

The strategic importance of Hospitality for Greece

March 2021



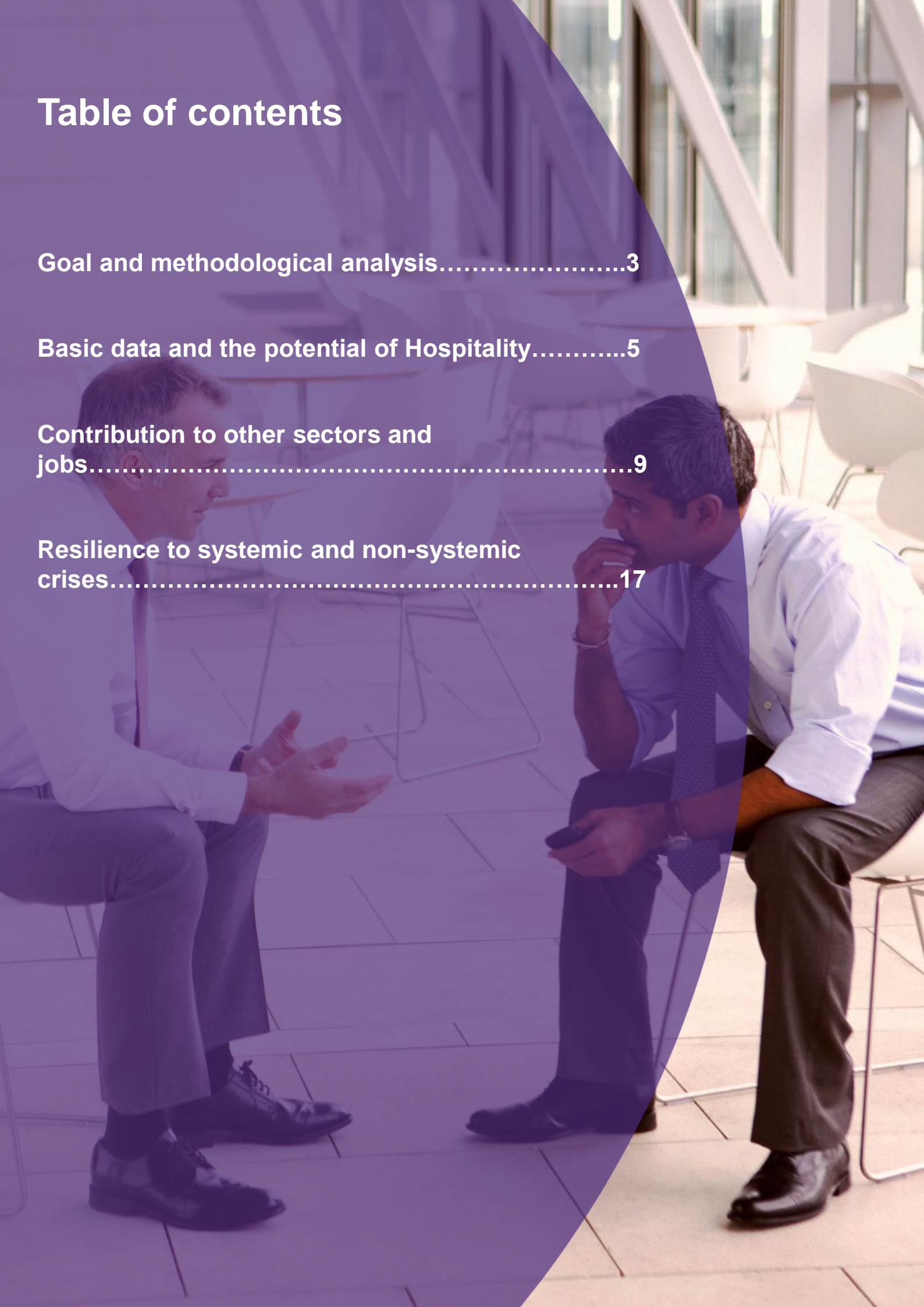
Table of contents

Goal and methodological analysis.....3

Basic data and the potential of Hospitality.....5

Contribution to other sectors and jobs.....9

Resilience to systemic and non-systemic crises.....17





**Goal and
methodological
analysis**

Goal and methodological analysis

For the goal of examining the **productive restructuring of Greece's tourism product**, basic data performance analysis for Hospitality (accommodation and food service activities) should:

- Act as a practical tool for the identification of the **potential** and the **contribution of Hospitality** to the Greek economy
- Explore its **response capabilities** to systemic and non-systemic crises

Parameters

Main data



Goals

- To identify **Hospitality's potential**
- To highlight benefits through the **examination of its interconnection** with the other sectors of the Greek **economy**
- To explore Hospitality's **resilience** to systemic (financial) and non-systemic (public health - COVID-19 pandemic) crises



Methodological steps

- Examination of Hospitality's **basic data** (turnover, added value, jobs, etc.)
- Identification of the "**connected**" sectors and assessment of contribution to them through the **implementation of investments** in Hospitality
- Exploration of Hospitality's **resilience** through the parametrisation and modelling of its "sensitivity" to shocks and recovery time after crises periods



Analysis tools

- **Statistical processing** of primary macroeconomic data from domestic and international databases
- **Microeconomic data analysis** (on a company level) to outline basic economic data and indicators
- Implementation of **econometrics analyses** (through linear and non-linear models), as well as **field research** for the assessment of its relative sensitivity and contribution to other sectors



**Hospitality's basic
economic data**

Hospitality's basic economic data



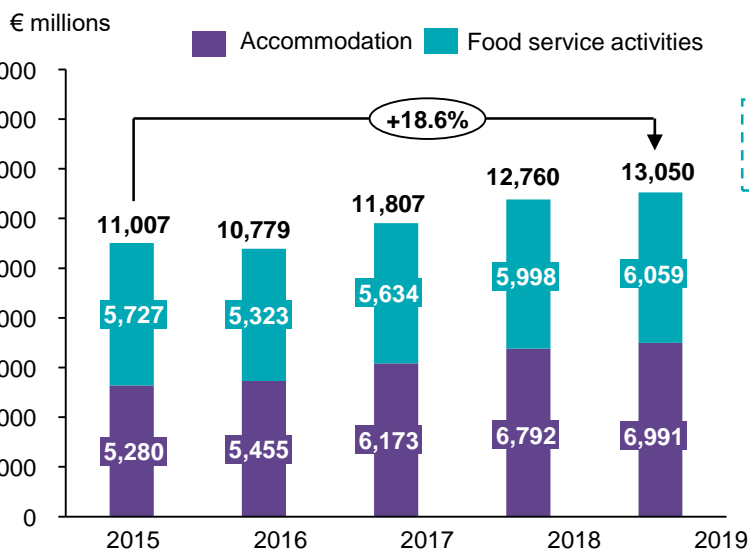
Its crucial role in the growth of the Greek economy.

