



**A study on the effects of
Covid-19 on Greek
businesses & the economy**

Study identity



Study identity

- Nowadays, humanity is faced with an unprecedented, multifaceted crisis. The combination of the Covid-19 pandemic and its looming economic impact is leading to a recession, unheard-of in recent times, and the business world - along with the society - is sailing in uncharted waters.
- In this period of uncertainty, Grant Thornton Greece is attempting to make a primary assessment of the pandemic's effects on the Greek economy, and the measures adopted to reduce them, but also to evaluate the magnitude of the recession that will follow the gradual lifting of measures by the end of 2020.
- The present study examines the expected effects of the economic conditions as developed due to Covid-19, on the critical sizes of the Greek businesses, as well as on the Greek economy in its entirety. The study is divided into three sections:
- The **first section** outlines the industries affected by COVID-19
- The **second section** presents our assessment of the impact of COVID-19 on the Greek economy as an aggregate (GDP).
- The **third section** presents our estimates of the impact of COVID-19 on key sizes of the Greek businesses for the purposes of assessing business liquidity in 2020 as compared to the previous year.

Key study conclusions

- Businesses representing 69% of the total turnover of Greek businesses were directly affected by the Covid 19 pandemic as a result of limitation or even cessation of their operations.
- In total, businesses that generate a turnover of € 32.9 billion (11% of the total turnover) and employ approximately 1.1 million executives (25% of the total) have ceased operations due to the pandemic.
- The initial estimate shows that in 2020, the Gross Domestic Product (GDP) will decrease by 8.5%. The impact of the pandemic on high-value-added tourism-related industries of the economy, such as transport, accommodation and catering, contribute to the decrease of GDP.
- Given a sample of 17,000 companies with a turnover of over € 200 k.
 - a decrease in turnover by -12.4% is expected to be recorded in 2020.
 - a decrease in operating profitability (EBITDA) by -39% is expected to be recorded in 2020.
 - a decrease in liquidity by € 5.6 billion is estimated to be recorded as a result of the limitations and the economic impact of the pandemic on their operations.



Industries affected by COVID-19

Total turnover of Greek businesses, per industry

(amounts in billion)	FY2015	FY2016	FY2017	FY2018e	FY2019e
Wholesale	58,6	58,9	61,8	67,3	64,9
Manufacturing	53,8	50,4	55,4	56,9	56,6
Retail	42,1	41,6	42,7	43,6	43,8
Energy	19,8	18,1	21,4	21,1	19,9
Transport and storage	12,7	13,0	13,4	13,8	14,7
Accommodation and catering services	11,0	10,8	11,8	12,7	13,0
Information and communication	9,8	9,7	9,9	10,1	10,5
Other industries (< 10 billion)	59,2	59,2	61,2	62,5	63,8
Total domestic production	267,0	261,8	277,5	287,9	287,1

- In the period 2015 - 2019, the turnover of the total of Greek businesses increased by 7.5% (or by € 20.1 billion).
- 58% of the total turnover arises from the Wholesale & Retail and Manufacturing industries.
- The turnover structure has remained relatively stable over the last five years.
- Although accommodation and catering services represent a percentage of 4% - 5% of the total, they have a rippling effect on the economy.

Industries affected by Covid-19

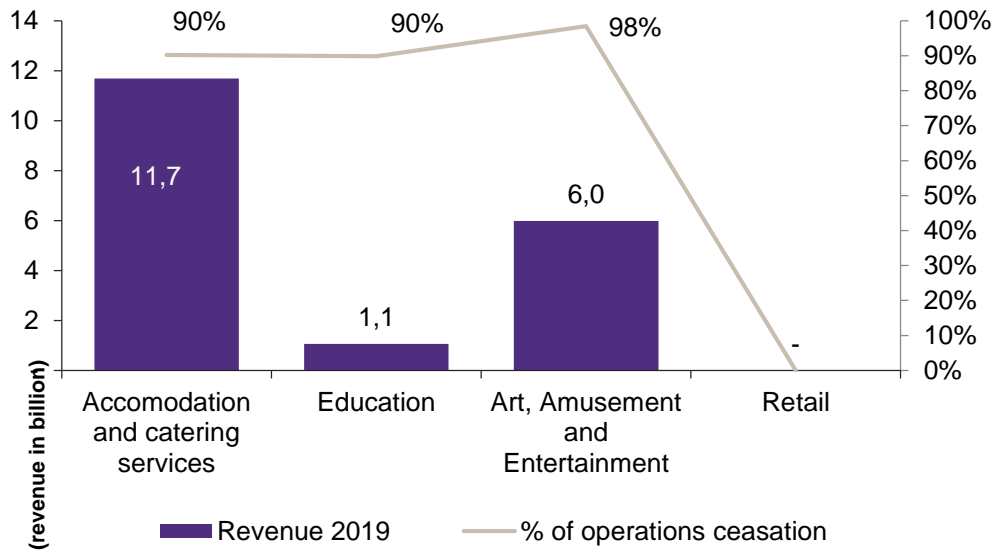
(revenue in billion)	Revenue FY2019e	% of the industry
Wholesale	42,0	65%
Manufacturing	39,6	70%
Retail	23,6	54%
Energy	7,4	37%
Transportation and storage	14,7	100%
Accommodation and catering services	13,0	100%
Information and communication	4,9	47%
Other industries (< 10 billion)	54,0	85%
Industries affected	199,1	69%

