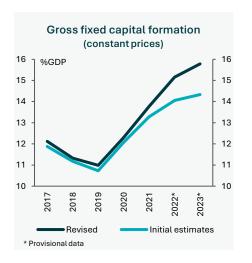
NATIONAL BANK OF GREECE

GREECE Macro Flash

Revision of annual national accounts

November 2024

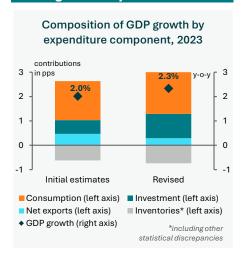
Fixed capital investment had a much larger contribution to economic activity boding well for productivity while the improvement in household disposable income and higher saving rate revealed improved household fundamentals



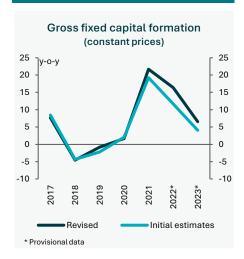
- The announcement of the 2nd estimate of the Annual National Accounts by the Hellenic Statistical Authority (ELSTAT), as well as of non-financial sector accounts for FY:2023 and the publication of revised data for the years 1995-2022, provided a far more positive picture of the economy.
- Specifically, GDP growth, in constant price terms, for the period 2017-2023 was revised upwards by +0.3 pps annually, to 1.9% y-o-y from 1.6% y-o-y.
- The revision in nominal GDP for 2023 was significant (annual growth of 8.3% y-o-y from 6.6%), as the GDP deflator was also revised up to 5.9% y-o-y, from 4.5% in the initial estimate. Thus, nominal GDP level has reached €225.2 bn in 2023 (€220.3 bn in the previous estimate).
- Stronger fixed capital investment (GFCF) was the key element of the revision, which bodes well for stronger supply-side effects going forward. Average GFCF growth, in constant price terms, for the period 2021-2023 increased to 14.9% y-o-y from 11.7%. The share of total GFCF in GDP increased to a 13-year high of 15.8% in 2023 (compared with a previous estimate of 14.3% and a euro area average of 21.2% of GDP for 2023).
- The revisions for 2021-2023 comprised higher expenditure on productivityenhancing investment categories, such as machinery and metal products as well as "other investment" (mostly comprising IT equipment and intellectual property rights).
- Notably, the value of total GFCF (excluding construction) increased in 2023 to the highest level since 2008 (3rd highest annual value on record since 1995) and its share in GDP to an all-time high of 9.5% in 2022-2023, compared with a pre-crisis average of 8.6% of GDP.
- Although both exports and imports of goods and services remained broadly unchanged in current price terms, the level of exports in constant prices, was lowered by c. 4.0% on average per annum, for the period 1995-2023 (to 36.1% of GDP in the revised data from 38.7%) due to the application of a higher export deflator. This revision points to better-than-expected terms-of-trade trends, which are traditionally linked to the provision of higher-value goods and services.
- Income-side data revealed a stronger household disposable income path in 2021-2023, 4.1% above the initial estimate on strengthened labor and non-labor income flows, leading to higher per capita income. This revision has exceeded the upwardly revised private consumption path, leading to a less negative households' saving rate (-0.3%, on average in 2021-2023, from 1.7% estimated initially).
- The solid performance of the Greek economy in H1:2024, with GDP growth accelerating in s.a. quarterly terms on strengthened GFCF, combined with stronger carryover effects from the revision of annual data and accelerating PIB and RRF expenditure, bode well for an annual GDP growth near 21/2% y-o-y in FY:2024 and FY:2025, and a further narrowing of the investment gap from the euro area.



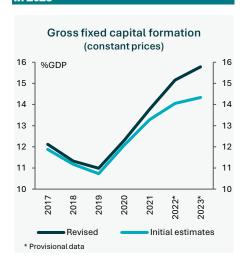
GDP growth was revised upwards due to stronger fixed capital investment



GFCF growth for the period 2021-2023 reached 14.9% y-o-y, on average, from an initial estimate of 11.7% ...