Hospitality's potential becomes obvious through the examination of relevant reported economic data. The data analysis reveals that:

- There is a significant **increase in turnover** during the period in question (2015-2019)
- It plays an important role in the **growth of the economy**, given its increased contribution in terms of added value

Turnover performance

Gross value added (€ billions)



Sectors	2015	2016	2017	2018	2019	CAGR
Accommodation and food service activities	10.2	9.4	10.2	11.2	12.5	4.1%
Trade	18.6	18.1	18.7	19.5	19.4	0.9%
Public administration and defence, mandatory social insurance	16.3	16.1	16.1	16.0	15.9	-0.5%
Manufacturing	14.6	14.1	14.4	14.1	14.1	-0.7%
Real estate management	28.0	26.8	26.3	25.6	25.7	-1.7%
% of GVA of the first 5 sectors	56.4%	55.6%	55.3%	55.5%	55.1%	-0.5%
Total GVA	155.6	151.9	154.6	155.8	159.0	0.4%
Greece's GDP	176.1	174.2	177.2	179.7	183.4	0.4%

% of accommodation participation in overall Hospitality*:



Source: Processing of ELSTAT data (Economy and indicators, Business Structure Statistics)*: The percentage of accommodation participation includes that part of the turnover that concerns accommodation restaurants (which is recorded in the relevant catering data). Accommodation includes the all hotels, rooms to let, and other types of accommodation - most of the turnover (>90%) originates from hotel units.

Basic parameters



Hospitality financial growth:

- An important **increase** in the **total turnover** of Hospitality during the 2015-2019 period of **19%**



GVA contribution

- Accommodation and food service activities is one of the **top 5 sectors** regarding GVA contribution to the Greek economy
- **Hospitality has been growing** at an especially **increased rate** in recent years, claiming an increasingly larger portion of the total GVA

Financial benefits on a regional level

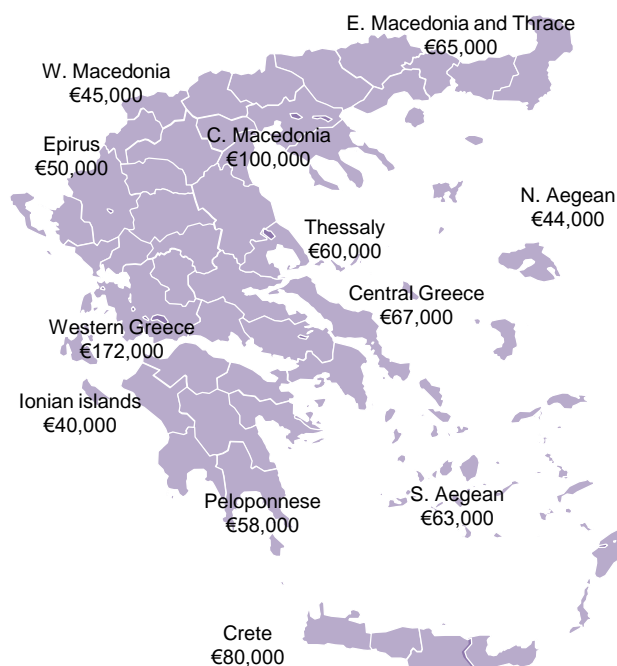
Hospitality contribution to regional growth

Further examination of the **number of active businesses** of the financial activity sectors **per region** and their contribution to the **gross value added**, makes apparent:

- The significantly increased **presence of Hospitality businesses** in rural areas (regions) of Greece in comparison to Attica
- Its broader contribution to the economy of all regions, which practically allows for the **mitigation of regional inequalities** and the **preservation of social cohesion**

Sectors	Region of Attica		All other regions		Overall total	
	Average number of businesses* (2017 - 2019)	% of total	Average number of businesses* (2017 - 2019)	% of total	Average number of businesses* (2017 - 2019)	% of total
Wholesale and retail	91,764	32.8%	168,736	34.7%	260,500	34.0%
Accommodation and catering service activities	21,171	7.6%	94,308	19.4%	115,479	15.1%
Scientific and technical activities	68,050	24.3%	71,286	14.6%	139,336	18.2%
Construction	22,248	7.9%	43,861	9.0%	66,109	8.6%
Manufacturing	21,253	7.6%	39,463	8.1%	60,716	7.9%
Transport and storage	25,660	9.2%	37,236	7.6%	62,896	8.2%
Administrative and support activities	9,560	3.4%	12,245	2.5%	21,805	2.8%
Information and communication	11,353	4.1%	7,241	1.5%	18,594	2.4%
Electricity, natural gas, steam and air conditioning supply	3,119	1.1%	6,366	1.3%	9,485	1.2%
Real estate management	5,226	1.9%	3,874	0.8%	9,100	1.2%
Water supply and waste management	533	0.2%	1,515	0.3%	2,048	0.3%
Mines and quarries	108	0.0%	623	0.1%	731	0.1%
Total	280,044	100.0%	486,749	100.0%	766,799	100.0%

Average GVA per active Hospitality business (2017-2019)



Employment parameters and labour cost



Hospitality as the main “employer” of the Greek economy.

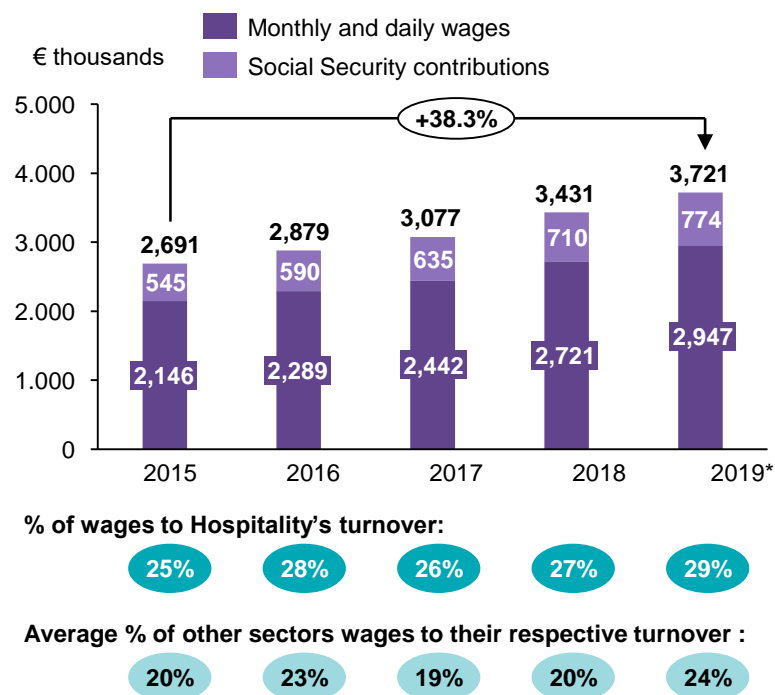
Beyond contributing on a financial level, Hospitality is a main factor in **supporting employment**. More specifically:

