

PIRAEUS BANK



**Greek Macro Outlook:
No “Scarring” & No “Hysteresis” – Only “Goldilocks”**

Greek & Regional Economics Research (GREC) Team

Economic Research & Investment Strategy

January 2021

No “Scarring” & No “Hysteresis” - Only “Goldilocks”



- Από το Μάρτιο, όταν και ξέσπασε παγκοσμίως η πανδημία του Covid-19, οι κύριες ανησυχίες μας συνδέονταν με τις μακροπρόθεσμες επιπτώσεις τις οποίες επρόκειτο να επιφέρει η ύφεση στην ελληνική οικονομία. Το σκεπτικό μας εκείνη την περίοδο, δεδομένων και των ζητημάτων που έχει κληρονομήσει η Ελλάδα - όπως το υψηλό χρέος και NPLs, η περιορισμένη πιστωτική επέκταση και η σχεδόν μηδενική ικανότητα για δημοσιονομική επέκταση - ήταν ότι η επικείμενη ύφεση θα οδηγούσε σε μόνιμη και ουσιαστική απώλεια παραγωγής.
- Από τότε, μία σειρά γεγονότων όπως η ένταξη των ελληνικών ομολόγων στο πρόγραμμα PEPP της ΕΚΤ, η χαλάρωση των κανόνων δημοσιονομικής πειθαρχίας και το πρόγραμμα χρηματοδότησης NextGen EU μας οδήγησαν στην αναθεώρηση της θέσης μας.
- Πρωτίστως, τώρα έχουμε στοιχεία για το πρώτο εννεάμηνο του 2020. Ως εκ τούτου, είμαστε σε θέση να έχουμε μία πολύ πιο ακριβή εικόνα του οικονομικού αντίκτυπου της πανδημίας COVID-19. Αυτό ισχύει όχι μόνο για τα στοιχεία του ΑΕΠ, αλλά και για την ανεργία, την πιστωτική επέκταση και τις τιμές ακινήτων. Πρέπει επίσης να ενσωματώσουμε και την ουσιαστική στατιστική αναθεώρηση από πλευράς ΕΛΣΤΑΤ, των στοιχείων του ΑΕΠ που καλύπτουν την περίοδο 2010-2020. Επιπλέον, σχετικά με τις βραχυπρόθεσμες προβλέψεις μας, πρέπει να εξετάσουμε την επίδραση του δεύτερου lockdown σε ολόκληρη τη χώρα το οποίο επιβλήθηκε στις αρχές Νοεμβρίου. Τέλος, έχουμε ενσωματώσει πλέον την επίδραση των 32 δισ. του ταμείου NextGenEU, το οποίο θα διπλασιάσει τη χρηματοδότηση της ΕΕ προς την Ελλάδα για την περίοδο 2021-2027, καθώς και τη δημιουργία δημοσιονομικού χώρου στο μέλλον.
- Στην πράξη και εξετάζοντας τα τριμηνιαία στοιχεία του ΑΕΠ, η αναθεώρηση των προβλέψεών μας περιλαμβάνει μία μετατόπιση στις προσδοκίες ανάκαμψης της οικονομίας κατά ένα τρίμηνο, από το πρώτο τρίμηνο του 2021 στο δεύτερο τρίμηνο του 2021. Ακόμα πιο σημαντικό είναι το γεγονός ότι αξιολογώντας την επίπτωση του πακέτου των €32δισ. έχουμε πλέον μετατοπίσει τις μακροπρόθεσμες προβλέψεις προς τα πάνω κατά περίπου 1.5% προς ένα μακροπρόθεσμο μέσο όρο ανάπτυξης περί το 3.5%.
- Συνεπώς, η προς τα άνω αναθεώρηση των μακροπρόθεσμων προβλέψεών μας ξεπερνά όλες τις βραχυπρόθεσμες αναταράξεις. Ως εκ τούτου, οι αρχικοί φόβοι μας σχετικά με τις μακροπρόθεσμες επιπτώσεις της πανδημίας λόγω της ύφεσης ήταν υπερβολικοί. Σύμφωνα με τις προβλέψεις μας, αντί για «πληγές» (“scarring”) ή «υστέρηση» (“hysteresis”) (που είναι μία επιτηδευμένη ορολογία που χρησιμοποιούν οι οικονομολόγοι για να πουν ότι ένα συγκεκριμένο γεγονός, όπως η πανδημία COVID-19, θα έχει μακροχρόνιο αρνητικό αντίκτυπο), η Ελλάδα εισέρχεται σε καθεστώς “Goldilocks”. Ξεκινώντας από εξαιρετικά χαμηλά επίπεδα δραστηριότητας, με εκτεταμένο πλεονάζων παραγωγικό δυναμικό και λαμβάνοντας υπόψη τη νέα πολιτική φορολογικής χαλάρωσης, την υψηλή ρευστότητα, το χαμηλό κόστος χρηματοδότησης και τα πρωτοφανή επίπεδα ευρωπαϊκών πόρων, η Ελλάδα είναι σε θέση όχι μόνο να ανακτήσει τη χαμένη παραγωγή που σχετίζεται με την πανδημία, αλλά και να μεταβεί σε μια υψηλότερη τροχιά οικονομικής ανάπτυξης σε σχέση με τις προβλέψεις μας πριν από το COVID-19.



No “Scarring” & No “Hysteresis” - Only “Goldilocks”



- Back in March 2020, at the onset of the global Covid-19 pandemic our major concern regarding Greece was linked to the long-run scars that this recession was going to inflict on the Greek economy. Our thinking at the time was that given Greece’s legacy issues such as high debt and high NPLs, limited credit growth and next to zero capacity for fiscal expansion, the impending recession was going to lead to a permanent and substantial loss of output.
- Since then, a series of events such as the inclusion of the Greek bonds into ECB’s PEPP programme, the relaxation of Greece’s fiscal consolidation requirements and NextGen EU funding programme has lead us to revise our thesis.
- First and foremost, we now have data points for the first nine months of 2020; hence, we are in a position to draw a much more accurate picture of the economic impact of the COVID-19 pandemic. That holds not only for GDP figures but also for unemployment, banking and real estate. We must also adjust for the substantial statistical revision of the GDP series covering the period 2010 –2020.
- Furthermore, for our short-run outlook, we need to consider the impact of the second country-wide lockdown imposed in early November. Lastly, we have now incorporated the impact of the €32bn NextGenEU fund, which will double EU funding for Greece for 2021–2027, as well as the tailwind from improved fiscal space going forward. In practical terms, and looking at quarterly GDP figures, our outlook revision comprises a shift in the recovery expectations of the economy by one quarter, from Q1-2021 to Q2-2021. More importantly, we have shifted the long-run projections upwards by roughly 1.5%, to a long-term average of 3.5%.
- Therefore, the positive long-run upgrade in our forecasts overwhelms all short-run fluctuations. As a result, our original fears about the long-run effects of the pandemic-driven recession were exaggerated. According to our projections, **instead** of “scarring” or “hysteresis” (which is fancy terminology employed by economists to say that a specific event, such as the COVID-19 pandemic, will have a long-lasting negative economic impact), **Greece is entering a “Goldilocks” regime**. Starting from extremely low levels of activity with extensive spare capacity and taking into account the newly established fiscal relaxation, abundance of liquidity, low funding cost and unprecedented levels of EU funding, Greece is in a position to not only recover pandemic-related lost output but also transition to a higher trajectory of economic growth relative to our pre-COVID-19 projections.





	Economic Outlook, Baseline Scenario					
	(as of Dec. 20)	2020 (e)	2021	2022	2023	2024
Real GDP (% change)		-9.5	4.5	9.5	3.6	4.1
Unemployment rate (% of labour force)		16.5	16.1	13.2	10.8	9.1
Non-residential real estate prices (% change)*		2.0	3.5	6.8	6.0	5.8
Residential real estate prices (% change)		4.0	5.4	7.9	6.5	5.8
Private Sector Credit (net flows, € bn)		4.4	6.1	14.9	20.5	23.0
Private Sector Deposits (net flows, € bn)		12.3	13.0	16.1	19.0	20.5
General Government Primary Balance (% of GDP, Enhanced Surveillance definition)		-7.2	-3.9	1.5 up to 2.0	1.5 up to 2.0	1.5 up to 2.0

(e): estimates, * Office price index





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6 Assessing Corporate Distress due to COVID-19 Recession

7 GDP Revision & base year 2015

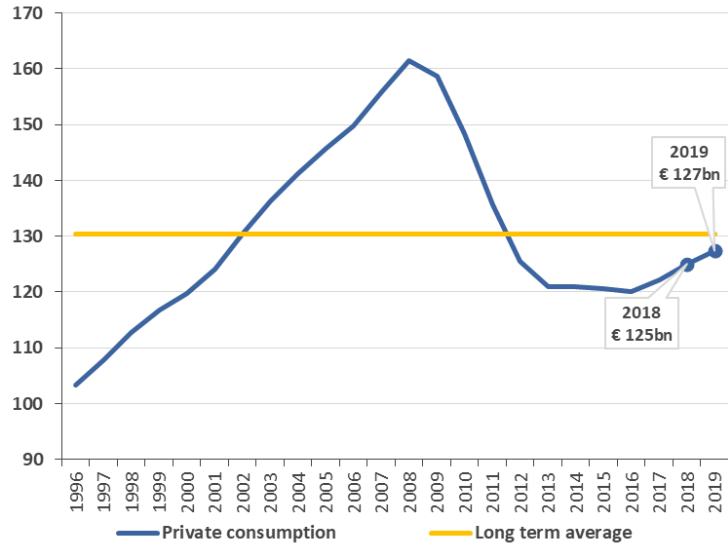
8 SWOT analysis



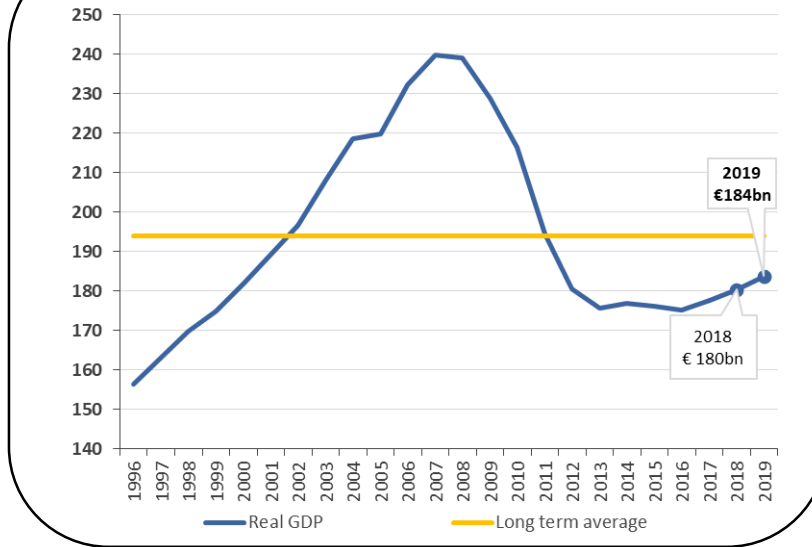
A Bird's Eye View of Greek GDP: Following its recent revision, GDP now stands at €184 bn



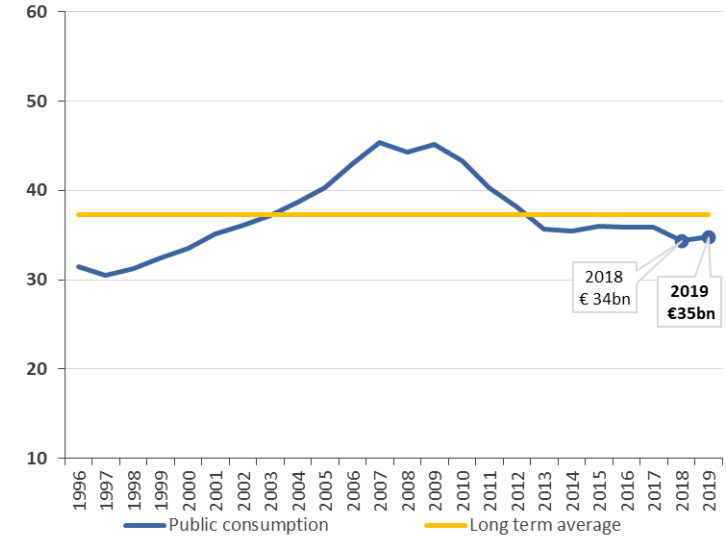
Private Consumption



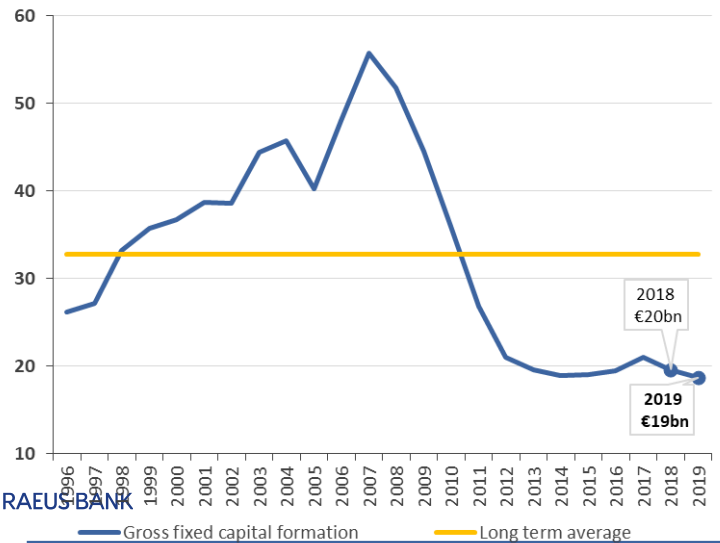
Real GDP (€ bn, 2015 prices, sa data)



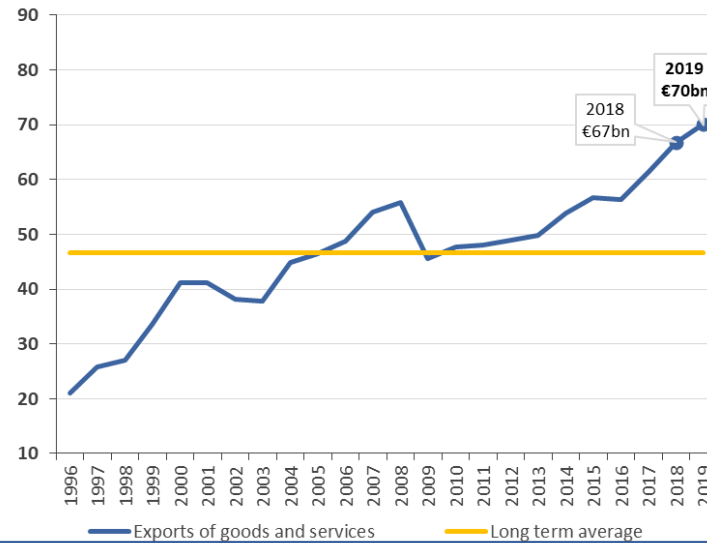
Public Consumption



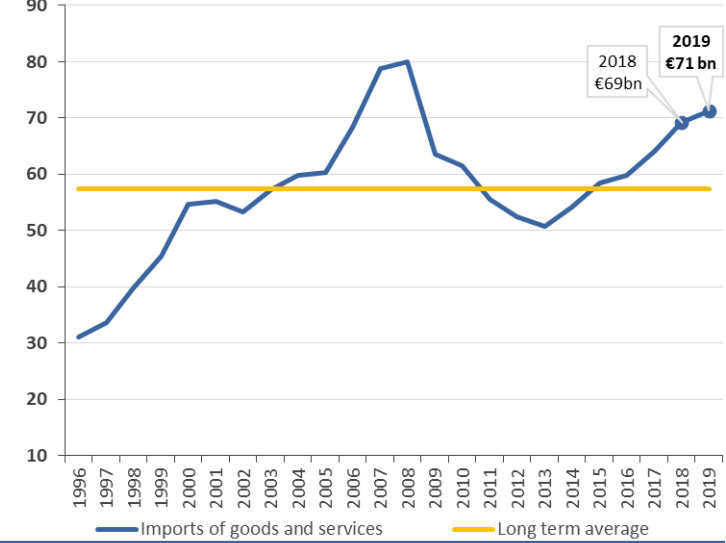
Gross Fixed Capital Formation



Exports of Goods & Services



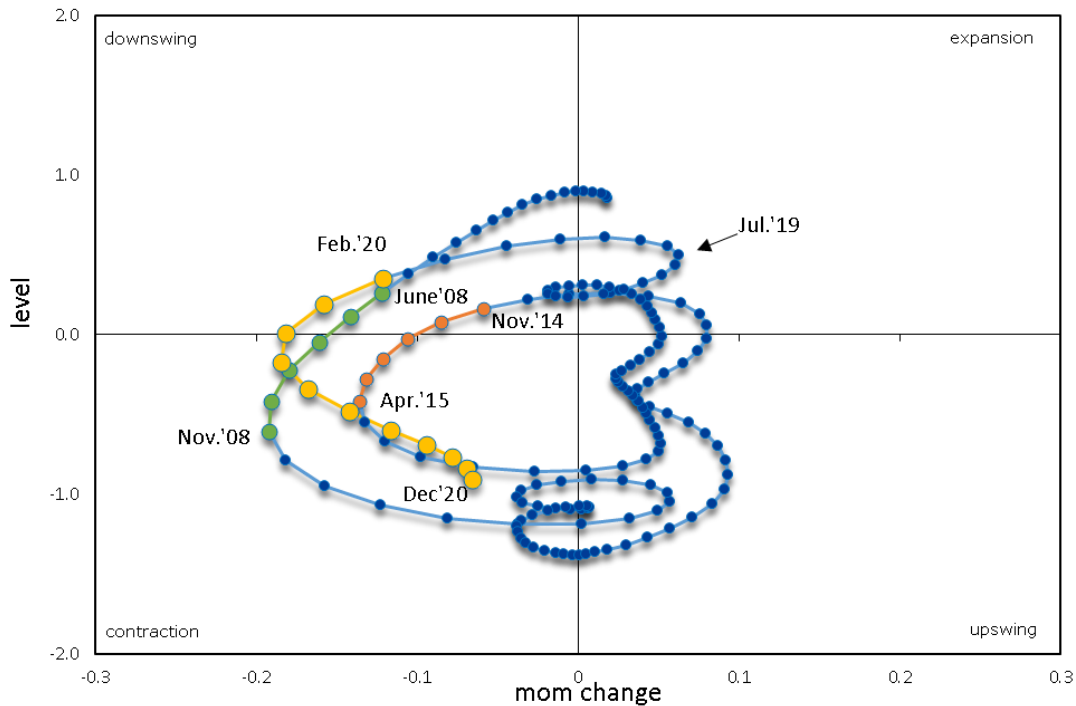
Imports of Goods & Services



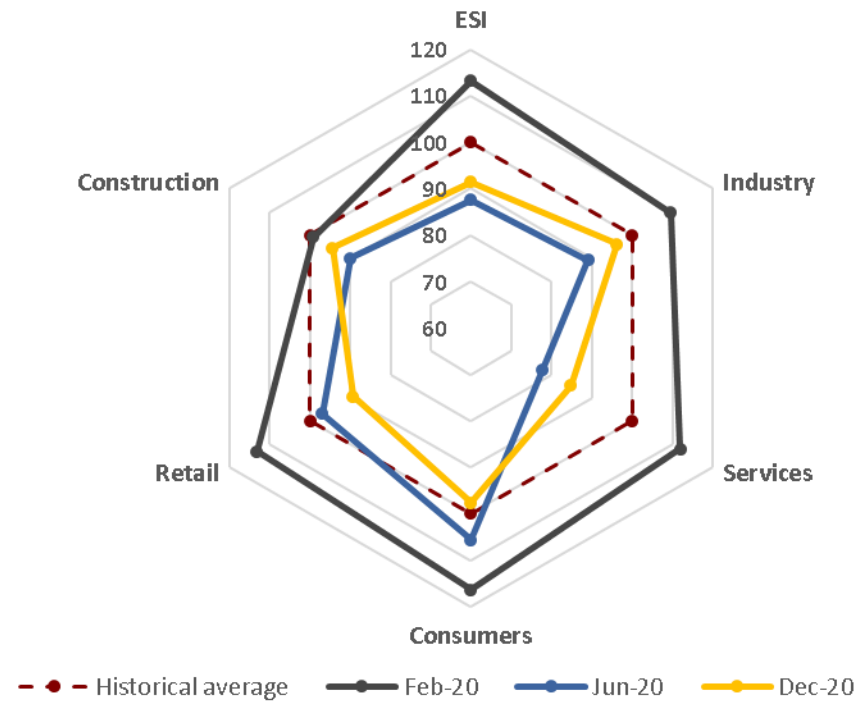
Covid-19 Impact on Sentiment Indicators: we have already been here 2 times before since 2008. So we are a tough bunch of guys!



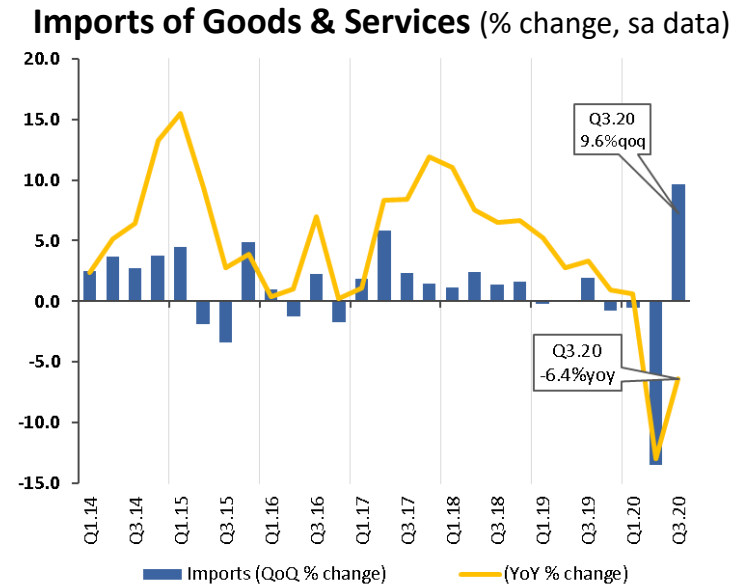
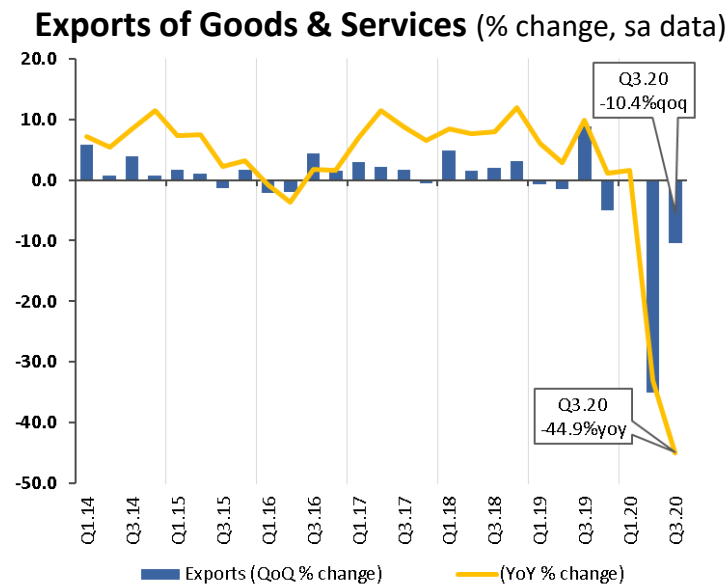
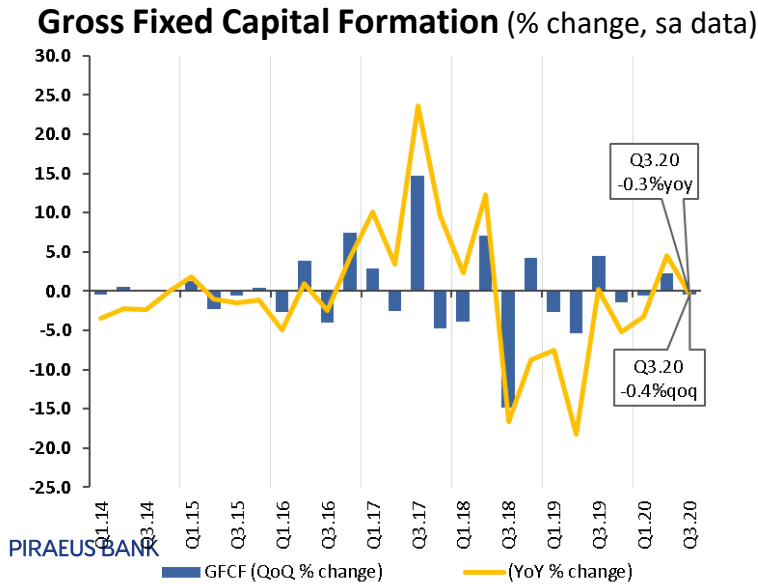
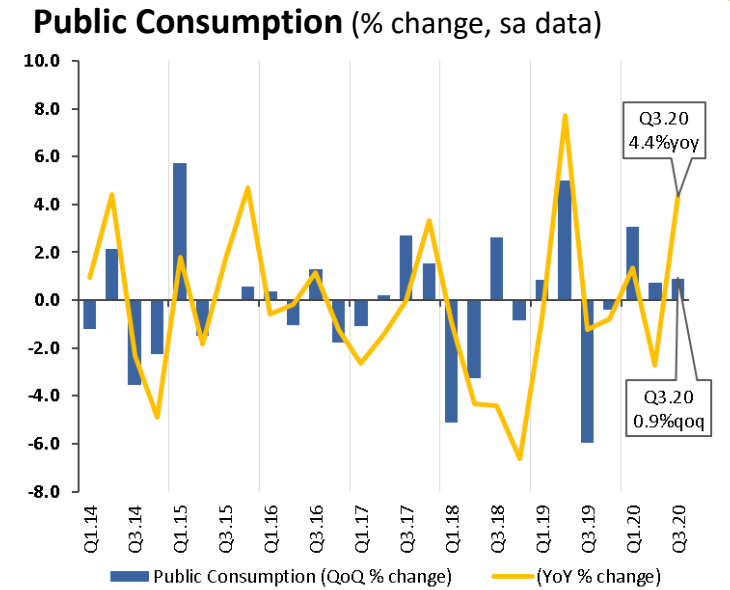
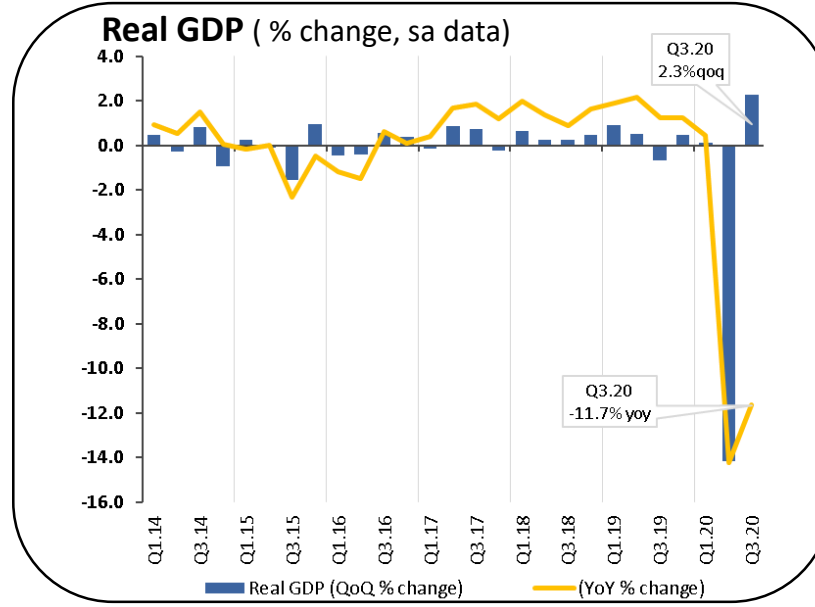
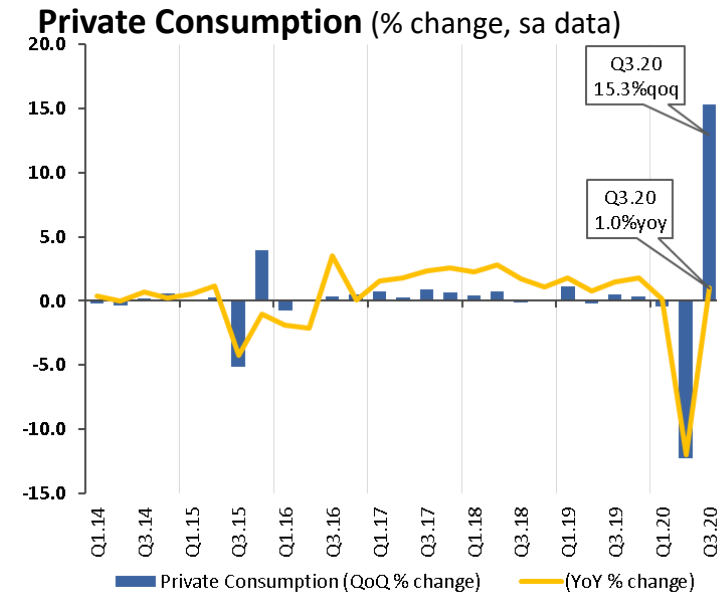
Economic Sentiment Tracer



Radar Chart - Confidence Indicators (sa data)¹



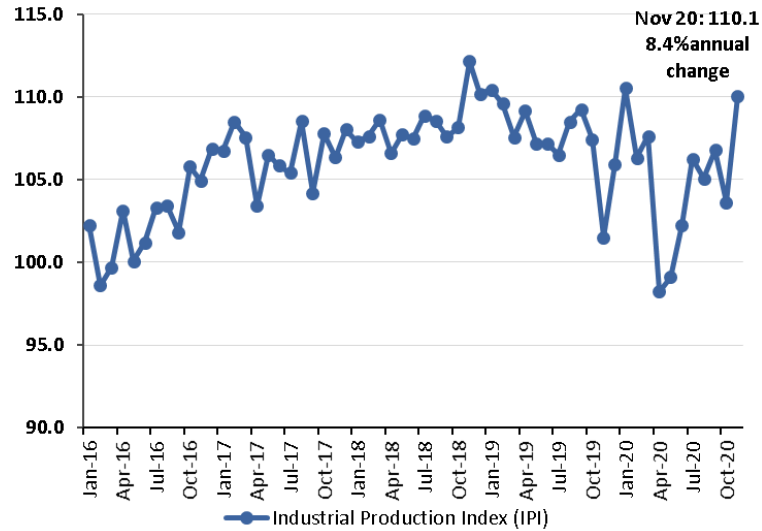
GDP components: private consumption and the external sector have been affected the most



