in terms of debt burden (Debt to EBITDA 7.6 vs. 7.1 of in the manufacturing sector).
- When we focus on the role of SMEs in the sector, we get a mixed picture. On one hand, SMEs that survived the crisis managed to increase their sales by about 10 per cent over the last decade (corresponding to the sales pattern of larger enterprises). On the other hand, during the crisis, SMEs covering 1/3 of 2008 sales closed leading to a contraction of the share of SMEs in total sales of the sector to 32 per cent in 2017 vs 41 per cent in 2008. In addition, SMEs lag significantly behind in terms of operating ROA, being mainly affected by the slow asset turnover (0.42 vs. 0.96 EU average), partly due to production seasonality that has not been mitigated through the use of technology and secondly, low profitability (EBITDA margin of 5 per cent vs 8.3 per cent EU average). Although the Debt to Equity ratio is close to the European average, the significantly lower operating ROA has led the Debt to EBITDA ratio to 17.4 vs 3.7 on average for European food SMEs.

Food and beverage sector during the crisis						Food and beverage sector: per size (2017)							
	Food-Bev.		Food-Bev. Manufact.* Foo		Food-Bev. EU	d-Bev. EU		SMEs			Large		
	2008	2017	2008	2017	2017		Food- Bev.	Manuf.*	Food- Bev. EU	Food- Bev.	Manuf.*	Food- Bev. EU	
% Sales growth (2008-2017)		-2%		-29%	17%	% Sales growth (2008-2017)	-25%	-40%	8%	8%	-25%	20%	
Assets Turnover	0,72	0,82	0,69	0,66	1,27	Assets Turnover	0,42	0,59	0,96	0,94	0,71	1,32	
Fixed Assets Turnover	1,65	2,02	1,79	1,76	4,76	Fixed Assets Turnover	1,07	1,38	2,63	2,74	2,07	5,24	
Ebitda margin	10,3%	6,6%	9,7%	7,9%	7,5%	Ebitda margin	5,0%	5,8%	8,3%	7,4%	9,0%	7,4%	
Operating ROA	7,4%	5,4%	6,7%	5,2%	9,6%	Operating ROA	2,1%	3,4%	8,0%	7,0%	6,4%	9,8%	
Debt to Equity	1,17	1,68	1,25	1,54	1,24	Debt to Equity	1,51	1,21	1,58	1,70	1,82	1,20	
Debt to Ebitda	4,16	7,60	4,69	7,14	2,90	Debt to Ebitda	17,4	10,3	3,71	5,91	6,04	2,79	
Interest Expenses to Ebitda	23%	39%	27%	36%	9%	Interest Expenses to Ebitda	70%	51%	13%	31%	31%	9%	
* Greek manufacturing excluding oil					* Greek manufacturing excluding oil								

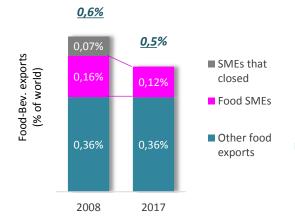
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Source: ICAP Database, BACH Database, Eurostat, NBG estimates

Source: ICAP Database, BACH Database, Eurostat, NBG estimates

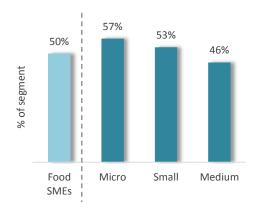
Reduced performance by Greek food SMEs during the crisis has led to loss of Greek market share in the global marketplace

Greek share in the global market of food and beverage



Source: Eurostat, Comtrade, NBG survey

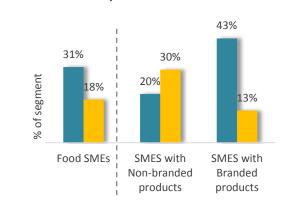
* Other food exporters include large food industries and wholesale trade.