- Hospitality presented the **highest increase in employees** during the 2015-2019 period, in comparison to other sectors
- This potential is also what allowed for its **increase of the average wage per employee, over time**

Employee growth

(thousands of people)	2015	2016	2017	2018	2019	%Δ
1st Accommodation and food service activities	445	523	539	554	573	28.6%
2nd Retail	452	481	479	483	484	7.1%
3rd Plant and animal production	484	471	475	477	467	-3.5%
4th Public administration and defence	382	385	387	393	397	4.0%
5th Education	350	353	354	361	364	4.1%
% of employment of the first 5 sectors	48.9%	49.5%	50.2%	50.3%	50.1%	2.4%
Total number of employees	4,323	4,470	4,447	4,509	4,565	5.6%

Hospitality wages



Source: Processing of ELSTAT data (Economy and indicators, Business Structure Statistics)*: estimate.

Basic parameters



Employment share:

- Accommodation and catering is the **top job provider**, as the sector provides the largest **number of jobs**



Employment volume:

- **Increase over time** of people working in Hospitality **by ~30%** during the **2015-2019** period



Wages:

- Increase in **wages** (up **38%** from 2015 to 2019)
- The **wage percentage** in relation to the turnover of Hospitality **exceeds** the average of other sectors, **over time**

A photograph of a modern office hallway with wood-paneled walls and a patterned carpet. Several people are walking in motion, blurred to convey a sense of activity. A large, curved purple overlay covers the left side of the image. The text 'Contribution to other sectors and jobs' is written in white on the purple background.

**Contribution to other
sectors and jobs**

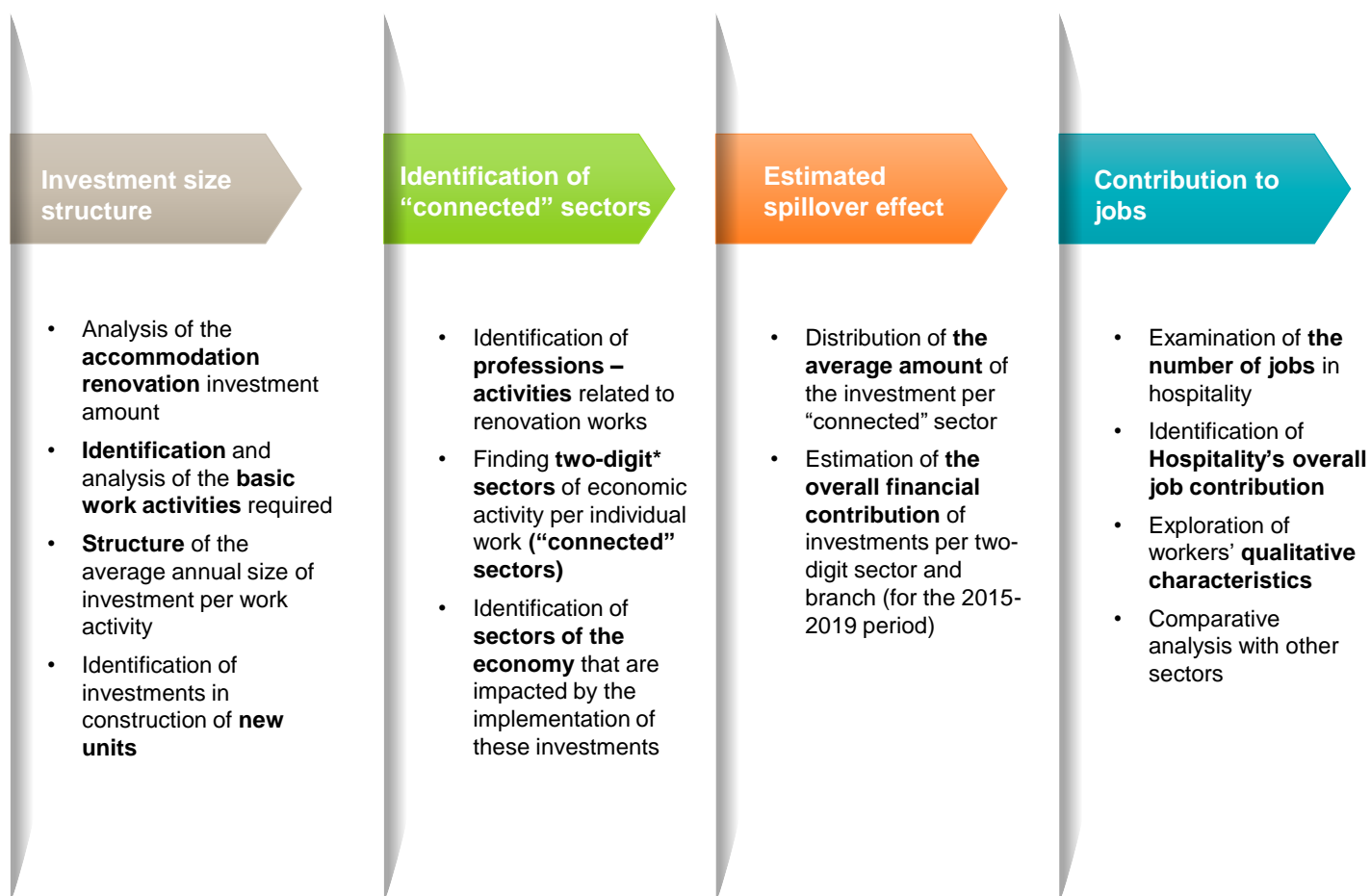
Outlining the contribution to productive potential



Investment contribution and Hospitality's contribution to employment

Hospitality's contribution to the productive potential of Greece can be outlined by:

- Estimating the **number of renovations** to accommodation on an annual basis and their relevant interconnection to other sectors
- Calculating the **investments in new** accommodation and food service units
- Identifying **supplies** procured by accommodation and food service units, contributing to the turnover of other sectors in practice.



