2. OUTPUT AND EMPLOYMENT

Annual real GDP growth rose by 4.9% in the third quarter of 2024. Growth was driven by domestic demand. When adjusting for imports, domestic demand remained the main driver of GDP growth, but external trade also had a positive effect.

Sectoral data show that the expansion in output was primarily driven by the services sector, although the manufacturing sector and construction also contributed to the economic expansion.

During the third quarter of 2024, developments in the labour market remained positive. The unemployment rate remained low and well below that in the euro area.

The labour market remained tight. The number of job vacancies increased by around 7% when compared to the third quarter of 2023. Meanwhile, the job vacancy rate increased slightly and the labour tightness indicator, which is the ratio of the job vacancy rate to the unemployment rate, increased both on a quarterly and an annual basis.

Potential output and Business Conditions Index

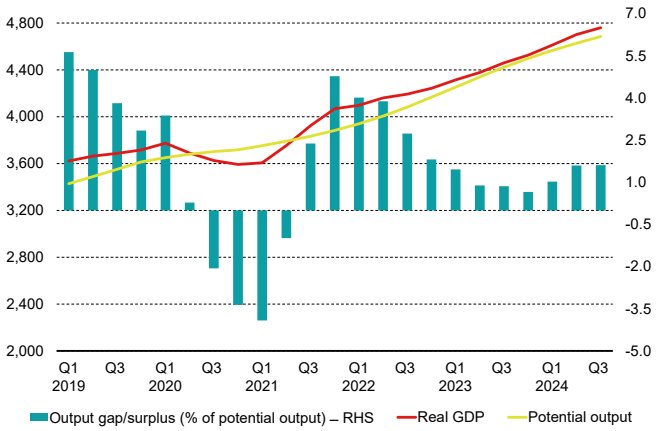
Potential output grows at a slower rate, but output gap remains unchanged

The Bank estimates that potential output growth stood at 5.0% in the third quarter of 2024, below that of 5.5% estimated for the second quarter of 2024.

On a four-quarter moving average basis, the level increase in potential output relative to the previous quarter was comparable to that in GDP. As a result, the output gap remained unchanged from that of the second quarter, at 1.6% (see Chart 2.1).

This implies some degree of over-utilisation of the economy's productive capacity.

Chart 2.1
CYCLICAL POSITION OF THE MALTESE ECONOMY
(four-quarter moving averages; EUR millions; as percentage of potential GDP)



Sources: NSO; Central Bank of Malta estimates.

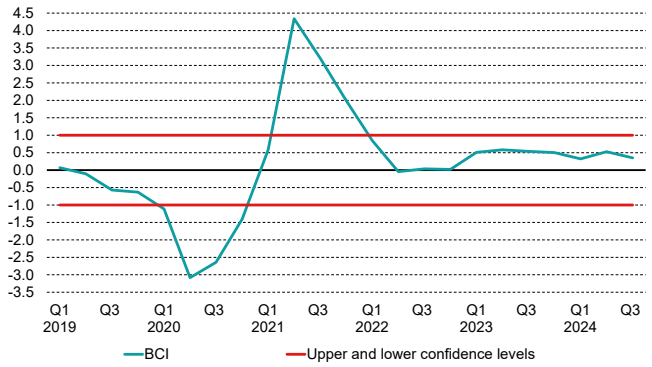
BCI suggests growth is standing slightly above historical average

The Bank's BCI edged down marginally in the third quarter of 2024, while remaining slightly above its historical average (see Chart 2.2).[1]

[1] The BCI is a synthetic indicator, which includes information from a number of economic variables such as the term structure of interest rates, industrial production, an indicator for the services sector, economic sentiment, tax revenues and private sector credit. By construction, it has an average value of zero over the estimation period since 2000. A full time series can be found at In-House Economic Indicators section on the website. For further details on the methodology underlying the BCI, see Ellul, R., (2016), "A real-time measure of business conditions in Malta," *Working Paper* 04/2016, Central Bank of Malta.

The positive index partly reflects GDP growth which was broadly in line with its long run average. At the same time, growth in credit, tax receipts, and industrial production was also above average.