...leading to an increase in the GFCF share in GDP to a 13-year high of 15.8% in 2023



Fixed capital investment had a much larger contribution to economic activity boding well for productivity gains while the improvement in household disposable income and higher saving rate revealed improved household fundamentals

The announcement of the 2nd estimate of the Annual National Accounts by the Hellenic Statistical Authority (ELSTAT), as well as of non-financial sector accounts for FY:2023 and the publication of revised data for the years 1995-2022, provided a significantly improved picture for GDP, shedding new light on the role of fixed investment as a key determinant of Greece's strong macroeconomic performance in recent years as well as revealing much stronger fundamentals for households, and the higher value content of Greek exports.

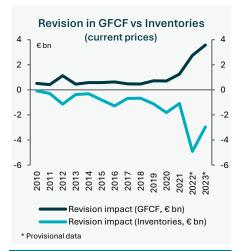
Average GDP growth, in constant price terms, for the period 2017-2023 was revised upwards by +0.3 pps annually, to 1.9% y-o-y from 1.6% y-o-y, and output growth for 2023 increased to 2.3% from 2.0%. The revision in nominal GDP for 2023 was even more pronounced (annual growth of 8.3% y-o-y from 6.6%), with the annual change of GDP deflator growth increasing to 5.9% y-o-y, from 4.5% in the initial estimate. All in all, nominal GDP increased to £225.2 bn (£220.3 bn in the previous estimate).

Stronger fixed capital investment (GFCF) was the key element of the revision, which bodes well for stronger supply-side effects going forward. Average GFCF growth, in constant price terms, for the period 2021-2023 increased to 14.9% y-o-y from 11.7%, partly due to a reallocation of estimated expenditure from inventories to GFCF but also due to a more accurate measurement of actual capital spending in the revised sectoral accounts.

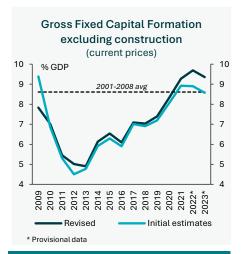
The revision revealed a larger contribution of GFCF to average annual GDP growth in 2021-2023 (2.0 pps vs 1.5 pps in the initial estimate), with its share in GDP rising to a 13-year high of 15.8% in 2023 (compared with a previous estimate of 14.3% and a euro area average, for 2023, of 21.2% of GDP). This revision primarily reflects higher-than-previously estimated expenditure on productivity-enhancing investment categories, such as machinery and metal products as well as "other investment" (mostly comprising IT equipment and intellectual property rights), whereas residential construction was also stronger. The cumulative revision of nominal GFCF in these categories for the period 2021-2023 was €2.3 bn, €2.0bn and €1.9 bn respectively.



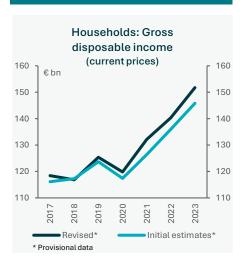
A reclassification of final expenditure from inventories to fixed capital investment bolstered GFCF



The share of investment (excluding construction) in nominal GDP climbed to an all-time high



The nominal disposable income of households was higher than expected with its level in 2023 at €5.9 bn above the initial estimate



Notably, the value of total GFCF (excluding construction) increased in 2023 to the highest level since 2008 (3rd highest annual level on record since 1995) and its share in GDP to an all-time high of 9.5% in 2022-2023, compared with a pre-crisis average of 8.6% of GDP.

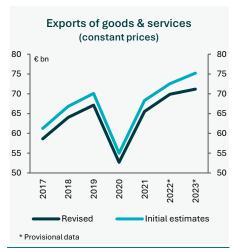
Although exports and imports of goods and services remained broadly unchanged in current price terms, a significant revision of the historical export deflator series for the period 1995-2023 (to 99.2 on average in 1995-2023 from 96.3) lowered the level of exports in constant price terms. The revision reveals an improved assessment of Greece's historical terms of trade trends as import deflator showed limited change over the same period. However, the level of exports, in constant prices, was lowered by -4.2% on average per annum, for the whole period 1995-2023 (entailing a c. 1pp reduction in the average annual share of total exports in GDP over this period).