- The table above presents the turnover of the businesses directly affected by COVID-19. Specifically, it includes businesses that:
 - Are either included in the NACE list for the aid measures taken by the Greek State, which, however, were not obliged to cease their operations,
 - Or were obliged to cease their operations.
- 69% of the total turnover is generated by the businesses affected by Covid-19.
- 58% of the total turnover is generated by the businesses included in the NACE list for the aid measures regarding businesses that were not obliged to cease their operations.
- 11% of total turnover is generated by businesses that were obliged to cease their operations.

Businesses that ceased their operations

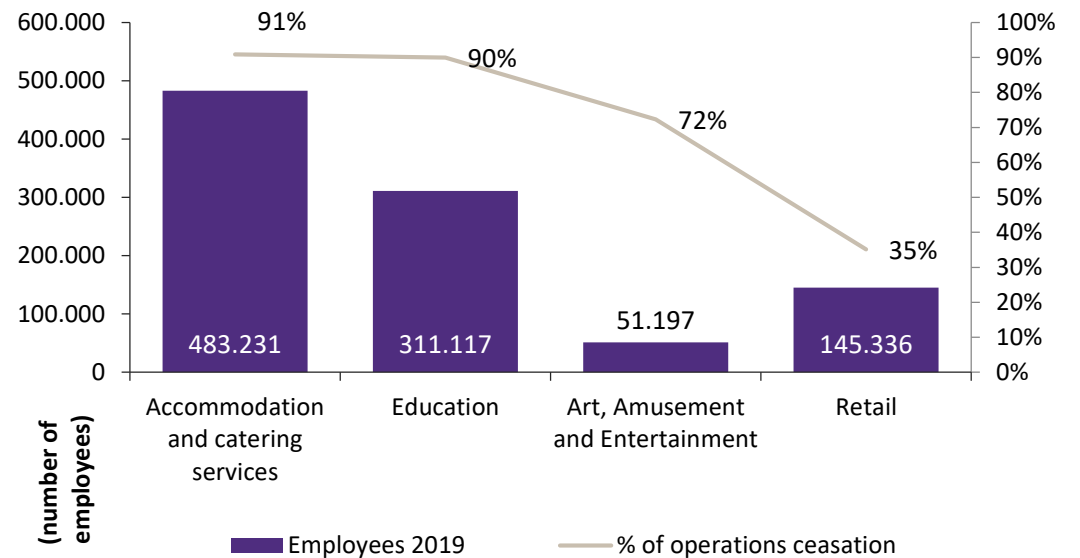


Revenues of businesses that ceased their operations



- In total, businesses that generated turnover of € 32.9 billion (11% of total turnover) and employ approximately 1.1 million executives (25% of total) have ceased operations.
- The industries hardest affected, as their operations ceased almost completely, pertain to Accommodation & Catering Services, Education and Entertainment.