Chart 2.2
BCI
(standardised)



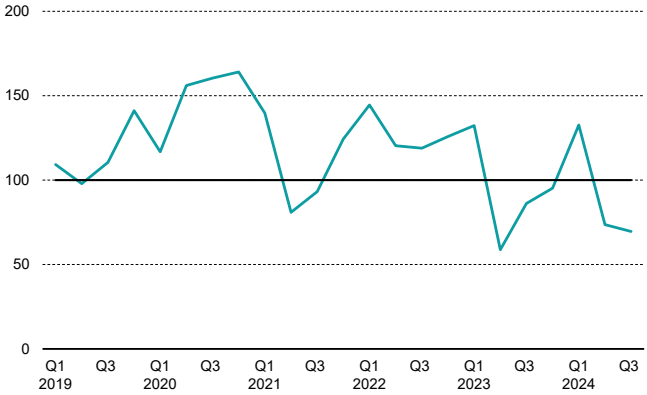
Source: Central Bank of Malta.
The red lines in the Chart represent the range enclosing one standard deviation on either side of the BCI's long-run value. Repeated readings below the lower band signal that economic activity is significantly below normal economic activity. Readings above the upper band indicate that activity is signficantly above normal levels.

Economic Policy Uncertainty (EPU) declines

The Bank's EPU index declined to 69.6 in the third quarter of 2024, down from 73.7 in the second quarter, remaining well below its historical average (see Chart 2.3).[2]

This decrease reflects a period of subdued economic and political uncertainty during the summer months, following heightened uncertainty earlier in the year driven primarily by discussions around inflation and the EU parliamentary elections.

Chart 2.3
EPU INDEX



Source: Central Bank of Malta.
The index is normalized to 100. Higher values reflect elevated economic and political uncertainty in Malta, while lower values indicate reduced levels of uncertainty.

GDP and industrial production

Real GDP growth largely driven by domestic demand

Real GDP rose by 4.9% on an annual basis.[3] Growth was driven by domestic demand as net exports had a broadly neutral effect (see Table 2.1).

Domestic demand rose by an annual 6.1% in the third quarter of 2024. This increase was largely driven by private consumption, and to a lesser extent government consumption and GFCF. Overall, domestic demand added 4.9 percentage points to GDP growth in the third quarter of 2024.

Private consumption expenditure increased by an annual 5% in the third quarter of 2024, adding 2.4 percentage points to real GDP growth in the quarter under review.

[2] The EPU Index measures the frequency of economic, policy, and uncertainty-related terms in news articles to quantify the level of policy uncertainty. By construction, it has an average value of 100 over the estimation period since 2004. A full time series can be found at EPU Index section on the website. For further details on the methodology underlying Malta's EPU index, see Sant, K., and Spiteri, S., (2024), "Economic Policy Uncertainty: An Index for Malta", *Working Paper* 07/2024, Central Bank of Malta.

[3] The analysis of GDP in this chapter of the *Quarterly Review* is based on NSO *News Release* 225/2024, which was published on 27 November 2024.

Table 2.1
GDP[1]

	2023		2024		
	Q3	Q4	Q1	Q2	Q3
	Annual percentage changes				
Private final consumption expenditure	12.4	12.1	9.0	6.6	5.0
Government final consumption expenditure	4.2	7.8	1.2	5.4	10.5
GFCF	-20.7	-22.5	5.8	3.9	5.3
Domestic demand	**1.5**	**0.7**	**6.6**	**5.7**	**6.1**
Exports of goods and services	1.4	4.6	7.6	5.6	3.8
Imports of goods and services	-3.6	0.4	6.3	3.3	4.4
GDP	**7.4**	**6.0**	**8.1**	**8.0**	**4.9**
	Percentage point contributions				
Private final consumption expenditure	5.6	5.3	4.1	3.1	2.4
Government final consumption expenditure	0.7	1.4	0.2	0.9	1.6
GFCF	-4.9	-6.1	1.1	0.8	0.9
Changes in inventories	-0.1	0.0	0.0	0.0	0.0
Domestic demand	**1.3**	**0.6**	**5.4**	**4.7**	**4.9**
Exports of goods and services	1.8	5.8	9.4	6.8	4.7
Imports of goods and services	4.3	-0.4	-6.7	-3.5	-4.7
Net exports	**6.1**	**5.4**	**2.7**	**3.3**	**0.0**
GDP	**7.4**	**6.0**	**8.1**	**8.0**	**4.9**

Sources: NSO; Central Bank of Malta calculations.