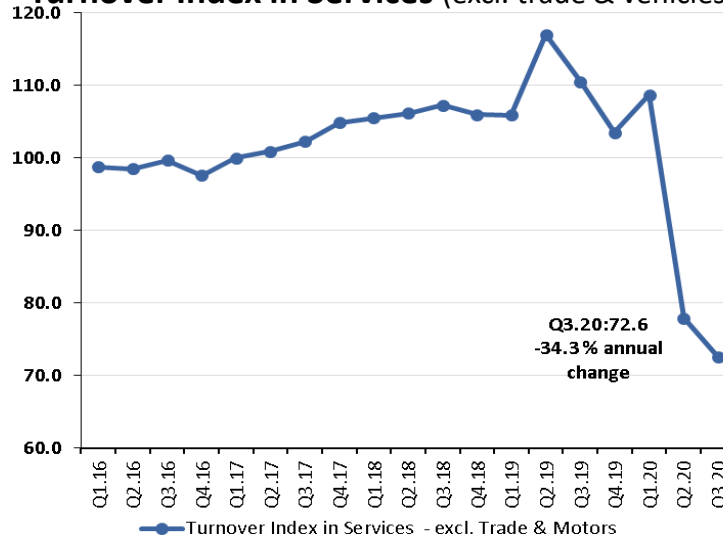
Short-term economic indicators: looks like a “V” (at least up to Q3)



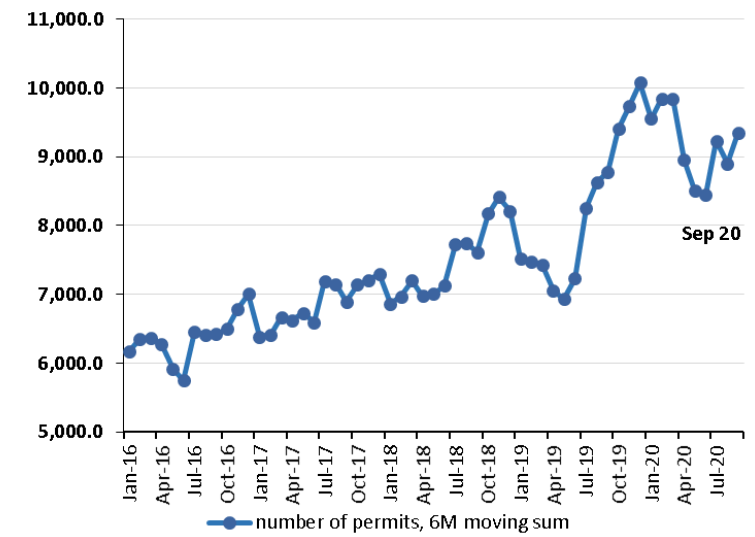
Industrial Production Index (sa data)



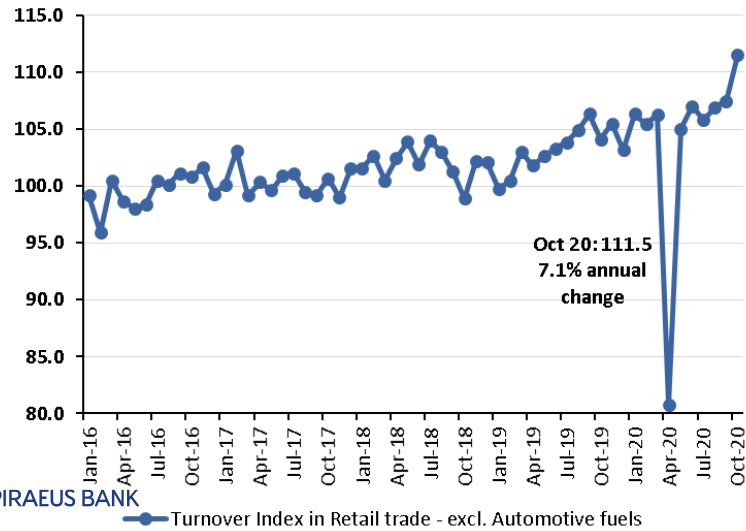
Turnover Index in Services (excl. trade & vehicles, sa data)



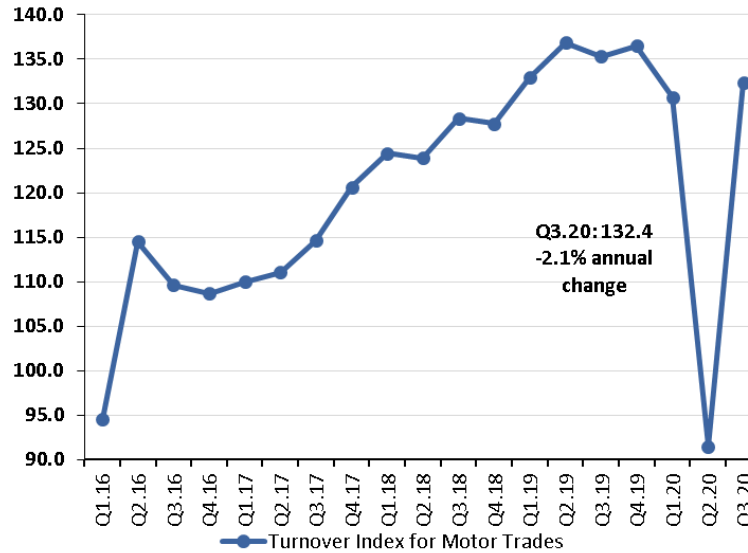
Total Building Permits (6-months ms)



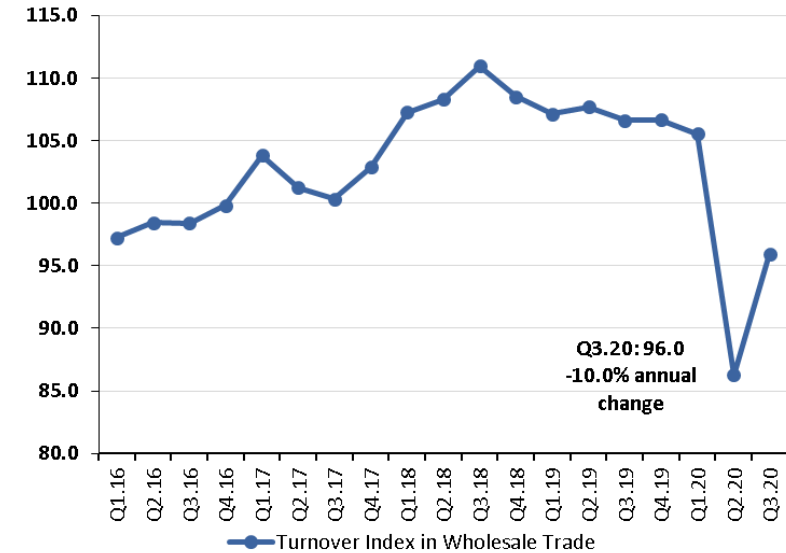
Turnover Index in Retail Trade (excl. fuels, sa data)



Turnover Index in Motors Trade (sa data)



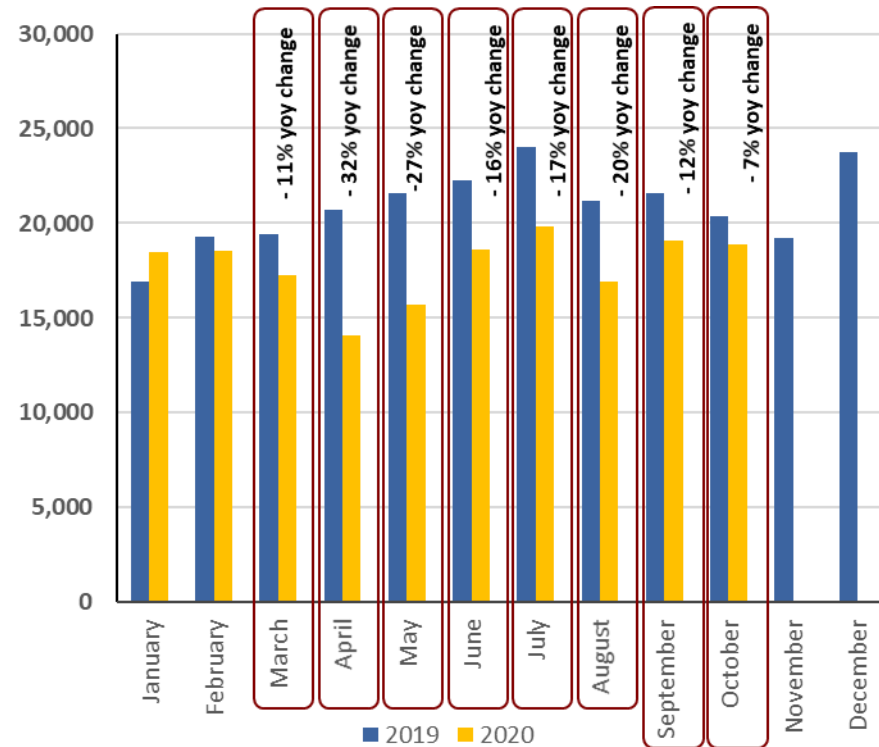
Turnover Index in Wholesales Trade (sa data)



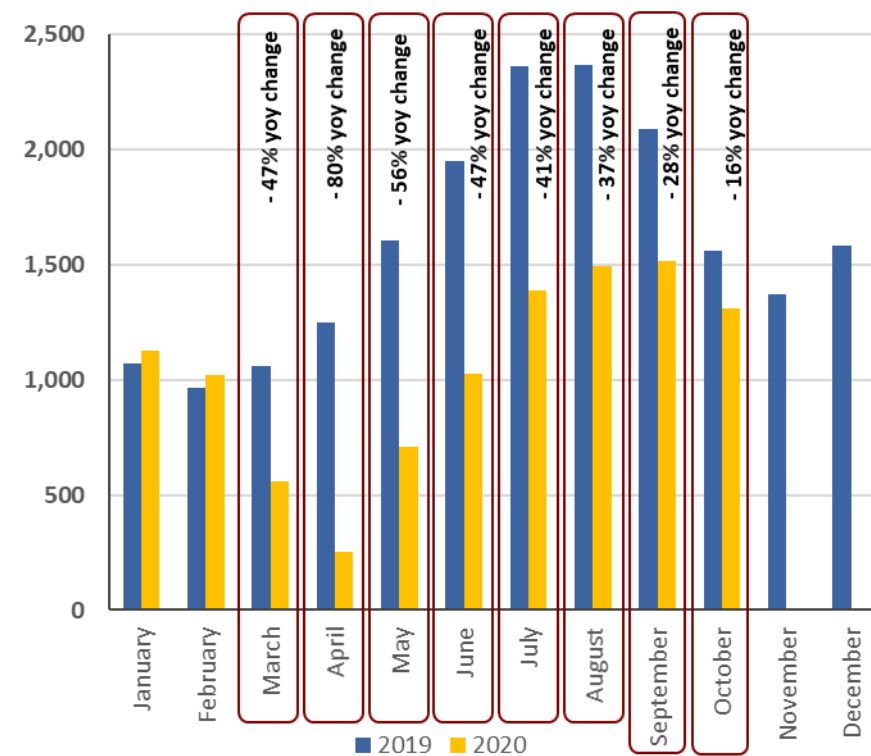
Covid-19 Impact on Enterprises: the “lockdown pain” has not been evenly spread



Turnover of Enterprises^{1,2} (in € mn)



Turnover of Enterprises under Suspension of Operation^{1,2} (€ mn)



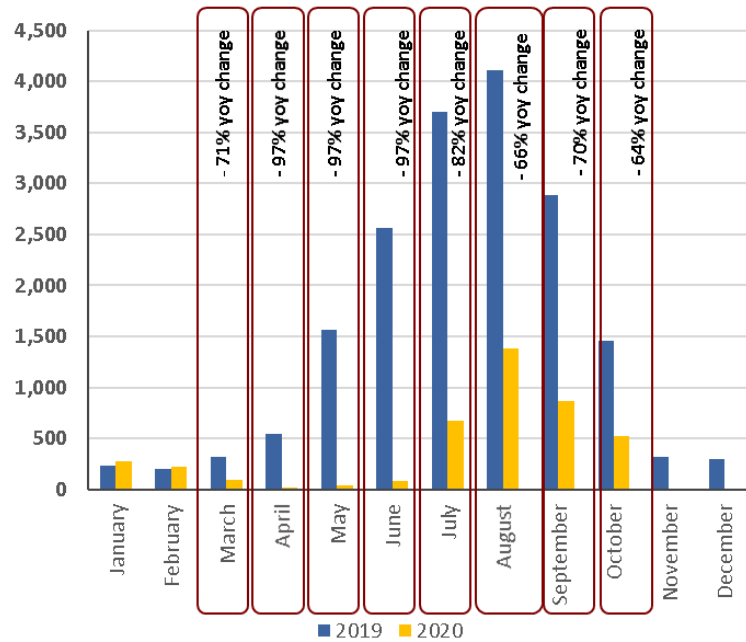
Note: 1. Only double-entry accounting bookkeeping. Enterprises with single-entry accounting bookkeeping are obliged to submit data to tax authorities on a quarterly basis, while enterprises with double-entry accounting bookkeeping are obliged to submit data respectively on a monthly basis. Therefore, for the total of enterprises, data are available only on a quarterly basis.

2. The enterprises that were under suspension of operation, on the basis of state order, due to covid-19 were classified in the following economic activity classes: **47** Retail trade (exc. motor vehicles & motorcycles), **55** Accommodation, **56** Food & beverage service activities, **59** Motion picture, video, television programme production etc., **71** Architectural & engineering activities etc, **77** Rental & leasing activities, **82** Office administrative & support etc, **85** Education, **88** Social work activities without accommodation, **90** Creative, arts & entertainment, **91** Libraries, archives, museums etc, **92** Gambling & betting activities, **93** Sports activities, amusement etc, **94** Activities of membership organisations, **96** Other personal service activities

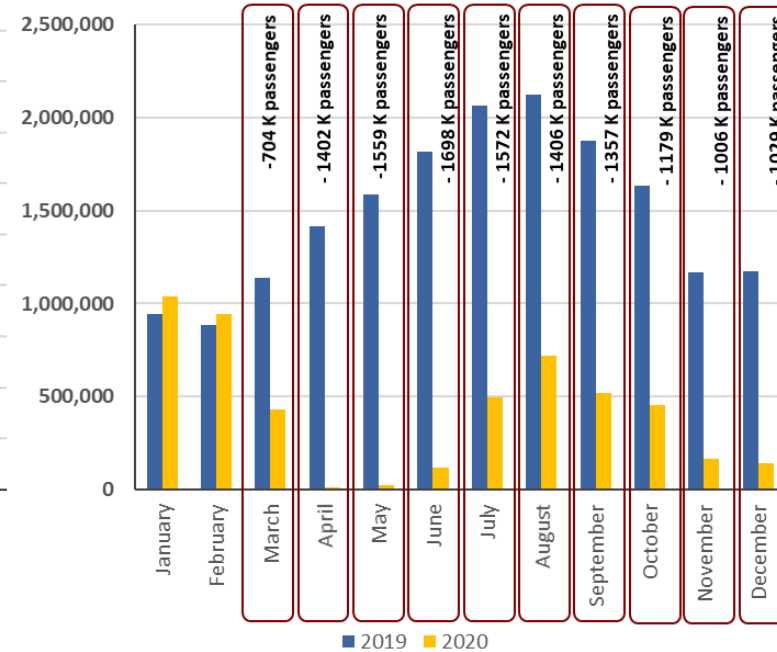


Covid-19 Impact on Tourism: August bounce not enough to change the overall negative outlook

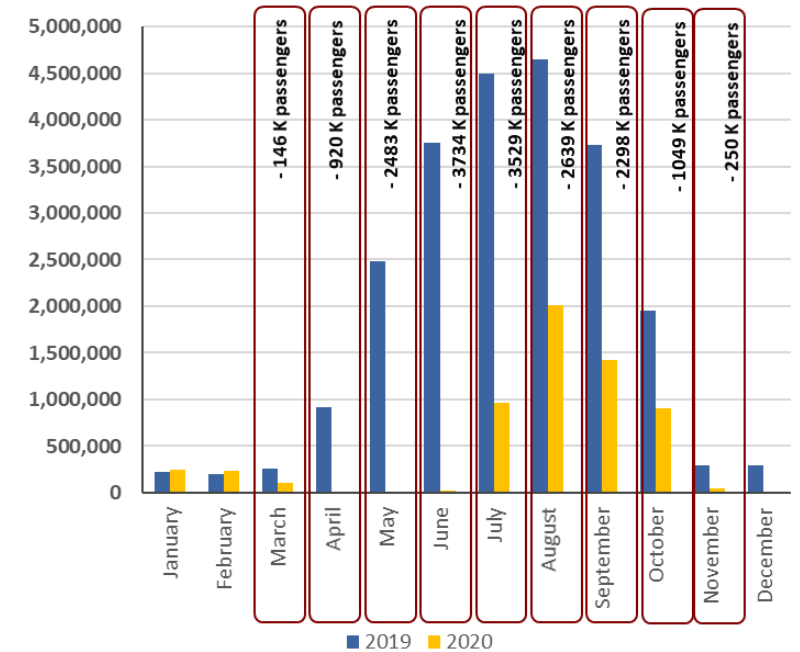
Travel Receipts
(€ mn)



International Athens Airport
(traffic – international passengers)



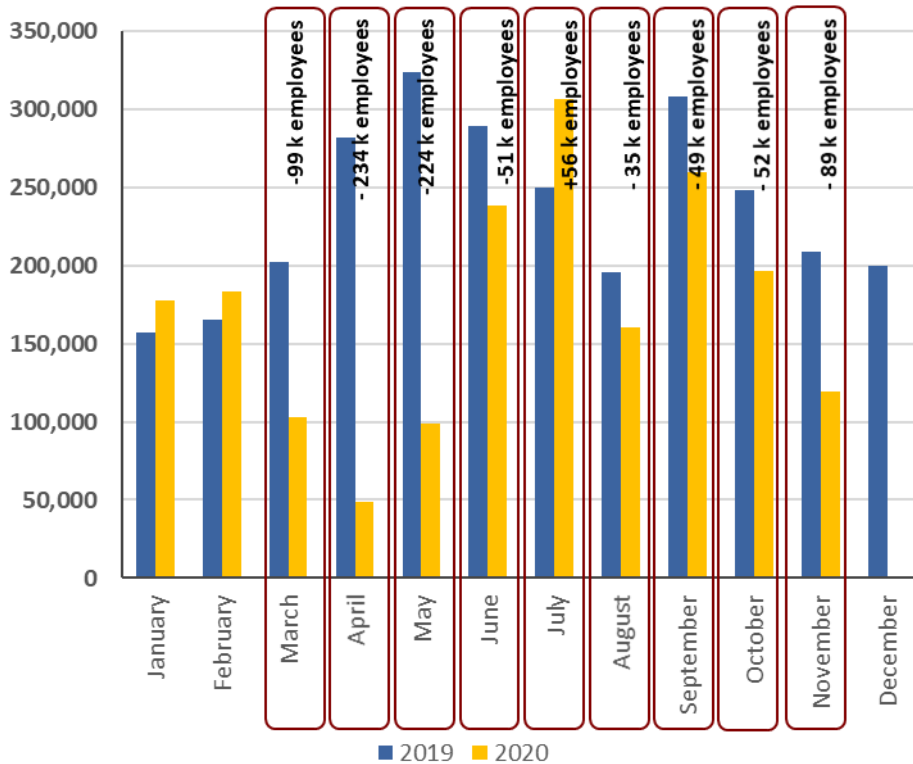
14 Regional Airports ¹
(traffic – international passengers)



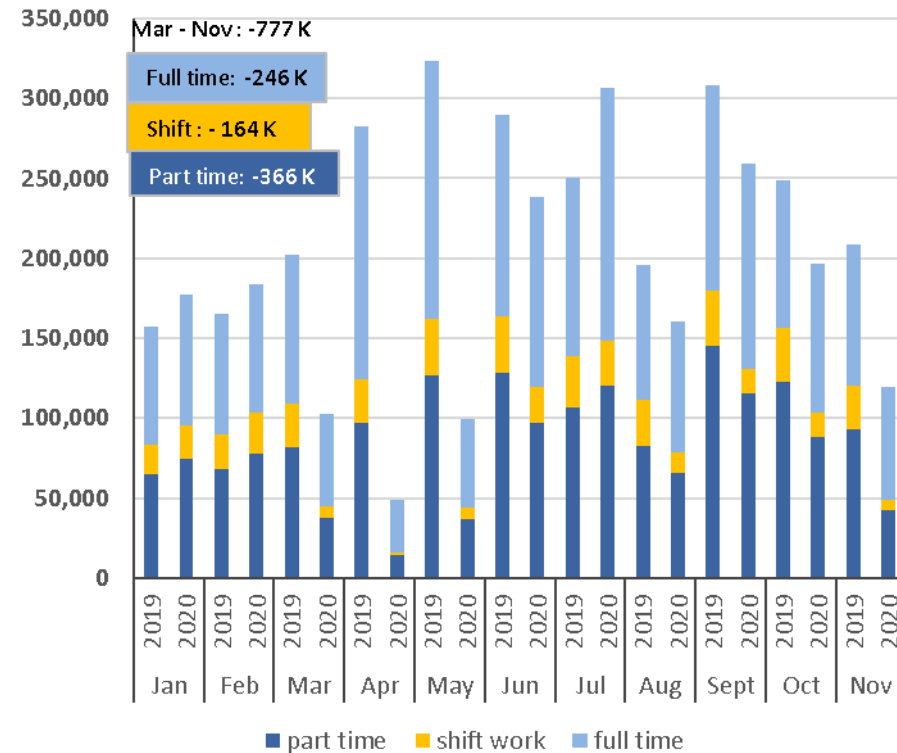
Covid-19 Impact on new hirings of private sector employees: 777k fewer jobs, despite July improvement



New hirings
(private sector employees)



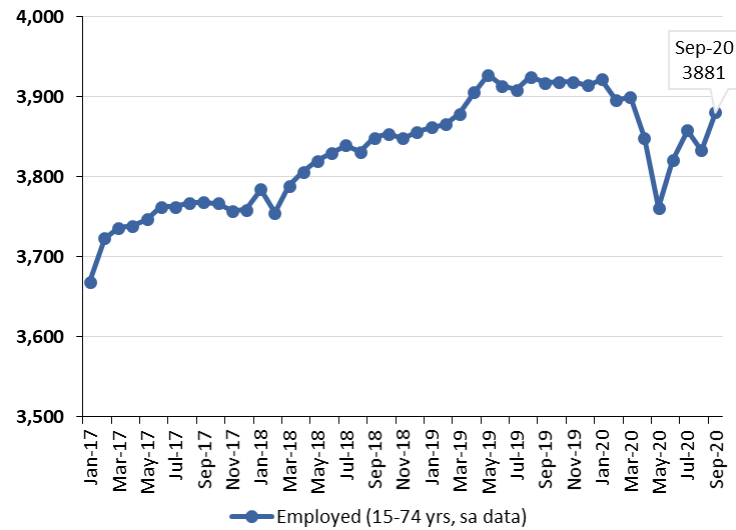
New hirings per type of employment
(private sector employees)



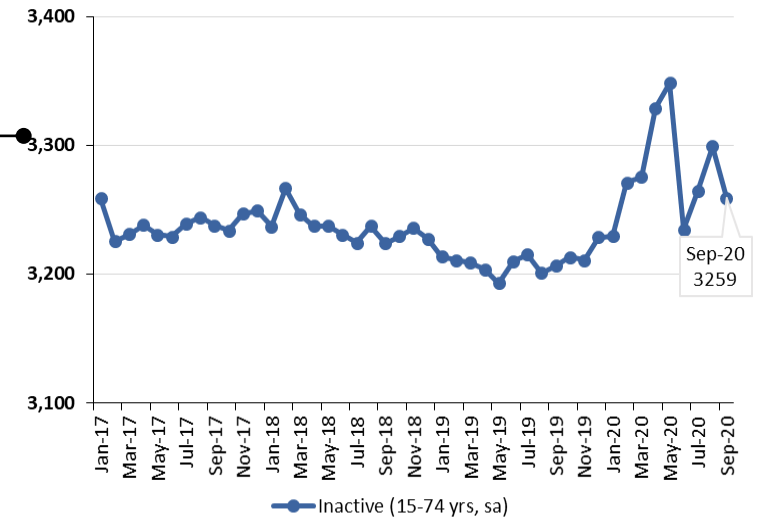
Unemployment Rate: Policy support has kept unemployment on a declining track



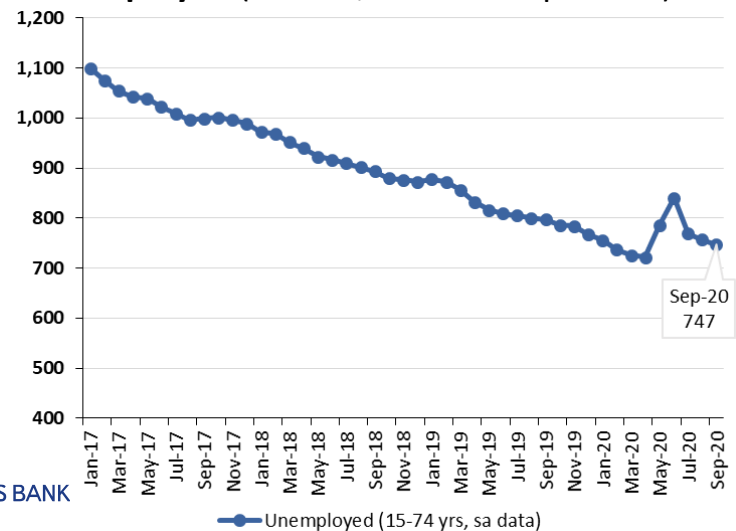
Employed (sa data, thousand persons)



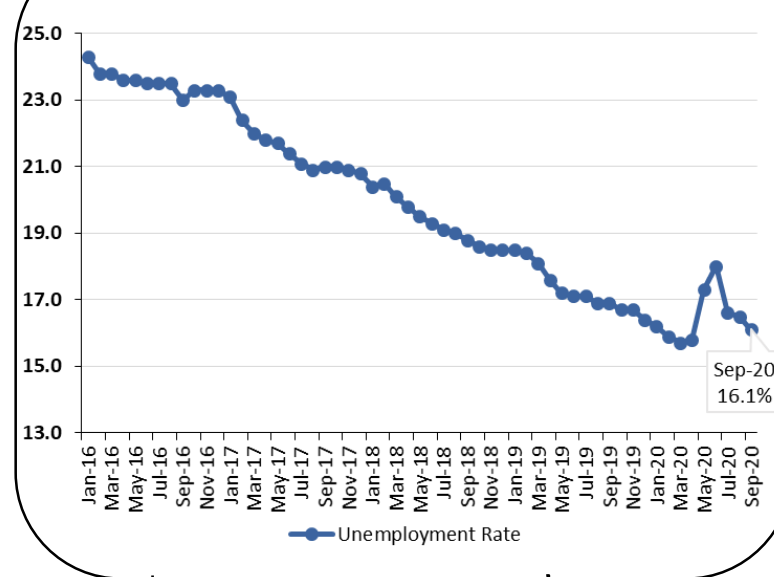
Inactive Population (sa data, thousand persons)



Unemployed (sa data, thousands persons)



Unemployment Rate (sa data)



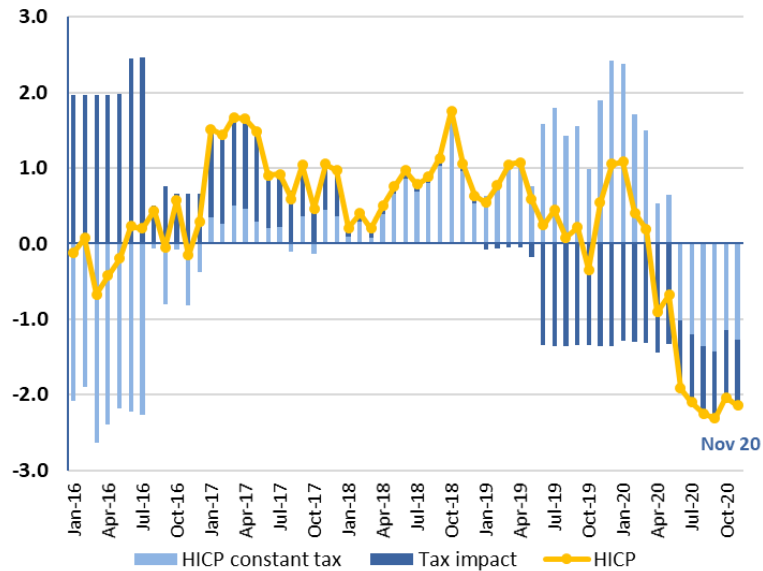
Highlights

- ✓ According to Eurostat guidelines, in the light of the COVID-19 pandemic, persons in lay-off are still considered employed persons if the duration of their contract suspension is less than three months or if they receive more than 50% of their salary.
- ✓ Due to the COVID-19 pandemic, several job seekers reported that they were not immediately available to work and therefore, according to the definitions, were classified as economically inactive.