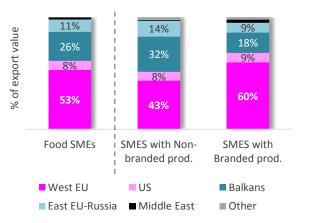
Our field survey of a sample of 200 food SMEs indicated that weak performance of SMEs led to losses in international market shares during the crisis. Specifically, while exports of Greek food SMEs increased by 30 per cent in the last decade (vs 80 per cent for the international food market), their share in global markets contracted to 0.12 per cent in 2017 vs 0.16 per cent in 2008 (which, if sustained, would have meant that exports would have been higher by €0.5 billion). At the same time, there was an additional loss in market shares due to the closing of exporting SMEs (in the order of 0.07 per cent of the global market). Note that other food exporters* did not seem to face similar difficulties in competitiveness as they managed to follow the upward trend of international demand and thus maintain their share.

The fact that ½ of food SMEs mainly promote non-branded products (57 per cent of micro enterprises vs 46 per cent of medium enterprises) seems to constrain operating profit, as well as the effectiveness of the export strategy of the sector. Specifically, food SMEs with non-branded products increased their extroversion over the last decade by just 20 per cent (vs 43 per cent of SMEs with branded products), while frequently they export at a loss – with the Western EU absorbing less than ½ of their exports (43 per cent vs 60 per cent of SMEs with branded products).



Export characteristics

Export destinations



Increased extroversion Exports with a loss

* Other food exporters include large food industries and wholesale tru

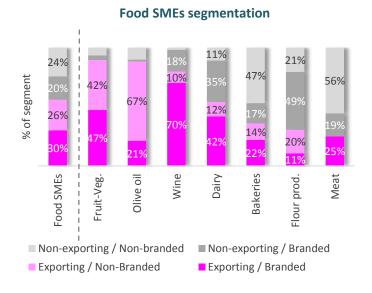
□ Food & beverage industry - focus on SMEs

- Value added
- Exports
- Business performance
- The importance of branding

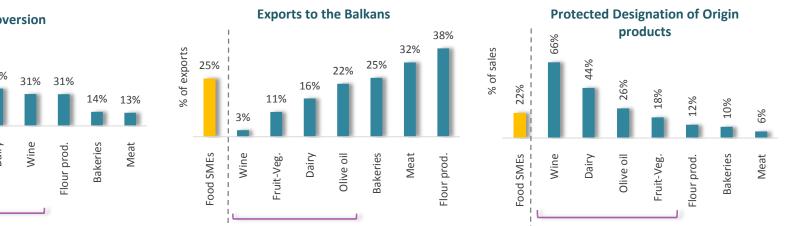
Outlook & challenges by product

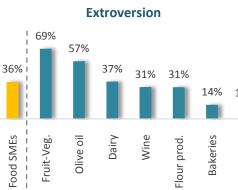
- Olive oil
- Wine
- Dairy
- Fruit & vegetables

- □ Annex
- Mapping the SME segment in Greece
- Sample description
- Constructing the business confidence index for SMEs
- Survey ID



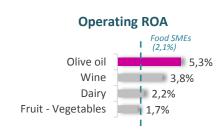
- Given that each product differs considerably in terms of current and future potential, it is necessary to focus on specific food categories to identify comparative advantages and challenges so as to make policy proposals. In this light, we chose the four products that stand out for their export profile (i.e. over ½ of the industry segment exports), and which on the basis of their export intensity are grouped into two categories:
 - ✓ Traditional exporters (olive oil, and fruit & vegetables), who export more than ½ of their sales
 - ✓ Emerging exporters (wine, and dairy produce), who export about 1/3 of sales (however, this percentage is increasing over time).
- □ The export destinations of these 4 products are mostly **developed markets**, with 5-20 per cent of exports heading for the Balkans (vs 32 per cent on average for other food products). At the same time, these products stand out in terms of PDO (Protected Destination of Origin) classification, at rates ranging from 20 to 70 per cent (vs 9 per cent on average for other food products).