Employees of businesses that ceased their operations



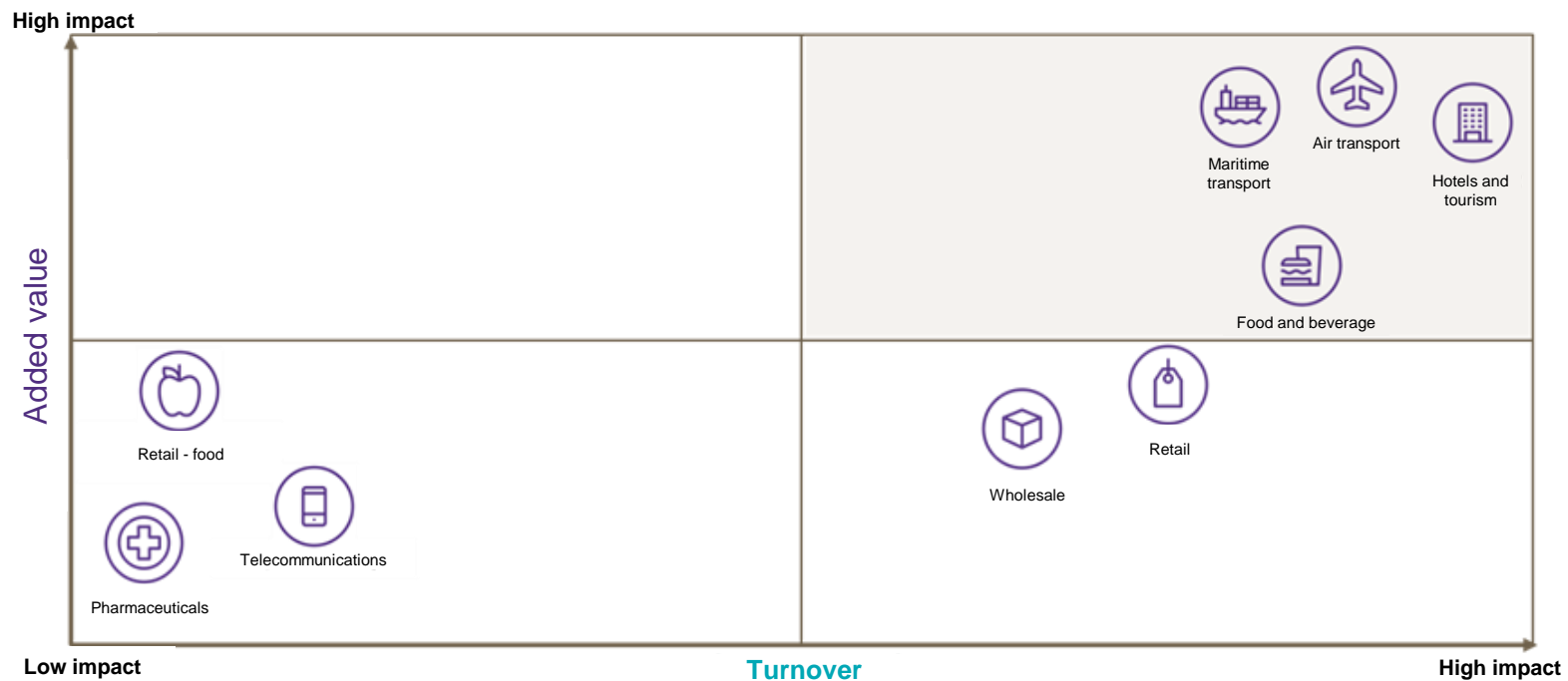
- The charts present the turnover in 2019 and the number of employees, occupied in 2019, regarding businesses that ceased their operations in the industries most adversely affected by COVID-19 based on their sizes and the extent of cessation of their operations.
- According to ELSTAT data, only 1.6% of the aforementioned businesses have the ability to conduct electronic transactions.