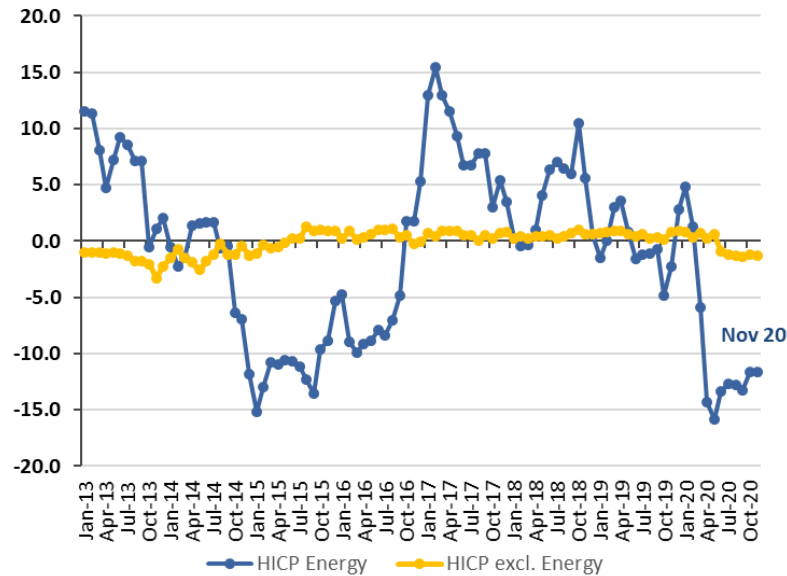
Inflation: driven by massive volatility in energy prices and insufficient demand



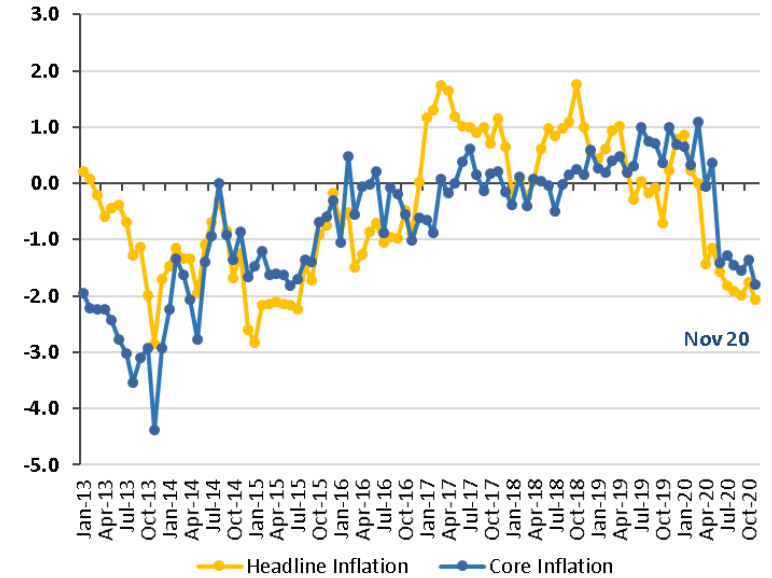
HICP (annual % change) & Effect of tax changes



HICP in Energy (annual % change)



CPI vs Core CPI ¹ (annual % change)





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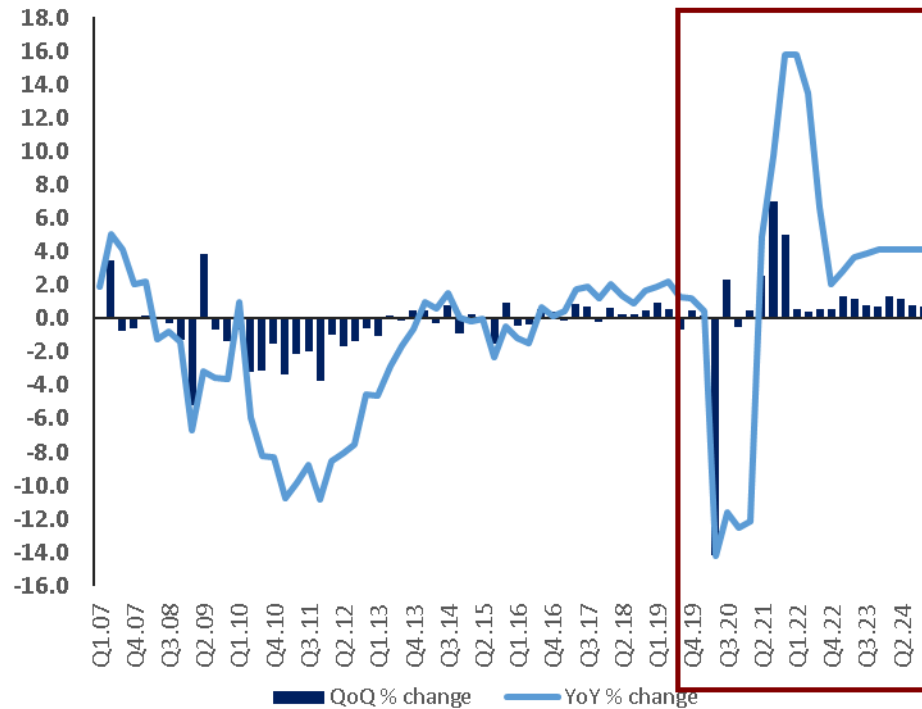
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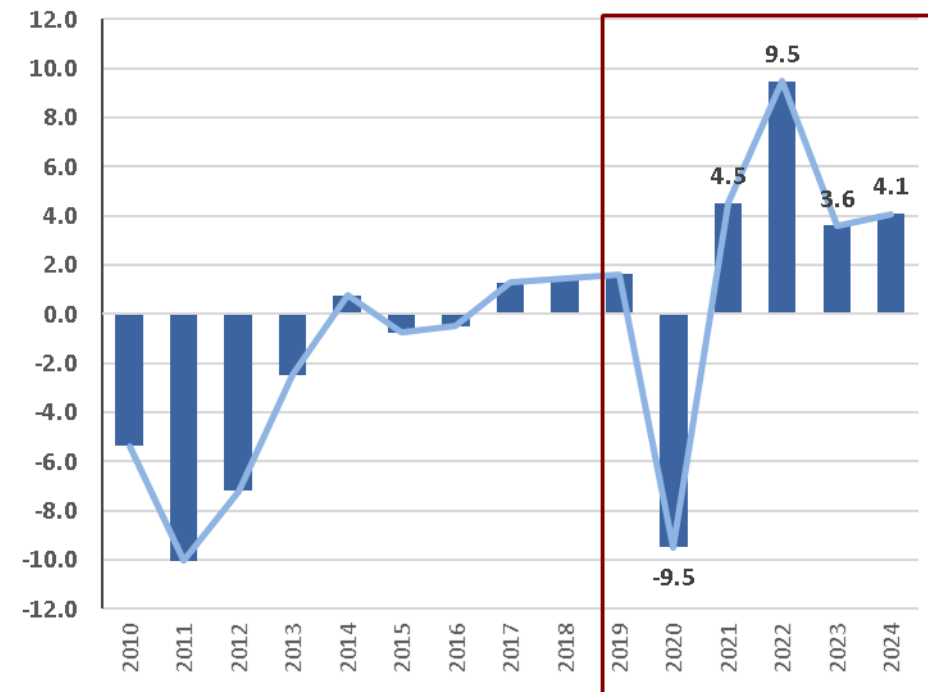
Drivers of the Outlook Revision: “U”-shaped or “V” shaped ...it depends on the data frequency



Real GDP (sa data, 2015 prices, % change)¹:
the second lockdown creates a “U” shape in quarterly data



Real GDP (sa data, 2015 prices, annual % change) :
.....and a “V” shape in annual frequency



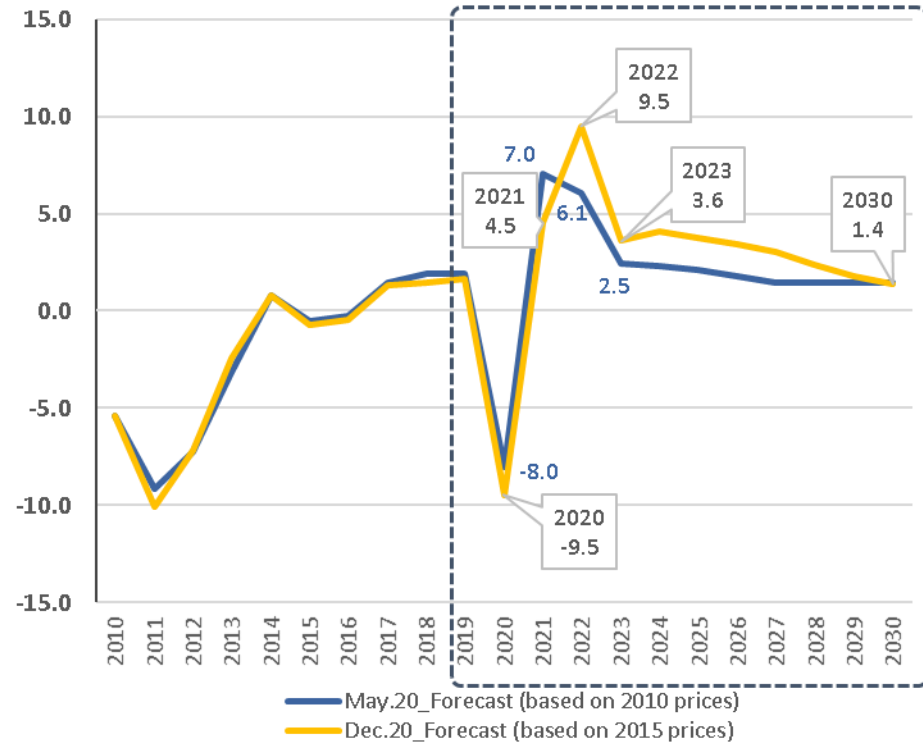
Note: 1. the 1996-2009 quarterly sa GDP data are based on ECO calculations



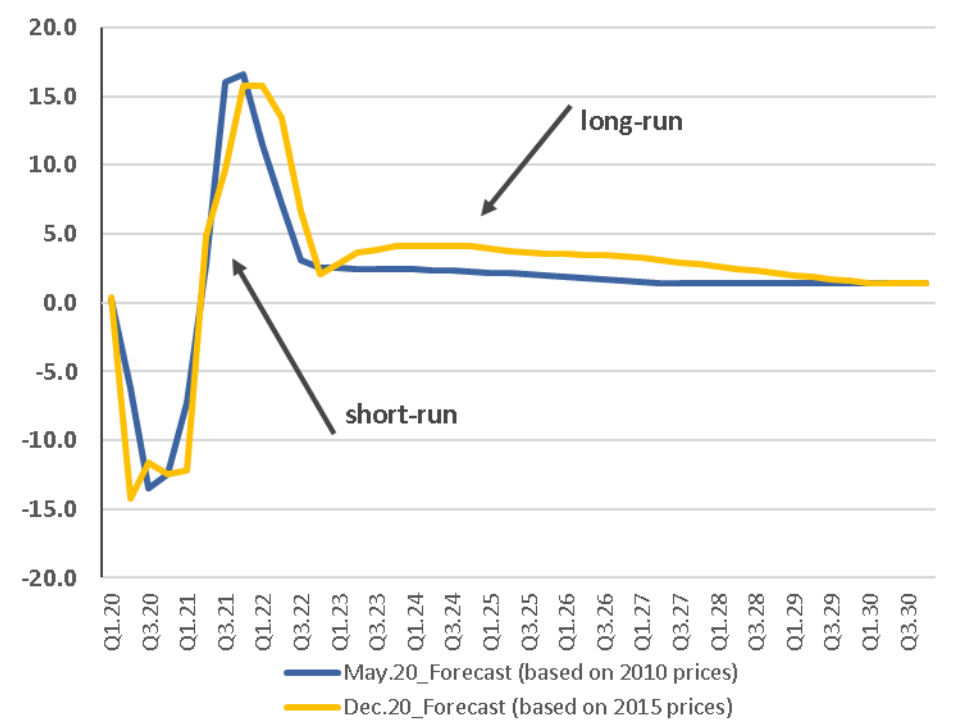
GDP Outlook: in the short term GDP revision & 2nd lockdown are impediment to growth but in the long-term EU funds create a strong tail-wind!



Annual Real GDP (sa data, constant prices, YoY % change)



Quarterly Real GDP (sa data, constant prices, YoY % change)



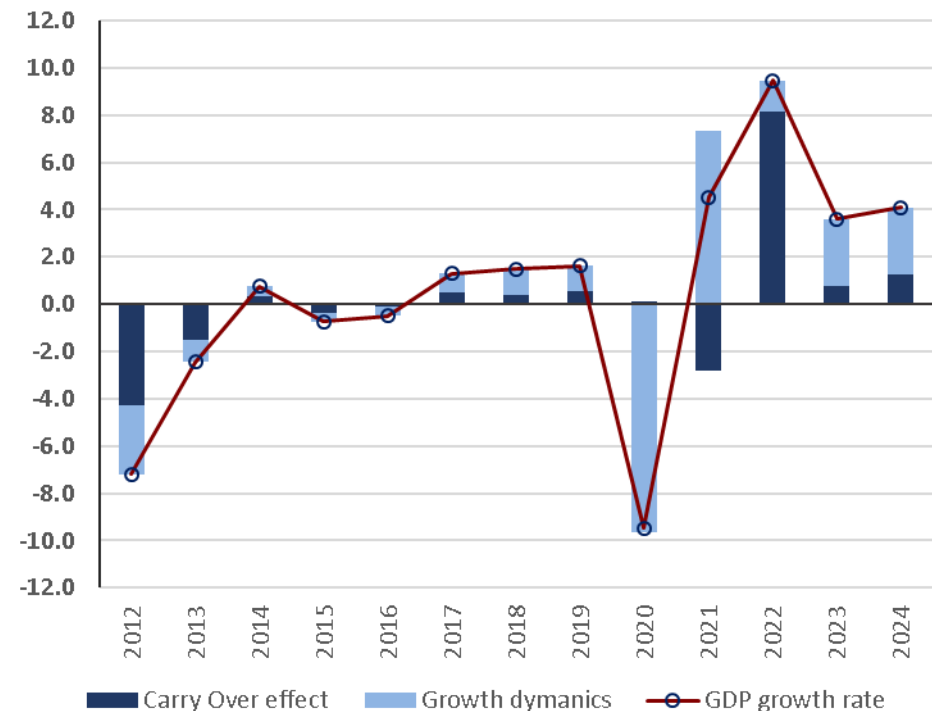
A short comment for our “freak” 2022 GDP estimate



- ✓ Our estimate for FY-2022 GDP stands at 9.5%, which obviously is expected to raise a few eyebrows. Nevertheless, our quarterly GDP figures for 2022 are rather subdued. Hence, the “true” driver for the 9.5% growth rate estimate is an 8.1% carry-over statistical effect generated by the strong recovery we estimate for Q3 & Q4 2021. In a totally counterintuitive way, the strong recovery in the second half of this year is not reflected in 2021 GDP. Instead, it is carried over into 2022, creating a huge bounce back for the Greek economy.

Time period	Real GDP (annual % change)	Real GDP (quarterly % change)
Q1.2020	0.4	0.1
Q2.2020	-14.2	-14.1
Q3.2020	-11.7	2.3
Q4.2020	-12.5	-0.5
2020	-9.5	
Q1.2021	-12.2	0.5
Q2.2021	4.8	2.5
Q3.2021	9.7	7.0
Q4.2021	15.7	5.0
2021	4.5	
Q1.2022	15.8	0.5
Q2.2022	13.4	0.4
Q3.2022	6.6	0.6
Q4.2022	2.1	0.5
2022	9.5	

Real GDP & Carry –over effect (sa data, 2015 prices, %) ¹.

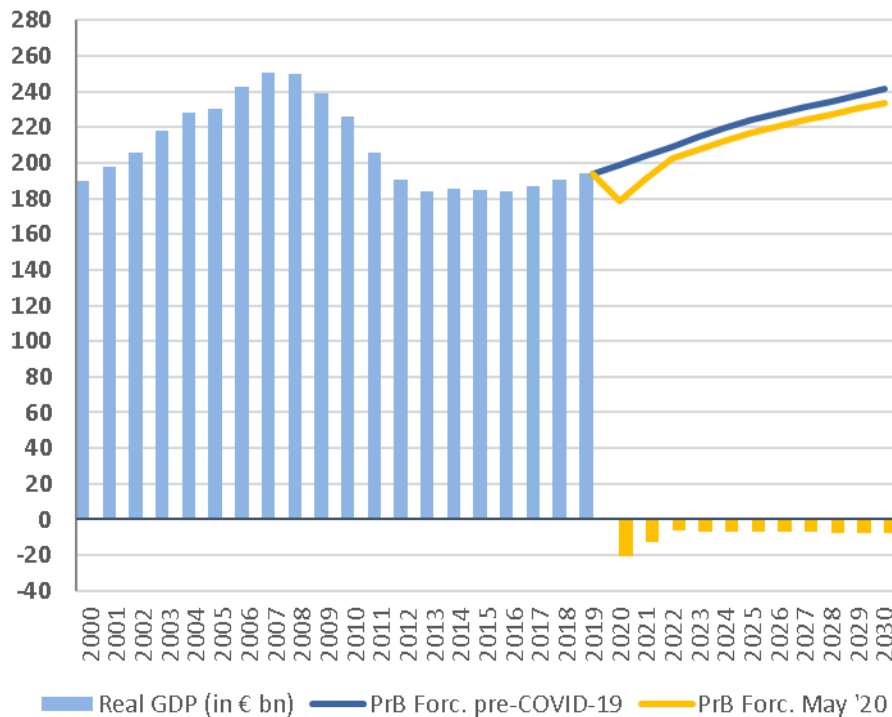


No “Scarring” & No “Hysteresis” – Only “Goldilocks”

- ✓ Our latest projections imply that the Greek economy will not only avoid “scarring” or “hysteresis” recovering all lost output by 2025 but it will enter a “Goldilocks” period with growth rates strong enough to allow the Greek economy to transition into a higher economic trajectory.

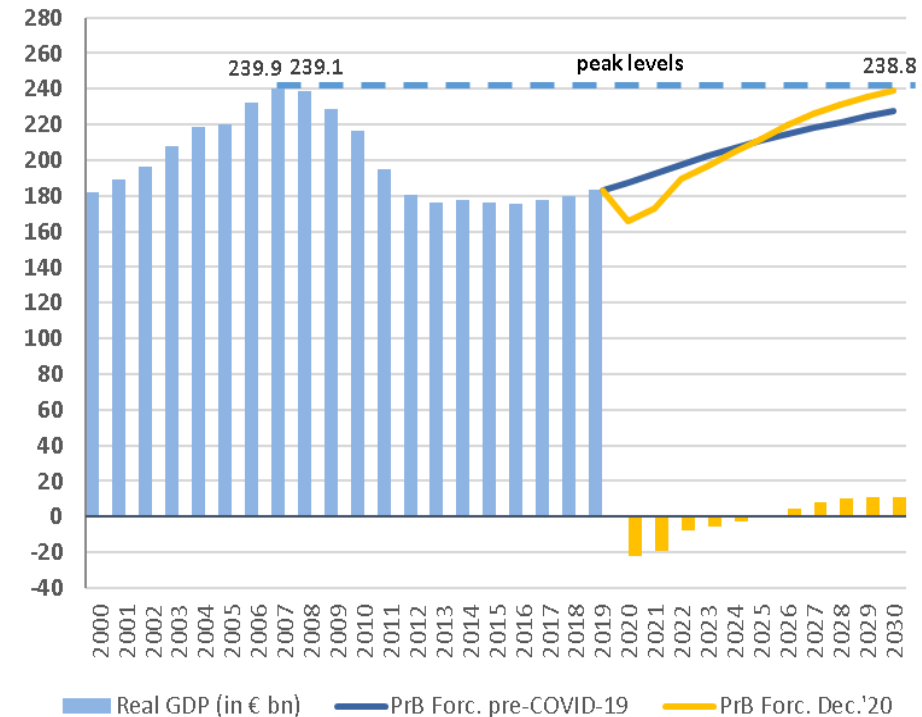
Real GDP: First Estimate vs Pre - Covid forecasts (€ bn)

GDP (in value terms) never returns to its pre-COVID trajectory



Real GDP: Final Estimate vs Pre - Covid forecasts (€ bn)

GDP will exceed its pre-COVID trajectory by 2025





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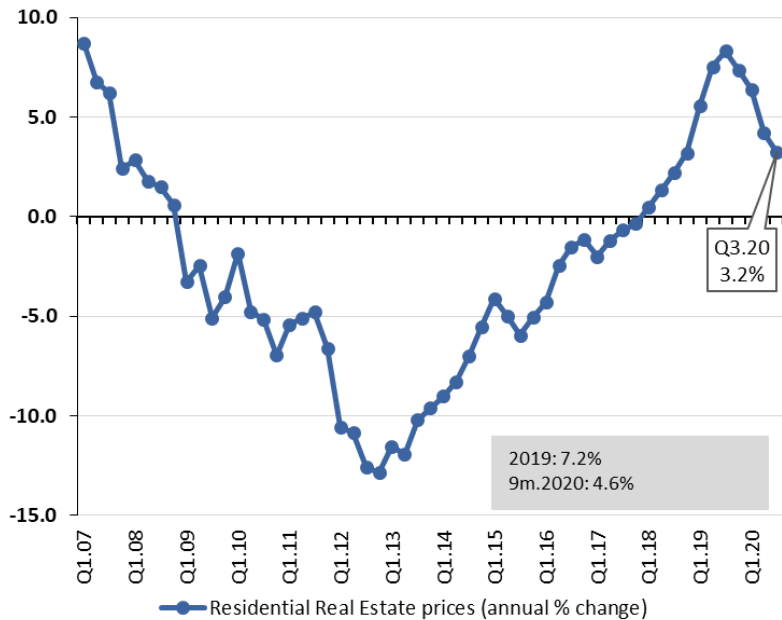


Real Estate: retains its growth dynamic, despite a record economic contraction



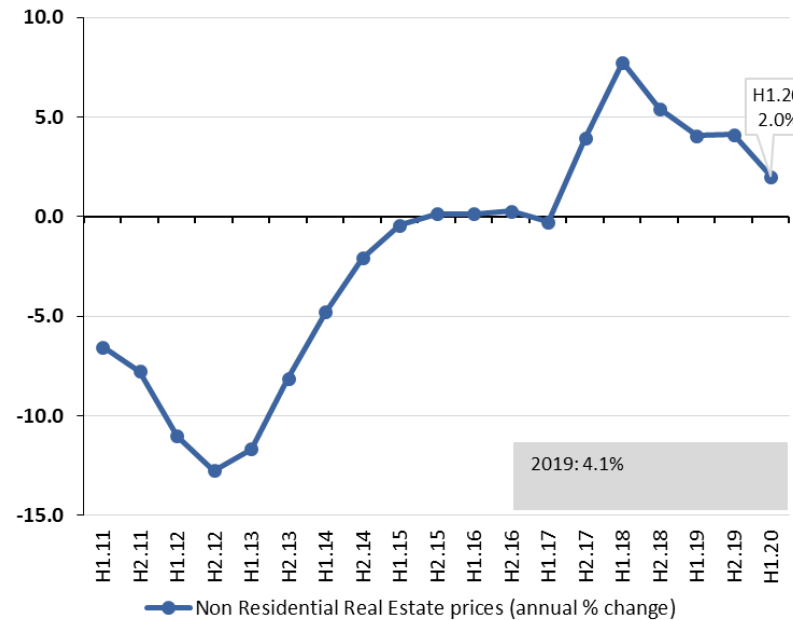
Residential Real Estate Prices

(annual % change)



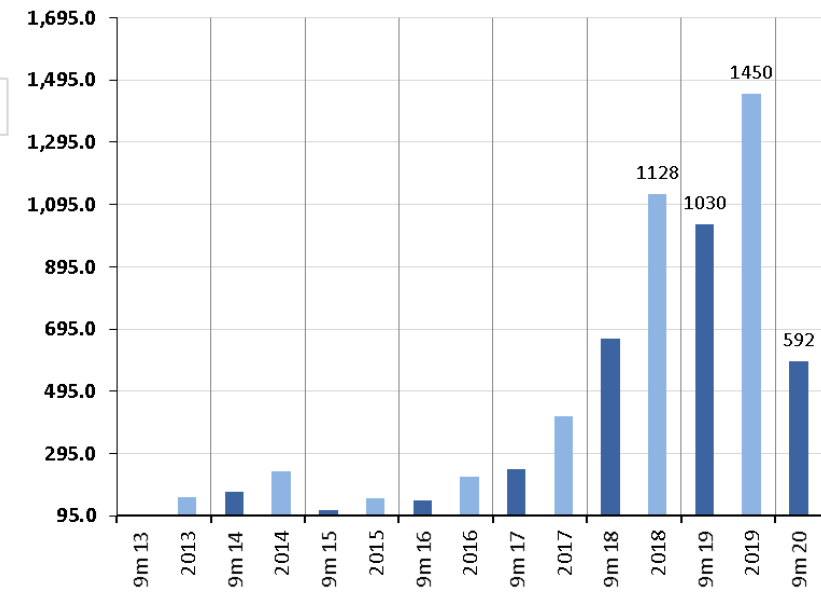
Non Residential Real Estate Prices¹

(annual % change)



Real Estate FDI in Greece²

(annual cumulative flows, € mn)



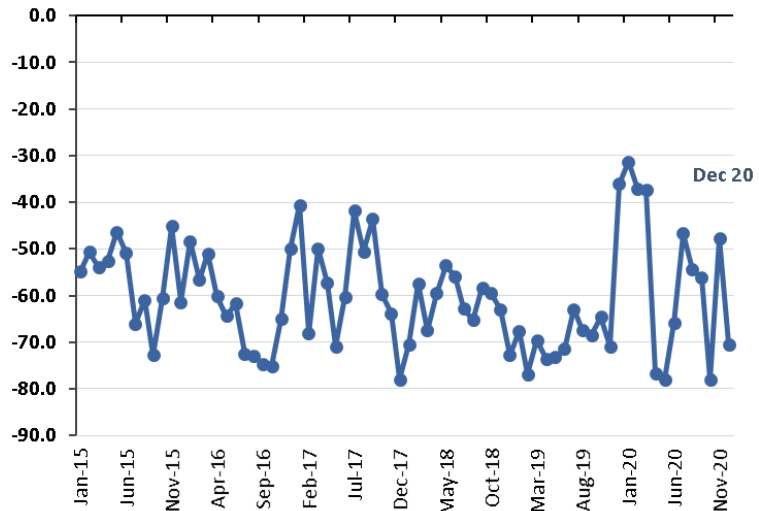
Note: 1. Office Price Index
2. Net Foreign Direct Investment in Greece: Real Estate



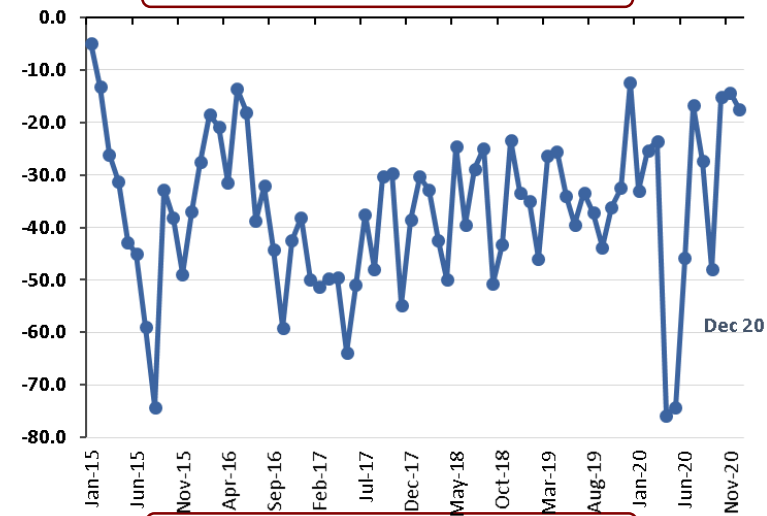
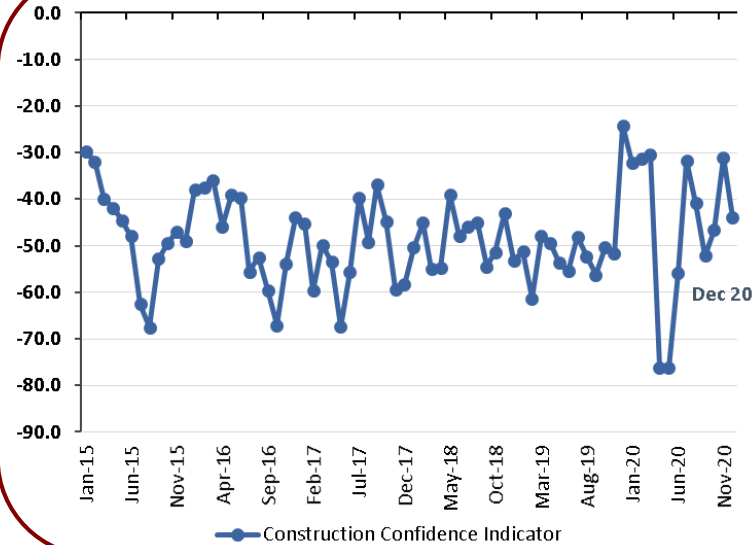
Construction Sector: Confidence Indicator affected by COVID only for the duration of the 1st



lockdown

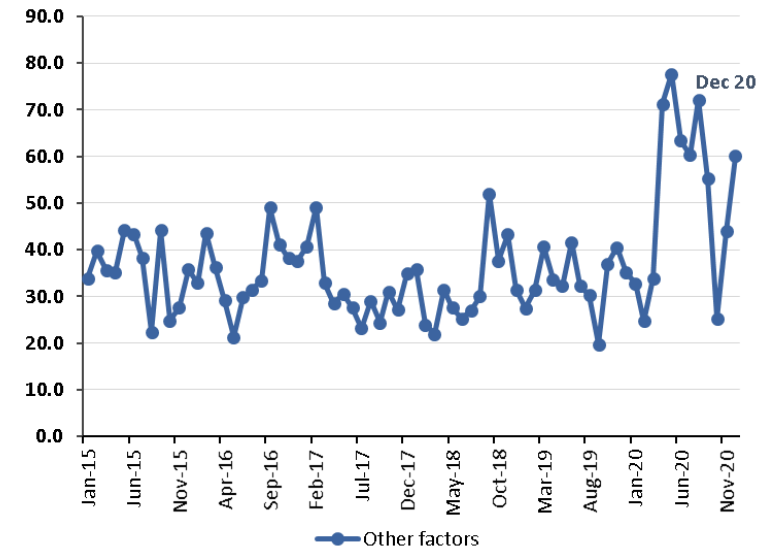


Construction Confidence Indicator



Other factors currently limiting building activity

(excl. Insufficient demand, Weather conditions, Shortage of labour force, Shortage of material and/or equipment)

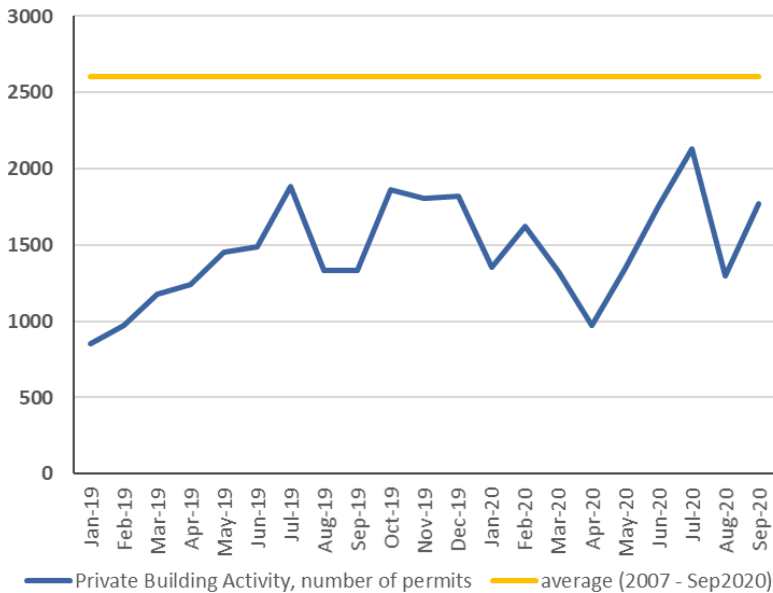


Construction Sector: Activity on the “ground” remains strong!



