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ΤΩΝ ΔΙΕΥΘΥΝΤΩΝ
ΣΥΝΤΑΞΗΣ

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The impact of inflation on SMEs: Evidence from a survey on Greek SMEs

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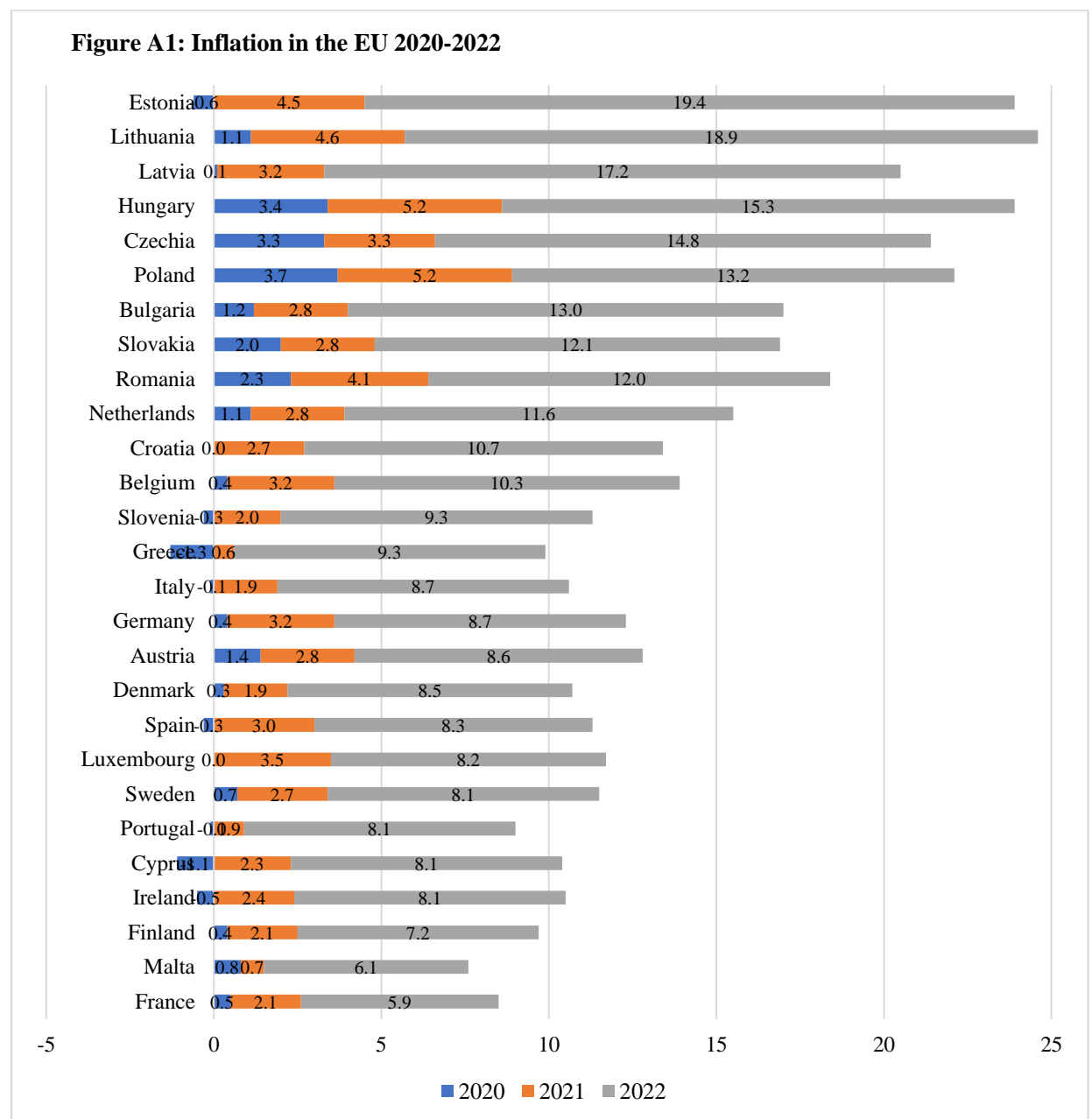
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Annex 1