Assessment of COVID-19 impact on the Greek economy

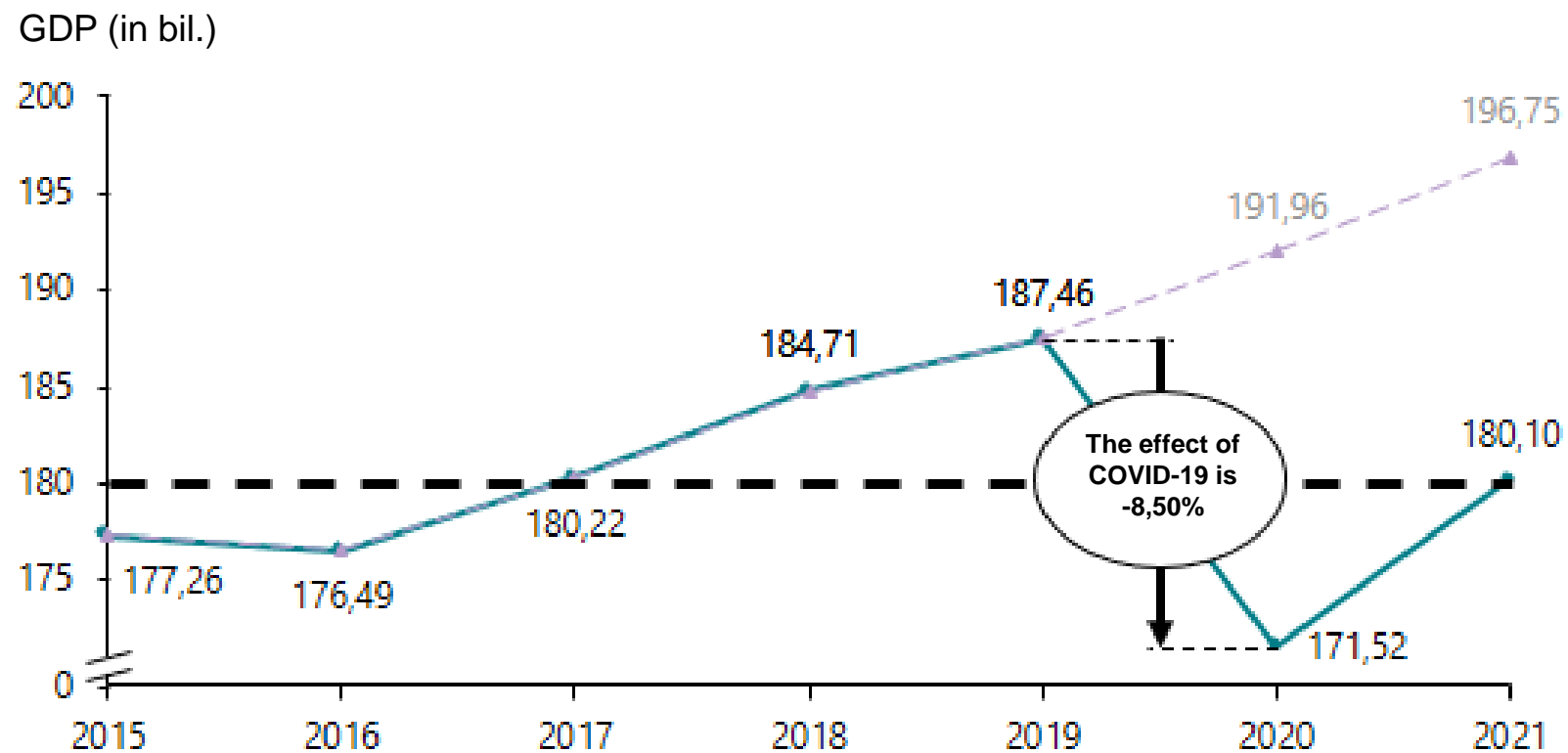
Assessment of impact on GDP

Correlation of changes in turnover with added value (initial estimate, indicative industries)



Assessment of impact on GDP

Initial GDP estimation for 2020





Estimation for changes in added value of industries and GDP in 2020

- Correlation of the turnover of every business industry with the gross added value generated in GDP
- Calculation of the relative impact on GDP in 2020, based on the estimation of the sales of each industry and the relative correlation with the gross added value
- Calculation of the effect of countervailing measures on GDP in 2020, based on valuation of changes in public expenditure
- Estimate of final GDP change in 2020

Separate parameters of changes in turnover and added value of industries

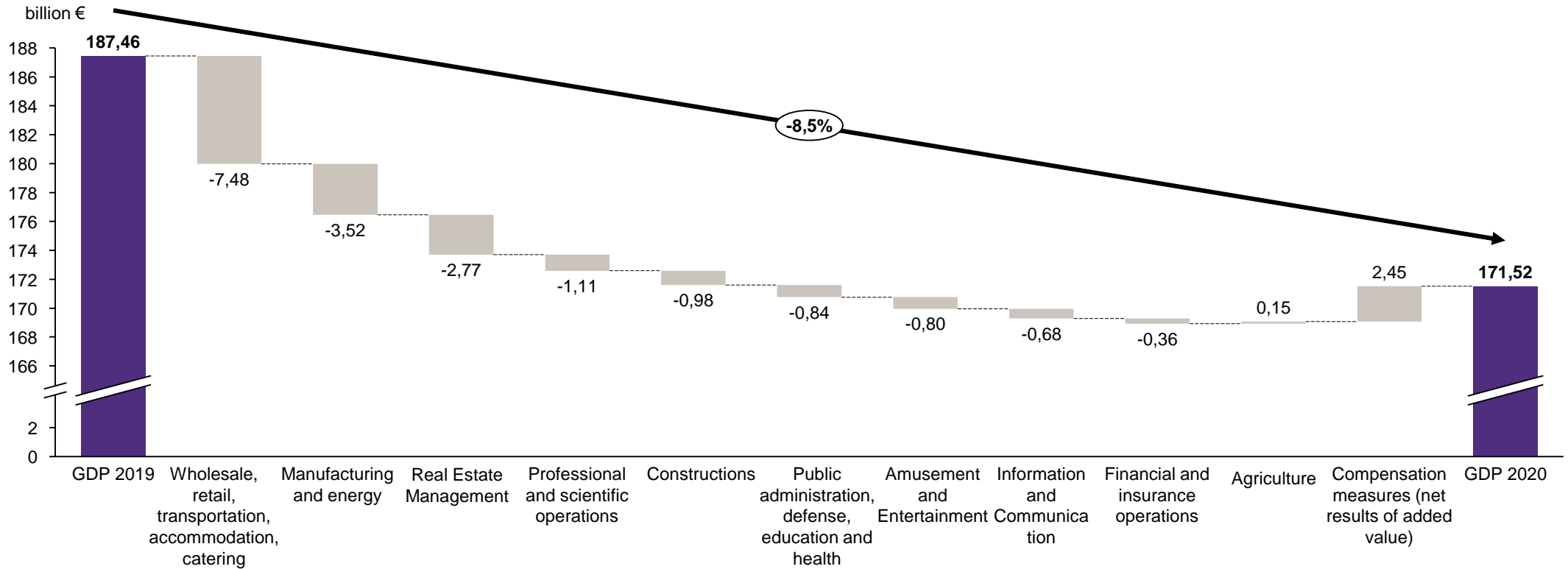
- Our analysis has identified the industries that will face significant losses in terms of both turnover and added value, provided that there are industries with relatively low impact or even the industries that have been positively affected.
- The relevant calculations were based on seasonality data of the industries in terms of their operations in the first and second quarters of every year.
- In addition, the time parameters regarding the gradual lifting of the restrictive measures and their complete normalization have been taken into account, while it is assumed that the lockdown will not be repeated in the fourth quarter of 2020.

Parameters on changes in GDP

- Processing initial estimates indicates that in 2020, the economy will record a recession of 8.5%
- In this case, it is estimated that in 2021, the economy will return to the levels of 2017, having lost the wealth generated within the last 3 years
- Estimate of changes in GDP takes into account the consequent pace at which the restrictive measures are lifted as well as the magnitude of the countervailing measures taken by the Government.