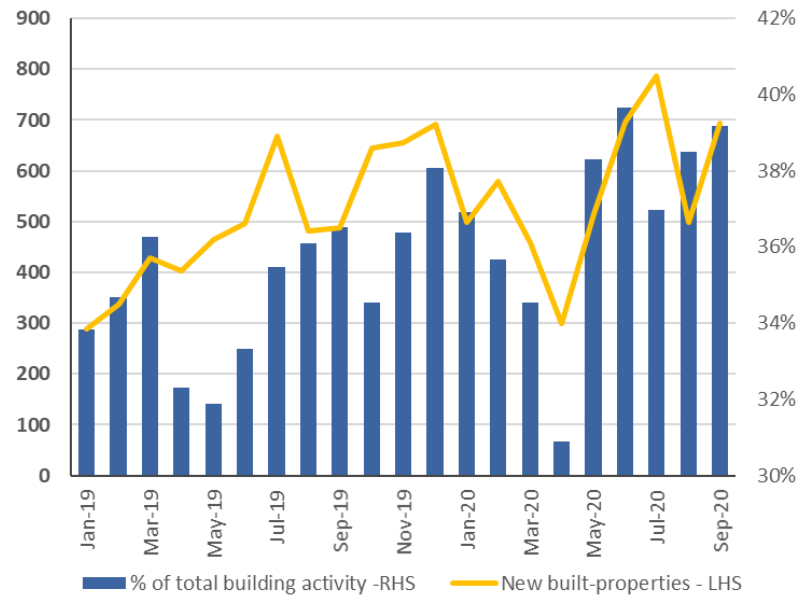
Private Building Activity

(number of permits, nsa data)



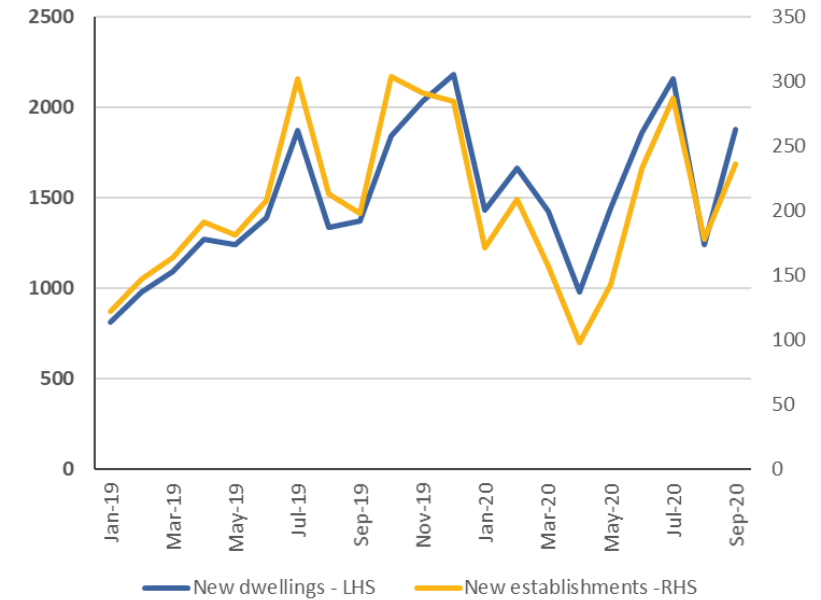
New Built-Properties

(number, % of total permits, nsa data)



New Dwellings & New Establishments

(number, nsa data)



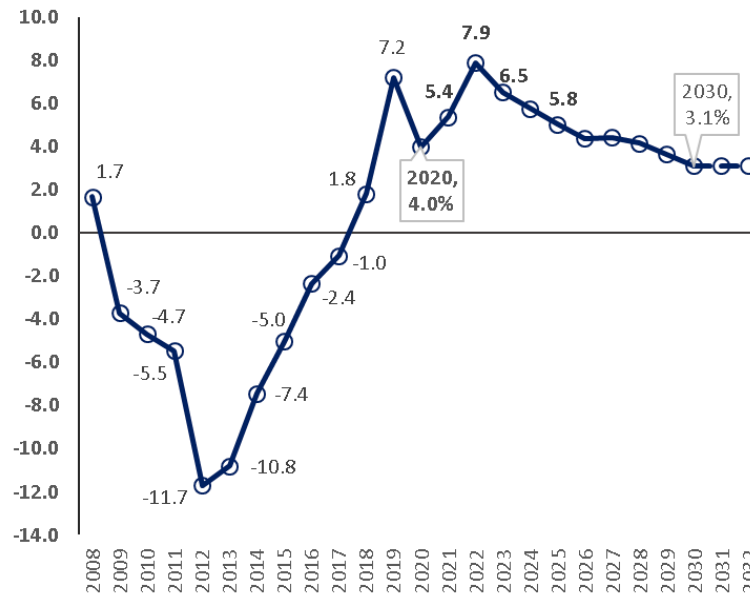
Residential Real Estate Outlook: +4.0% in 2020, +5.4 in 2021



Main Assumptions

- ✓ GDP to contract by -9.5% in 2020
- ✓ RRE increased by 4.6% in 9m.20
- ✓ Convergence to a steady state level by 2030.

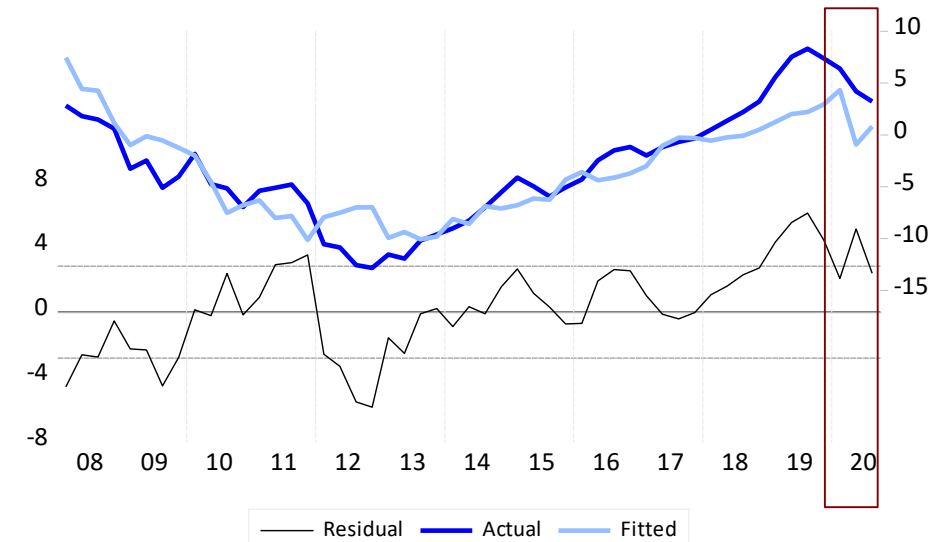
Residential Real Estate (annual % change)



Sample (adjusted): 2008Q1 2020Q3
Included observations: 51 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RGDP_GRWTH_BL	0.458006	0.080036	5.722487	0.0000
HRE_GRWTH(-4)	0.741637	0.064157	11.55966	0.0000
Root MSE	2.781114	R-squared		0.741339
Mean dependent var	-2.985988	Adjusted R-squared		0.736061
S.D. dependent var	5.522729	S.E. of regression		2.837304
Akaike info criterion	4.962012	Sum squared resid		394.4645
Schwarz criterion	5.037770	Log likelihood		-124.5313
Hannan-Quinn criter.	4.990961	Durbin-Watson stat		0.430233

	RRE growth	Real GDP growth rate
2020	4.0%	-9.5%
2021	5.4%	4.5%
2022	7.9%	9.5%
2023	6.5%	3.6%
2024	5.8%	4.1%



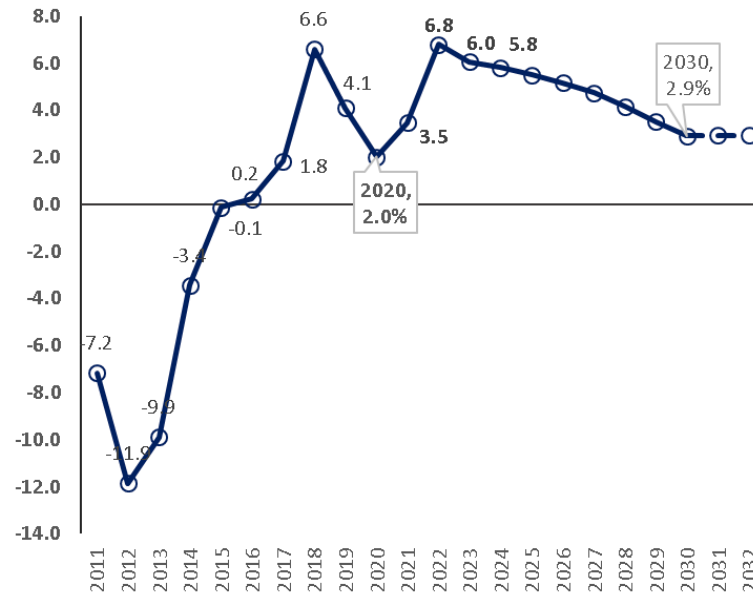
Non-Residential Real Estate Outlook: +2.0% in 2020, +3.5 in 2021



Main Assumptions

- ✓ GDP to contract by -9.5% in 2020
- ✓ CRE increased by 2.0% in H1.20
- ✓ Convergence to a steady state level by 2030.

Non Residential Real Estate (annual % change)

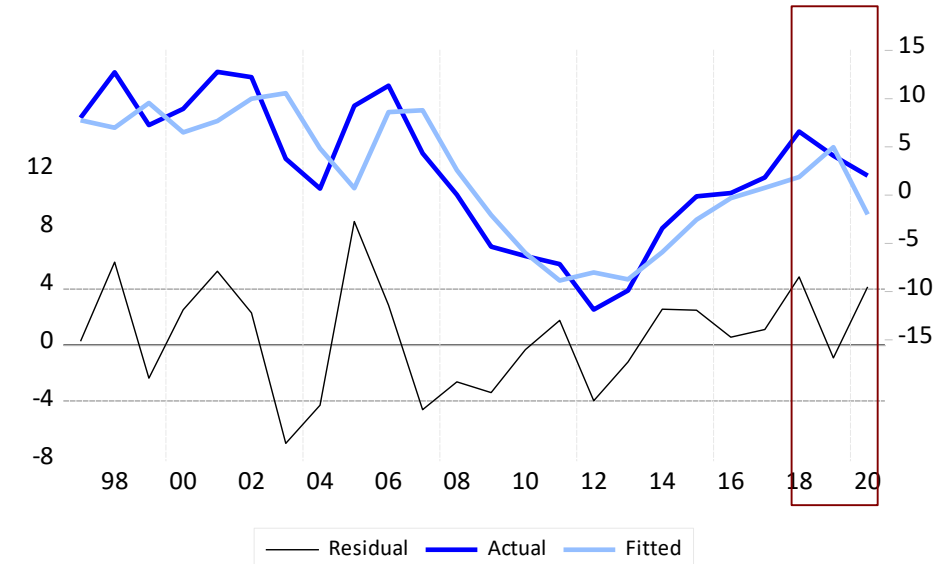


	CRE growth	Real GDP growth rate
2020	2.0%	-9.5%
2021	3.5%	4.5%
2022	6.8%	9.5%
2023	6.0%	3.6%
2024	5.8%	4.1%

Sample (adjusted): 1997 2020
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RGDP_GRWTH_BL	0.483728	0.226606	2.134668	0.0442
CRE_GRWTH(-1)	0.634703	0.133870	4.741180	0.0001

Root MSE	3.695319	R-squared	0.726133
Mean dependent var	2.577339	Adjusted R-squared	0.713685
S.D. dependent var	7.213135	S.E. of regression	3.859635
Akaike info criterion	5.618677	Sum squared resid	327.7291
Schwarz criterion	5.716849	Log likelihood	-65.42413
Hannan-Quinn criter.	5.644722	Durbin-Watson stat	1.854962





1 Current developments: Covid-19 Impact

2 Greek Macro Outlook: No “scarring” – No “hysteresis”

3 Real Estate Developments & Outlook

4 **Banking Sector Developments & Outlook**

5 Covid- 19 Fiscal policy response & Sovereign Rating

6 Assessing Corporate Distress due to COVID-19 Recession

7 GDP Revision & base year 2015

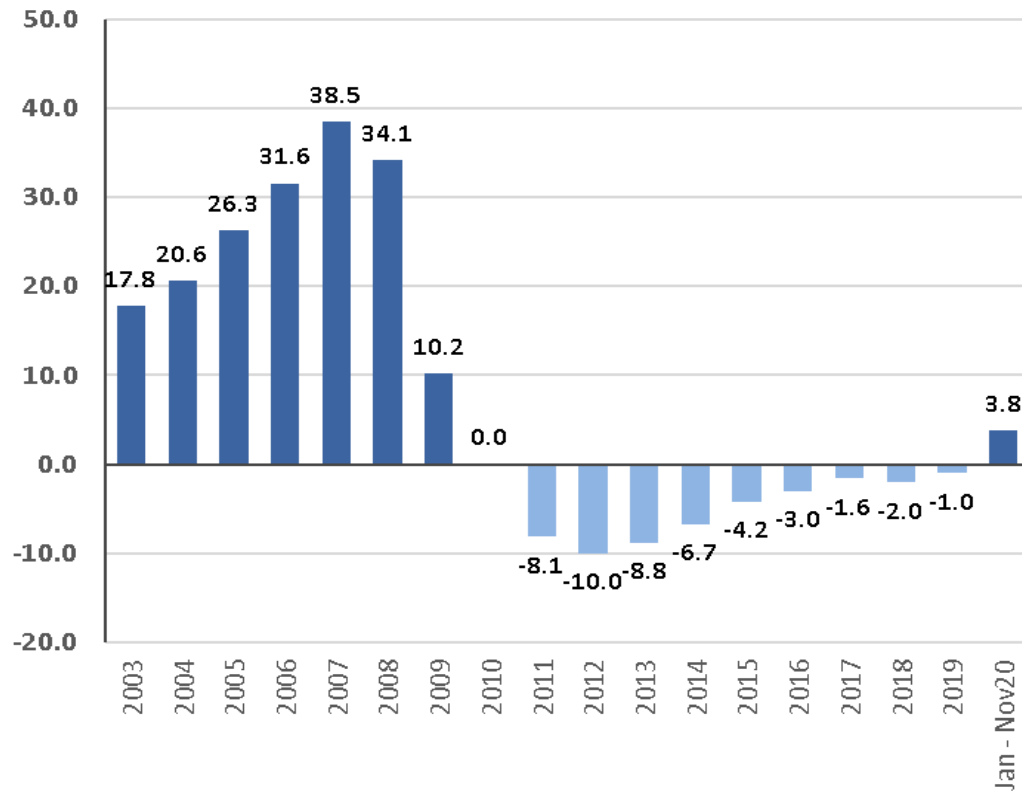
8 SWOT analysis



Private sector credit: net flow has turned positive for the first time since 2009



Private Sector Credit^{1,2} (net flows, €bn)



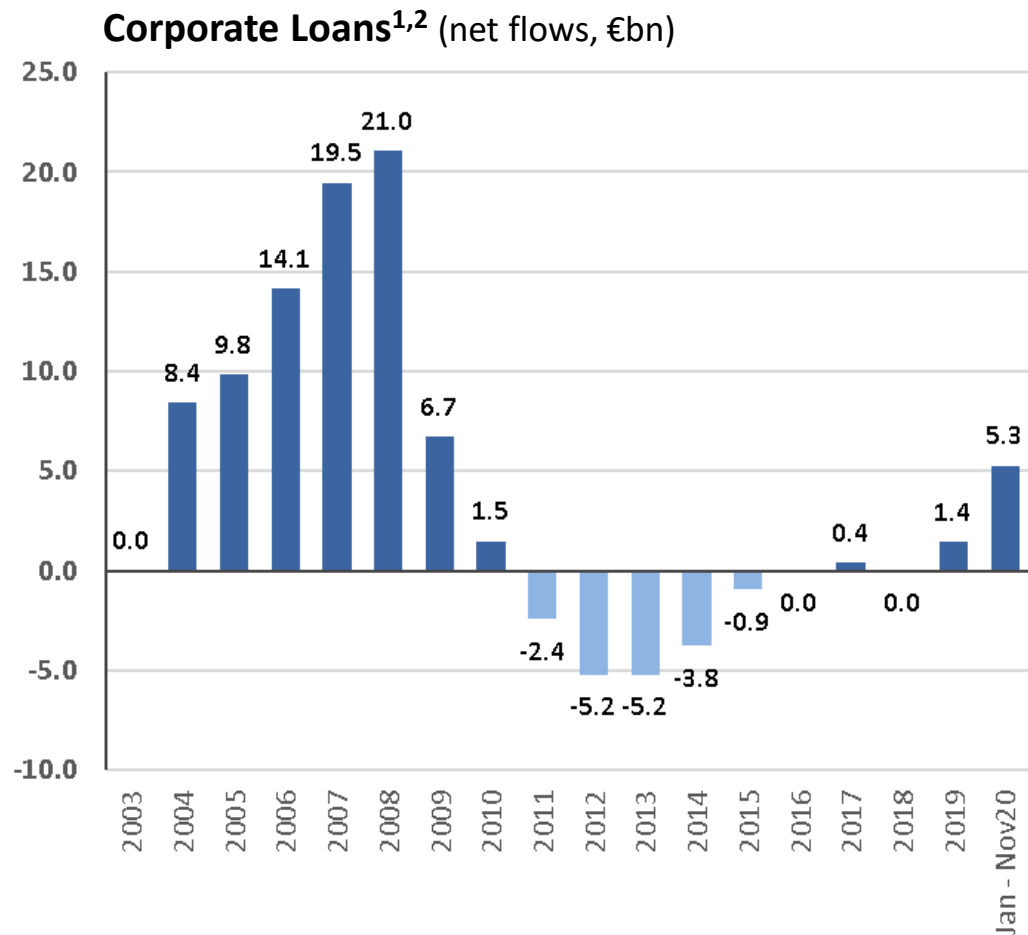
Private Sector Credit^{1,2} (annual % change)



Notes: 1. Including securitised loans and corporate bonds that have been derecognised from the balance sheet and serviced by credit institutions. As of June 2010 non traded corporate bonds are included in 'loans' rather than 'debt securities'. As of December 2016, loans of the Consignment Deposits and Loan Fund are excluded from the domestic credit as the institution has been reclassified from the financial sector to the general government sector. As of March 2019, loans to shipping companies which have their registered office abroad, are no longer included in credit to the domestic economy, as they were reclassified to Other Countries. 2. Flows are derived from changes in outstanding amounts corrected for foreign exchange valuations write-offs/write-downs and reclassifications adjustments.



...driven mainly by corporate credit



Notes: 1. Including securitised loans and corporate bonds that have been derecognised from the balance sheet and serviced by credit institutions. As of June 2010 non traded corporate bonds are included in 'loans' rather than 'debt securities'. As of December 2016, loans of the Consignment Deposits and Loan Fund are excluded from the domestic credit as the institution has been reclassified from the financial sector to the general government sector. As of March 2019, loans to shipping companies which have their registered office abroad, are no longer included in credit to the domestic economy, as they were reclassified to Other Countries. 2. Flows are derived from changes in outstanding amounts corrected for foreign exchange valuations write-offs/write-downs and reclassifications adjustments.

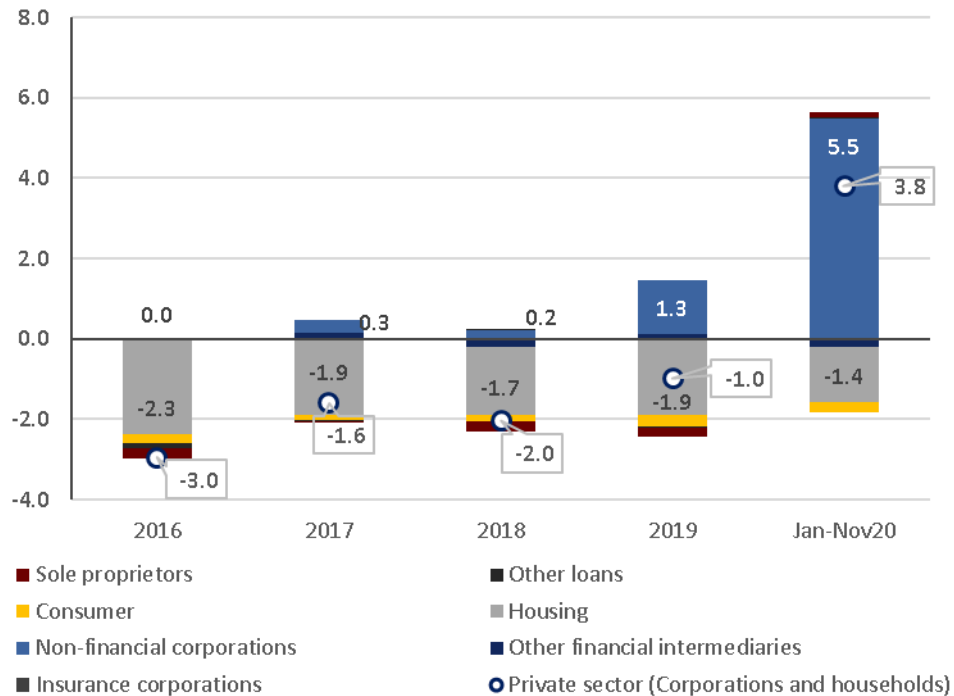


Government intervention has pushed credit to sectors most affected by the recession

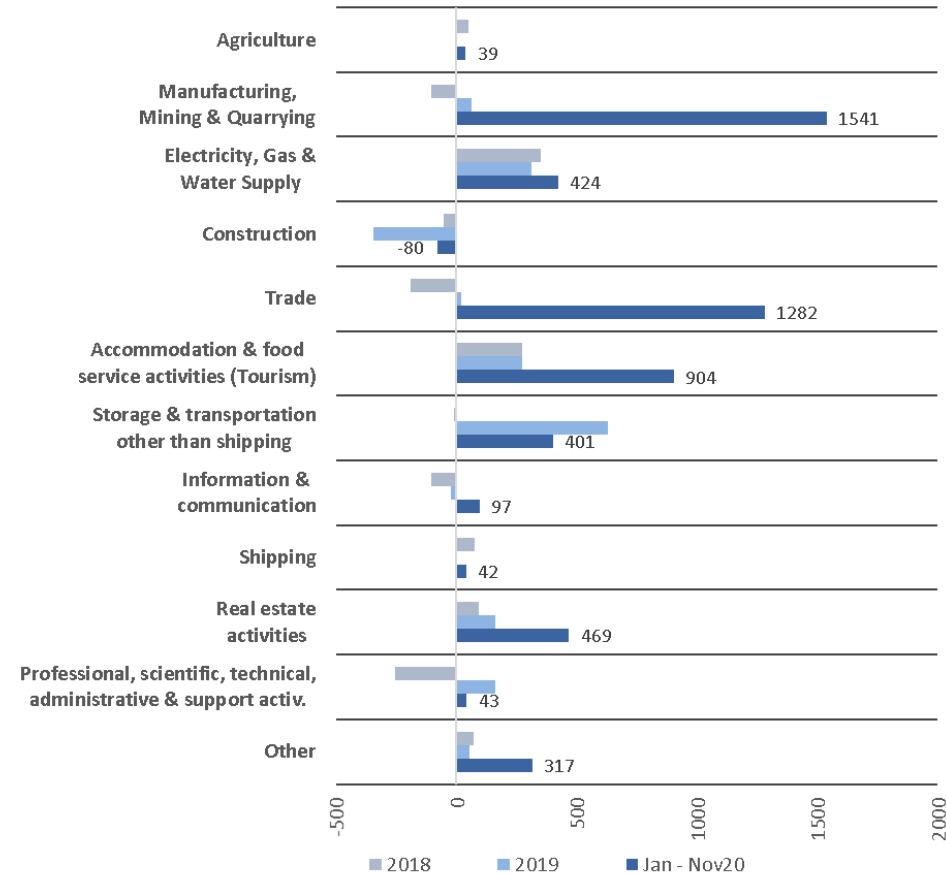


Loans breakdown by sector^{1,2}

(net flow in € bn)



Credit to domestic non financial corporations (net flows in € mn)



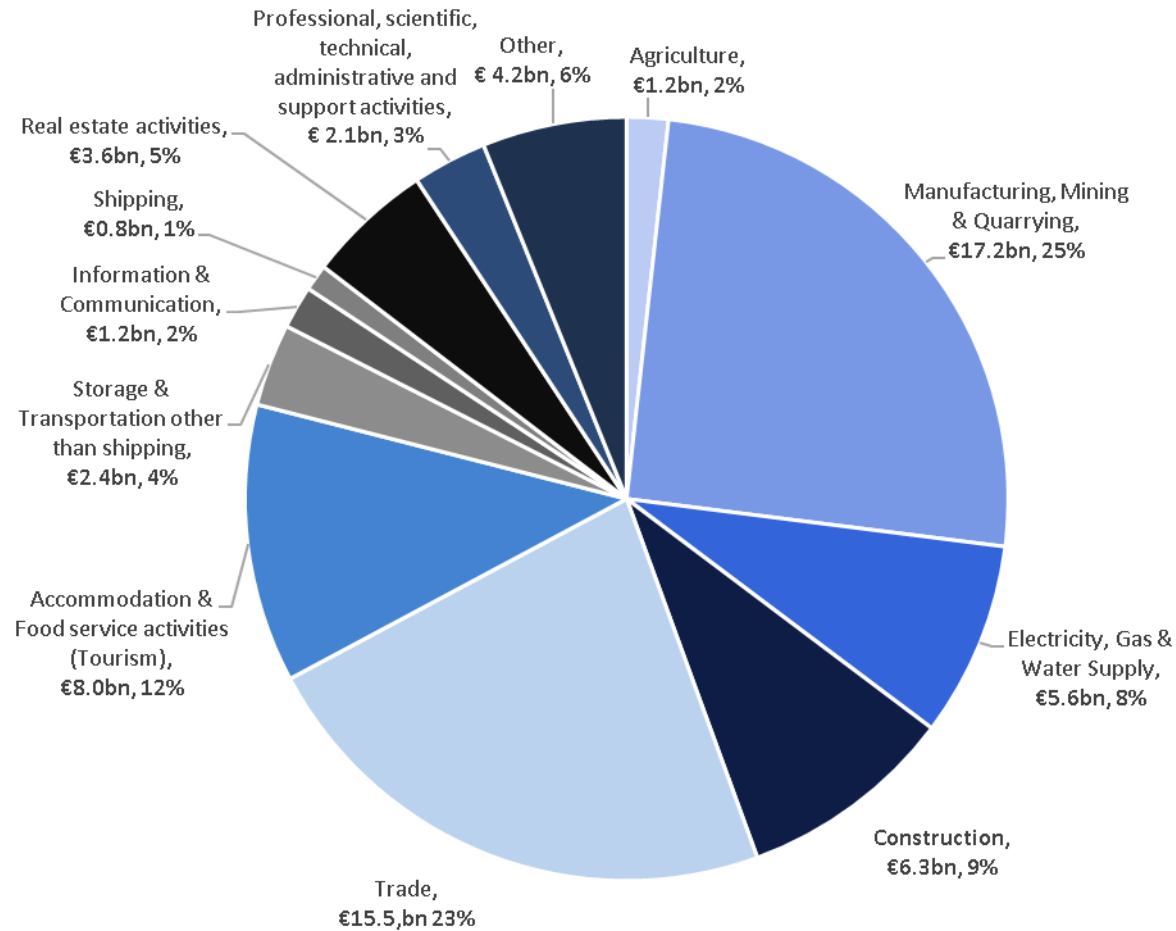
Notes: 1. Including securitised loans and corporate bonds that have been derecognised from the balance sheet and serviced by credit institutions. As of June 2010 non traded corporate bonds are included in 'loans' rather than 'debt securities'. As of December 2016, loans of the Consignment Deposits and Loan Fund are excluded from the domestic credit as the institution has been reclassified from the financial sector to the general government sector. As of March 2019, loans to shipping companies which have their registered office abroad, are no longer included in credit to the domestic economy, as they were reclassified to Other Countries. 2. Flows are derived from changes in outstanding amounts corrected for foreign exchange valuations write-offs/write-downs and reclassifications adjustments.