% of exported sales

Olive oil: A highly competitive product mainly sold in bulk form



SMEs: Main financial indicators 2017									
	Olive oil	Food- Bev.	Food-Bev. EU						
Assets Turnover	0,43	0,42	0,96						
Ebitda margin	12,5%	5,0%	8,3%						
Operating ROA	5,3%	2,1%	8,0%						
Debt to Equity	0,90	1,51	1,58						
Debt to Ebitda	4,67	17,4	3,71						

Export destination

US

■ East EU-Russia ■ Middle East

22%

15%

Olive oil

West EU

% of exports

10%

25%

8%

Food SMEs

- □ Olive oil is **one of the most export oriented products**, with 88 per cent of the segment being active in exports and generating 57 per cent of their sales abroad -- thus supporting sales during the crisis (77 per cent of the segment increased their sales). A notable fact is that about 1/3 of supplies are own production (produced by the olive oil enterprises themselves).
- □ The operating profit margin (Ebitda) of SMEs of the segment is exceptionally high (12.5 per cent vs 8.3 per cent for European food SMEs), with 84 per cent of the sector achieving higher margins abroad as compared with the domestic market. According to the sector enterprises, healthy profitability reflects the high competitiveness of both the product and the distribution network. At the same time, positive operating results keep leverage at low levels, with the debt to equity ratio standing at 0.9 vs 1.5 on average for other food SMEs both in Greece and the EU.
- □ The only black spot is the **low asset turnover** (i.e. the ability of employed capital to generate sales). To a large extent this reflects (i) weakness in generating high value added from the product (due to the high percentage of bulk sales), and (ii) the small size of businesses (due to the preference of producers to pursue growth on an independent basis, and the negative perception of clusters). According to our estimates, the "lost" value added from bulk olive oil exports (mainly to Italy) is about €150 million on an annual basis.

77%

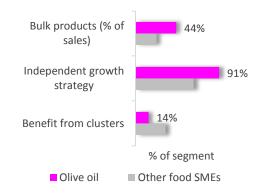
84%

86%

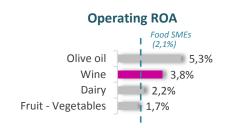
68%







Wine: Further consolidation is needed in the Greek wine sector if it is to compete effectively in the fierce global marketplace

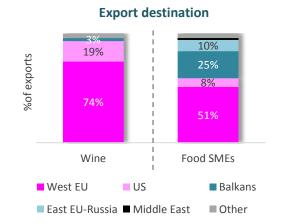


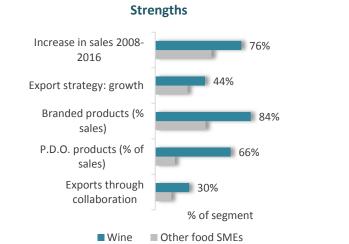
SMEs: Main financial indicators 2017									
	Wine	Food- Bev.	Food-Bev. EU						
Assets Turnover	0,22	0,42	0,96						
Ebitda margin	17,4%	5,0%	8,3%						
Operating ROA	3,8%	2,1%	8,0%						
Debt to Equity	0,94	1,51	1,58						
Debt to Ebitda	6,63	17,4	3,71						

The wine sector contains the highest percentage of dynamic SMEs combining export-orientation and branding (70 per cent of wine SMEs vs 30 per cent for food SMEs). 76 per cent of the sector has boosted its sales during the crisis (vs 50 per cent by other food SMEs) while enjoying a high Ebitda margin (17.4 per cent vs 5 per cent for food SMEs).

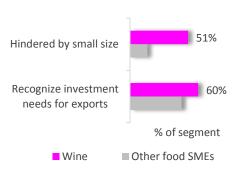
□ This good performance seems to be the result of **best practices that focus on quality**:

- ✓ Strategic targeting of developed markets in Western Europe and the US (93 per cent of exports vs 59 per cent for food SMEs);
- Promotion of branded products (84 per cent of wine sales vs 44 per cent for other food SMEs), and high percentage of PDO/PGI products (66 per cent of sales vs 17 per cent for other food SMEs).
- The Achilles' heel of wine producing SMEs is their exceptionally low asset turnover (almost 1/5 of the European average). SMEs of this sector recognize that their small size is the main problem. In this light, the sector appears to be strategically ripe for the next day, recognizing the need for investment and declaring a willingness to strike up the necessary partnerships that can lead to economies of scale.