Table A1: Inflation divergence within the EU and the Eurozone (2011-2022)													
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
EU	Mean	3.19	2.88	1.30	0.28	-0.07	0.13	1.71	1.90	1.68	0.70	2.83	10.73
	Standard Deviation	1.03	0.94	0.96	0.68	0.65	0.72	0.82	0.82	0.95	1.30	1.19	3.70
	Variance	1.07	0.89	0.91	0.47	0.42	0.52	0.67	0.68	0.90	1.69	1.43	13.69
Eurozone	Mean	3.15	2.79	1.33	0.34	-0.05	0.20	1.72	1.79	1.42	0.20	2.57	10.24
	Standard Deviation	0.90	0.70	0.96	0.61	0.67	0.66	0.90	0.69	0.78	0.82	1.07	3.90
	Variance	0.82	0.49	0.92	0.38	0.44	0.44	0.81	0.48	0.61	0.67	1.14	15.21

Source: Eurostat



Source: Eurostat

Table A2: Basic demographic data of the surveyed enterprises.	
Sector	
Wholesale and retail trade and repair of motor vehicles and motorcycles	23.0%
Accommodation and catering services	23.0%
Manufacturing	16.3%
Other service activities	8.9%
Construction	5.2%
Professional, scientific and technical activities	3.7%
Education	3.7%
Economic, financial, insurance services, real estate management	3.0%
Arts, fun and entertainment	3.0%
Human health and social care activities	1.5%
Transport and storage	1.5%
Information and communication	0.7%
I'm not sure which industry I belong to	6.7%
Region	
Crete	22.2%
Attica	21.5%
Central Macedonia	19.3%
Western Greece	5.9%
Peloponnese	6.7%
Central Greece	5.9%
Western Macedonia	4.4%
Thessaly	4.4%
Eastern Macedonia & Thrace	3.7%
Ionian Islands	2.2%
South Aegean	2.2%
Epirus	0.7%
N/A	0.7%
Population of the area where the enterprise is located	
over 100.000 inhabitants.	46.7%
50.000 - 100.000 inhabitants	14.8%
10.000 - 50.000 inhabitants	14.8%
2.000 - 10.000 inhabitants	11.1%
up to 2.000 inhabitants	12.6%
Years of operation	
Up to 5 years	16.3%
5 - 10 years	10.4%
Over 10 years	73.3%
Age of the owner of the business	
up to 29 years old	1.5%
30 - 39 years old	17.0%
40 - 49 years old	37.8%
50 - 59 years old	34.1%
60 years and over	9.6%
Highest completed level of education of the business owner	
Primary or secondary education	17.8%
Post-secondary vocational school / Institute of vocational training	25.9%
Institution of higher technical education	39.3%
Postgraduate / PhD	17.0%
Turnover in the year 2021	
Up to 100.000€	51.9%
...under 50.000 €	30.4%
... from 50.000 € to 100.000 €	21.5%
From 100.000€ to 500.000€.	28.9%
...from 100.000 € to 300.000 €	17.8%
...from 300.000 € to 500.000 €	11.1%
From 500.000€ and above	19.3%
...from 500.000 € to 1.000.000 €	6.7%
...over 1.000.000 €	12.6%
Number of employees working in the enterprise	

It does not employ employees	22.2%
Up to 9 staff	61.5%
...from 1 to 4 people	47.4%
...from 5 to 9 people	14.1%
From 10 to 49 staff	14.0%
10 - 19 persons	9.6%
20 - 49 persons	4.4%
Over 50 people	2.2%
Main source of revenue	
Mainly from finished goods	71.9%
Mainly from intermediate goods	8.9%
Both	17.8%
N/A	1.5%
Export activity	
Yes	17.0%
No	81.5%
N/A	1.5%