Credit to domestic non financial corporations breakdown by type of activity



**Total Outstanding amount
Nov. 20: € 68.1bn**



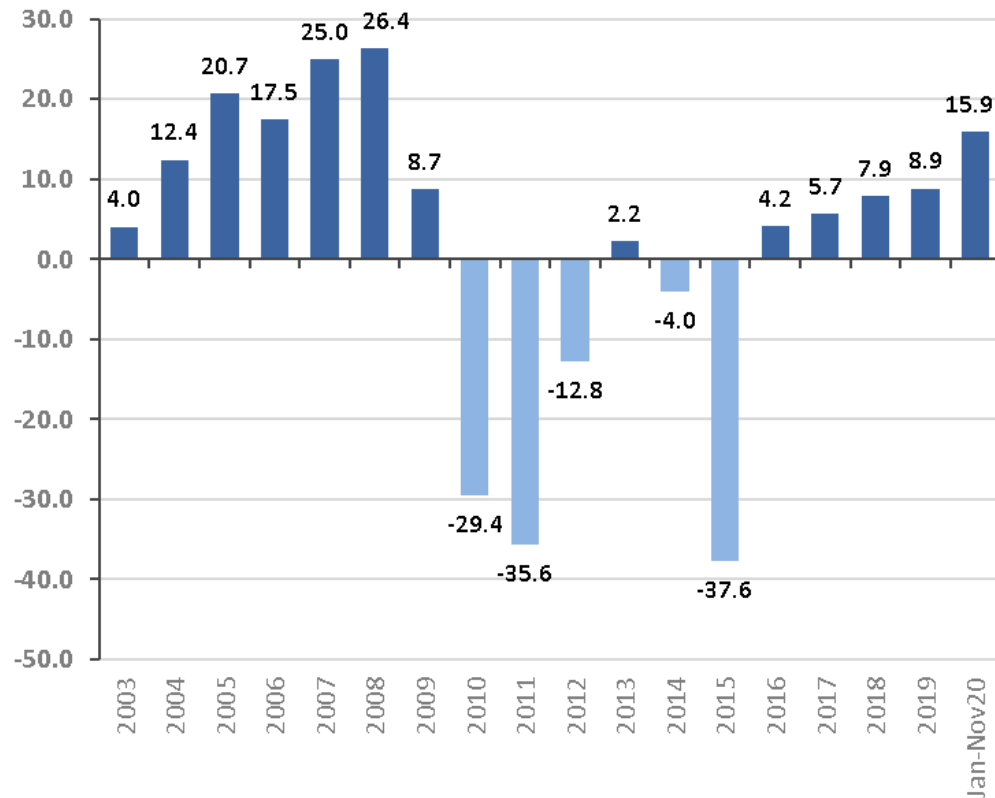
Notes: 1. Including securitised loans and corporate bonds that have been derecognised from the balance sheet and serviced by credit institutions. As of June 2010 non traded corporate bonds are included in 'loans' rather than 'debt securities'. As of December 2016, loans of the Consignment Deposits and Loan Fund are excluded from the domestic credit as the institution has been reclassified from the financial sector to the general government sector. As of March 2019, loans to shipping companies which have their registered office abroad, are no longer included in credit to the domestic economy, as they were reclassified to Other Countries



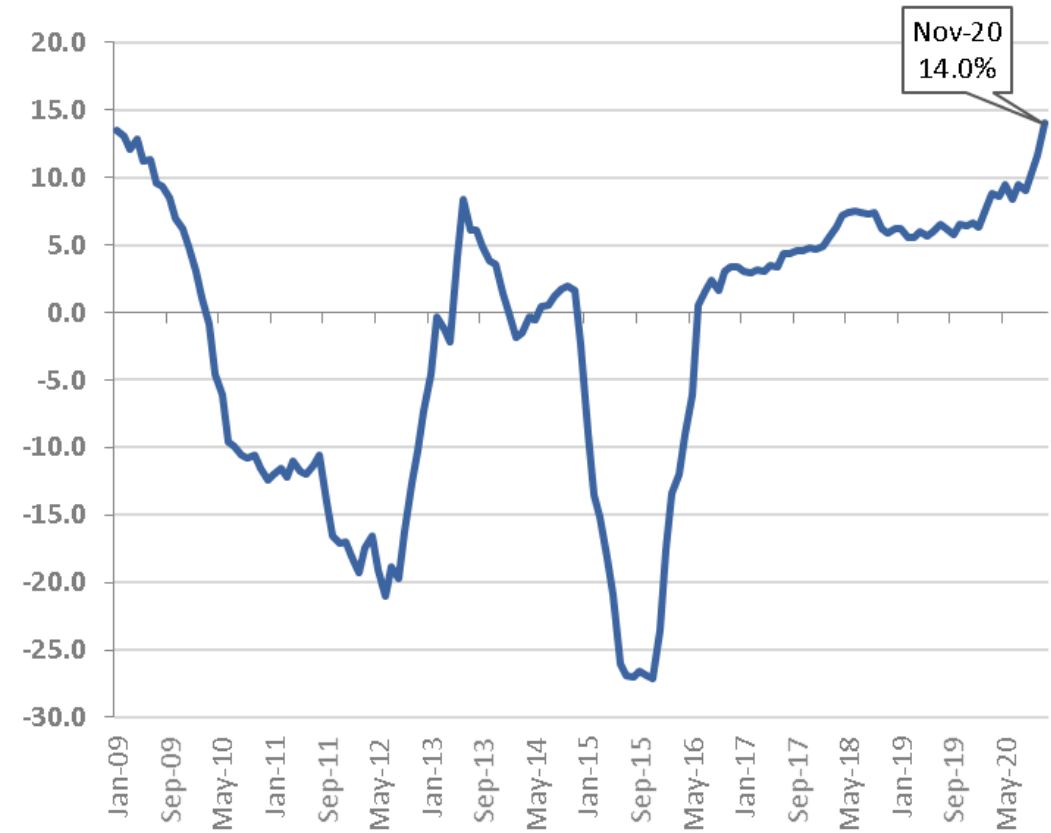
Private sector deposit base on the mend



Private Sector Deposits^{1,2} (net flows, €bn)



Private Sector Deposits^{1,2} (annual % change)

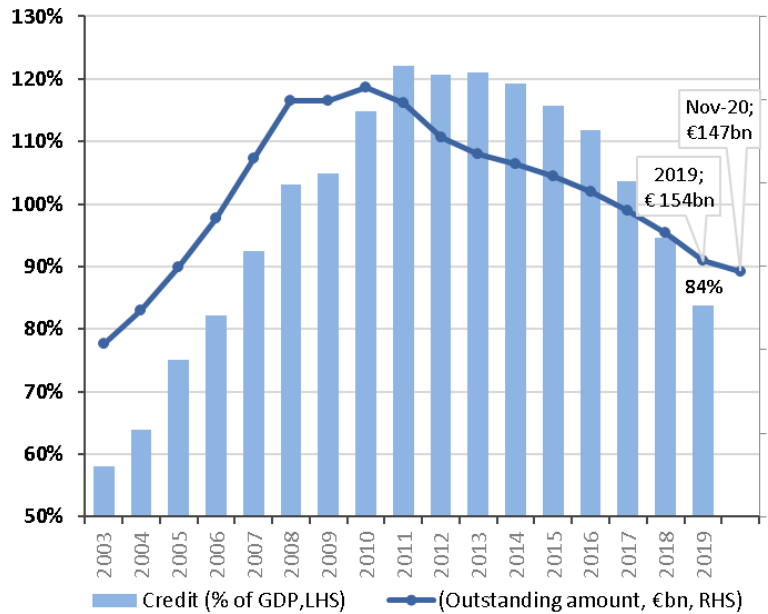


Notes: 1. Excluding the Bank of Greece. As of December 2016, deposits of the Consignment Deposits and Loan Fund are excluded from the domestic deposits as the institution has been reclassified from the financial sector to the general government sector. As of March 2019, deposits and repos of shipping companies which have their registered office abroad, are no longer included in the deposits of the domestic economy, as they were reclassified to Other Countries. **2.** Flows and growth rates are derived from changes in outstanding amounts corrected for foreign exchange valuations and reclassifications adjustments. The flow of deposits does not include the accounting increase in deposits that is related to securitisation operations and represent liabilities of credit institutions to Special Purpose Vehicles.

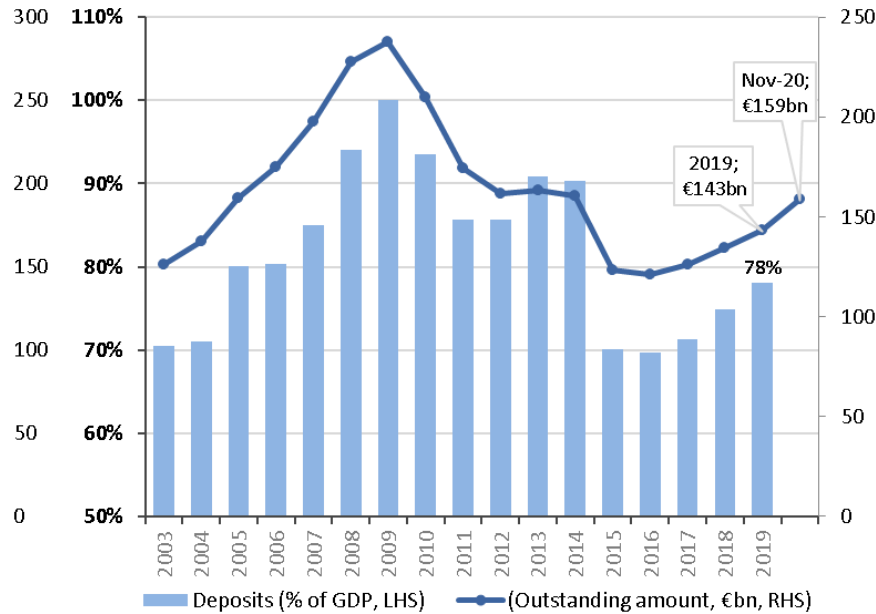




Private Sector Loans¹ (% of GDP & € bn)

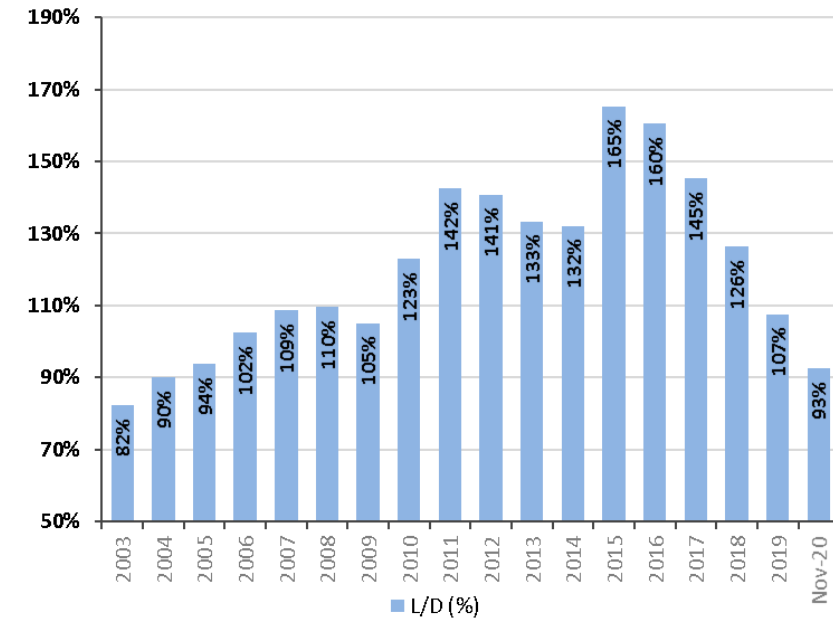


Private Sector Deposits² (% of GDP & € bn)



Private Sector

Loans to Deposits Ratio (%)



Notes: 1. Excluding the Bank of Greece. As of December 2016, deposits of the Consignment Deposits and Loan Fund are excluded from the domestic deposits as the institution has been reclassified from the financial sector to the general government sector. As of March 2019, deposits and repos of shipping companies which have their registered office abroad, are no longer included in the deposits of the domestic economy, as they were reclassified to Other Countries. Flows and growth rates are derived from changes in outstanding amounts corrected for foreign exchange valuations and reclassifications adjustments. The flow of deposits does not include the accounting increase in deposits that is related to securitisation operations and represent liabilities of credit institutions to Special Purpose Vehicles. **2.** Including securitised loans and corporate bonds that have been derecognised from the balance sheet and serviced by credit institutions. As of June 2010 non traded corporate bonds are included in 'loans' rather than 'debt securities'. As of December 2016, loans of the Consignment Deposits and Loan Fund are excluded from the domestic credit as the institution has been reclassified from the financial sector to the general government sector. As of March 2019, loans to shipping companies which have their registered office abroad, are no longer included in credit to the domestic economy, as they were reclassified to Other Countries. Flows are derived from changes in outstanding amounts corrected for foreign exchange valuations write-offs/write-downs and reclassifications adjustments.



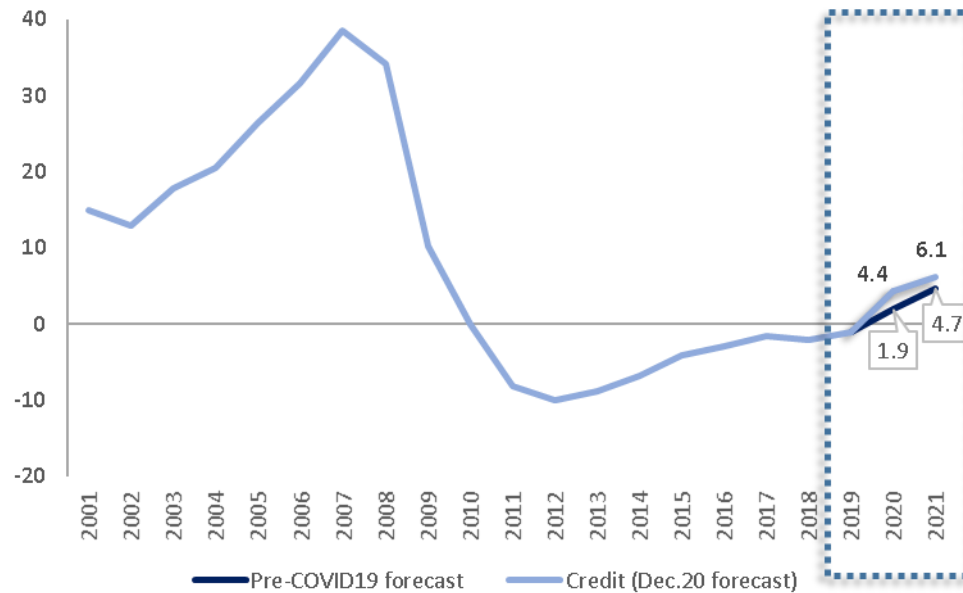
Private Sector Credit Outlook (net flows): + €4.4bn in 2020 and + €6.1bn in 2021



Main Assumptions

- ✓ Annual data on domestic private sector credit net flows (€ mn)
- ✓ Jan.20-Nov.20: €3.8 bn
- ✓ Assume that each year's incremental investment expenditure is financed through incremental bank lending

Private Sector Credit (net flow, € bn)

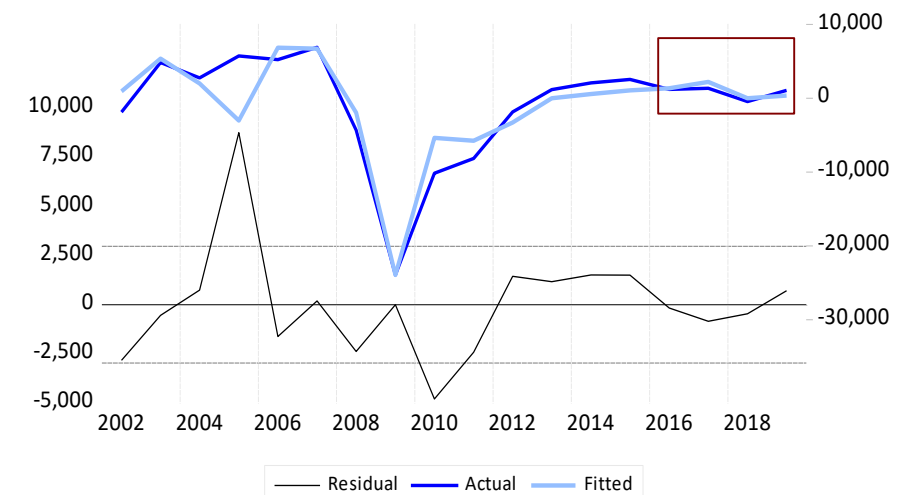


	PS Credit (net flows, €)	GFCF (bn €)
2020	4.4 bn	18.7 bn
2021	6.1 bn	21.8 bn
2022	14.9 bn	36.7 bn
2023	20.5 bn	47.2 bn
2024	23.0 bn	49.2 bn

Sample (adjusted): 2002 2019
Included observations: 18 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1034.407	727.4118	1.422037	0.1755
D(RGFCF_MN)	0.744870	0.150145	4.960991	0.0002
DUMMY_CREDIT	-19616.58	3199.021	-6.132057	0.0000

Root MSE	2704.757	R-squared	0.855463
Mean dependent var	-882.0267	Adjusted R-squared	0.836192
S.D. dependent var	7320.668	S.E. of regression	2962.912
Akaike info criterion	18.97674	Sum squared resid	1.32E+08
Schwarz criterion	19.12514	Log likelihood	-167.7907
Hannan-Quinn criter.	18.99721	F-statistic	44.38988
Durbin-Watson stat	1.837606	Prob(F-statistic)	0.000001



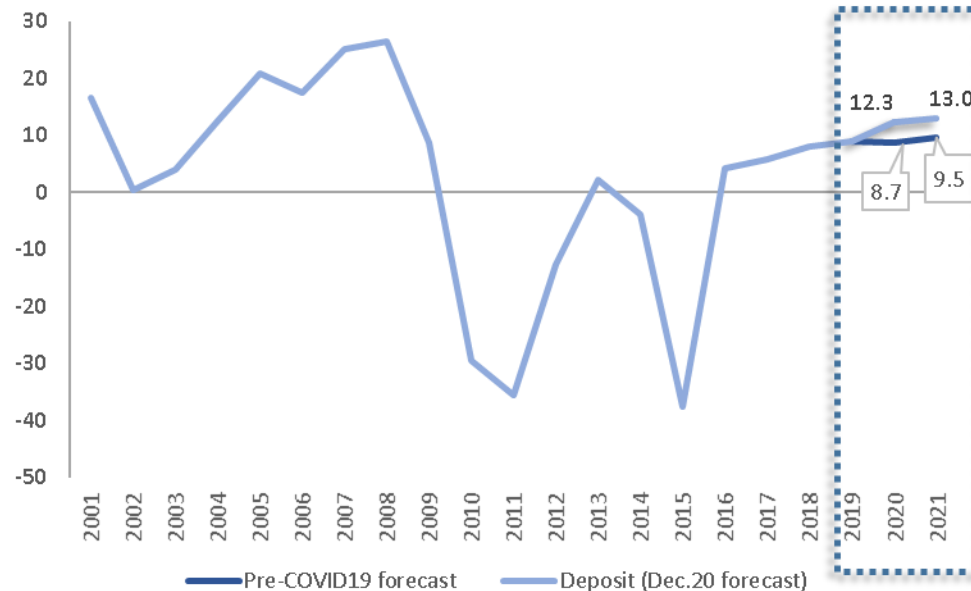
Private Sector Deposits Outlook (net flows): + €12.3bn in 2020 and + €13.0bn in 2021



Main Assumptions

- ✓ Annual data of domestic private sector deposits net flow (€ mn)
- ✓ Jan.20-Nov.20: €15.9 bn
- ✓ 2020-2021 boosted deposits by fiscal measures' stimulus
- ✓ Assume that causality runs from new credit creation to deposit growth

Private Sector Deposits (net flow, € bn)

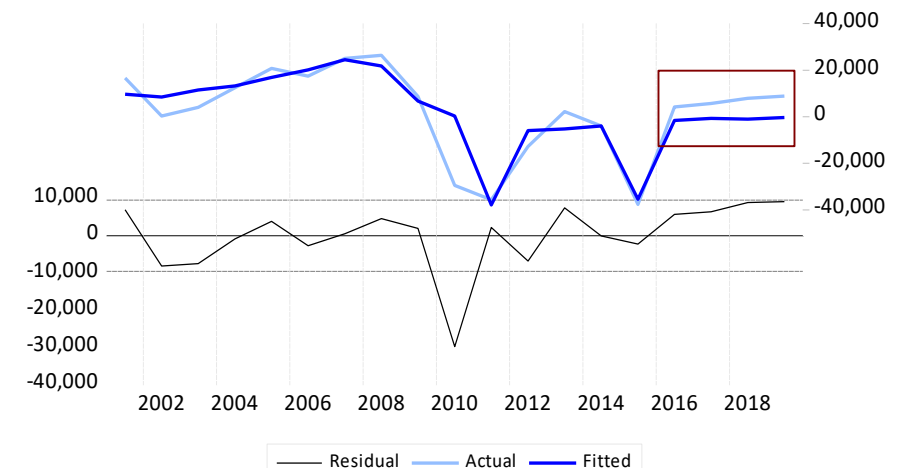


Sample (adjusted): 2001 2019
Included observations: 19 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	301.4613	2775.063	0.108632	0.9148
PS_CREDIT_FL	0.628785	0.149996	4.192023	0.0007
DUMMY_DEPOSITS	-33077.80	7537.707	-4.388311	0.0005

Root MSE	8747.954	R-squared	0.773436
Mean dependent var	2169.257	Adjusted R-squared	0.745116
S.D. dependent var	18882.16	S.E. of regression	9532.862
Akaike info criterion	21.30682	Sum squared resid	1.45E+09
Schwarz criterion	21.45594	Log likelihood	-199.4148
Hannan-Quinn criter.	21.33205	F-statistic	27.31014
Durbin-Watson stat	1.939353	Prob(F-statistic)	0.000007

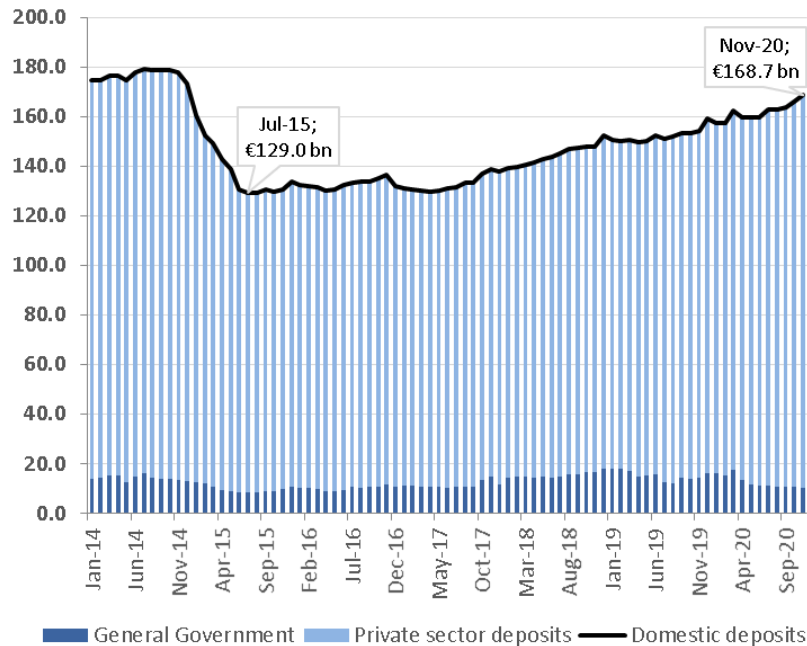
PS Deposits (net flows, €)	
2020	12.3 bn
2021	13.0 bn
2022	16.1 bn
2023	19.0 bn
2024	20.5 bn



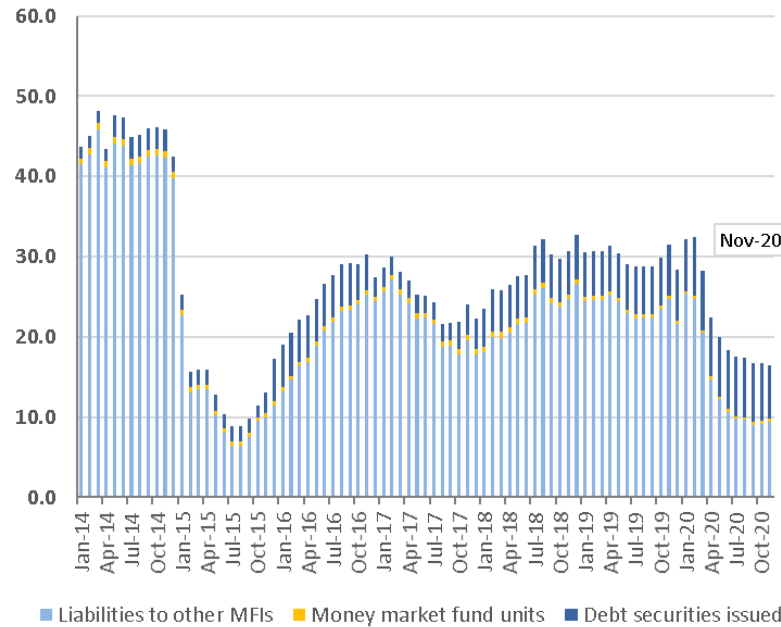
Greek banks have reduced interbank borrowing to take advantage of cheaper ECB funding



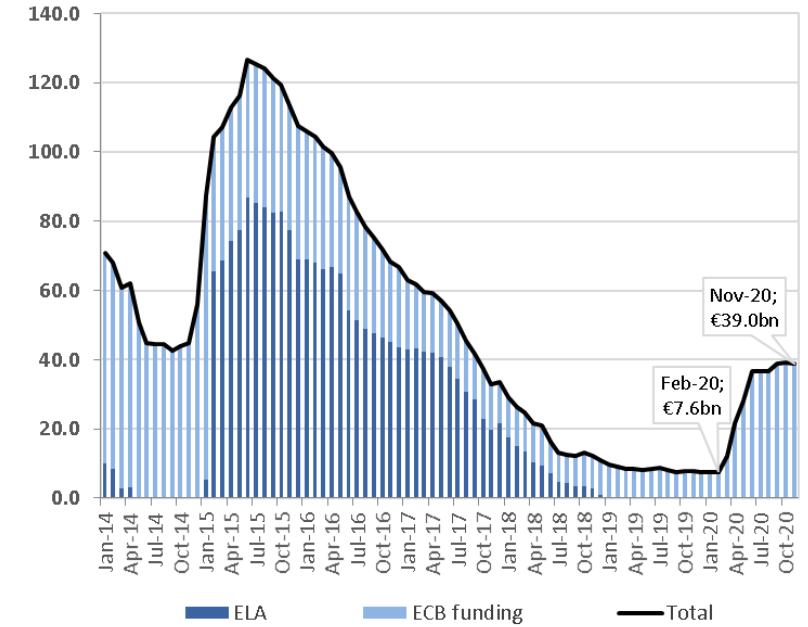
Total Domestic Deposits (€ bn)



Other Sources of Funding (€ bn)

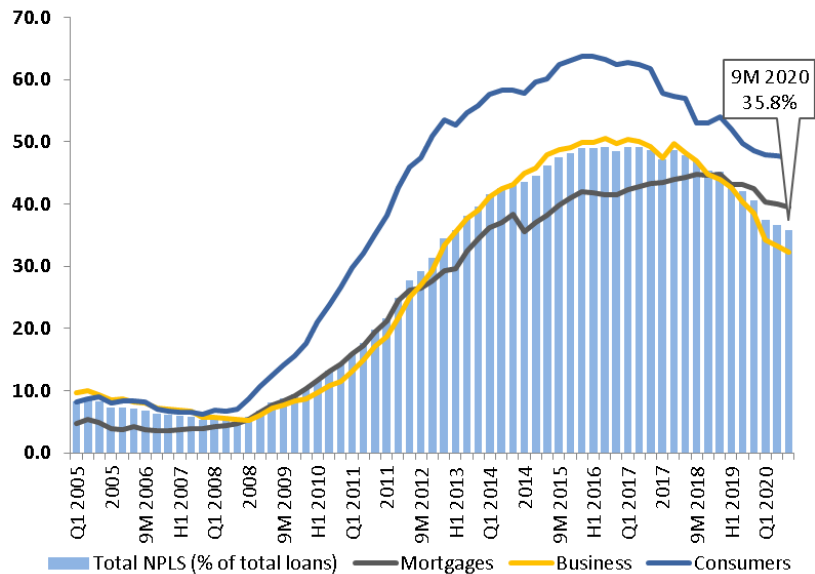


Eurosystem Funding (€ bn)

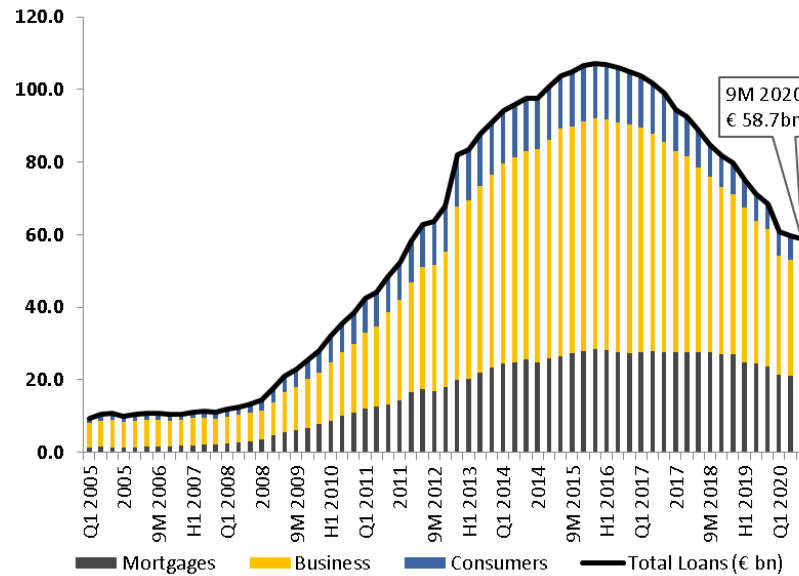


Evolution of Non-Performing Loans

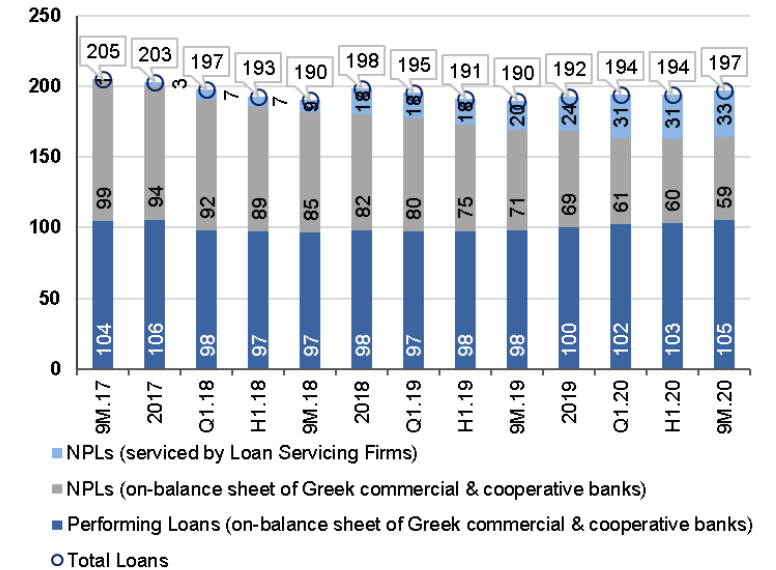
Non-Performing Loans ratio
on balance sheet gross loans ^{1,2,3,4,5} (%)



Non-Performing Loans,
on balance sheet gross loans ^{1,2,3,4,5} (€ bn)



Total Loans, on balance sheet gross loans ^{1,2,3,4,5} & transferred to foreign specialised financial institutions & that are serviced by the domestic CSFs⁶. (€ bn)



Notes: (1) All items are on solo basis and refer to on-balance sheet gross loans and advances of Greek commercial and cooperative banks. (2) For 2014 onwards, the source is data from bank's submissions according to Act 42/2014 (as applicable) and European Banking Authority (EBA) rules and definitions (3) For 2002 - 9M 2014, the source is data from banks' submissions according to Act 2442/1999 with the following assumption: Non-performing loans include also loans that have been restructured over the past 12 months. (4) Balance changes between some quarters may be affected by the restructuring of the Greek banking system (resolution of banks, sale of foreign branches e.t.c.) (5) All items refer to on-balance sheet loans and advances, in consistency with the operational targets for the reduction of non-performing loans. For that reason, balances and indicators may differ from previously published figures, where off-balance sheet items were also included in the perimeter.