Investment size structure

- Analysis of the **accommodation renovation** investment amount
- **Identification** and analysis of the **basic work activities** required
- **Structure** of the average annual size of investment per work activity
- Identification of investments in construction of **new units**

Identification of "connected" sectors

- Identification of **professions – activities** related to renovation works
- Finding **two-digit*** sectors of economic activity per individual work ("**connected**" sectors)
- Identification of **sectors of the economy** that are impacted by the implementation of these investments

Estimated spillover effect

- Distribution of the **average amount** of the investment per "connected" sector
- Estimation of the **overall financial contribution** of investments per two-digit sector and branch (for the 2015-2019 period)

Contribution to jobs

- Examination of the **number of jobs** in hospitality
- Identification of **Hospitality's overall job contribution**
- Exploration of workers' **qualitative characteristics**
- Comparative analysis with other sectors



Main investment works in accommodation



Connection to other activity sectors



"Spillover effects" to other sectors



Strengthening employment and creating new opportunities

Amount of investment in accommodation renovations



Investments of ~ €1 billion in accommodation renovations annually

The structure of the renovation investment amount is based on:

- The size of the overall investments accounted for **accommodation renovations** (mainly hotels) during the 2017-2019 period, and the differentiation in their amounts per accommodation category
- The estimation of an **average annual investment amount** per unit, taking into account the number of accommodation units per year and category

Overall renovation investment expense

Average investment per accommodation (hotel)

Renovation investments per category

€ thousands	2017	2018	2019	Sum 2017-2019
5*	319,067	280,552	247,827	847,446
4*	270,281	482,234	500,546	1,253,060
3*	151,714	195,195	144,773	491,682
2*	98,437	77,855	76,745	253,037
1*	21,879	11,657	15,566	49,102
Total investments	861,377	1,047,492	985,458	2,894,327

€ thousands	2017	2018	2019	Average 2017-2019
5*	643.3	510.1	406.3	519.9
4*	182.0	305.0	300.8	262.6
3*	60.3	73.7	53.1	62.4
2*	25.2	20.7	21.0	22.3
1*	15.8	8.7	11.8	12.1
Average investment amount	88.0	106.1	98.8	97.7

Structure of the average investment per work

Work activities category	Cost (€ thousands)	Share (%)
1. Building – construction works	19.5	20%
2. Technical works – infrastructure works	16.6	17%
3. Equipment – decoration	46.9	48%
4. Energy infrastructure upgrade works	7.8	8%
5. Outdoor works	3.8	4%
6. Work supervision and consultancy services	2.9	3%
Average investment amount	97.7	100%

Source: Processing of data from HCH (Statistics – Dynamics), ITEP (Research Institute for Tourism 'Progress of Greek hotel sector basic data'), GT analysis.

Basic parameters



Investment size:

- ~ **€3 billion investments in accommodation renovations** were made during the 2017-2019 period
- ~ **€1 billion total investment in renovations in 2019** in hotel accommodation
- The average investment amount **by each accommodation (hotel)** on an annual basis is estimated at ~ €100,000

Identification of “connected” sectors in the economy



Contribution to 17 major sectors and 9 branches through renovation investments

By exploring the professions – activities that correspond to each renovation work category, the following were identified:

- **17 major two-digit** activity sectors that concern the required construction works, retail and wholesale, and processing of required goods (furniture, decorative items, etc.), as well as the supervision of works and the provision of consultation services
- **9 impacted** activity branches out of a total of 20 branches of the economy (**45%** of the branches of the economy)

Individual renovation works

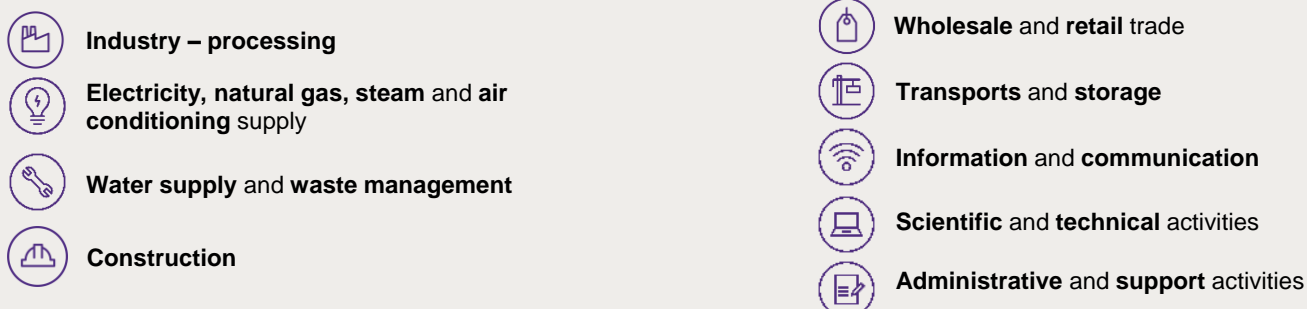
Category	Indicative works	Cost (€ thousands)	Share (%)
1. Building – construction works	<ul style="list-style-type: none"> • Carpentry • Dismantling • Flooring, roofing, etc. 	19.5	20%
2. Technical works - infrastructure works	<ul style="list-style-type: none"> • Plumbing • Electrical • Other network connections 	16.6	17%
3. Equipment – decoration	<ul style="list-style-type: none"> • Electrical equipment • Painting • Supply of furniture, lighting, linens, etc. 	46.9	48%
4. Energy infrastructure upgrade works	<ul style="list-style-type: none"> • Supply of required equipment • Installation works 	7.8	8%
5. Outdoor works	<ul style="list-style-type: none"> • Garden and pool works, and other layout works 	3.8	4%
6. Work supervision and consultancy services	<ul style="list-style-type: none"> • Engineers' fees • Plans • Permits, etc. 	2.9	3%
Average investment amount		97.7	100%

Basic “connected” sectors

Two-digit code	Sector description
43	Specialised construction activities
26	Computer, electronics, and optical goods manufacturing
27	Electrical equipment manufacturing
31	Furniture manufacturing
16	Wood industry and wooden product manufacturing
20	Production of chemical substances and products
23	Production of other non-metallic mineral products (flooring, roofing, etc.)
13	Textile material production
46	Wholesale, with the exception of mechanised vehicle and motorcycle trade
47	Retail, with the exception of mechanised vehicle and motorcycle trade
52	Storage and support of transport activities
35	Electricity, natural gas, steam and air conditioning supply
36	Water collection, processing, and supply
61	Telecommunications
70	Central office and management consultancy activities
71	Architectural activities and engineer activities, technical tests and analysis.
81	Building and outdoor space service provision activities

Source: Processing data from HCH (Statistics – Dynamics), ITEP (Research Institute for Tourism ‘Progress of Greek hotel sector basic data’), GT analysis.