[1] Chain-linked volumes, reference year 2020.

Data on the Classification of Individual Consumption by Purpose (COICOP) show that all categories of spending increased in annual terms. However, the strongest increase in absolute terms was recorded in spending on restaurants and accommodation services. This was followed by higher spending on housing and utilities, s, on recreation, sport and culture, and on transport.

COICOP data measure domestic consumption and thus, include the expenditure of non-residents in Malta while excluding the expenditure of Maltese residents abroad. Certain COICOP categories continued to be supported by a strong increase in non-residents expenditure in Malta. Nonetheless, the remaining part of domestic consumption, referring to the expenditure of Maltese residents, also rose. Meanwhile, the expenditure of Maltese residents abroad also increased on its year-ago level, partly reflecting an increase in trips over the same period.

Government consumption expenditure increased by 10.5% in annual terms in the third quarter of 2024. This is largely due to higher outlays on intermediate consumption and on compensation of employees. The former rose mainly due to higher spending in the public administration and health sectors. Compensation of employees surged partly due to additional allowances to the education sector following the signing of a new collective agreement. Overall, government consumption added 1.6 percentage points to GDP growth.

Real GFCF increased by 5.3% in the third quarter of 2024, largely reflecting an increase in outlays on intellectual property. Smaller increases were also recorded in spending on non-residential

construction and machinery and equipment, while dwelling investment rose only marginally and outlays on cultivated biological resources decreased. GFCF contributed 0.9 percentage points to overall growth.

The contribution of changes in inventories in the third quarter of 2024 was zero.

Meanwhile, imports rose by 4.4%, while exports increased by 3.8% on a year earlier. Nevertheless, when expressed in absolute terms, these increases were of a comparable magnitude. As a result, net exports contributed 0 percentage points to annual real GDP growth. A higher surplus from trade in services was counterbalanced by a wider deficit from trade in goods.

The contributions shown in Table 2.1 are consistent with the approach normally followed in official databases and economic publications. However, they do not account for the variation in import content across different expenditure components and thus, fail to represent the true underlying relative contribution of domestic and external demand to economic growth.

Table 2.2 presents import-adjusted contributions, which address this limitation by apportioning imports to the respective demand components.[4]

Table 2.2
IMPORT-ADJUSTED CONTRIBUTIONS TO GDP GROWTH(1)

	2023		2024		
	Q3	Q4	Q1	Q2	Q3
	Percentage point contributions				
Private final consumption expenditure	4.2	3.5	2.8	2.3	1.4
Government final consumption expenditure	0.7	1.2	0.2	0.8	1.3
GFCF	-1.4	-2.2	0.6	0.6	0.4
Changes in inventories	-0.2	-0.1	-0.1	-0.1	0.0
Domestic demand	**3.2**	**2.5**	**3.5**	**3.6**	**3.1**
Exports of goods and services	**4.2**	**3.6**	**4.6**	**4.4**	**1.8**
GDP	**7.4**	**6.0**	**8.1**	**8.0**	**4.9**

Source: Central Bank of Malta estimates.
(1) Chain-linked volumes, reference year 2020.

As in the traditional approach, import-adjusted contributions continued to show that domestic demand remained the main contributor to real GDP growth in the third quarter of 2024. Moreover, private consumption remains the main driver of growth in domestic demand. In contrast with the traditional approach, however, the contribution of external trade turns positive under this approach.