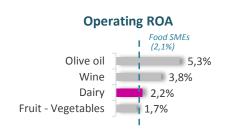








Dairy: Investments are needed in the distribution network in order to enhance profitability in overseas markets

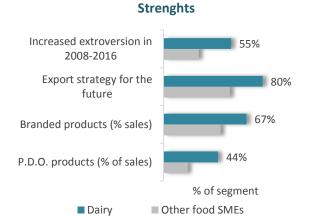


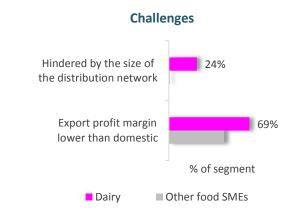
SMEs: Main financial indicators 2017							
	Dairy	Food- Bev.	Food-Bev. EU				
Assets Turnover	0,49	0,42	0,96				
Ebitda margin	4,5%	5,0%	8,3%				
Operating ROA	2,2%	2,1%	8,0%				
Debt to Equity	0,93	1,51	1,58				
Debt to Ebitda	11,98	17,4	3,71				

- While the export orientation of dairy SMEs remains close to the average of food SMEs (nearly 35 per cent of sales generated abroad), the future trend is upward, given that (i) 55 per cent of the segment has boosted its export orientation during the crisis (vs 29 per cent of other food SMEs), and (ii) 80 per cent of the segment claims to have export activity as a strategic priority for the future (vs 54 per cent of other food SMEs).
- The **product strategy** of this emerging segment is in the right direction since it appears to focus on **quality**:
 - Strategic targeting of developed Western European markets (66 per cent of exports, vs 51 per cent for food SMEs);
 - Promotion of branded products (67 per cent of dairy sales vs 46 per cent for other food SMEs), and a high level of PDO/PGI recognition (44 per cent of sales vs 20 per cent of sales by other food SMEs).

However, despite the right product strategy, the segment still seems to be facing **problems** regarding the preparedness of the **international distribution network**. Due to the perishability of dairy products, this factor is considered decisive. Specifically, since almost 70 per cent of exports are sold at a **lower profit margin** compared with the domestic market, the Ebitda margin of the sector is limited to 4.5 per cent (vs 5 per cent for Greek food SMEs and 8.3 per cent in the EU Food SMEs).

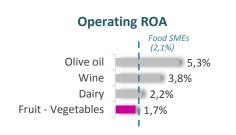






Export destination

Fruit & vegetables (I): The segment needs structural realignment founded on 3 key pillars: (i) formulation of a targeted strategy, (ii) upgrade of production technology, and (iii) improvement of distribution network



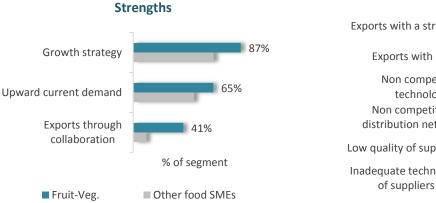
SMEs: Main financial indicators 2017								
	Fruit - Veg.	Food- Bev.	Food-Bev. EU	C				
Assets Turnover	0,40	0,42	0,96					
Ebitda margin	4,3%	5,0%	8,3%					
Operating ROA	1,7%	2,1%	8,0%					
Debt to Equity	1,79	1,51	1,58					
Debt to Ebitda	21,12	17,4	3,71					

- Almost the entire fruit and vegetables sector (89 per cent) is export-oriented, with exports accounting for 69 per cent of sales. The strong export orientation serves to boost sales for the sector, which includes a high share of enterprises with growth ambitions (87 per cent, vs 65 per cent for other food SMEs) and a high share of enterprises that anticipate upward short term demand (65 per cent, vs 49 per cent for other food SMEs).
- Nonetheless, the lack of a clear export strategy tends to prevent strong demand from translating into healthy profitability. Specifically, the Ebitda margin stands at 4.3 per cent (vs 5 per cent for food SMEs), as almost 1/3 of exports generate losses. This fact serves, in turn, to burden the sector's leverage, as the debt to equity ratio is close to 1.8 vs 1.5 for food SMEs overall.