Impacted sectors of the economy



Renovation investment spillover effect



Average annual total benefit ~ €1 billion to “connected” sectors

Based on the analysis of the **average annual investment amount in renovations** per hotel unit (~ €100,000), the following points transpire for “connected” sectors:

- Total financial contribution of **€4.8 billion** during the 2015-2019 period (~ €1 billion per year), through **investments in accommodation renovations**
- ~ **80%** of the financial benefits concern the **construction sector** and the sectors of **industry and trade** (wholesale and retail)

Estimated average contribution per investment (€ thousands)

Two-digit code	“Connected” sectors	Average contribution per investment	%
43	Specialised construction activities	29.0	29.7%
26	Computer, electronics, and optical goods manufacturing	4.6	4.8%
27	Electrical equipment manufacturing	6.4	6.6%
31	Furniture manufacturing	7.1	7.3%
16	Wood industry and wooden product manufacturing	3.0	3.0%
20	Production of chemical substances and products	2.9	2.9%
23	Production of other non-metallic mineral products (flooring, roofing, etc.)	1.7	1.7%
13	Textile material production	4.0	4.1%
46	Wholesale, with the exception of mechanised vehicle and motorcycle trade	8.6	8.8%
47	Retail, with the exception of mechanised vehicle and motorcycle trade	12.1	12.4%
52	Storage and support of transport activities	4.9	5.0%
35	Electricity, natural gas, steam and air conditioning supply	6.5	6.6%
36	Water collection, processing, and supply	1.2	1.2%
61	Telecommunications	1.9	1.9%
70	Central office and management consultancy activities	1.6	1.7%
71	Architectural activities and engineer activities, technical tests and analysis.	1.2	1.2%
81	Building and outdoor space service provision activities	1.1	1.1%
	Sector total	97.7	100.0%

Total annual investment contribution (€ millions)

2015	2016	2017	2018	2019	SUM 2015-2019	
282.6	281.8	255.5	310.7	292.3		1,422.9
45.3	45.1	40.9	49.8	46.9		228.0
62.5	62.3	56.4	68.7	64.6		314.5
69.7	69.5	63.0	76.6	72.1		350.9
29.0	28.9	26.1	31.8	30.0		145.8
28.1	28.0	25.3	30.9	29.0		141.3
16.3	16.2	14.7	17.9	16.9		82.0
38.9	38.8	35.2	42.8	40.3		196.0
84.2	84.0	76.1	92.6	87.0		423.9
117.7	117.4	106.4	129.4	121.7		592.6
47.6	47.5	43.1	52.4	49.3		239.9
63.2	63.0	57.2	69.4	65.4		318.2
11.8	11.7	10.6	12.9	12.1		59.1
18.1	18.1	16.4	19.9	18.7		91.2
15.8	15.8	14.3	17.4	16.4		79.7
11.3	11.3	10.2	12.4	11.7		56.9
10.9	10.8	9.8	12.0	11.2		54.7
952.9	950.2	861.4	1,047.5	985.5		4,797.5

Source: Processing data from HCH (Statistics – Dynamics), ITEP (Research Institute for Tourism ‘Progress of Greek hotel sector basic data’), GT analysis

Annual benefit from renovations per sector



€292 million in manufacturing



€284 million in construction



€204 million in wholesale/retail trade



€64 million electricity - natural gas supply



€48 million in transports / storage



€27 million in scientific and technical activities



€18 million in information/communication



€12 million water supply and waste management



€11 million in administrative and support activities

Creation of business units and supply expenses



Additional spillover effects to the economy

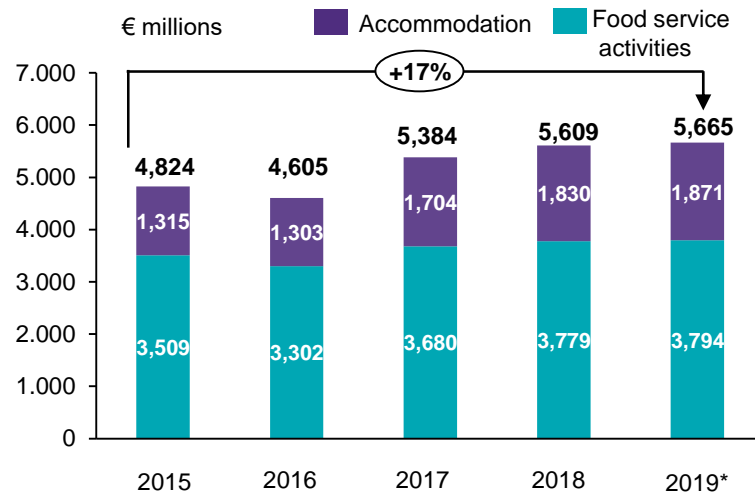
Beyond the spillover effect that arises from accommodation renovation, Hospitality creates additional financial benefits to the economy through:

- The implementation of investments for **the creation of new business units**
- **Expenditures** for the **purchase of supplies** required for the operation of accommodation and food service units

Hospitality business units

	2015	2016	2017	2018	2019*
Hotel units	9,757	9,730	9,783	9,873	9,971
Camping - Summer camps	296	281	286	285	288
Other accommodation (rooms to let, etc.)	21,032	21,796	20,952	20,392	20,619
Food service units	88,154	88,127	81,673	79,033	79,520
Total Hospitality units	119,239	119,934	112,694	112,784	110,938

Expenses for unit supplies**



Average supplies per accommodation (thousands):



Average supplies per food service unit (thousands):



Source: Processing of ELSTAT data (Economy and indicators, Business Structure Statistics), GT analysis, *: estimate, **: it is estimated that this includes purchases of supplies of fixed-durable goods of ~15%.

Basic parameters



Creation of business units:

- Increase in the number of hotels by **~210 units** during the 2015-2019 period.



Supply expenses:

- Increase of expenses for supplies by **42% in accommodation** and **8% in food service activities**



Additional spillover effect:

- The implementation of **investments for the creation of new accommodation units** and the **expenses for supplies** required for the operation of the units create an **additional spillover effect** to the economy