Changes in the industries' added value and GDP

Correlation of changes in added value with GDP (initial valuation, key industries)



Parameters of changes in added value

- Estimate of the correlation between the changes in added value and turnover facilitates calculating the impact at the GDP level.
- The size of the countervailing measures introduced so far and their impact in terms of added value and GDP are taken into account.



**Assessment of COVID-19
effect on key business
sizes in 2020**



The perimeter of our analysis

Companies sample

- Our analysis includes approximately 17 thousand businesses, that have available financial data for FY 2018. Businesses represent all industries of the Greek economy except insurance companies and credit institutions.
- The turnover of the businesses included in our analysis represents over 50% of the turnover of the legal entities of the country as published in ELSTAT.
- It includes entities with a turnover exceeding 200 k (2018 data).

The perimeter of our analysis

Classification per industry and size

AA Industry

- 1 WHOLESALE & RETAIL
- 2 MANUFACTURING
- 3 PETROLEUM (PROCESSING AND TRADING)
- 4 RENDERING OF ELECTRIC ENERGY, GAS, STEAM AND A/C
- 5 CONSTRUCTIONS
- 6 TRANSPORTATION AND STORAGE
- 7 COMMUNICATION
- 8 ART, AMUSEMENT AND ENTERTAINMENT
- 9 PROFESSIONAL, SCIENTIFIC AND TECHNICAL OPERATIONS
- 10 WHOLESALE AND RETAIL OF MOTOR VEHICLES AND MOTORCYCLES
- 11 ACCOMMODATION
- 12 INFORMATION AND COMMUNICATION
- 13 ADMINISTRATIVE AND SUPPORT OPERATIONS
- 14 AGRICULTURE, FORESTRY AND FISHERIES
- 15 PASSENGER AIR TRANSPORT
- 16 OPERATIONS RELATED TO HEALTHCARE AND SOCIAL WELFARE
- 17 WATER SUPPLY · WASTEWATER TREATMENT, WASTE MANAGEMENT AND RECOVERY OPERATIONS
- 18 REAL ESTATE MANAGEMENT
- 19 MARINE AND COASTAL PASSENGER TRANSPORT
- 20 FINANCIAL AND INSURANCE OPERATIONS
- 21 CATERING SERVICES OPERATIONS
- 22 EDUCATION
- 23 MINES AND QUARRIES
- 24 OTHER RENDERING SERVICES OPERATIONS

- Classification of businesses into industries has been performed based on the single-digit industry with analysis to double-digit or three-digit industry, where deemed necessary for the purposes of the analysis while the businesses operating in the petroleum industries (trading and processing) have been included as a separate industry due to their special characteristics as well as its great impact on the development of the total sizes under examination.
- In the following analysis, some of the industries will appear cumulatively as “other industries” since their separate effect on the development of the total sizes is relatively low.

CATEGORY	NUMBER OF ENTITIES	TURNOVER 2018 (in mill. €)	EBITDA 2018 (in mill. €)	BANK LOANS (in mill. €)
>€200 M.	88	71.690	5.324	17.408
>€50 M. & <€200 M.	361	34.115	3.522	12.820
>€10 M. & <€50 M.	1.610	33.544	3.084	13.901
>€2 M. & <€10 M	4.984	22.065	2.216	8.360
<€2 M.	9.886	7.784	800	5.575
TOTAL	16.929	169.199	14.946	58.064

Key presentation sizes

Sales

Projected sales in 2020 in relation to the historical data

EBITDA

Projected earnings before interest, taxes, depreciation and amortization in relation to historical data.

Liquidity

Projected free cash flows in 2020 in relation to the historical data.

Our methodology

Estimation for development of sales in 2020

- Estimate of changes in sales per industry from 2018 to 2019 based on publicized financial statements for 2019 as well as according to the estimates of Grant Thornton experts in every industry.
- Calculation of sales in 2020 based on sales in 2019 as follows:
 - Calculation of sales in 2019 per month by applying monthly seasonality percentages per industry to the annual sales of every company.
 - Determining the impact of the pandemic and the measures taken in order to address it at the operations levels of every industry on a monthly basis in order to integrate the conditions of cessation of reduced or increased operations in every company in relation to the industry it belongs to and estimation per industry for their operations levels during the months following the gradual lifting of measures by the end of 2020.

Estimation for EBITDA development in 2020

- Determining the percentage of variable operating expenses in the total operating expenses in every industry. For this purpose, the industries presented on page 2 are further broken into sub-industries, in order to more accurately determine the cost profile of the relevant companies of their constituent.
- Determining the effect of the change in sales of every company as defined in the previous section in its EBITDA, based on the percentage of variable costs in total costs.

Calculation of free cash flows in 2020 and comparison with free cash flows in 2019

- Calculation of the months of collecting trade receivables and payment of current liabilities of every company based on their historical data.
- Calculation of projected trade working capital at the end of 2020 based on estimates of decrease in turnover and operating profitability and based on historical turnover data.
- Calculation of the change in trade working capital arising on the basis of historical data in relation to the projected trade working capital at the end of 2020.
- Comparison of projected free cash flows in 2020 in relation to free cash flows as arising from historical data.