Besides the lack of a targeted strategy, enterprises of the segment deal with two other critical issues that urgently need improvement:

- ✓ **Production technology** (which is deemed problematic by 56 per cent of the sector, vs 29 per cent for the other food SMEs;
- **Distribution network** (which is deemed inadequate by 73 per cent of the sector, vs 58 per cent of other \checkmark food SMEs).

The bid to carry through structural realignment of the sector, albeit ambitious, is gaining positive momentum as a result of the notable appetite and readiness of businesses to cooperate with each other going forward.



Challenges

27%

Other food SMEs

56%

% of segment

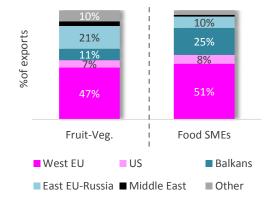
73%



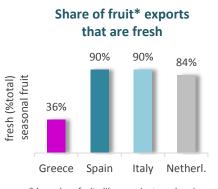


Fruit-Veg.





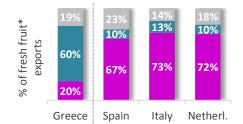
Fruit & vegetables (II): Weaknesses in terms of technology and distribution networks hold back the potential export dynamism for fresh fruit & vegetables (offering high value added)



* based on fruits like appricotes, cherries, peaches etc).

Source: Eurostat, Comtrade, NBG

Export destinations of fresh seasonal fruit*



North-West EU Balkans Other * based on fruits like appricotes, cherries, peaches etc).

Source: Eurostat, Comtrade, NBG estimates

[1] In the context of this analysis, fresh fruit are taken to be peaches, apricots, cherries, and other fruit with stones/pips, while vegetables are understood as potatoes.

[2] Comparisons concern Greece's key competitors in the Mediterranean (Italy and Spain) and Holland, which is considered to be a good example of the use of technology in food production (cutting-edge greenhouse facilities).

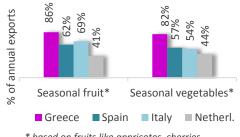
- The use of new technologies and effective distribution networks are crucial factors for the subcategory of fresh fruit & vegetables which are more perishable but potentially of high value added, if they reach the end consumer in the right state and quality. The dominant position of the big supermarket chains in international markets has led to the creation of global value chains that involve high technology demands (quality control systems, traceability, continuous refrigeration during transportation) that few domestic producers can meet.
- The shortcomings of the Greek sector in this respect have led to low promotion of fresh fruit & vegetables (only 36 per cent of Greek exports^[1], compared with 90 per cent in other Mediterranean countries), which are directed mainly at Balkan countries (60 per cent, compared with only 10 per cent for competitors who sell mainly to NW Europe) and at low prices (almost ½ vs the Mediterranean countries, and ½ vs the Netherlands^[2]).
- Adaptation of food SMEs to the technological demands outlined above, and the modernization of their suppliers, guided by best practices such as those applied in Israel (crop R&D, organization of networks) and the Netherlands (modern greenhouse units with constant quality production), would enhance the sector's ROA, through:
 - ✓ improved prospects for sales of high value-added products (increase of profit margin)
 - ✓ and smoothing of seasonality (increase in the asset turnover ratio), reaching 85 per cent of Greek fruit & vegetable exports in top 3 months of the year vs 60 per cent in Mediterranean countries, and 40 per cent in the technologically advanced Netherlands.



* based on fruits like appricotes, cherries, peaches etc).

Source: Eurostat, Comtrade, NBG estimates





* based on fruits like appricotes, cherries, peaches etc) and potatoes for vegetables. Source: Eurostat, Comtrade, NBG estimates

The way for Greek food products to regain market share in international markets



□ Our field survey revealed specific weaknesses per product that led to the loss of market share in the international marketplace over the past decade. By addressing the weaknesses effectively it should be possible to increase exports by almost €0.5 billion p.a. – accordingly, important that strategic it's emphasis be placed on making the improvements necessary and highlight the inherent comparative advantages of Greek food products.