Total contribution of Hospitality to productivity potential



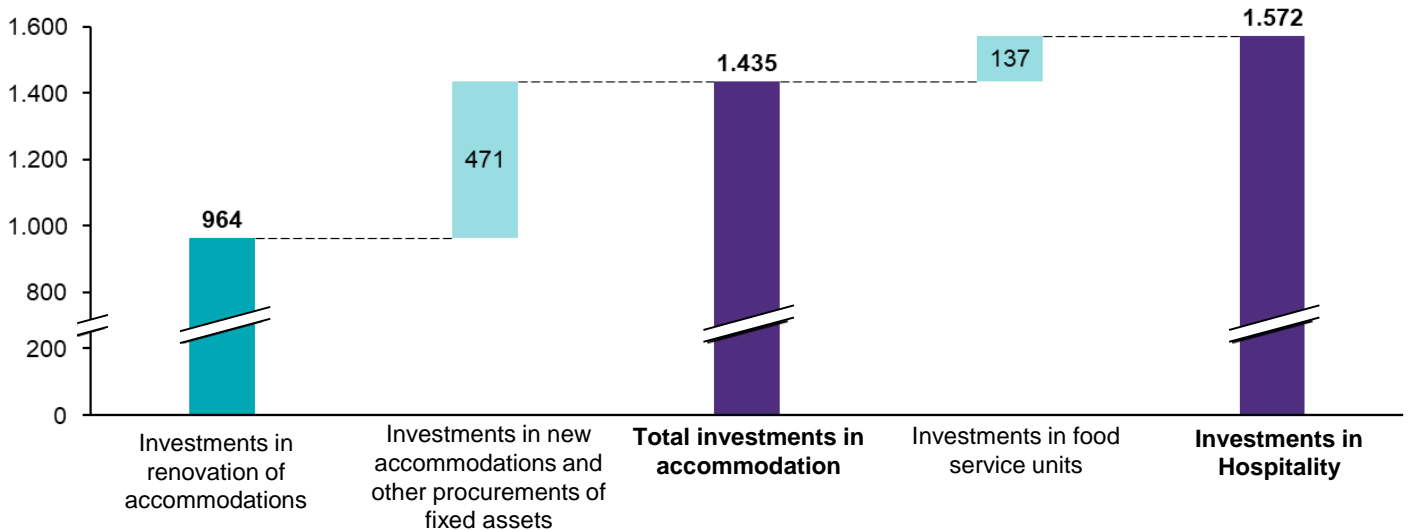
Average annual contribution above €1.5 billion from investments in Hospitality

The spillover effect of Hospitality to the productivity potential of Greece is, in the end, the result of:

- The amount of annual investments in **renovations** and the creation of **new** accommodation and food service units
- The **other investments** implemented by accommodation units through other supplies in durable goods

Average annual contribution of Hospitality

Average for 2017-2019 period (€ millions)



Source: Processing of ELSTAT data (Economy and indicators, Business Structure Statistics), GT analysis.

Benefits structure

The **€1.5 billion** total annual contribution of Hospitality to the economy, concerns:



61% investments for accommodation **renovations**



30% investments for the **creation of new accommodation and the supply of other durable goods**



9% investments for **food service units**

Contribution in employment

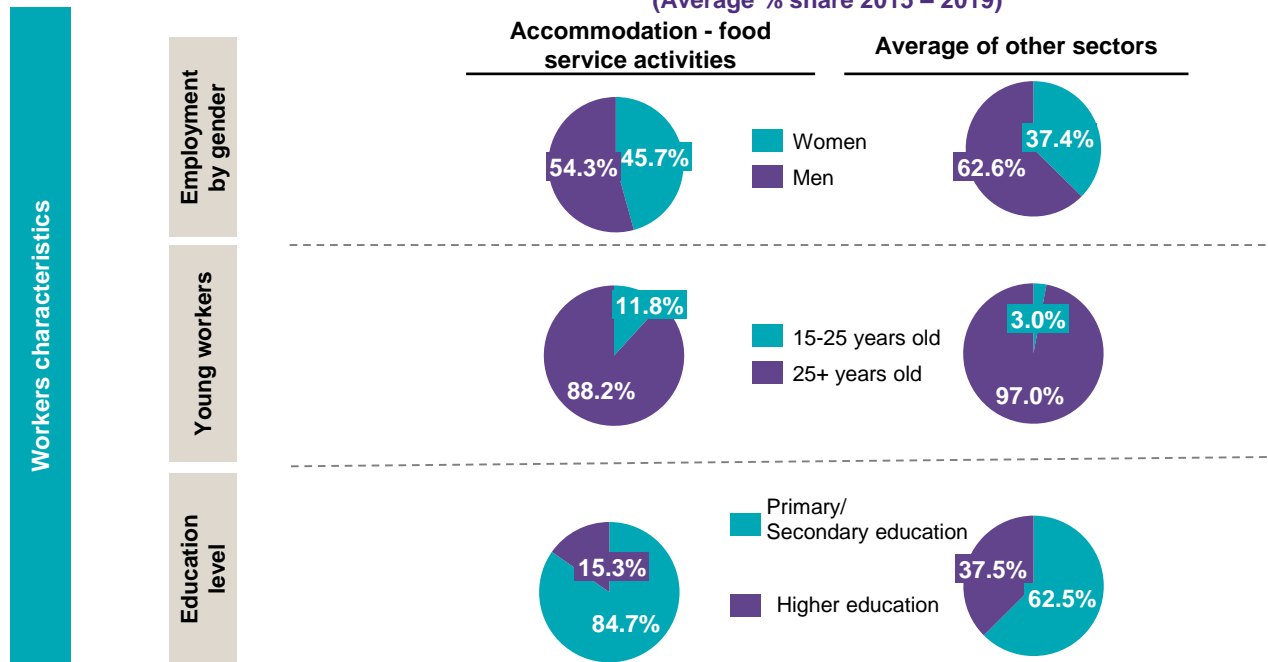


1 in 4 jobs is the result of Hospitality

In the context of supporting jobs and improving the qualitative characteristics of employment, Hospitality:

- **Leads the way** with the **highest contribution** to the increase of the annual number of workers
- Contributes to the increase of employment opportunities through the promotion of **gender equality** in the workplace, the **reduction of youth unemployment**, and the creation of employment opportunities for **individuals with little access to education**

		2015	2016	2017	2018	2019	Sum 2015-2019
Contribution in jobs	1 th Accommodation and food service activities	28,417	15,639	9,514	11,035	20,130	84,735
	2 th Wholesale and retail trade, mechanised vehicle repair	35,244	-2,904	21,305	9,307	3,362	66,314
	3 th Manufacturing	18,043	13,187	10,533	-447	19,300	60,616
	4 th Human health and social welfare activities	5,012	4,170	13,193	10,954	5,875	39,204
	5 th Transports and storage	-3,177	16,612	3,276	-3,581	22,197	35,327
	Total positions	74,453	62,867	79,115	75,347	83,009	374,791



Source: Processing of ELSTAT data (Economy and indicators, Business Structure , Statistics, Workforce survey), GT analysis

Contribution parameters

Hospitality...