Table A3: Key parameters for the analysis of the questionnaire	
Total enterprises, of which...	135
New (less than 10 years of operation)	27%
Old (more than 10 years of operation)	73%
In medium and large urban centres (over 100.000 inhabitants)	47%
In small urban or semi-urban centres (up to 100.000 inhabitants)	53%
Very small (annual turnover up to 100.000 €)	52%
Small (annual turnover from 100.000 € to 500.000 €)	29%
Medium (annual turnover over 500.000 €)	19%
Revenue from the sale of finished goods only	73%
Revenue from the sale of intermediate goods	27%
They export	17%
They do not export	83%

Table A4: Regardless of what you have done, how effective do you consider the following strategy to be?

Strategy	Percentage of enterprises that have adopted the strategy	Percentage of businesses that have considered the strategy...	
		Very effective	Little or no effectiveness or causes costs to the business and is rejected
Try to improve labour productivity	37.8%	52.3%	47.7%
Energy savings through investment in less energy-intensive equipment/lighting.	29.6%	52.5%	47.5%
Improved materials/inventory management	43.0%	49.0%	51.0%
Expansion of the company's activity into new fields of activity and markets	27.4%	44.4%	55.6%
Saving energy by reducing the use of equipment and lighting.	42.2%	32.0%	68.0%
Introduction of new cheaper products in the range of products/services	17.0%	22.7%	77.3%
Internalization of functions that were previously outsourced	8.9%	22.7%	77.3%
Delayed payment of debts to the State	27.4%	20.4%	79.6%
Introduction of premium products in the range of products/services	5.2%	19.7%	80.3%
Renegotiation of payment contracts with partner companies	5.9%	19.6%	80.4%
Change of suppliers	23.7%	16.8%	83.2%
Delayed payment of debts to individuals	19.3%	15.1%	84.9%
Staff reduction	11.9%	14.6%	85.4%
Diversification of raw materials/commodities	20.7%	14.1%	85.9%
Reduction of quantities	25.2%	11.2%	88.8%
Sale of fixed assets	4.4%	8.3%	91.7%

Annex 2 - IME GSEVEE's questionnaire

1. Age

Up to 29 years	30 - 39 years	40 - 49 years	50 - 59 years	60 years and over
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2. Education

Primary or secondary education	Post-secondary vocational school / Vocational training	Higher educational institution / Higher technical educational institution	Master/ PhD
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3. Region

Attica	Eastern Macedonia & Thrace	North Aegean	Western Greece	Western Macedonia
Epirus	Thessaly	Ionian Islands	Central Macedonia	Crete
South Aegean	Peloponnese	Central Greece		

4. In which sector does your business belong to?

Manufacturing	Construction	Wholesale and retail trade and repair of motor vehicles and motorcycles
Transport and storage	Accommodation and catering services	Information and communication
Economic, financial, insurance services, real estate management	Professional, scientific, and technical activities	Education
Human health and social care activities	Arts, fun and entertainment	Other service activities
I'm not sure which industry I belong to		

5. Your business is established in an area with:

Up to 2.000 inhabitants	2.000 - 10.000 inhabitants	10.000 - 50.000 inhabitants	50.000 - 100.000 inhabitants	Over 100.000 inhabitants.
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6. How many years is your business in operation?

Up to 5 years	5-10 years	More than 10 years
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7. Your revenues derive:

mainly from the sale of finished goods	mainly from the sale of intermediate goods	equally from the sale of intermediate and final goods
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8. Does your business export?

Yes	No
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9. What percentage of your production is wasted or thrown away?

None	Up to 5%	6% - 10%	11% - 20%	21% - 30%	More than 30%
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10. What was your turnover in 2021?

Up to 50.000 €	50.000 € - 100.000 €	100.000 € - 300.000 €	300.000 € - 500.000 €	500.000 € - 1.000.000 €	More than 1.000.000 €
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11. How many employees does your business employ?