Services remain the main driver of economic growth

Data based on the output approach show that in the third quarter of 2024, real gross value added (GVA) rose by 5.7% in annual terms and added 5.2 percentage points to GDP growth (see Table 2.3).[5]

[4] The process with which components are adjusted is currently being reviewed to consider the August 2024 benchmark revision to the national accounts.
[5] The difference between GDP and GVA is made up of taxes on products, net of subsidies.

Table 2.3
CONTRIBUTION OF SECTORAL GVA TO REAL GDP GROWTH
Percentage points

	2023		2024		
	Q3	Q4	Q1	Q2	Q3
Agriculture, forestry and fishing	-2.0	-0.4	0.0	0.2	0.9
Mining and quarrying; utilities	0.1	0.5	-0.3	-0.4	0.5
Manufacturing	0.1	0.2	0.5	0.6	0.5
Construction	0.1	0.3	0.4	0.4	0.2
Services	4.1	3.9	5.0	3.8	3.1
of which:					
Wholesale and retail trade; repair of motor vehicles; transportation; accommodation and related activities	-0.6	0.1	1.1	0.8	1.1
Information and communication	0.0	-0.3	-0.2	-0.2	0.0
Financial and insurance activities	0.0	-0.1	0.5	0.7	0.2
Real estate activities	1.5	1.2	1.0	0.8	0.4
Professional, scientific, administrative and related activities	1.8	2.1	1.8	0.5	0.9
Public administration and defence; education; health and related activities	0.6	0.7	0.7	0.9	0.9
Arts, entertainment; household repair and related services	0.7	0.2	0.0	0.2	-0.4
GVA	**2.5**	**4.6**	**5.6**	**4.6**	**5.2**
Taxes less subsidies on products	**4.9**	**1.4**	**2.5**	**3.4**	**-0.2**
Annual Real GDP growth (%)	**7.4**	**6.0**	**8.1**	**8.0**	**4.9**

Source: NSO.

Services remained the main driver behind the latest economic expansion, adding 3.1 percentage points to real GDP growth. Growth in services was partly spurred by the wholesale and retail sector which contributed 1.1 percentage points. At the same time, the sector comprising professional, scientific, administrative and related activities and that comprising public administration and defence, education, health and related activities, contributed 0.9 percentage points each.

The manufacturing sector added 0.5 percentage points to growth, while the construction sector added 0.2 percentage points.

Net taxes on products were broadly unchanged in annual terms.

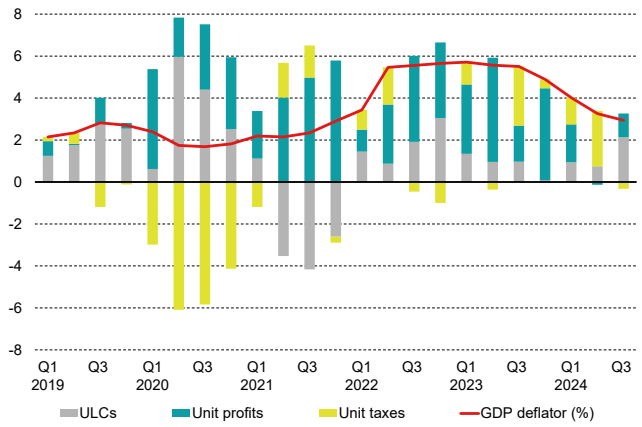
Nominal GDP growth remains strong

Nominal GDP rose by 8% in annual terms in the third quarter of 2024. This increase was driven in almost equal measure by compensation of employees and operating surplus, as net taxes rose only marginally in annual terms.

Chart 2.4 shows the main contributors to growth in the GDP deflator. Annual growth in the GDP deflator stood at 2.9% in the third quarter of 2024.

ULCs explain most of the increase in the GDP deflator in the third quarter, followed by unit profits.

Chart 2.4
CONTRIBUTIONS TO GDP DEFLATOR
(annual percentage change; percentage point contribution)



Source: NSO.