Contributes to overall jobs: 1 in 4 additional jobs in the economy are the result of Hospitality



Contributes to the reduction of youth unemployment: the share of young workers is more than ~ 9% higher than the average share of other sectors



Promotes gender equality in the workplace: approximately half (46%) of workers are female



Creates job opportunities: 85% of workers are individuals with primary and secondary education



**Resilience to
systemic and non-
systemic crises**

Broadening Hospitality's resilience

Definition, concept and tools

A sector's resilience may be defined through two main pillars of analysis:

- The **response** of businesses' financial and operational data during **systemic** (economic recessions) and **non-systemic** crises (COVID 19)
- The **absorption** of the impact from external changes and, mainly, the estimated **recovery time**

Parameters



Resilience Hospitality

- The resilience of Hospitality is explored through the analysis of the **turnover performance** during **systemic and non-systemic crises**
- Examination of the performance and changes in Hospitality turnover during the period of **economic crisis** and the **COVID-19 crisis**

Main data



Methodology

- Comparison of Hospitality **turnover performance** with other sectors
- Analysis of specific **resilience indicators** (absorption degree and required external change recovery time)



Analysis tools

- Examination of **balance sheets** from a representative sample of companies (~100,000 businesses)
- Estimation of the **statistical correlation** between Hospitality financial data and demand (tourism traffic)
- **Econometrics analyses** of the reaction degree of each sector to the cyclical nature of the economy ("**business cycles**") and determination of the impact of **external changes**

Hospitality Resilience to the financial crisis



Increase of turnover by €3 billion during the crisis period

Examining the performance of Hospitality turnover during the period of the financial crisis, it is observed that:

- It immediately **dealt with the losses** from the financial crises of the past decade
- It presented an **increase in turnover of €3 billion**, while the overall economy recorded cumulative losses of ~ €12 billion

Performance of financial sectors' turnover during the 2010-2019 decade

Periods of economic crises

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Turnover (€ billions)										
A Agriculture, Forestry, Fisheries	8.1	6.4	6.6	7.3	7.2	7.4	7.8	7.7	6.6	6.7
B-C Manufacturing, Mining, Quarries	57.7	58.5	58.9	57.1	58.9	54.2	47.3	54.8	65.2	64.8
D-E Electricity, Natural gas, Water supply	6.7	6.8	11.9	13.5	14.0	21.2	19.8	22.8	18.4	19.1
F Construction	14.8	13.2	13.6	11.2	9.9	10.4	9.2	9.9	9.8	9.8
G Trade	149.6	137.9	120.2	114.4	107.6	102.1	102.1	109.4	121.1	122.6
H Storage and transports	13.4	12.5	11.7	11.5	12.3	13.1	13.2	14.4	16.4	16.8
I Accommodation and food service provision services	10.3	9.6	8.3	8.6	10.6	10.9	10.2	11.7	12.4	13.1
J Communication and information	12.4	10.1	9.6	9.1	9.7	9.5	9.4	9.8	11.0	11.9
K Real estate management	0.5	0.5	0.5	0.6	1.4	1.3	1.4	1.4	1.7	3.2
L-M Scientific and administrative activities	18.8	15.7	15.1	13.5	13.9	13.2	12.9	14.5	17.2	16.8
N-O Other sectors	14.7	13.5	11.9	11.7	12.8	12.2	12.1	12.6	10.1	10.5
Sectors' total	307.1	284.8	268.3	258.6	258.4	255.4	245.5	269.0	289.9	295.4
Cumulative changes (€ billions)										
A Agriculture, Forestry, Fisheries		-1.7	-1.5	-0.8	-0.9	-0.7	-0.3	-0.4	-1.5	-1.4
B-C Manufacturing, Mining, Quarries		0.9	1.2	-0.5	1.3	-3.4	-10.4	-2.8	7.5	7.2
D-E Electricity, Natural gas, Water supply		0.1	5.1	6.7	7.3	14.4	13.1	16.1	11.7	12.4
F Construction		-1.6	-1.2	-3.6	-4.9	-4.4	-5.6	-4.9	-5.0	-5.0
G Trade		-11.7	-29.5	-35.2	-42.0	-47.5	-47.6	-40.2	-28.5	-27.0
H Storage and transports		-0.9	-1.8	-2.0	-1.2	-0.4	-0.2	1.0	3.0	3.4
I Accommodation and catering provision services		-0.7	-1.9	-1.6	0.3	0.6	-0.1	1.4	2.2	2.8
J Communication and information		-2.3	-2.8	-3.3	-2.7	-2.9	-3.0	-2.6	-1.4	-0.4
K Real estate management		0.1	0.1	0.1	0.8	0.8	0.9	0.9	1.1	2.7
L-M Scientific and administrative activities		-3.2	-3.7	-5.3	-4.9	-5.6	-6.0	-4.3	-1.6	-2.1
N-O Other sectors		-1.1	-2.8	-2.9	-1.9	-2.5	-2.6	-2.1	-4.6	-4.2
Sectors' total		-22.3	-38.8	-48.5	-48.7	-51.6	-61.6	-38.1	-17.2	-11.7

Source: Processing of ELSTAT data (Economy and indicators, Business Structure Statistics), GT

Basic parameters



Size of losses:

- Hospitality is **one of the three main sectors** which recorded an **increase in turnover** during the period of financial crisis (**of €3 billion**)
- It succeeded in **not accumulating losses** in multiple “neighbouring” time periods



Hospitality's resilience to systemic crises:

- Its capability to immediately respond to the **economic consequences** of the financial crisis reveals its **high level of resilience** to systemic crises

Hospitality's resilience to non-systemic (COVID-19) crises



Holding back the financial consequences of the pandemic

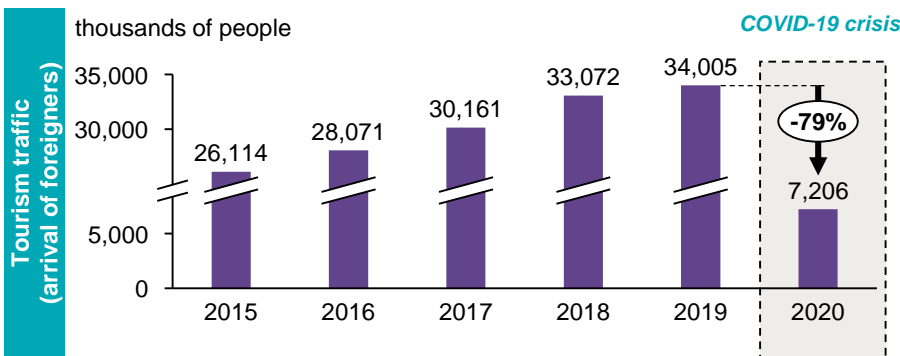
From further examining its resilience to non-systemic crises (health crisis COVID-19) through **the statistical correlation of Hospitality's economic data with demand data** (tourism traffic), it transpires that:

- **There were fewer losses** in Hospitality's turnover, given the **drop in tourism traffic** in 2020
- Hospitality is capable of **holding back losses** created by non-systemic crises