(6) Concern loans that have been transferred by domestic credit institutions to foreign specialised financial institutions and that are serviced by the domestic CSFs. Included in these loans are loans that have been written off by credit institutions and were thus not reported on their balance sheet

An Attempt to Summarize European Banking Support Measures



European Central Bank

- The total PEPP envelope of €1,850 bn, in conjunction with the additional €120 bn APP purchase envelope for 2020.
- Easing of conditions for targeted longer-term refinancing operations (TLTRO III).
- Reintroduction of non-eligibility waiver for Greek Government Bonds.
- Flexibility in capital rules (allowing banks to operate temporarily below the capital levels defined in the Pillar 2 Guidance, the capital conservation buffer and the liquidity coverage ratio).
- Temporary measures to mitigate the effect on collateral availability of possible rating downgrades
- Easing collateral restrictions and reduced haircut.
- Supervisory flexibility regarding the treatment of NPLs on the basis of the existing ECB Guidance to Banks on Non-Performing Loans.
- New series of additional longer-term refinancing operations, called pandemic emergency longer-term refinancing operations (PELTROs)
- ECB extended its recommendation to banks on dividend distributions and share buy-backs until 1 January 2021 and asked banks to be extremely moderate with regard to variable remuneration.
- ECB extend the reinvestment of principal payments from maturing securities purchased under the PEPP until at least the end of 2023. Also extended the horizon for net purchases under the PEPP to at least the end of March 2022.

European Banking Authority

- EU-wide annual Bank Stress Tests postponed to 2021. The stress test exercise will be launched in January 2021 with the publication of the macroeconomic scenarios and the results published by 31 July 2021
- Following, the impact of the second COVID-19 wave and the related government restrictions taken in many EU countries, the EBA has decided to reactivate its Guidelines on legislative and non-legislative moratoria.
- The EBA revised Guidelines, which will apply until 31 March 2021, include additional safeguards against the risk of an undue increase in unrecognised losses on banks' balance sheet.
- 2020 EU-wide transparency exercise.



An Attempt to Summarize Banking Support in Greece



European Investment Bank European Stability Mechanism

- A guarantee scheme of up to €2 bn under the State aid Temporary Framework measures to support the economy in the context of COVID-19.
- Introduction of a guarantee mechanism in collaboration with the European Investment Bank Group for investment loans of up to €500 mn.
- Financial support of the Hellenic Development Bank's Entrepreneurial Fund with an additional €250 mn of funding to be used to make loans to business affected by COVID-19, along with a subsidy of 100% of the interest for a two-year period.
- Liquidity support by the European Investment Bank to Greek banks for the granting of new business loans of up to €2 bn.
- Additional funding support through the allocation of €1.8 bn by the European Investment Fund.
- The EIB Group created EGF, a €25 bn fund, in response to COVID-19. This guarantee fund enables the EIB Group – in partnership with local lenders and national promotional institutions – to scale up its support to SMEs and others in the real economy by mobilising up to €200 bn
- To address the coronavirus crisis, the ESM established a Pandemic Crisis Support, based on its Enhanced Conditions Credit Line (ECCL) available to all euro area countries. The Pandemic Crisis Support makes available, if requested, a precautionary credit line of 2% of a country's GDP in 2019.

PIRAEUS BANK

Greek Banking System

- ✓ **Businesses** (mandatorily suspended or severely affected by COVID-19):
 - Suspension of repayment of principal on loans to Greek banks that were performing as of 30 September 2020. Businesses can apply for inclusion until March 31, 2021 and for a maximum duration of up to 9 months from the date of accession.
 - Deferral of loan arrears (for loans performing as of 31 December 2019).
 - 75-day suspension of deadlines for post-dated cheques and other negotiable instruments.
 - Greek banks, in cooperation with the Hellenic Development Bank, to provide working capital loans, with a guarantee rate of up to 80% of each loan, offered by the Guarantee Fund for COVID-19.
 - The suspension of bank loan payments has been extended until the end of the year based on the updated KAD list.
- ✓ **Households** (eligible to receive the special-purpose compensation as a result of being affected by COVID-19):
 - Suspension of loan instalment repayments through 31 December 2020
 - Protection of main – residence for vulnerable households extended until end-2020 . Borrowers applied and eligible to join the "Bridge" program of loan installments, will pay for the next nine months, only the amount of the installment due to them, with the rest being covered by the State.





1 Current developments: Covid-19 Impact

2 Greek Macro Outlook: No “scarring” – No “hysteresis”

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4 Banking Sector Developments & Outlook

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6 Assessing Corporate Distress due to COVID-19 Recession

7 GDP Revision & base year 2015

8 SWOT analysis



Total amount of €80bn of funding for the period 2021 - 2027



NATIONAL DEVELOPMENT PROGRAMME [NDP, 2021-2025]	
(€ bn)	
Sectoral Programmes (68.35%), of which:	6.8
Ministry of Infrastructure and Transport	2.6
Ministry of Maritime Affairs and Insular Policy	0.9
Ministry of Development	0.9
Ministry of Education	0.6
Ministry of Interior	0.5
Ministry of Digital Governance	0.4
Ministry of Environment and Energy	0.3
Ministry of Health	0.2
Ministry of Culture & Sports	0.2
Ministry of Labour and Social Affairs	0.1
Ministry of Justice	0.0
Ministry of Tourism	0.1
Other Sectoral Programmes	0.2
Regional Programmes (22.5%)	2.3
Continuance of specific programmes (North & South Aegean, Athens Municipality)	0.2
Technical assistance programme	0.0
Reserve	0.8
TOTAL	10

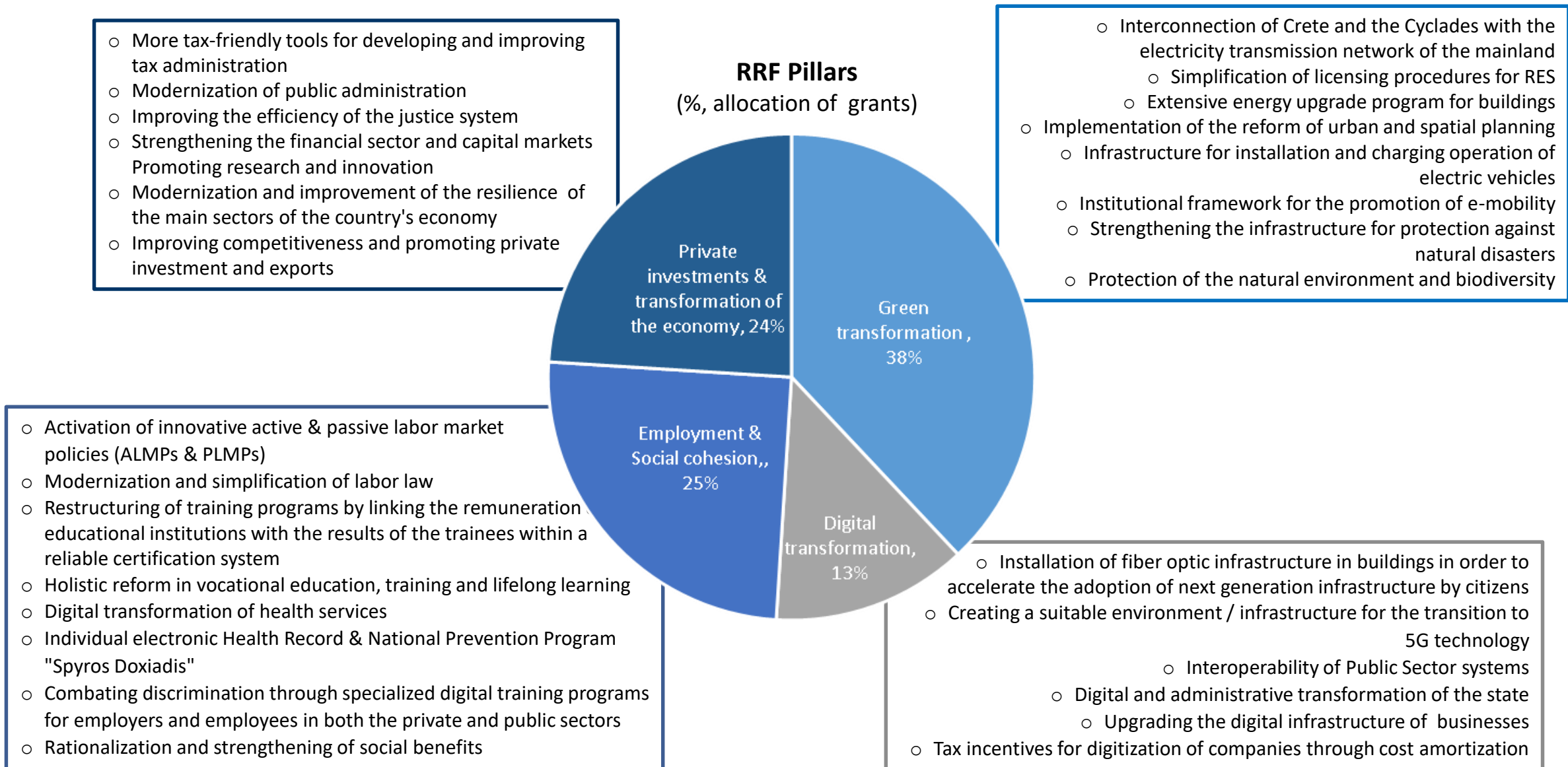
"Next Generation EU" [2021 -2026]				
(€ bn)				
Main pillars	Grants	% of Total	Loans	Total Grants & Loans
1 Green transformation	6.2	38%		
2 Digital transformation*	2.1	13%		
3 Employment & Social cohesion,	4.1	25%		
4 Private investments & transformation of the economy	4.0	24%		
Sub-total Recovery and Resilience Facility (RRF)	16.4	100%	12.6	29.0
REACT-EU, Just Transition Fund, European Agricultural Fund for Rural Development	3.0			3.0
Total	19.4			32.0

EUROPEAN FUNDS [2021-2027]	
(€ bn)	
European Regional Development Fund	10.2
European Social Fund	5.2
Cohesion Fund	3.5
European Territorial Cooperation	0.1
Total	19.0

COMMON AGRICULTURAL POLICY [2021 - 2027]	
(€ bn, resource allocation estimates)	
Direct payments	14.5
Rural development	4.4
Market measures	0.4
TOTAL	19.3



RRF : The plan is based on four pillars of development and reform





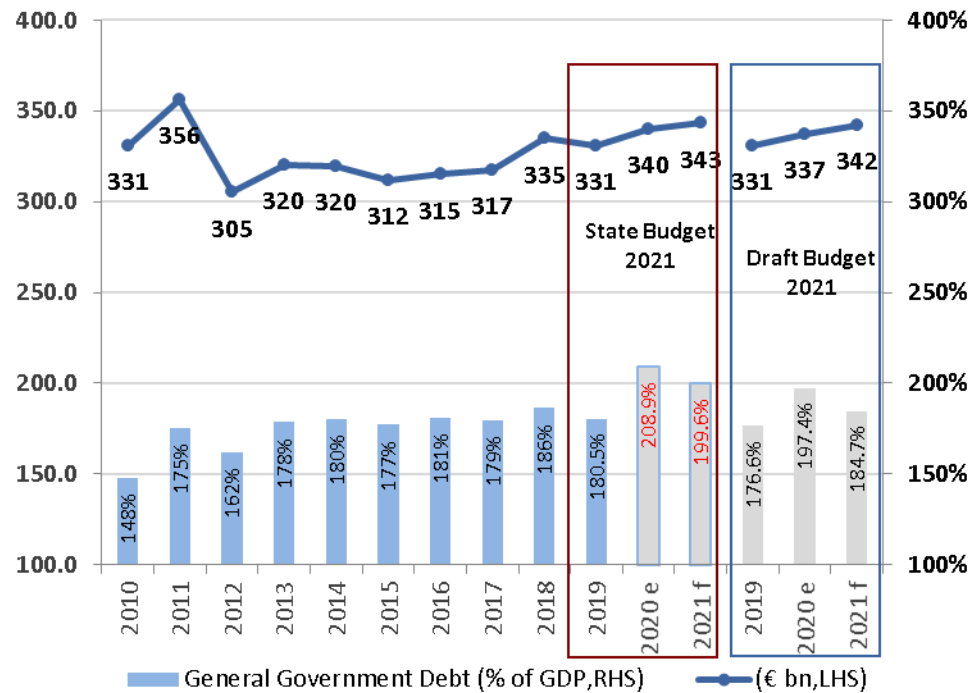
Eligibility	Method	Vehicle
<ul style="list-style-type: none">○ Green transition○ Digital transition○ Research and development○ Exports○ Increase in average business size - Collaborations○ Business parks○ Major Projects of Common European Interest (IPCEI)	<ul style="list-style-type: none">○ Co-financing○ Participation in capital○ Guarantees (limited)	<ul style="list-style-type: none">○ International financial institutions○ Commercial banks & financial institutions○ Venture Capital



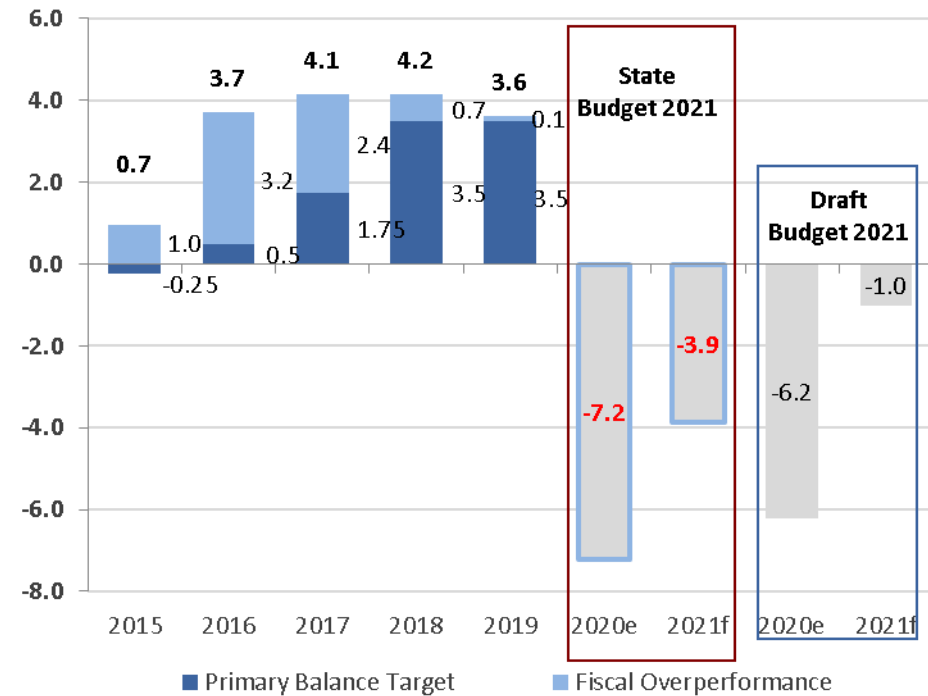
Public Finance: State budget figures have been revised downwards



General Government Debt
(€ bn & % of GDP)



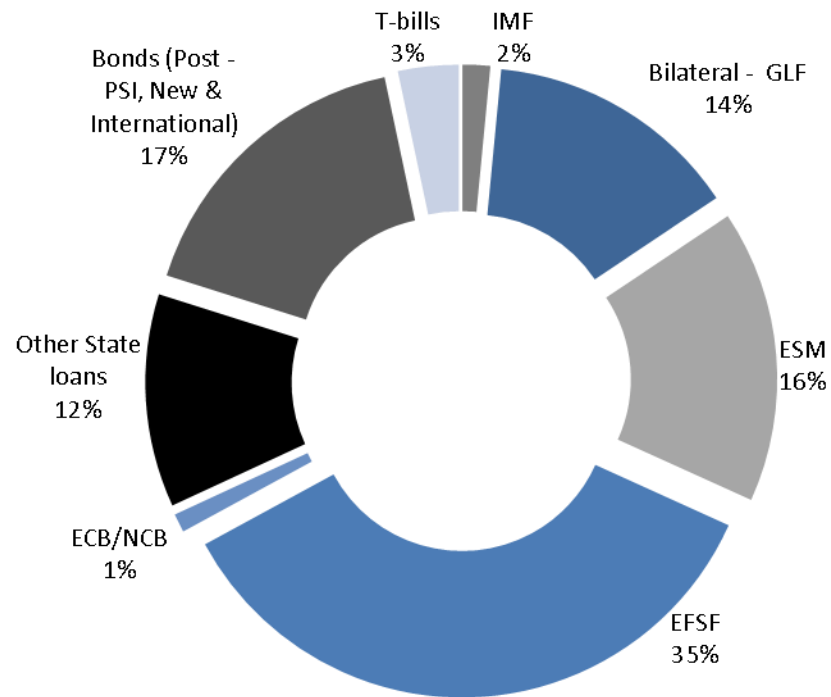
General Government Primary Balance
(based on Enhanced Surveillance definition, % of GDP)



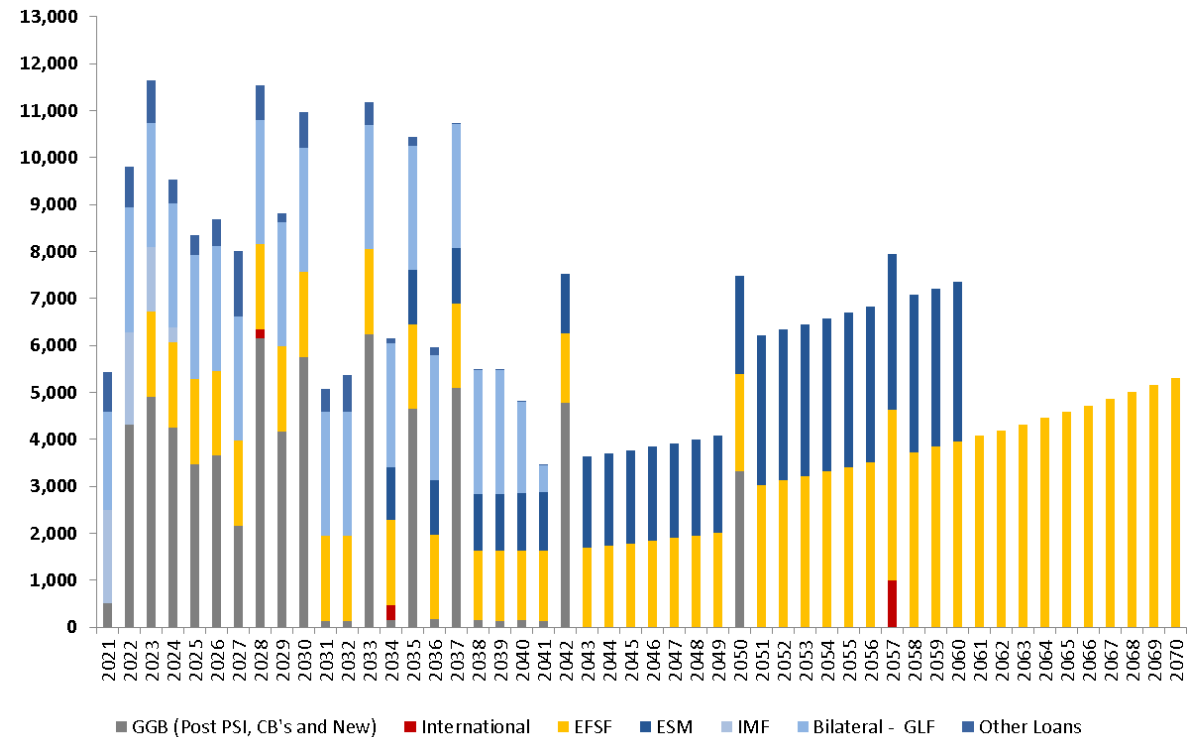
Debt Profile: Maturities now stretch all the way to 2070



Debt distribution by holder (%): the official sector holds the 80% of the central government debt



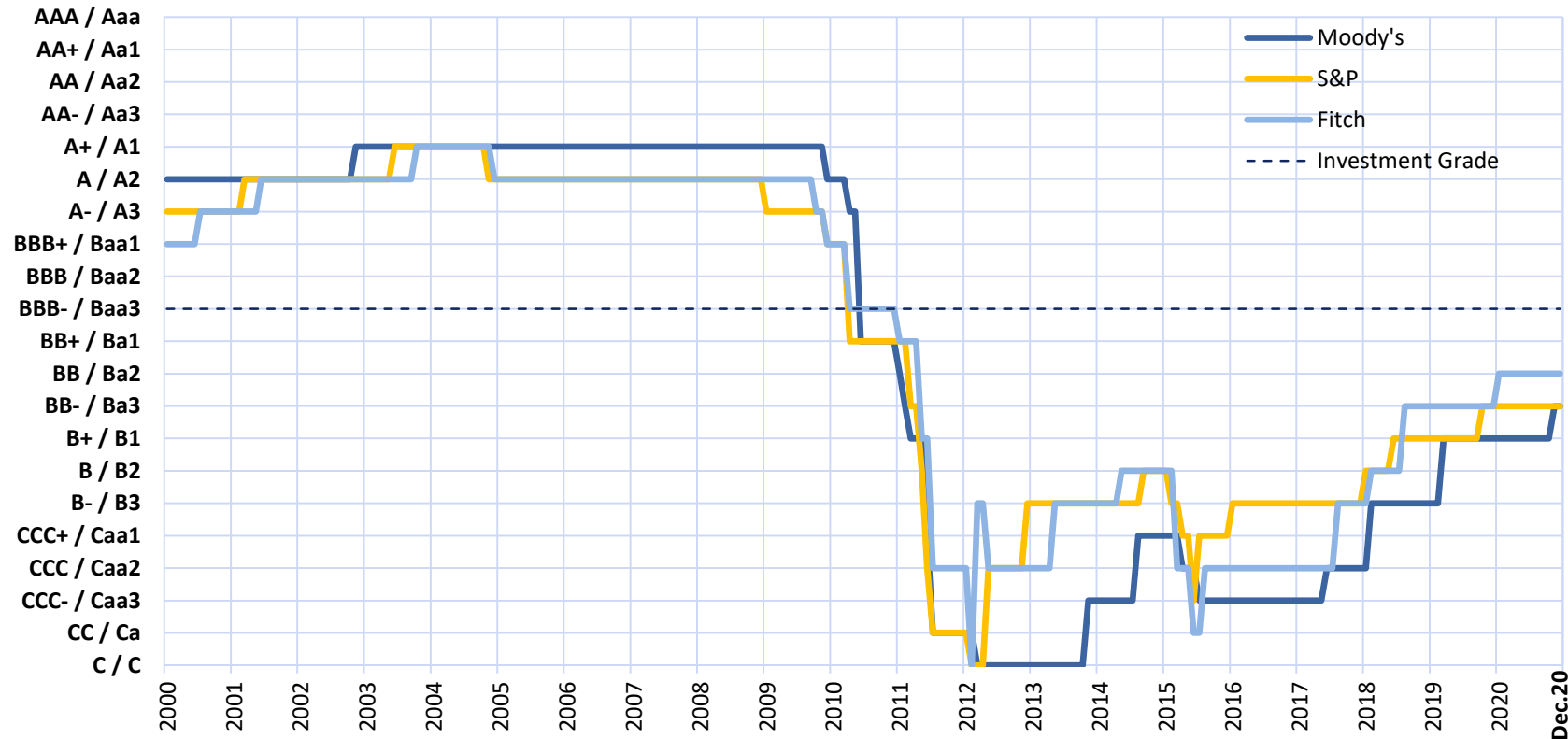
Bonds & Loans Maturities¹ (as of 8 January 2021, € mn)



Greek sovereign rating history: Fitch review on the forefront



	Current LT Rating	Outlook	Last Rating Up/ Down grade	Latest Review	Next Scheduled Review
Fitch	BB	Stable	January 2020	July 2020	22 January 2021
Moody's	Ba3	Stable	November 2020	November 2020	21 May 2021
Standard & Poor's	BB-	Stable	November 2019	October 2020	23 April 2021
DBRS	BB (low)	Stable	May 2019	October 2020	19 May 2021



Borrowing costs continue to de-escalate on the back of vaccine hopes



Piraeus Bank Sovereign Bond Index: Government bond gains continue on with the Piraeus Bank Government Bond Index YtM at 0.50% on 30th December



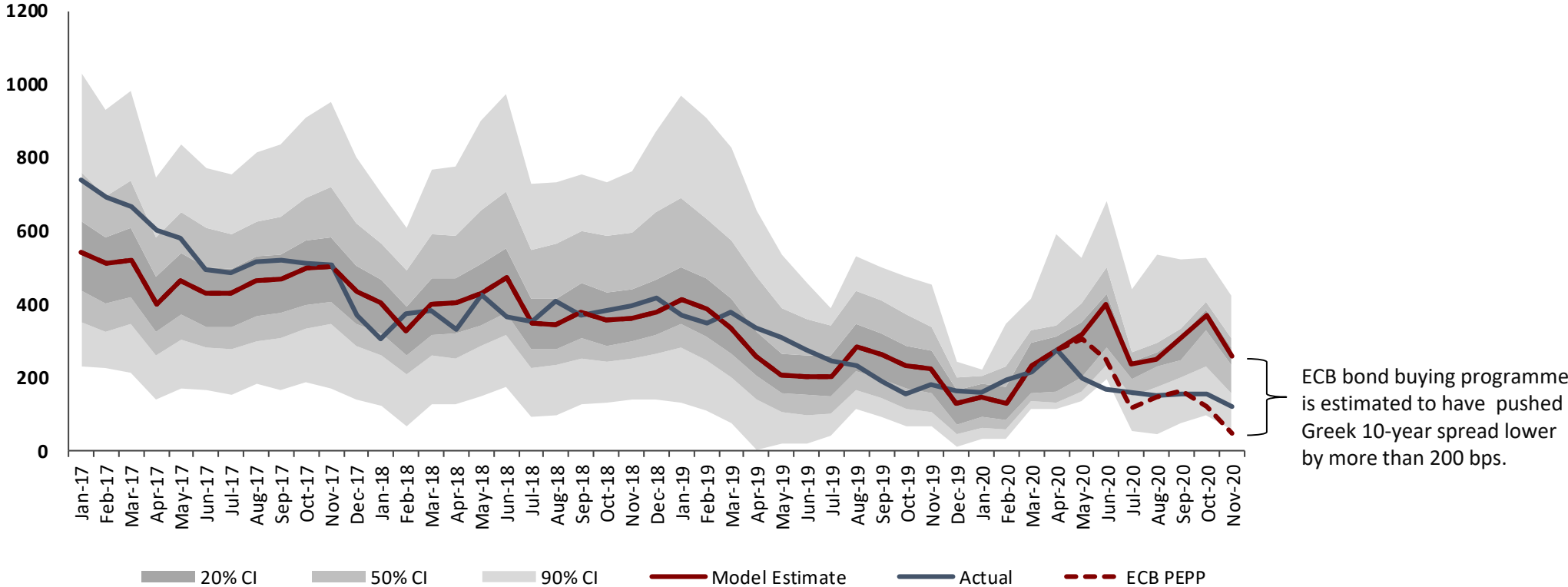
Piraeus Bank Corporate ex-Financials Bond Index: The Corporate Bond Index remained stable in December, with its weighted average YtM at 2.53%.