- Accordingly, measures need to focus initially on the **four export-hungry food products of Greece**:
- Olive oil is the product of the Greek food industry that presents the greatest comparative advantage and accordingly the biggest potential for generating greater value added. However, its intrinsic high competitiveness has already secured healthy profitability, meaning that olive oil SMEs only have limited appetite for change in the marketing model from bulk to branded sales.
- Sy contrast, wine and dairy are segments that are more receptive to change, and ripe for restructuring. As they have already introduced best practices from the enterprises' perspective (focus on quality and developed markets), emphasis now needs to be placed on the strategy of the sector overall. In the case of wine, there is a need for consolidation of various forms in order to attain economies of scale, while in the dairy sector, partnerships need to focus on the upgrade and expansion of the distribution network.
- In the case of **fruit and vegetables**, although there is a willingness to see restructuring in the sector, the changes required are quite extensive. Specifically, besides a radical reformulation of strategy (both in respect of the product and the target markets) significant investments are needed in order to upgrade production technology and expand the distribution network.



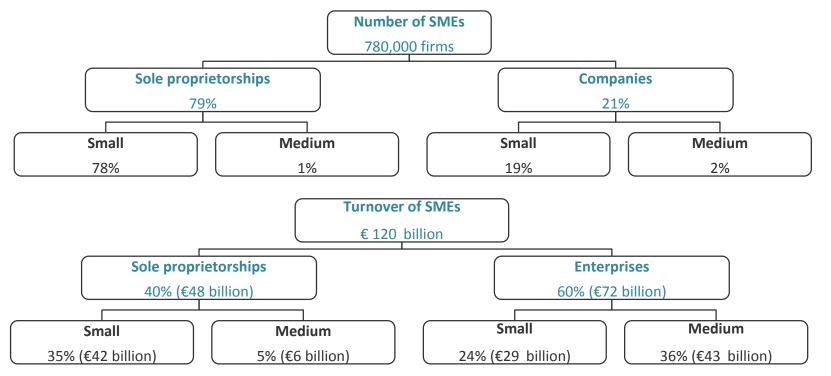
□ Food & beverage industry

– focus on SMEs

- Value added
- Exports
- Business performance
- The importance of branding

- Outlook & challenges by product
- Olive oil
- Wine
- Dairy
- Fruit & vegetables

- □ Annex
- Mapping the SME segment in Greece
- Sample description
- Constructing the business confidence index for SMEs
- Survey ID



* For the purposes of the survey, **small** enterprises are those reporting turnover of less than ≤ 1 million and **medium-sized** enterprises are those reporting turnover of between ≤ 1 million and ≤ 10 million.

* In the mapping above, the characteristics of each category were estimated based on the categorization of the European Commission, which uses employment criteria (**small** enterprises: less than 10 employees and **medium** enterprises: from 10 to 50 employees)

Source: SBA Factsheet 2017, Eurostat, EL.STAT Structural Business Survey, NBG Estimates

- □ The circa 780,000 SMEs in Greece generate turnover of around €120 billion.
- 4/5 of SMEs are sole proprietorships, which account for a corresponding share of the total domestic business sector (compared with just ½ of the business sector in Europe).
- Although sole proprietorships comprise the majority of SMEs, the greater share of turnover (over 60 per cent) is generated by companies of various legal status (SA, limited partnership, limited liability, etc.).

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Distribution of number of companies of sample*					Percentage mix of SMEs by sector* (based on turnover)						
Turnover (in millions €)	Manufacturing	Services	Trade	Construction	Total SMEs	Turnover (in millions €)	Manufacturing	Services	Trade	Construction	Total SMEs
1: (0 - 0,1]	73	45	45	30	193	1: (0 - 0,1]	1%	5%	2%	1%	9%
2: (0.1 - 0,5]	73	45	45	30	193	2: (0.1 - 0,5]	3%	6%	12%	1%	22%
3: (0.5 - 1]	74	45	45	30	194	3: (0.5 - 1]	2%	3%	9%	1%	15%
4: (1 - 2,5]	74	45	45	30	194	4: (1 - 2,5]	3%	3%	11%	1%	18%
5: (2,5 - 5]	73	45	45	30	193	5: (2,5 - 5]	4%	4%	8%	1%	17%
6: (5 - 10]	73	45	45	30	193	6: (5 - 10]	4%	4%	9%	2%	19%
Total SMEs	440	270	270	180	1160	Total SMEs	17%	25%	51%	7%	100%
* Depending on data availability, there is possible deviation of 10%					5	<i>ge of the last decade</i> Company Register (200	17), ICAP Data	, Eurostat, N	BG Estimates		