Methodology

- **Tourism traffic and turnover analysis:** examination of passenger arrivals in Greece and Hospitality's turnover during the 2015-2020 period
- **Degree of correlation:** econometrics and statistical examination of the correlation of the two variables, and determination of the impact of arrivals on turnover
- **Estimated turnover for 2020:** Forecast of the estimated turnover for 2020, based on the change in arrivals
- **Resilience:** Examination of the difference between the estimated and real turnover for 2020

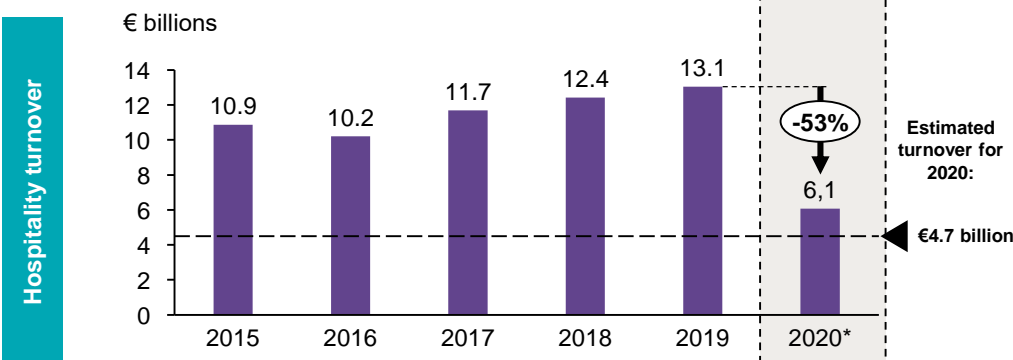
Performance of arrivals and Hospitality turnover



Basic parameters

Performance of arrivals and degree of correlation:

- The COVID-19 crisis and the relevant restrictions resulted in a reduction in tourism traffic **by ~80% in 2020**
- There is a very **strong correlation** between arrivals and Hospitality turnover (a 1% change in arrivals leads to a 0.8% change in turnover)



Hospitality's resilience to non-systemic crises:

- Based on the correlation, the turnover for 2020 would have been €4.7 billion (€8.4 billion in losses)
- However, in the end, the real turnover was **30% higher (€6.1 billion)**, essentially revealing the capabilities of Hospitality to hold back losses from **non-systemic crises**.

Source: Processing of data from the Bank of Greece (Travel services), ELSTAT (Economy and indicators, Business Structure Statistics), GT analysis, *: The amount of €6.1 billion includes the €2.3 billion turnover for accommodation and €3.8 billion for catering.

Resilience to business cycles and external changes



High degree of response and immediate recovery

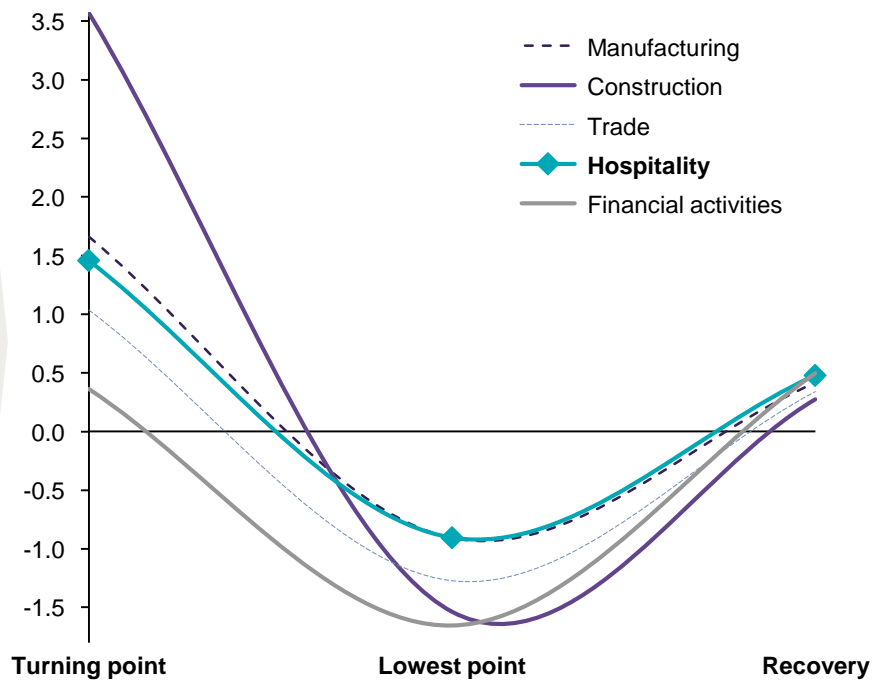
Examining the **sensitivity** of characteristic sectors of the economy to **external changes**, through the analysis of economic data (turnover, etc.) on a monthly basis, reveals that Hospitality:

- Displays signs of **rapid recovery** of turnover losses caused by external factors
- Is more capable of **absorbing** negative business cycles and **immediately using the funds** eventually invested in it

Sector response to external changes

Sectors	Sensitivity	Recovery time (years)
1 th Hospitality	0.10	0.50
2 th Construction	0.31	0.65
3 th Financial activities	0.05	0.69
4 th Manufacturing	0.04	1.39
5 th Trade	0.15	1.61

Capability to absorb negative business cycles



Source: Processing of ELSTAT data (Economy and indicators, Business Structure Statistics), Grant Thornton (financial data for ~ 100 thousand companies), GT analysis

Basic parameters



Response to external changes:

- Hospitality is characterised by the capability to **rapidly deal with** and **respond to** external changes (**recovery in ~ ½ year**)



The cyclical nature of Hospitality

- It is characterised by a **higher capability to absorb negative business cycles** than other sectors (commerce, construction, financial activities, etc.)

Analysis conclusions

The potential, contribution, and resilience of Hospitality

The examination of the basic data and performance of Hospitality in recent years highlights:

- Its **potential** and contribution to **financial growth** and **employment**
- Its **resilience** and **capability** to respond to external factors and crises

Parameters

Main data



Evolution and potential Hospitality

- Significant contribution of Hospitality to **the strengthening of the economy** and **regional development**
- Pivotal role in the absorption **of a large part of the labour force** of Greece



Contribution to productive potential

- **Spillover effect** in **17 sectors** of financial activity and **9 branches** with an annual contribution of approximately **€1 billion** from the implementation of hotel unit renovation investments
- Total annual contribution of more than **€1.5 billion** from **investments in Hospitality** (total accommodation and catering units)
- **Hospitality leads** the sector in job opportunities (**1 in 4 jobs** are the result of Hospitality)



Resilience Hospitality

- **Very capable** of dealing with the financial consequences of **systemic** and **non-systemic crises**
- **High responsiveness** and **rapid recovery** of Hospitality to external changes
- Every euro that is eventually **invested and spent** in the Hospitality sector **directly contributes to, and impacts** Greece's total productive potential



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