Industrial production increases at a slower pace

Industrial production rose at an annual rate of 1.4% in the third quarter of 2024 – thus at a more moderate pace when compared with the increase of 4.2% recorded in the second quarter.[6]

Production in the manufacturing sector increased at an annual rate of 1.8%, after rising by 5.7% in the preceding quarter. By contrast, production in the quarrying sector accelerated. Meanwhile, production in the energy sector contracted at a slower pace. The rate of decline stood at 7.6% – less than half the contraction of 18.1% recorded in the second quarter of 2024.[7]

In the manufacturing sector, the strongest increase in output was reported by firms classified under 'other manufacturing' – which includes firms that produce medical and dental instruments. Production also increased significantly among firms that manufacture certain types of machinery and equipment. Other strong increases were also recorded among firms involved in the manufacture of wood and products, motor vehicles, trailers and semi-trailers as well as furniture. Double digit growth rates were recorded in these sectors. Meanwhile, smaller increases were recorded among firms involved in the production of electrical equipment, rubber and plastic products, fabricated metal products as well as food and beverages.

During the quarter under review output fell markedly among firms involved in the production of wearing apparel, printing and reproduction of recorded media, chemicals and chemical products as well as computer, electronic and optical products. Smaller declines were recorded in other selected sectors including textiles and basic pharmaceutical products.

Business and consumer surveys

During the third quarter of 2024, the European Commission's ESI for Malta decreased to 93.8, from 97.0 in the preceding quarter, thus falling further below its long-term average of around 100.0. Furthermore, the overall indicator stood below that in the euro area, which averaged 96.2 (see Chart 2.5).[8,9]

[6] Methodological differences may account for divergences between developments in GVA in the manufacturing sector and industrial production. GVA nets input costs from output to arrive at value added and is expressed in nominal terms. Industrial production is a measure of the volume of output and takes no account of input costs. The sectoral coverage between the two measures also differs since industrial production data also include the output of the energy and quarrying sectors.

[7] Industrial production in the energy sector excludes energy generated abroad and imported through the interconnector.

[8] The ESI summarises developments in confidence in five surveyed sectors: industry; services; construction; retail; and consumers. Quarterly data are three-month averages.

[9] Long-term averages are calculated over the entire period for which data are available. For the consumer and industrial confidence indicators, data for Malta became available in November 2002, while for services and construction data became available in May 2007 and May 2008, respectively. The long-term average of the retail confidence indicator is calculated as from May 2011, when it was first published. The long-term average of the ESI is computed from November 2002.

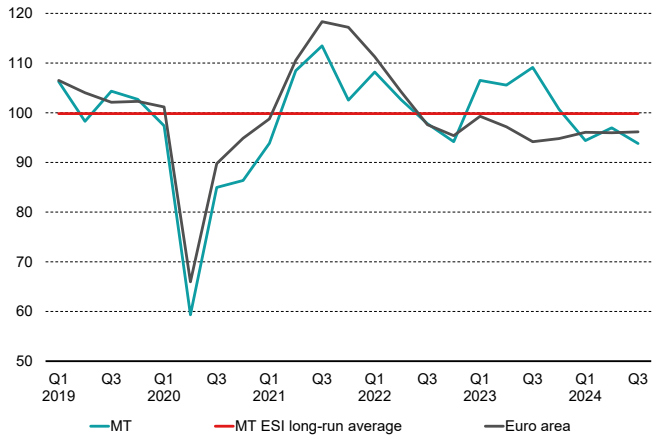
When compared with the second quarter of 2024, confidence deteriorated in the retail sector and to a lesser extent in the construction sector and in industry. By contrast, it improved slightly in the services sector and among consumers.

When accounting for the weights assigned to each sector, and the time variation of the confidence indicator for each sector, the decrease in the ESI relative to the second quarter of 2024 was mainly driven by industry.[10] This sector largely also explains why the overall ESI stood below the long-term average (see Chart 2.6).