I do not employ any employees (self-employed)	1 - 4 employees	5 - 9 employees	10 - 19 employees	20 - 49 employees	More than 50 employees
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12. In 2022 did your business increase its staff?

No	Yes, by 1 employee	Yes, by 2 employees	Yes, by 3-5 employees	Yes, by more than 5 employees
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13. In 2022 did your business decrease its staff?

No
Yes, but the reduction had nothing to do with the economic situation.
Yes, and the decrease was a result of the economic situation (e.g. an attempt to limit the overall operating costs of the business due to an increase in other cost categories).

14. Do you currently have an investment plan that you plan to activate within the next three years?

No, I do not have a specific investment plan for the next three years
Yes, I have an investment plan and - barring an unforeseen eventuality - I intend to implement it.
Yes, I have an investment plan, but I have postponed its implementation due to the general economic developments.

15. In the current year (2022) what do you estimate was the percentage contribution of the following cost categories to the total operating costs of the business

	Staff/payroll	Raw materials/commodities	Energy/Transport	Rental costs	Other costs
0%					
Up to 5%					
6% - 10%					
11% - 15%					
16% - 20%					
21% - 25%					
26% - 30%					
31% - 35%					
36% - 40%					
41% - 45%					
45% - 50%					
More than 50%					

16. By what percentage do you estimate that the following costs have increased this year?

	Energy cost	Transport costs (only fuel and vehicle maintenance costs are included in transport costs. Any vehicle rental costs are not included)	Expenditure on supplies/commodities/raw materials	Rental cost	Vehicle rental costs (leasing)
I have no such expense					
It has not increased					
Up to 10%					
11 % - 20%					
21% - 30%					
31% - 40%					
41% - 50%					
51% - 60%					
61% - 70%					
71% - 80%					
81% - 90%					
91% - 100%					
More than 100%					

17. How do you expect turnover to develop in the current year (2022)?

Significantly increased compared to last year	Slightly increased compared to last year	About the same level as last year	Slightly decreased compared to last year	Significantly lower than last year
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18. How do you expect your business's balance sheet to close this year (2022)?

With losses	Balanced	With profits
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19. Apart from the increase in operating costs, what are the most important effects of inflation on the operation of your business?

Inability to find raw materials/products due to supply chain disruption	Increase in inventory replacement cost
Pressures for wage increases from employees	Increased competition with other businesses
Reduction in demand for products/services by final consumers	Suspension of investment decisions
Reduction in demand for products/services by final consumers	Accelerating investment decisions
Increase in demand for products/services by final consumers	Increase in the amount of overdue debts to the private sector
Reduction in demand for products/services from businesses that you supply	Decrease in the amount of overdue debts to the private sector
Increase in demand for products/services from businesses that you supply	Increase in the amount of overdue debts to the public sector
Increase in lending cost	Decrease in the amount of overdue debts to the public sector
Decrease in lending cost	

20. In the current year have you made any salary increases for your staff?

No, wage remained stable	Yes, but the increase was almost entirely due to the imposed increase in the minimum wage.	Yes, up to 10%	Yes, from 11% to 15%	Yes, for more than 15%
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21. In the current circumstances, do you think it is likely that your business will be at risk of closure?

Very possible	Quite possible	Slightly possible	Not at all possible
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22. Until last year (2021), how often did you adjust the prices?

Every 6 months	Every year	Every 2 years	Less often than every 2 years
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23. During 2022 have you increased prices?

Yes, but the increase was planned and was not imposed by inflation.	Yes, the increase was planned but its amount was affected by inflation	Yes. The increase was not planned but was imposed by inflation	No
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24. In your estimation, what was the average price increase you have made?

There were not any increases	Up to 5%	6% - 10%	11% - 20%	21% - 30%	More than 30%
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25. Given the above increase, what percentage of the additional operating costs have you absorbed?