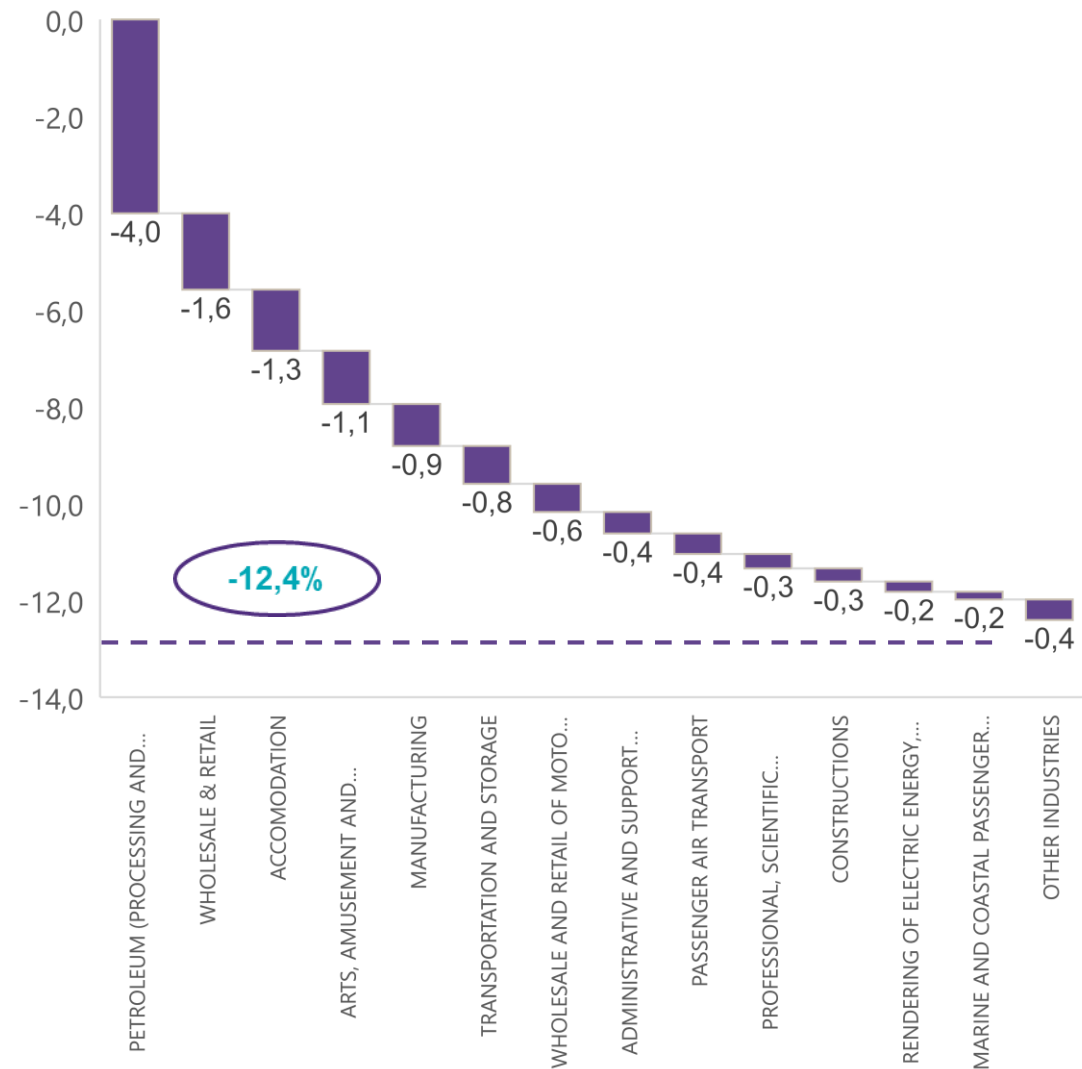


Sales – Estimation 2020

Projected decrease per industry

INDUSTRY	ESTIMATE R% TURNOVER 2019 -2020
ACCOMMODATION	-52%
PETROLEUM (PROCESSING AND TRADING)	-23%
PASSENGER AIR TRANSPORT	-46%
ART, AMUSEMENT AND ENTERTAINMENT	-42%
MARINE AND COASTAL PASSENGER TRANSPORT	-42%
CATERING SERVICES OPERATIONS	-41%
OTHER RENDERED SERVICES OPERATIONS	-39%
ADMINISTRATIVE AND SUPPORT OPERATIONS	-36%
TRANSPORTATION AND STORAGE	-24%
WHOLESALE & RETAIL OF MOTOR VEHICLES	-23%
REAL ESTATE MANAGEMENT	-15%
EDUCATION	-14%
OPERATIONS RELATED TO HEALTHCARE	-12%
MANUFACTURING	-4%
PROFESSIONAL, SCIENTIFIC OPERATIONS	-10%
WHOLESALE & RETAIL	-6%
MINES AND QUARRIES	-9%
CONSTRUCTIONS	-8%
FINANCIAL AND INSURANCE OPERATIONS	-6%
WATER SUPPLY · WASTEWATER TREATMENT, WASTE MANAGEMENT	-6%
RENDERING OF ELECTRIC ENERGY, GAS, AND STEAM	-3%
INFORMATION AND COMMUNICATION COMMUNICATIONS	-3%
AGRICULTURE, FORESTRY AND FISHERIES	2%
TOTAL	-12,40%