- Our survey examines a sample of enterprises with a turnover of below €10 million, which, for the purposes of the analysis, we define as small and mediumsize enterprises (SMEs).
- Enterprises were selected using a stratified sampling method, in line with the standards of similar surveys carried out by international organizations. Specifically, a total of 1.160 enterprises were selected in such a way as to enable even distribution of the sample on the basis of two key factors: scale of turnover (6 scales) and sector of activity (Manufacturing, Trade, Services, Construction).
- In order to draw conclusions that are representative of the SME segment, answers were weighted according to the participation of each sub-set in the total turnover of the segment. Thus, findings were arranged (i) by size, (ii) by sector, and (iii) for the entire SME business sector. In line with the methodology, the segments are weighted on the basis of their shares in total turnover and not the number of enterprises.

- In order to construct a confidence index for SMEs, we included a number of basic questions regarding the level of business activity in the previous and in the coming half year. The model for the questions is based on the harmonized questionnaire recommended by the OECD and the European Commission, thereby enhancing the comparability of the index.
- The Index questions offer 3 alternative answers: increase (+), no change (=), decrease (-), or above normal (+), normal (=), below normal (-). To begin with, we convert the number of answers per category (+, =, -) to percentages and then we calculate the net result by subtracting the (-) from the (+) percentage. Last, the confidence index for each sector is the average of the net results for the following questions:
 - ✓ For **manufacturing**: The level of orders, inventories, and future production trend.
 - ✓ For services: The business situation of the firm in the previous half year, past and future demand trend.
 - ✓ For **trade**: Level of inventories, past and future demand.
 - ✓ For **construction**: Level of backlog, and future employment trend.
- For the SME sector, the business confidence index has been estimated as a weighted average of its subsectors (the weights being the shares of the sectors' turnover in the economy).
- By carrying out the survey on a regular 6-month basis we should be able to form a picture of SMEs' course over time, as reflected in the index. To draw reliable conclusions, comparison will be made between the current index level and its long-term average (so as to correct possible over-optimism or over-pessimism bias).
- The evolution of the confidence index (and any other reviews over the course of time) does not take into account the closing of companies, just the developments regarding businesses operating during the period this survey is carried out.

- □ Methodology: Quantitative research in the form of Computer Aided Telephone Interviewing C.A.T.I., using a 20-minute structured questionnaire.
- Sample: A total of 1160 interviews were conducted (960 within the context of the current assessment plus 200 booster interviews with SME food manufacturers):
 - 580 enterprises with annual turnover up to EUR 1 million (freelancers, sole proprietorships, unlimited partnerships, limited partnerships, limited liability companies, SAs) 100 of which are food manufacturing SMEs
 - ✓ 580 enterprises with annual turnover between EUR 1 million and 10 million (unlimited partnerships, limited partnerships, SAs, limited liability companies) 100 of which are are food manufacturing SMEs
- Geographical coverage:
 - Athens, Thessaloniki, Heraklion, Ioannina, Kavala, Larissa, Patras
- Sampling: multi-stage, stratified, non-proportional sampling for sector, turnover size & geographical area in each of the two sets of samples. Quotas relating to turnover and for the booster sample.
- Statistical error: in each of the two sets of samples of 480 enterprises the maximum statistical error is estimated at +/- 4.15% at a 95% confidence level.
- □ Period of survey: 04/10/2017-07/11/2017
- Survey framework: The survey was carried out in line with ESOMAR and SEDEA (Association of Greek Market and Opinion Research Companies) codes of conduct and the quality control requirements set by PESS (Quality Control in Data Collection). A total of 49 researchers and 2 reviewers with experience and know-how in business surveys participated in the field research.



NATIONAL BANK OF GREECE Economic Analysis Department

Survey of Greek SMEs

Special focus: Food Industry

Editor:

Nelly Tzakou-Lambropoulou General Manager Retail Banking

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