The adverse impact on net export volumes was more pronounced in recent years, as the average growth of export deflator for 2021-2023 was re-estimated at 12.3% y-o-y from 11.9%, whereas the annual change of the respective import deflator was downwardly revised to 9.6% y-o-y, on average, from 10.3% initially. The revisions lowered the growth of exports of goods and services, in constant price terms, to 10.9% y-o-y in 2021-2023 from 11.4% (leading the revised export ratio over GDP for 2023 to 36.1% from 38.7%), whereas imports of goods and services increased by 9.7% y-o-y (from 9.1%). Accordingly, net exports as per cent of GDP widened to -7.0% in 2021-2023 in constant price terms – the highest external deficit since 2010 (excluding the exceptional 2020) – vs a previous estimate of -5.4% of GDP.

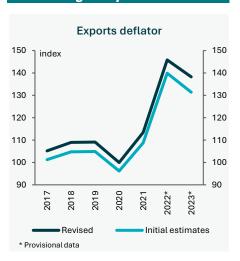
Updated information on GDP decomposition, from the income side (available only in current prices), revealed a stronger household disposable income path – average annual growth of 8.2% in 2021-2023 from a previous estimate of 7.5% – with the nominal disposable income level at $\\ensuremath{\in} 151.7$ bn in 2023 or $\\ensuremath{\in} 5.9$ bn above the initial estimate. Around $\\ensuremath{\in} 1.1$ bn of this revision is related to upwardly revised labor compensation (to a 14-year high in levels), $\\ensuremath{\in} 2.8$ bn reflect higher mixed income flows (mainly dividends, rents and interest income), while the remainder is attributed to stronger gross operating surplus i.e. profits from households' entrepreneurial activities.



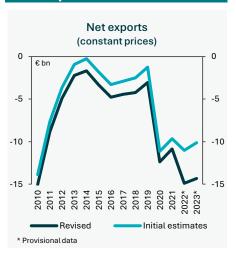
However, exports of goods and services were lowered both in constant price terms as well as per cent of GDP...



...due to a higher exports- deflator



The revised trajectory of net exports reveals larger external imbalances in constant price terms



The average nominal disposable income per capita is estimated at €14.6 K in 2023 (€13.5 K, on average, in 2021-2023) i.e. 4.1% above the previous estimate of €14.0 K (€12.9 K, on average, in 2021-2023). Indeed, the revision in household disposable income has exceeded the upwardly revised private consumption path in nominal terms in 2021-2023, leading to a less negative household's saving rate (-0.3%, on average, in 2021-2023 from -1.7% estimated initially). Specifically, there was an upward revision in nominal private (households and non-profit institutions serving households-NPISH) consumption of €1.7 bn only due to increased deflator, with the level of private consumption at 70.2% of GDP in 2023 from 69.9%. Overall, the fundamentals of household finances appear much improved, with more income and more savings, which should bolster their confidence.

The solid performance of the Greek economy in 1H:2024, reflects:

- Healthy GFCF growth (+3.5% y-o-y and 6.1% excluding construction, according to the unrevised quarterly data),
- Rapid inventory accumulation (with a contribution of 4.1 pps in GDP growth compared with -1.3 pps in 1H:2023), which should be partially included in GFCF, in future data revisions
- Robust private consumption (+2.0% y-o-y from 1.6% in FY:2023)

The above factors are now combined with a stronger carryover effect from the revised annual data, boding well for FY:2024 and FY:2025 growth near 2½%.

The backloading in PIB spending (including RRF) in 2024 and the envisaged acceleration of related disbursements to all-time highs in 2025-2026 (to c. 6.0% of GDP on average, from c. 5.0% in 2023-2024) are also expected to further bolster GFCF. Moreover, the higher starting point for household disposable income, combined with strong labor market conditions and the ongoing wage adjustment, suggest a sustained private consumption growth trajectory (the publication of revised quarterly GDP data of national accounts through Q3:2024 is planned for 6/12/2024).