I have not absorbed any cost increase at all.	Up to 5%	6% - 10%	11% - 20%	21% - 30%	More than 30%
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26. Regardless of whether you have already increased prices in 2022, do you plan to increase your prices in the next six months?

No, I do not plan to increase prices	Up to 5%	6% - 10%	11% - 20%	21% - 30%	More than 30%
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27. Apart from possible price increases, which of the following practices have you adopted to cope with inflationary pressures on your business operating costs?

Reduction of quantities	Improved materials/inventory management	Improve labour productivity	Staff reduction
Changing suppliers	Diversification of raw material	Introduction of new cheaper products	Introduction of premium products
Saving energy through investment in less energy-intensive equipment/lighting.	Saving energy by reducing the use of equipment and lighting.	Expansion of activities into new fields and markets	Sale of fixed assets
Internalisation of functions	Renegotiation of payment contracts with partner companies	Delayed payment of debts to the public sector	Delayed payment of debts to the private sector

28. Regardless of whether you have adopted it, how effective do you think each of the following inflationary pressure reduction practices?

	Very effective	A little effective	Not effective at all	I reject it because it will have a negative impact on my business
Reduction of quantities				
Improved materials/inventory management				
Improve labour productivity				
Staff reduction				
Changing suppliers				
Diversification of raw material				
Introduction of new cheaper products				
Introduction of premium products				
Saving energy through investment in less energy-intensive equipment/lighting.				
Saving energy by reducing the use of equipment and lighting.				
Saving energy by reducing the use of equipment and lighting.				
Expansion of activities into new fields and markets				
Sale of fixed assets				
Internalisation of functions				
Renegotiation of payment contracts with partner companies				
Delayed payment of debts to the public sector				
Delayed payment of debts to the private sector				

29. How do you assess the impact of inflation on your business?

Very negative	A little negative	Neither positive nor negative	A little positive	Very positive
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30. How do you assess the government's interventions to address the increase in energy costs?

Positive and/or in the right direction	Ineffective, weak,
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31. Is there anything else about how inflation affects your business that you would like to comment on?

32. Is there a policy proposal that you think would make it easier for your business to cope better with inflation?

Annex 3 - Firm size and imminent closure

We examine the correlation between the size of firms, in terms of turnover and employment, and their perceived risk of closure during the inflationary crisis. We report Chi-Square tests and, in particular, Fisher's exact test because the distribution of the variables resulted in cells with expected frequencies <5, thus invalidating the classical Chi-Square test.

In terms of turnover, we categorise firms into those with a turnover of less than 50.000 € and those with a turnover of 50.000 € and above. Our results show that 66% of smaller enterprises think that an imminent closure is very likely or quite likely, while only 35% of larger enterprises think the same.

Table A.3.1: Risk of closure and turnover size						
		Very likely	Quite likely	Slightly likely	Not at all likely	Total
Turnover	Below 50.000 €	9	18	9	5	41
	50.000 € and above	14	19	42	18	93
Total		23	37	51	23	134
Chi-Square Test						
		Value		Exact Sig. (2-sided)		
Fisher-Freeman-Halton Exact Test		11.136		.010		
N of Valid Cases		134				

In terms of employment, we divide enterprises into those with 0-9 employees and those with 10 or more employees. In the former category, 49% of enterprises consider imminent closure to be very or fairly likely, while only 12.5% of larger enterprises think the same.

Table A.3.2: Risk of closure and employment size						
		Very likely	Quite likely	Slightly likely	Not at all likely	Total
Employment	0-9 employees	23	35	42	18	118
	10 employees and above	0	2	9	5	16
Total		23	37	51	23	134
Chi-Square Test						
		Value		Exact Sig. (2-sided)		
Fisher-Freeman-Halton Exact Test		8.329		.026		
N of Valid Cases		134				

In both cases, the Fisher-Freeman-Halton exact test shows that our results are statistically significant.