Participation of every industry in % change of total sales 2019-2020



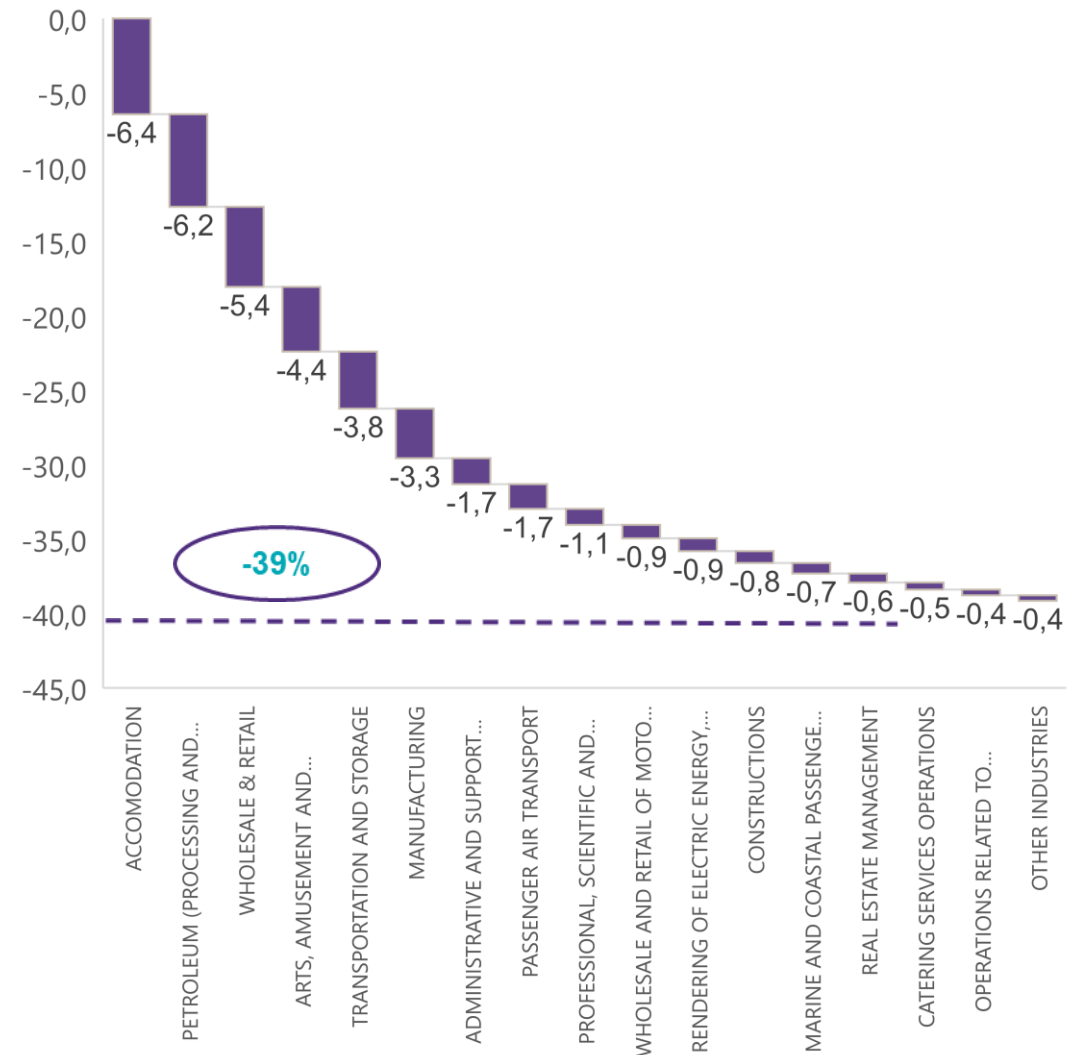
The projected total decrease in turnover of the companies sample is 12.4%