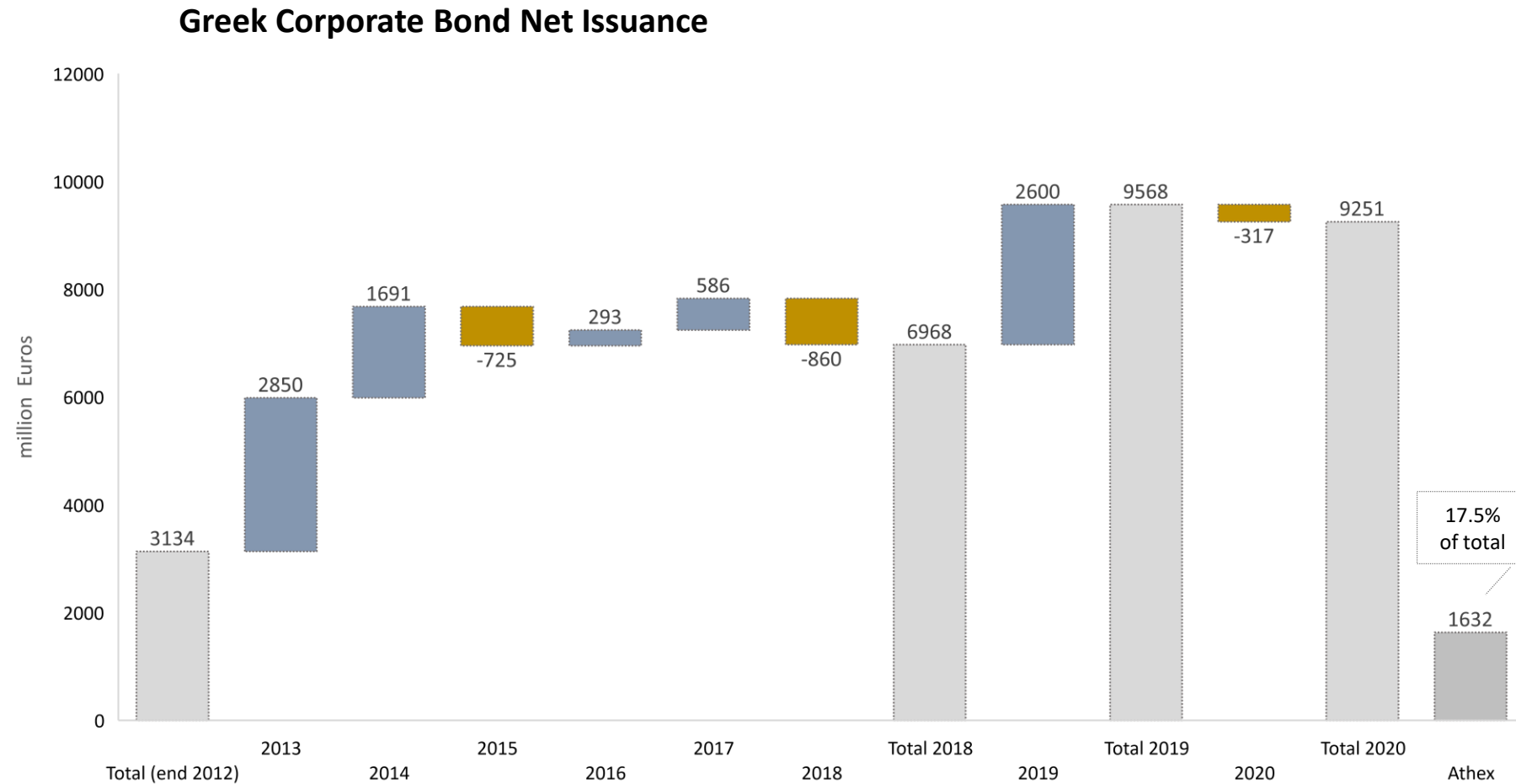
Greek Government Bond Spreads: Fair Value Assessment at 50 bps under PEPP support



Greek Government 10-Year Spread vs 10-Year Bund (basis points)



Greek Corporate Bond Issuance Activity: amounts outstanding at € 9.25bn





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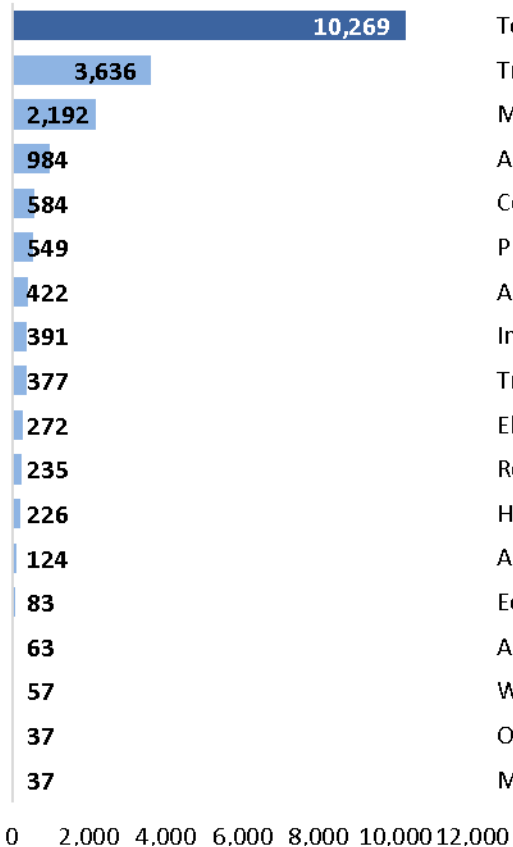
Estimating the Impact of the COVID-19 Recession on Greek Corporate Balance Sheets*:

Enterprise Sample Description

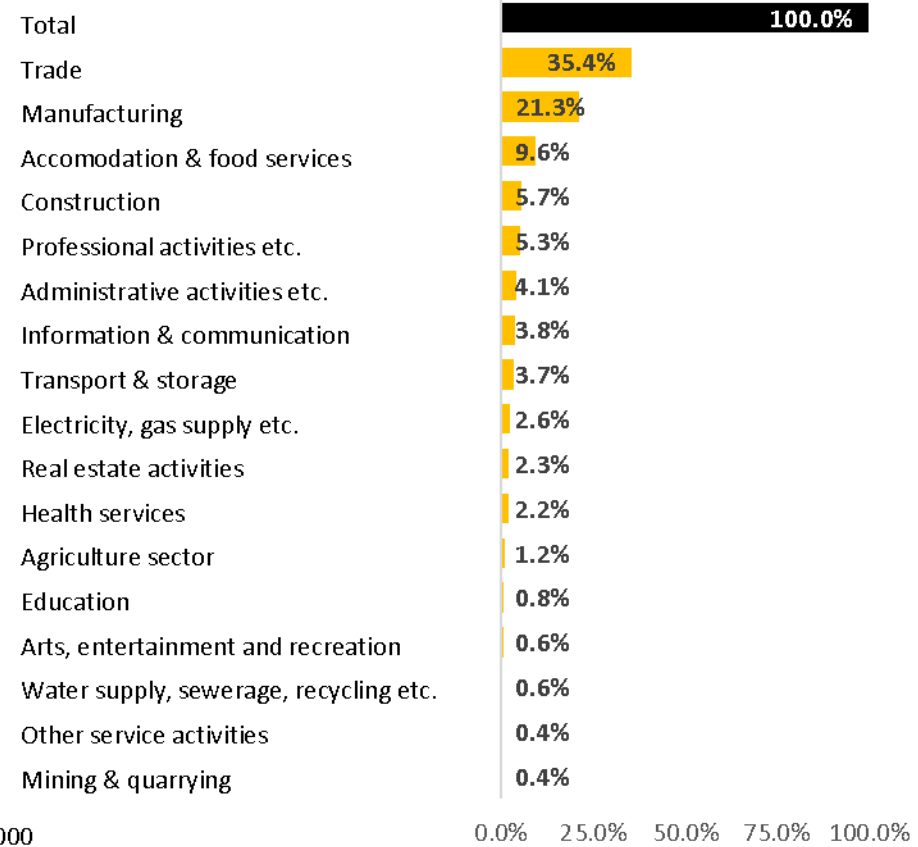
Main Assumptions

- ✓ We examine all non-financial sectors of economic activity according to the NACE rev. 2 classification.
- ✓ For our analysis, we used the sample of selected enterprises described in the methodological framework of our ERS, published in our September 2019 report**. The data reference year is 2017. We assume that in 2019, financial conditions were not drastically different from 2017.

Firms by Sector



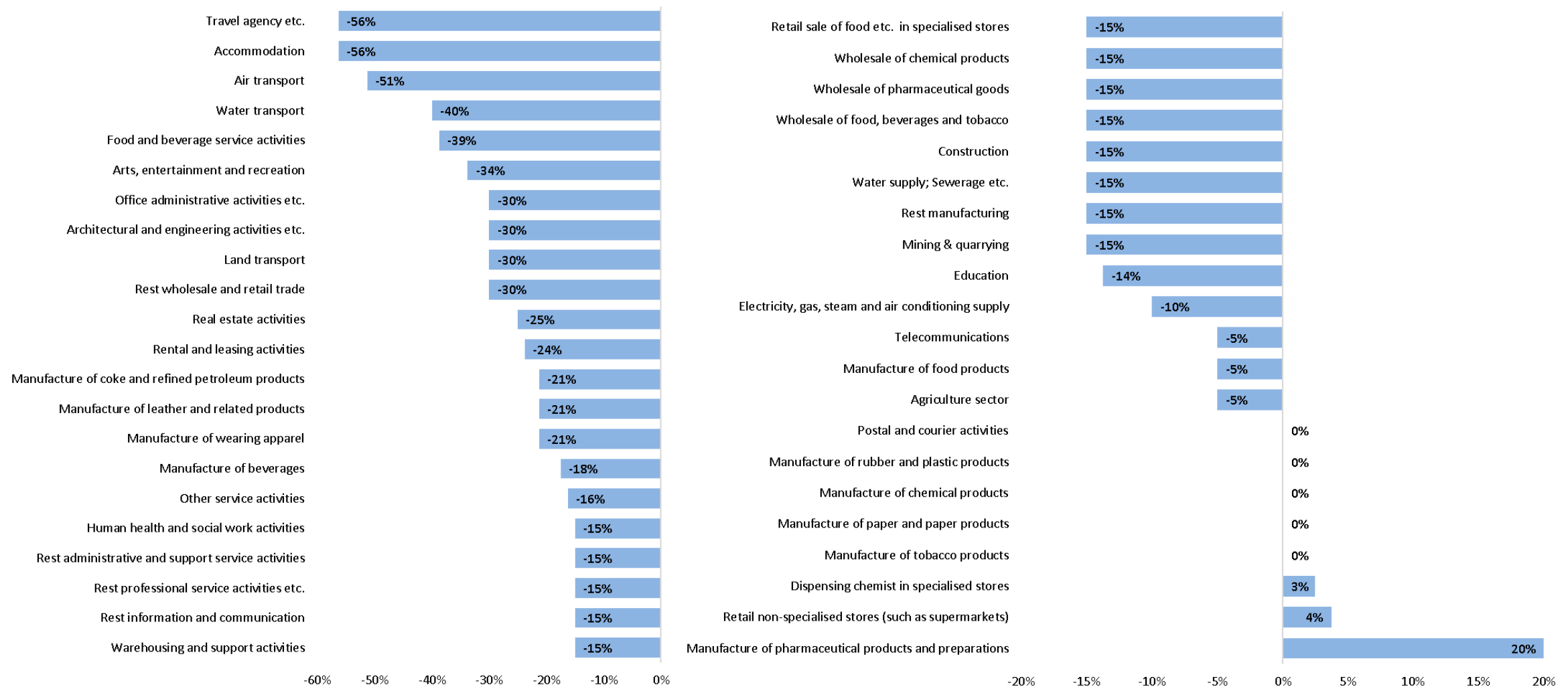
Share of Firms by Sector



Demand Shock on 2020 Sales



✓ Based on both quantitative data and qualitative assumptions we have defined the per –sector demand decline as follow:



PIRAEUS BANK ✓ Demand shock scenarios on revenues under the assumption of controlled epidemiological conditions (as of 3/7/2020).
 ✓ After the initial shock, despite the resumption of economic activities, a preserved negative percentage of COVID-19 pandemic impact is assumed due to some degree of contained economic behaviour.

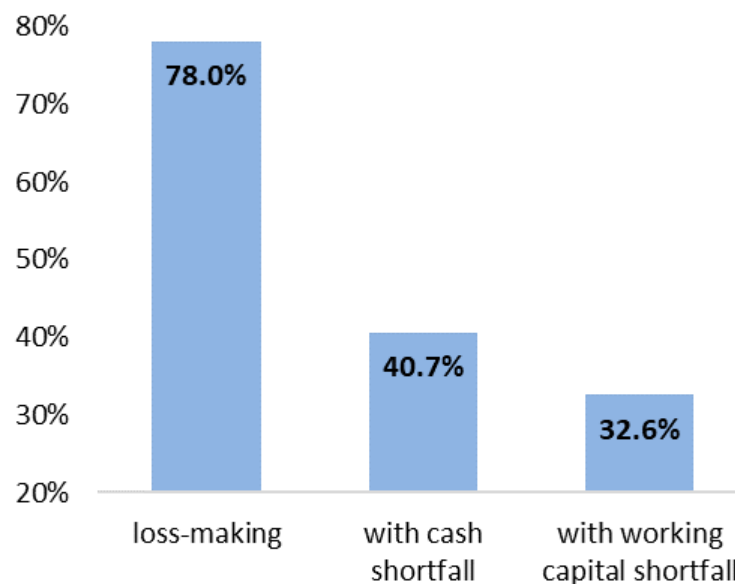
Assessing Corporate Distress: 78% of corporates in our sample will experience some sort of financial “distress”



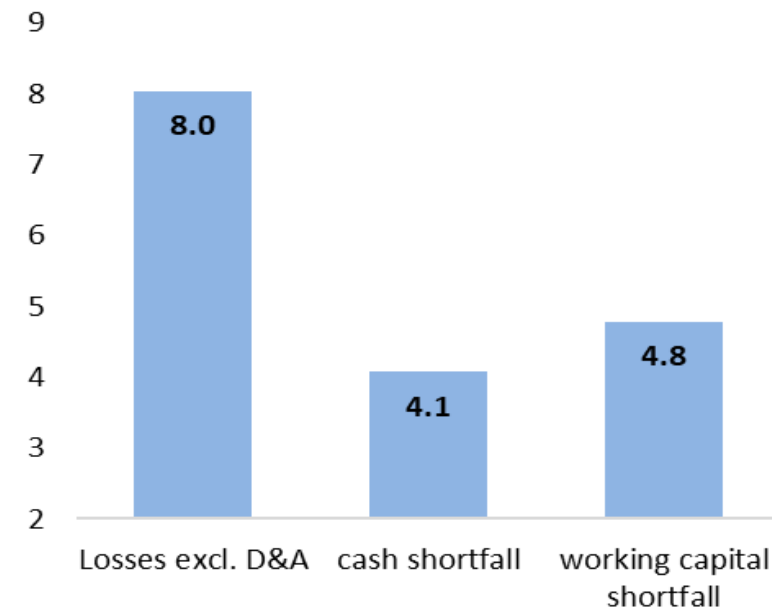
Highlights

- ✓ 78% of firms will become loss-making to a grand total of €8bn losses excluding depreciation and amortization.
- ✓ 40.7% of firms have a negative cash position (cash shortfall) of €4.1bn.
- ✓ 32.6% of firms will record a working capital shortfall of €4.8bn.

Distressed Firms (as % of total)



Financial Shortfall (figures in €bn)



Notes: 1. If the starting working capital is negative, it is set at zero.
2. D&A: Depreciation and amortization.

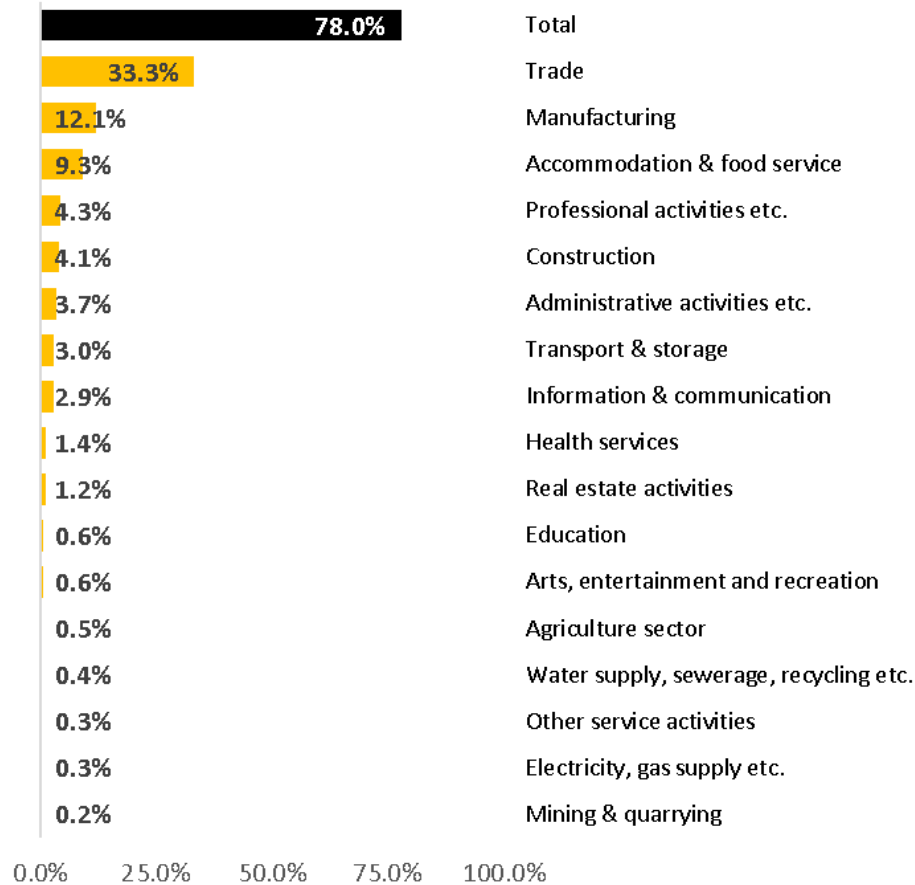


Assessing Corporate Distress: Loss Distribution by Sector

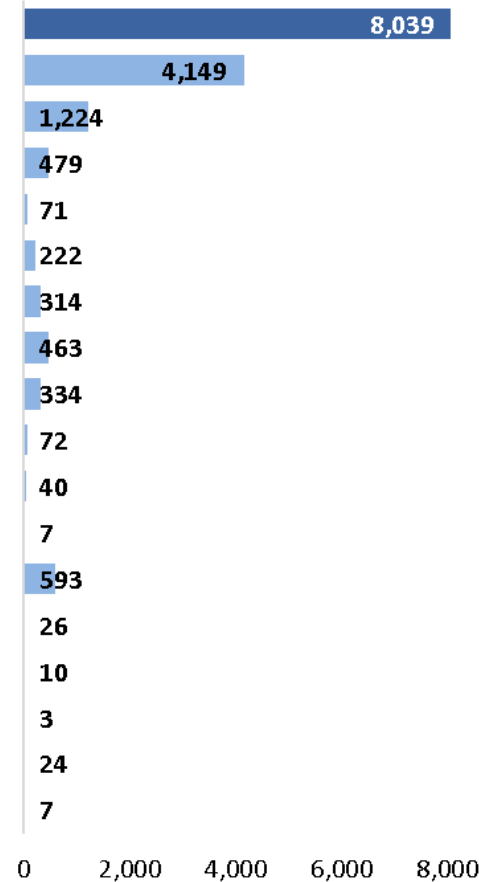


- ✓ More than half of the estimated losses come from trade.

Distressed Firms (% of total)



Losses excl. D&A, (figures in €mn)

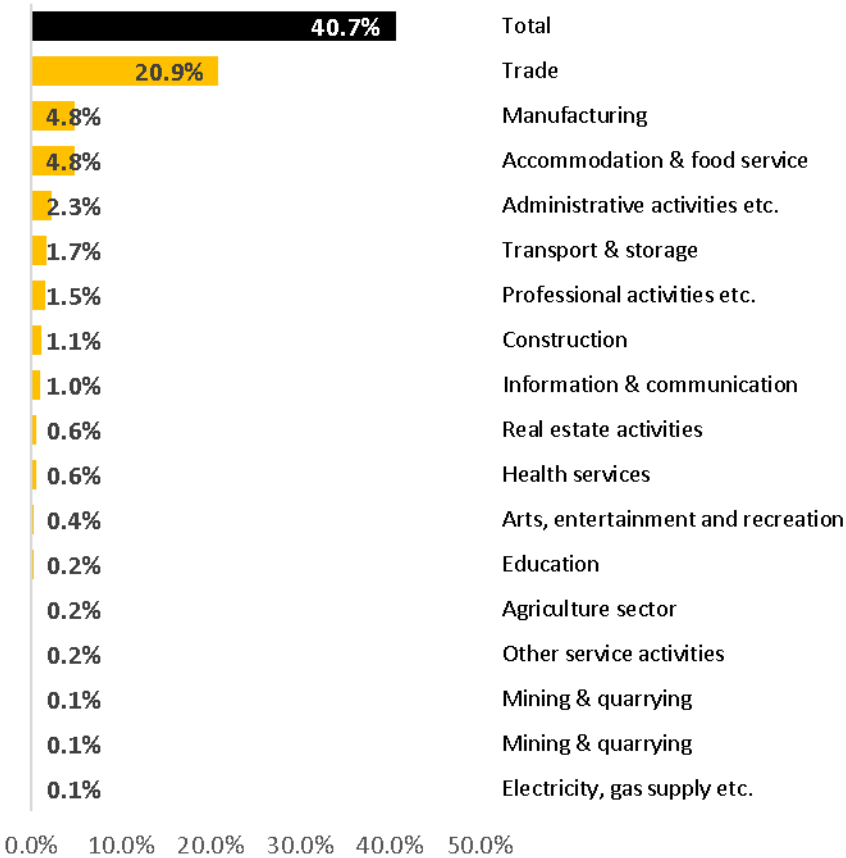


Assessing Corporate Distress: Cash-Shortfall Distribution by Sector

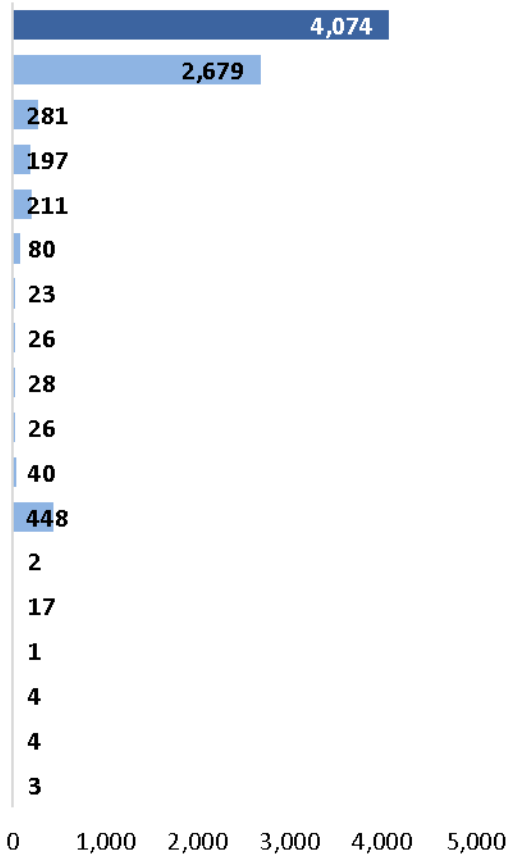


- ✓ The trade, manufacturing and accommodation and food services sectors contain the most vulnerable firms and need to obtain credit support to cover cash shortfall.

Distressed Firms (% of total)



Cash Shortfall, (figures in € mn)

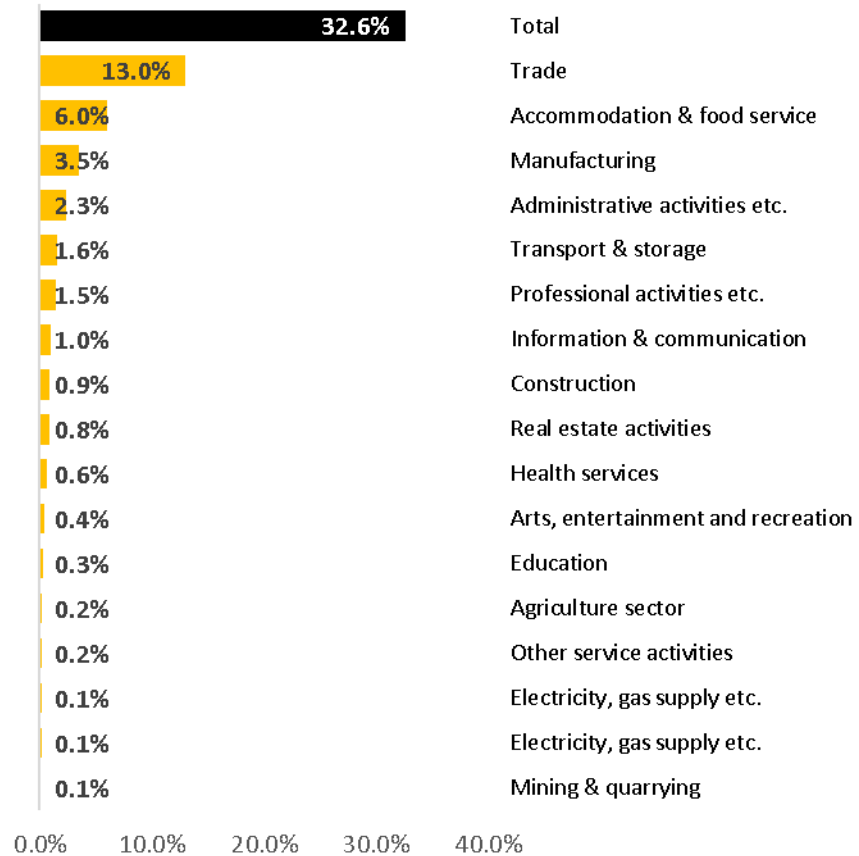


Assessing Corporate Distress: Working Capital Shortfall Distribution by Sector

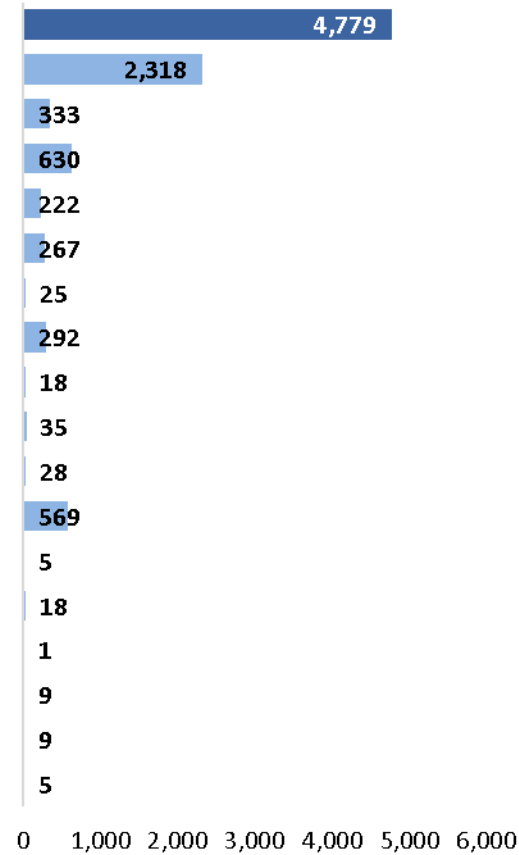


- ✓ The arts etc. sector makes up only 0.4% of vulnerable firms, but its liquidity pressure is the third-highest, after trade and manufacturing.

Distressed Firms (as % of total)



Working Capital Shortfall, (figures in €mn)

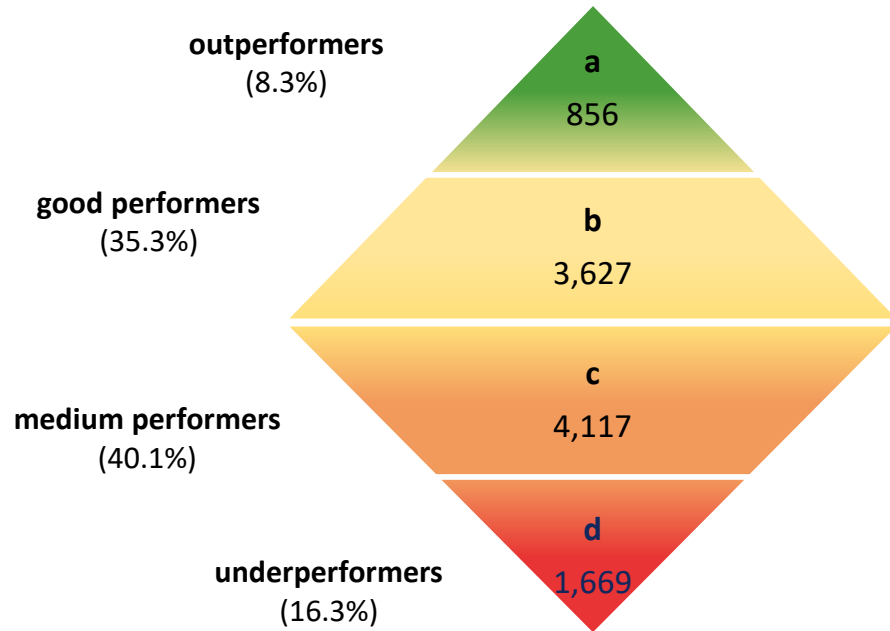


Note: If the starting working capital is negative, it is set at zero

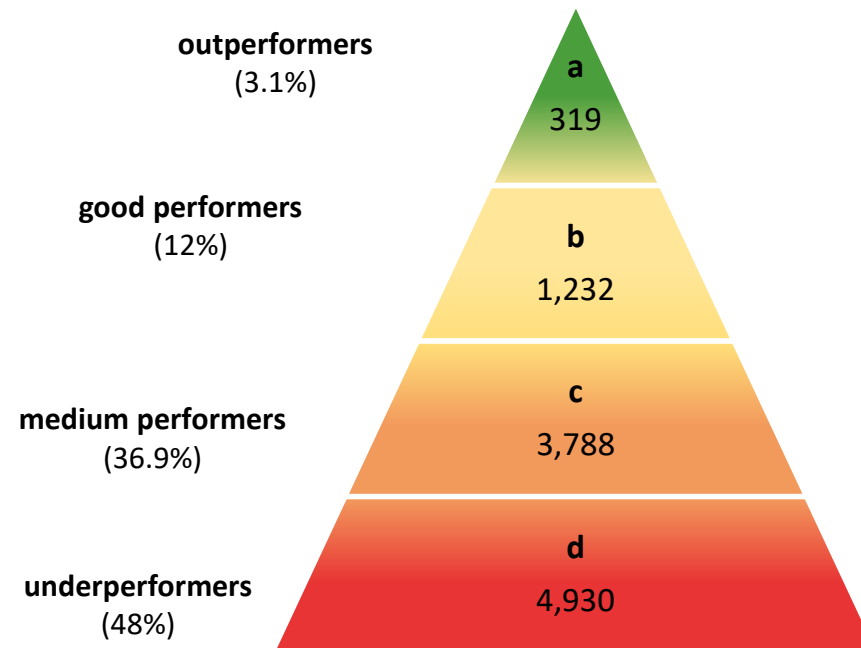
Enterprise Rating System: COVID-19 Shock Alters the Rating Distribution of Greek Corporations, Forcing a Migration to “d” Ratings



Enterprise Breakdown by ERS rating,
pre COVID-19



Enterprise Breakdown by ERS rating¹,
2020 estimates





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7 **GDP Revision & base year 2015**

8 SWOT analysis





On 16th of October, “the Hellenic Statistical Authority (ELSTAT) announces **the 2nd estimate of the Annual National Accounts for the years 2018 and 2019 (provisional data), the revision of base year (2015=100) and the revised data for the years 2010-2017** according to the European System of National and Regional Accounts ESA 2010 (Regulation (EU) No 549/2013 of the European Parliament and of the Council on the European System of National and Regional Accounts in the European Union - ESA 2010).

ELSTAT, with its announcement on October 14, 2019¹, as well as on March 6, 2020 with the publication of the first estimate of the Gross Domestic Product (GDP) for the year 2019, informed about the revision works of the National Accounts that included the utilization of new and updated data from various sources for the compilation of national accounts with quality control of sources and methods, where necessary.