Greece: GDF	Greece: GDP Growth Decomposition & Outlook 2022 2023 2024F 2025F 2024F Q1e Q2e Q3f Q4f ,%y-o-y, s.a.) 5,7 2,3 2,4 2,3 2,1 2,3 2,4 2,8														
	2022	2023	2024F	2025F		202	24F								
					Q1e	Q2e	Q3f	Q4f							
GDP (real, % y-o-y, s.a.)	-y, s.a.) 5,7 2,3 2,4 2,3 2,1 2,3														
GDP (real, % q-o-q, s.a.)				0,8	1,1	0,2	0,7								
Domestic Demand (y-o-y)	7,6	1,8	3,7	2,3	4,8	5,4	2,3	2,5							
Final Consumption (y-o-y)	6,6	2,0	1,2	1,6	0,6	0,9	1,8	1,4							
Private Consumption (y-o-y)	8,6	1,8	2,0	1,8	2,1	2,0	2,5	1,3							
Public Consumption (y-o-y)	0,1	2,6	-2,2	1,5	-5,1	-3,6	-0,2	0,0							
Gross Fixed Cap. Formation (y-o-y)	16,4	6,6	8,2	11,5	3,1	3,9	9,9	16,3							
Residential construction	6,6	1,9	-1,2	14,1	-13,9	-7,1	2,5	15,6							
Total GFCF excluding residential	11,0	0,9	9,7	11,1	5,8	5,6	11,1	16,4							
Inventories*(contribution to GDP)	-0,2	-0,7	1,7	-0,8	3,9	4,3	-0,6	-0,9							
Net exports (contribution to GDP)	-2,2	0,3	-1,5	-0,1	-2,9	-3,4	-0,1	0,1							
Exports (y-o-y)	6,6	1,9	0,9	3,0	-3,7	2,1	2,2	3,0							
Exports of goods (y-o-y)	3,7	2,8	0,0	2,9	-8,6	2,0	2,5	4,7							
Exports of services (y-o-y)	9,3	4,2	3,1	3,9	2,4	2,8	3,2	4,0							
Imports (y-o-y)	11,0	0,9	4,2	2,8	3,1	9,6	2,1	2,3							



Greece: Indicators of Economic Activity in high frequency

Mail Indicational						Gr	eec	e: I	ndi	cat	ors	of	Eco	noı	mic	Ac	tivi	ty ii	n hi	gh 1	frec	lue	ncy	,				
May 222 A G. C. S.		Color map scale	Business Turnover (y-o-y, double-entry bookkeeping)	VAT on other goods & services (y-o-y)	Estimation of total electricity demand in the network (y-o-y)	AIA - International passenger traffic development (y-o-y)	BoG - Tourist arrivals (y-o-y)	Imports (excl. oil & shipping, y-o-y, 6m mov.avg)	Exports (excl. oil & shipping, y-o-y, 6m mov.avg)	Economic sentiment index (EU Commission, Euro area)	Economic sentiment index (EU Commission, Greece)	Interest rate on new time deposits (households, CPI deflated)	Deposits of domestic private sector (y-o-y)	Credit to private sector (y-o-y)	Interest rate on new private sector loans (CPI deflated)	Employment (y-o-y)	Construction confidence (index level)	House prices (y-o-y, quarterly series)	Construction Permits (y-o-y)	Retail trade volume (y-o-y)	Retail confidence (index level)	Consumer confidence (index level)	Services confidence (index level)	Industrial production (y-o-y)	Manufacturing production (y-ο-y)	Industrial confidence (index level)	PMI (index level)	
May 222 A G. C. S.	Rapid	-	29,6	1,6	8,8	297	257	41,0	31,4	113	114	-6,1	9,3	0,9	-2,4	7,6	-11	10,0	24	7,7	16,1	-41	35,0	-0,7	1,9	13,9	57,9	Jan-22
May 222 A C C C C C C C C C C C C C C C C C C	contra	-		61,6	3,4	436	315			115	114	-7,1	8,7	1,4	3,5	12,0	4		32	10,8		-39		5,8	9,1	10,5	57,8	Feb-22
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See		-				616	884			104			5,8	2,8			4		2		-1,3	÷		-4,6	-0,6			Apr-22
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NATIONAL BANK OF GREECE | ECONOMIC ANALYSIS DIVISION

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