EBITDA – Estimation 2020

Projected decrease per industry

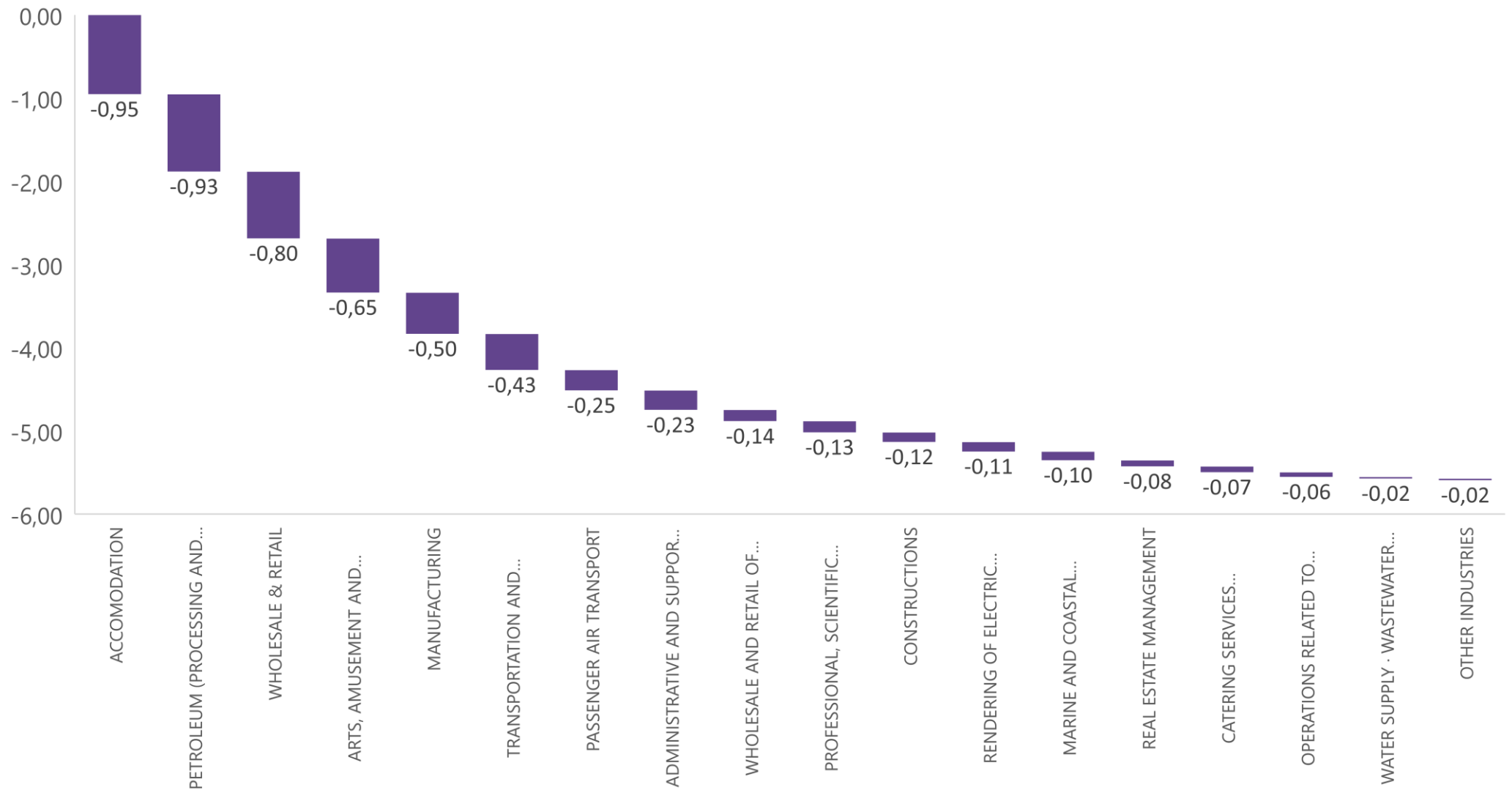
INDUSTRY	ESTIMATE R% EBITDA 2019 -2020
PASSENGER AIR TRANSPORT	-227%
ART, AMUSEMENT AND ENTERTAINMENT	-202%
CATERING SERVICES OPERATIONS	-196%
MARINE AND COASTAL PASSENGER TRANSPORT	-142%
OTHER RENDERED SERVICES OPERATIONS	-94%
ACCOMMODATION	-88%
WHOLESALE & RETAIL OF MOTOR VEHICLES AND MOTORCYCLES	-77%
PETROLEUM (PROCESSING AND TRADING)	-75%
ADMINISTRATIVE AND SUPPORT OPERATIONS	-75%
EDUCATION	-50%
TRANSPORTATION AND STORAGE	-49%
PROFESSIONAL, SCIENTIFIC AND TECHNICAL OPERATIONS	-39%
OPERATIONS RELATED TO HEALTHCARE AND SOCIAL WELFARE	-34%
WHOLESALE & RETAIL	-33%
CONSTRUCTIONS	-31%
MINES AND QUARRIES	-23%
REAL ESTATE MANAGEMENT	-19%
WATER SUPPLY · WASTEWATER TREATMENT, WASTE MANAGEMENT AND RECOVERY OPERATIONS	-17%
MANUFACTURING	-16%
FINANCIAL AND INSURANCE OPERATIONS	-10%
RENDERING OF ELECTRIC ENERGY, GAS, STEAM AND A/C	-10%
INFORMATION AND COMMUNICATION	-10%
COMMUNICATIONS	2%
AGRICULTURE, FORESTRY AND FISHERIES	17%
TOTAL	-39%

Participation of every industry in % change of total sales 2019-2020



The projected total decrease in earnings before interest tax depreciation and amortization of the sample businesses is 39%

Estimation of the effect on liquidity, in 2020 (€ billion)



The effect (decrease) on the liquidity of the companies in the sample is 5.6 billion