The revision of the base year is a regular work carried out every five years and may incorporate methodological changes and improvements in accordance with the Harmonized European Review Policy as set out in the Eurostat methodological manual "Practical guidelines for revising ESA 2010 data" (see <https://ec.europa.eu/>). “

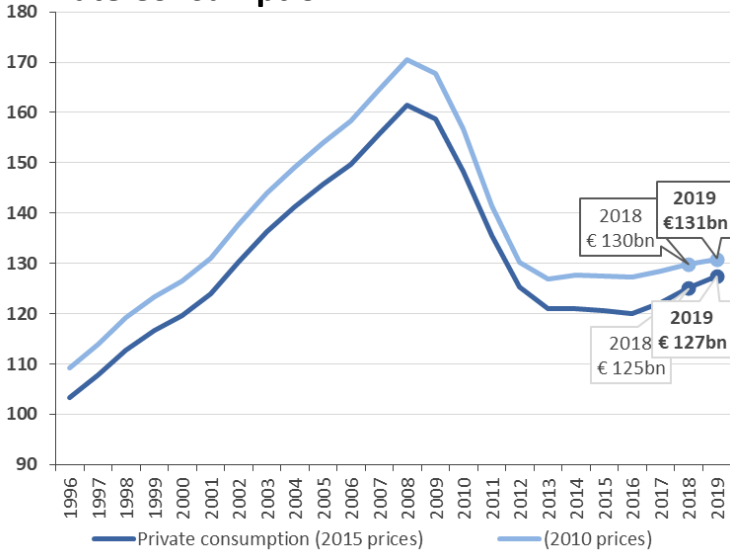
Source: [ELSTAT ANNUAL NATIONAL ACCOUNTS 16Oct20](#)



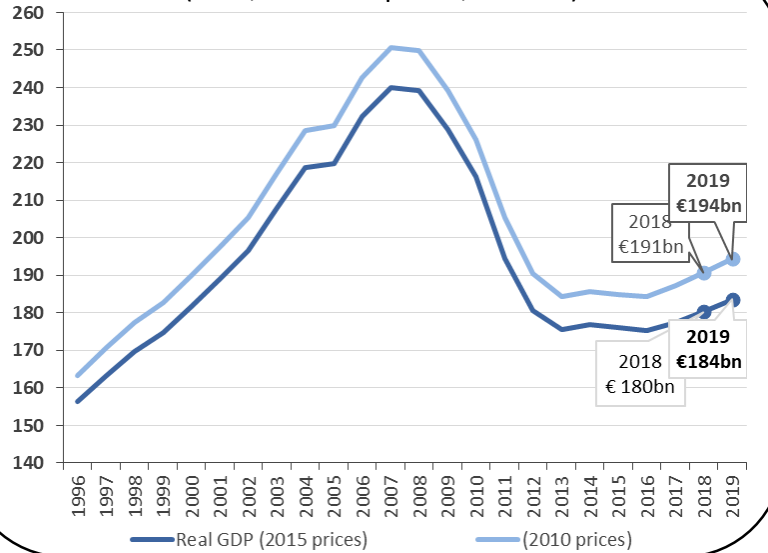
A Bird's Eye View of Greek GDP: Following its downward revision, GDP now stands at €184 bn



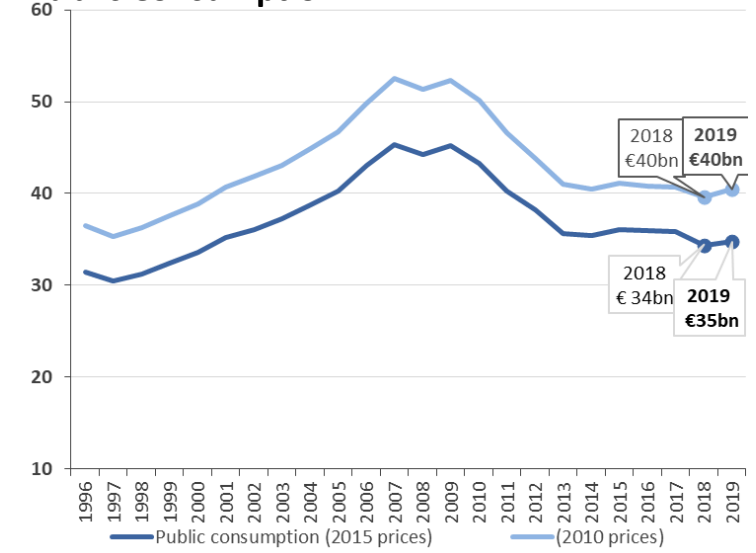
Private Consumption



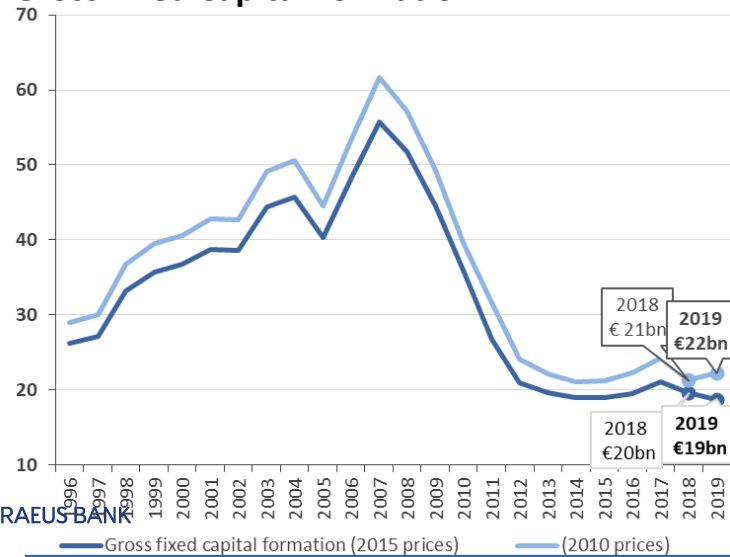
Real GDP (€ bn, constant prices, sa data)



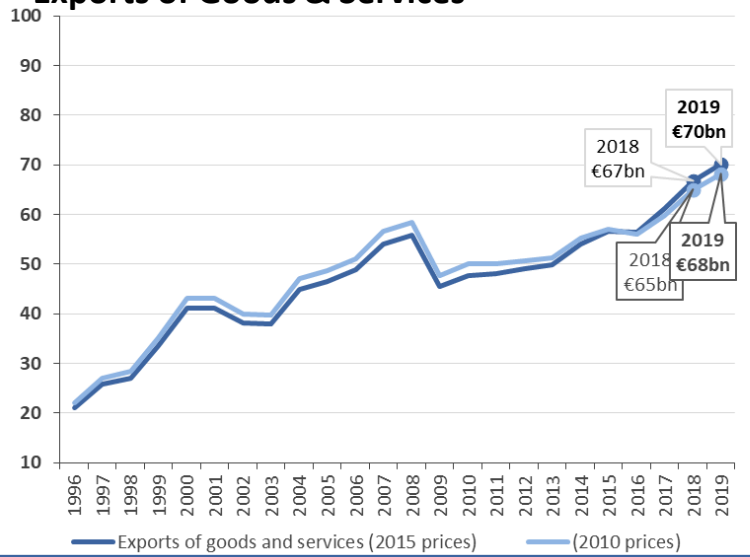
Public Consumption



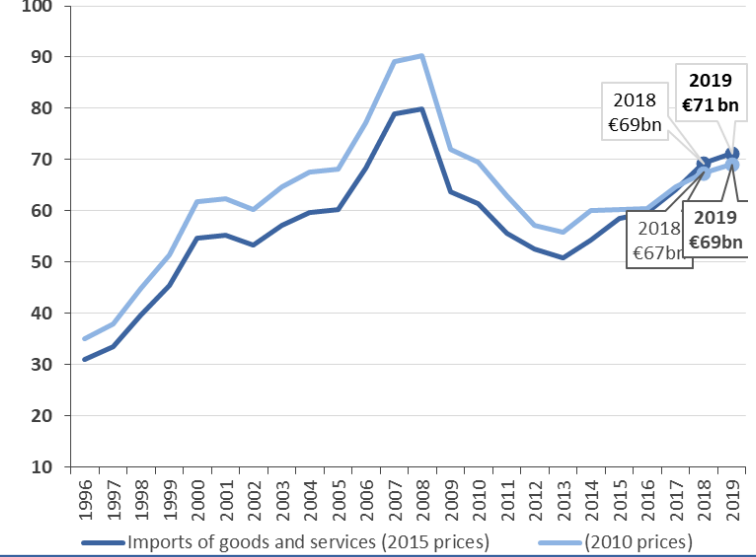
Gross Fixed Capital Formation



Exports of Goods & Services



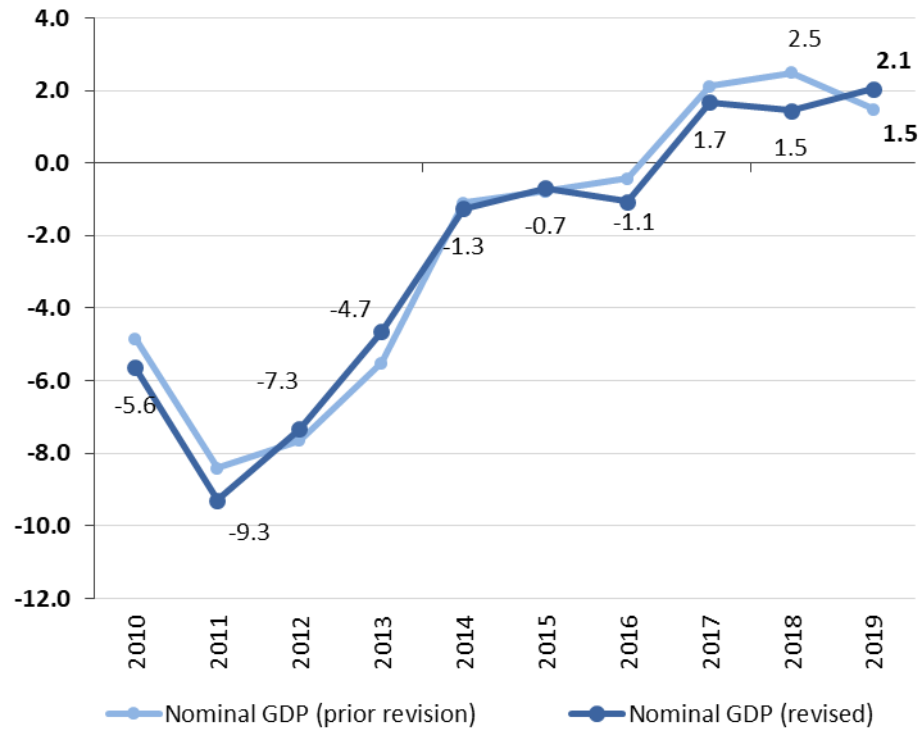
Imports of Goods & Services



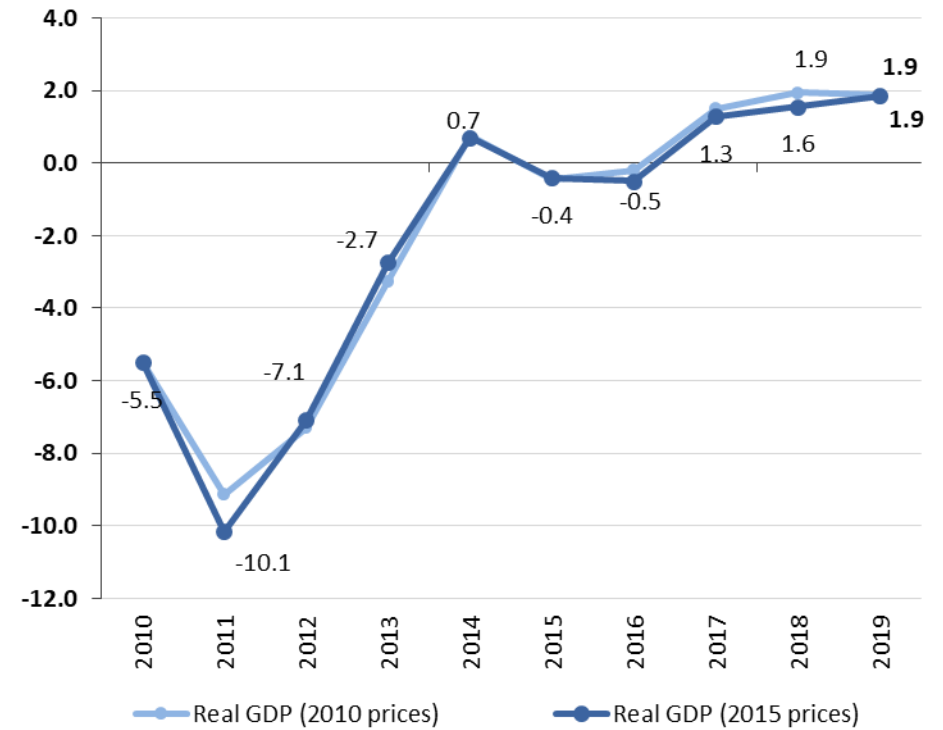
Nominal vs Real GDP growth rates: a trivial revision for real growth but a change of trend for nominal GDP



Nominal GDP (% change)



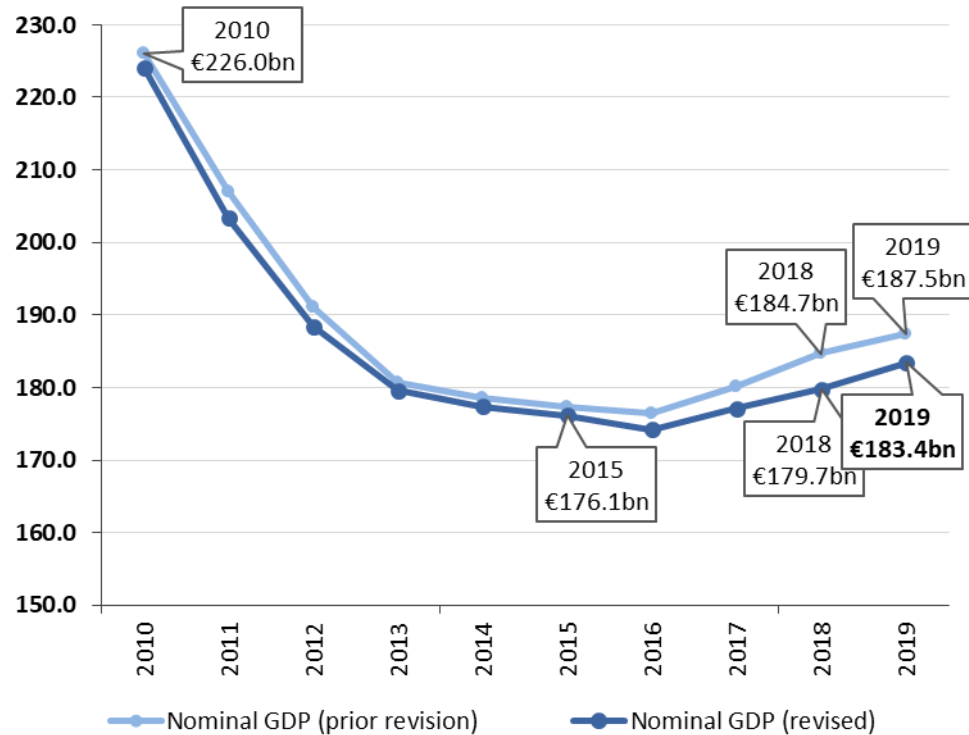
Real GDP (% change)



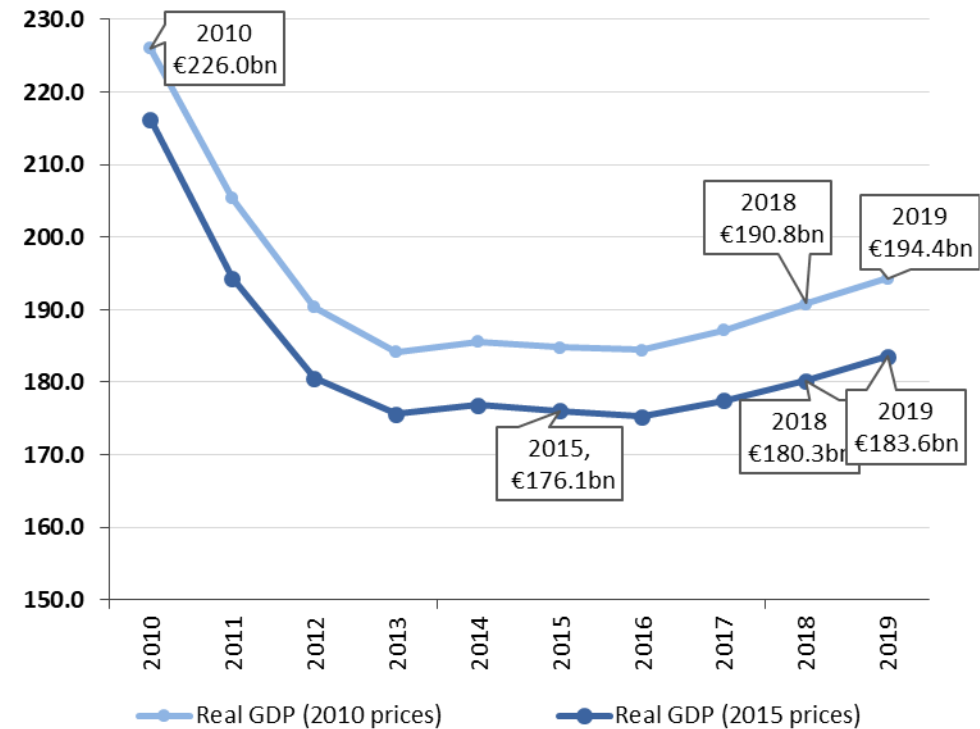
Nominal vs Real GDP in Levels: the main reason for the Real GDP downward revision is its new starting point.



Nominal GDP (€ bn)



Real GDP (€ bn)

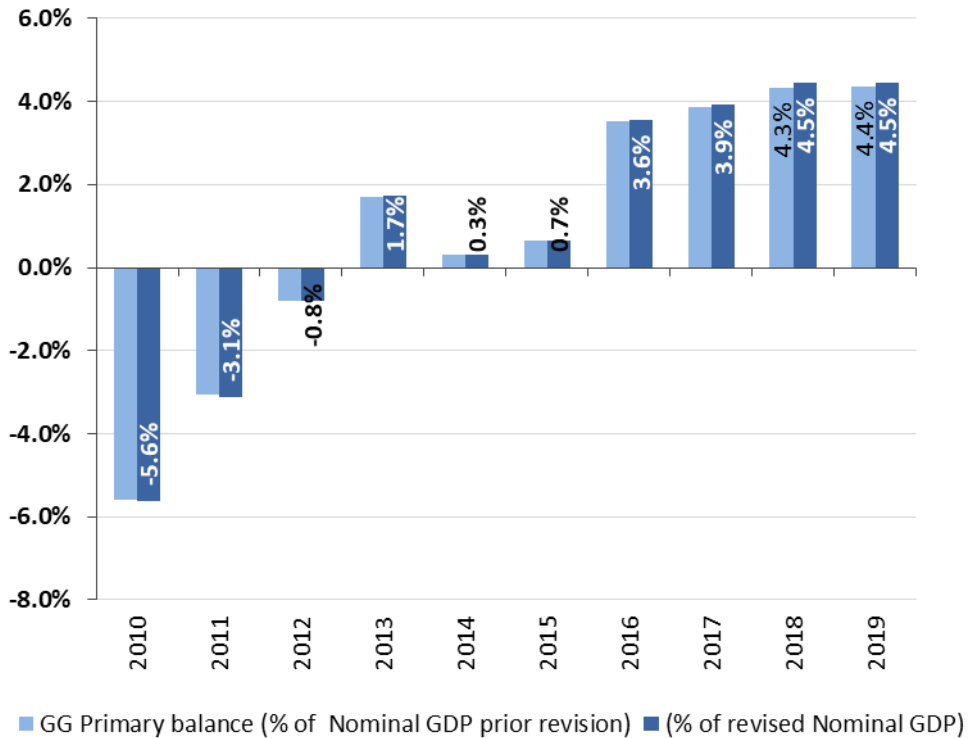


Fiscal Data: Strong impact in debt as % of GDP due to the revision of GDP



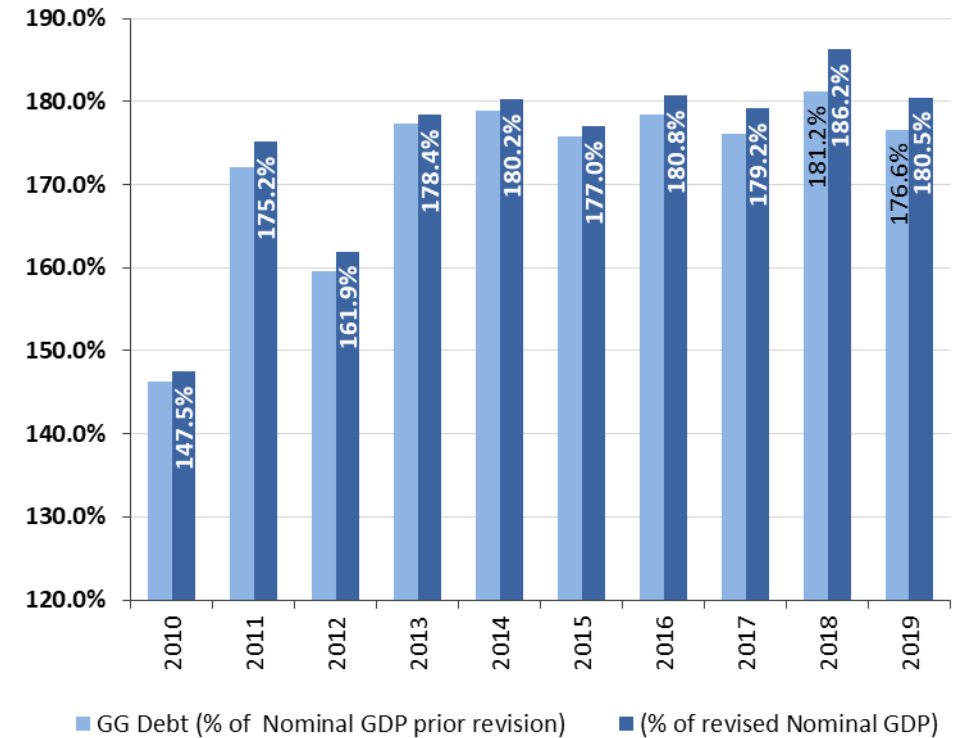
General Government Primary Balance (excl. impact of the support to financial institutions - ESA definition¹)

(% of Nominal GDP)



General Government Debt

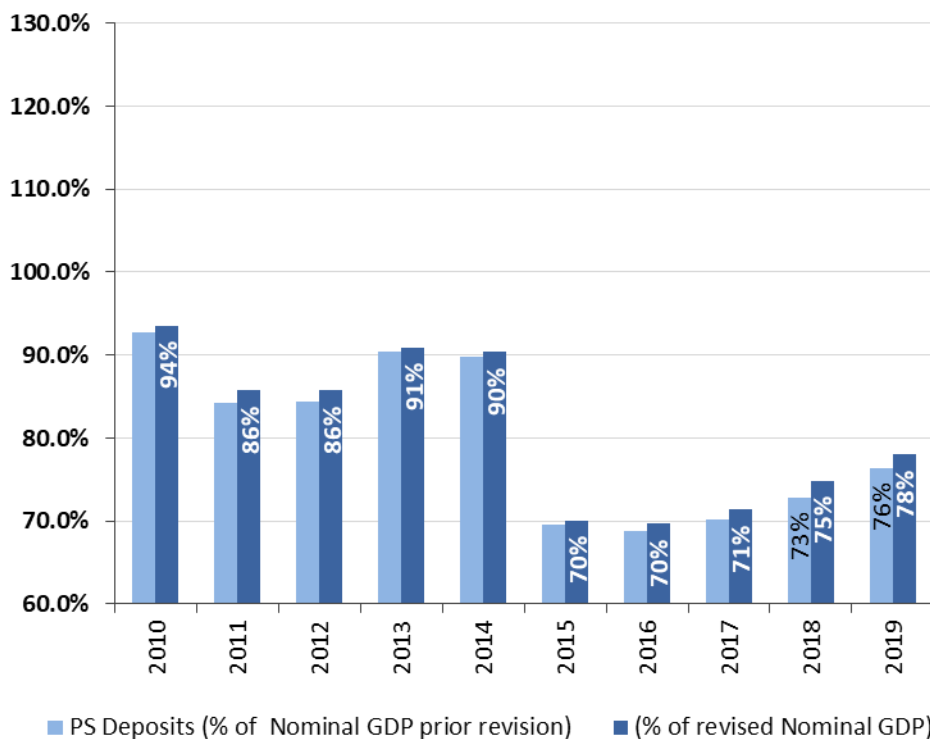
(% of Nominal GDP)



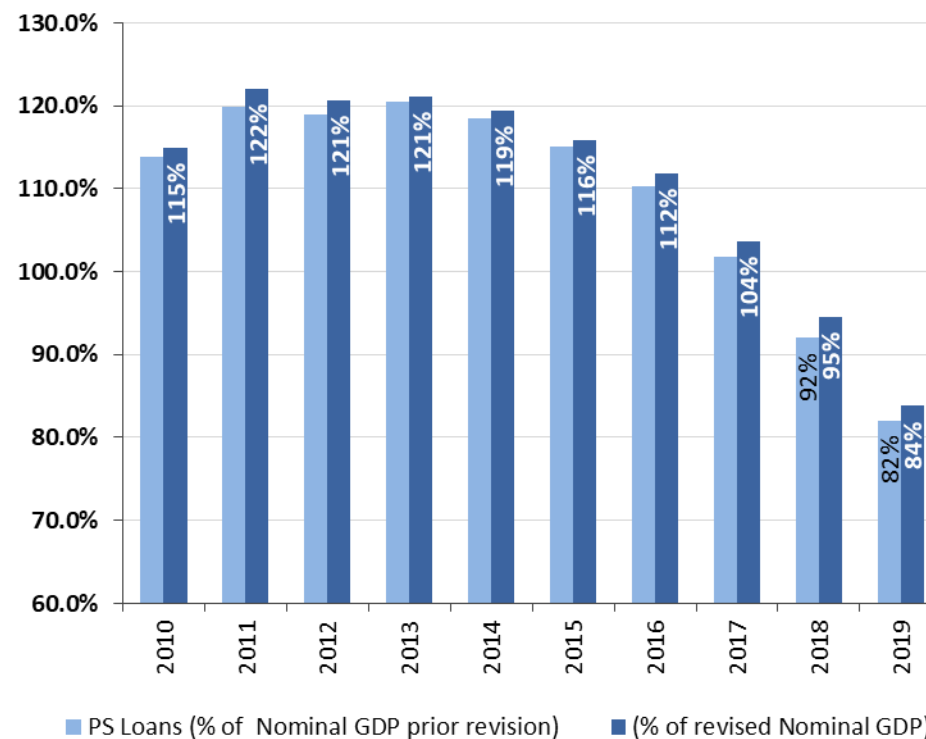
Banking Data: Stronger deposits base but equally increased credit penetration



Private Sector Deposits (% of Nominal GDP)



Private Sector Loans (% of Nominal GDP)



Notes: 1. Excluding the Bank of Greece. As of December 2016, deposits of the Consignment Deposits and Loan Fund are excluded from the domestic deposits as the institution has been reclassified from the financial sector to the general government sector. As of March 2019, deposits and repos of shipping companies which have their registered office abroad, are no longer included in the deposits of the domestic economy, as they were reclassified to Other Countries. Flows and growth rates are derived from changes in outstanding amounts corrected for foreign exchange valuations and reclassifications adjustments. The flow of deposits does not include the accounting increase in deposits that is related to securitisation operations and represent liabilities of credit institutions to Special Purpose Vehicles. **2.** Including securitised loans and corporate bonds that have been derecognised from the balance sheet and serviced by credit institutions. As of June 2010 non traded corporate bonds are included in 'loans' rather than 'debt securities'. As of December 2016, loans of the Consignment Deposits and Loan Fund are excluded from the domestic credit as the institution has been reclassified from the financial sector to the general government sector. As of March 2019, loans to shipping companies which have their registered office abroad, are no longer included in credit to the domestic economy, as they were reclassified to Other Countries. Flows are derived from changes in outstanding amounts corrected for foreign exchange valuations write-offs/write-downs and reclassifications adjustments.





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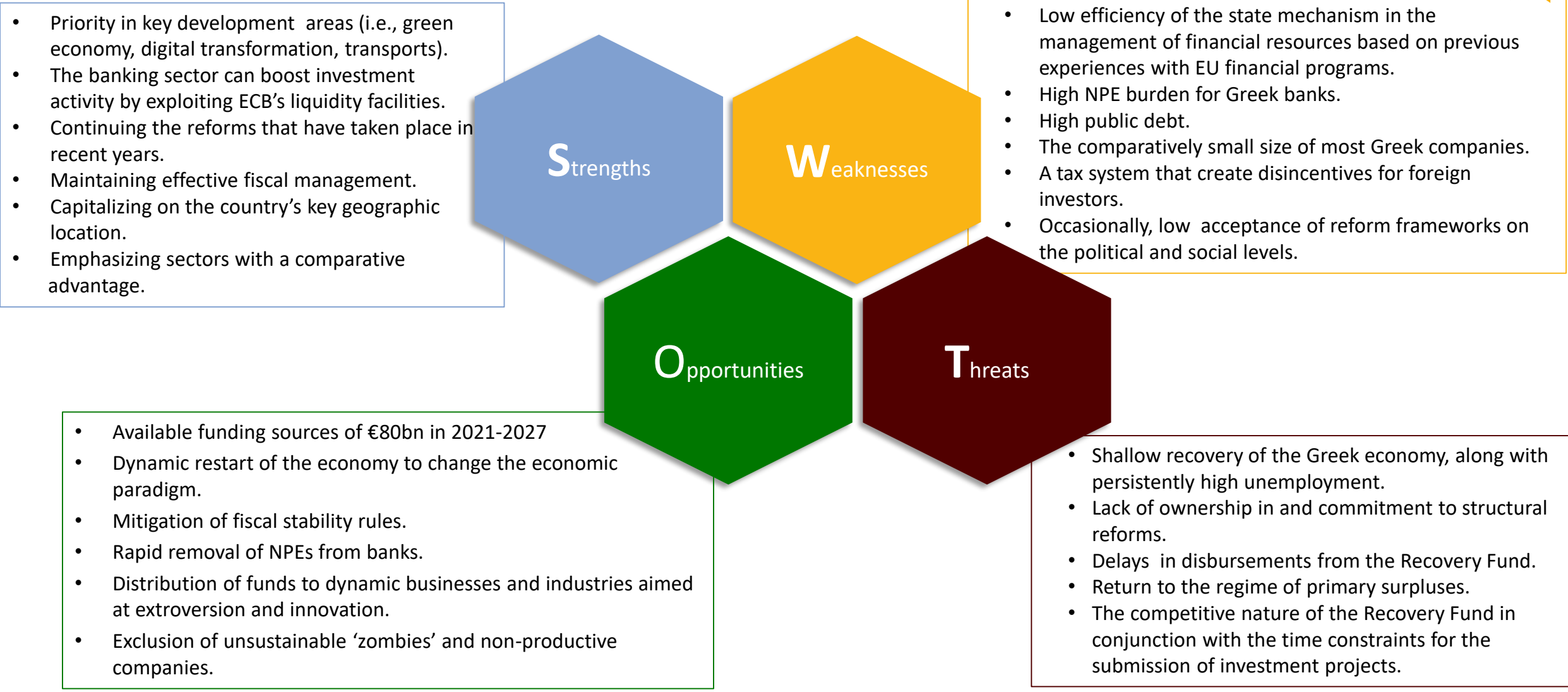
6 Assessing Corporate Distress due to COVID-19 Recession

7 GDP Revision & base year 2015

8 **SWOT analysis**



SWOT analysis





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