Sentiment among retailers declined and fell below its long-term average[11]

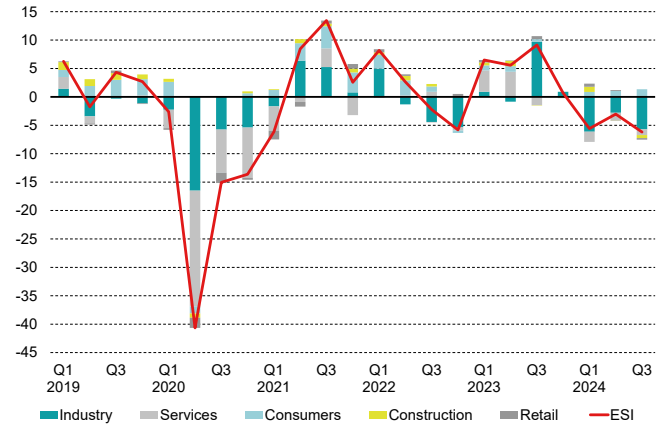
The indicator of sentiment in the retail sector stood at -9.9 in the third quarter of 2024, down from 3.6 in the previous quarter, and fell below its long-term average of 0.3. All components of the indicator contributed to the latest decrease in sentiment. However, the recent fall in sentiment was largely driven by a significant deterioration in the assessment of business activity over the previous three months, which fell significantly into negative territory and, to a lesser extent, by the near-term business outlook (though remaining slightly positive) (see Chart 2.7).

Chart 2.5
ESI
(seasonally adjusted; percentage points)



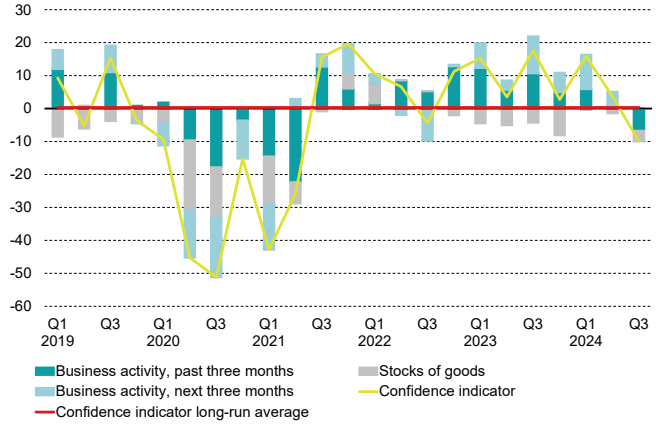
Source: European Commission.

Chart 2.6
ESI
(seasonally adjusted; demeaned)



Sources: European Commission; Central Bank of Malta workings.

Chart 2.7
RETAIL CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



Source: European Commission.

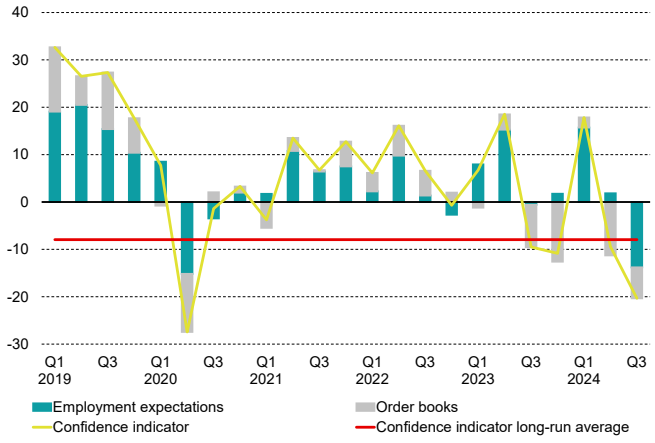
[10] Weights are assigned as follows: industry 40%; services 30%; consumers 20%; construction 5%; and retail trade 5%.
[11] The retail confidence indicator is the arithmetic average of the seasonally adjusted balances (in percentage points) of replies to survey questions relating to the present and future business situation and stock levels.

Confidence in the construction sector weakens[12]

In the third quarter of 2024, the indicator measuring confidence in the construction sector fell further below its long-term average of -7.9. It averaged -20.3, down from -9.4 in the previous three-month period (see Chart 2.8).

Contrary to the second quarter of 2024, employment expectations fell into negative territory.

Chart 2.8
CONSTRUCTION CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)

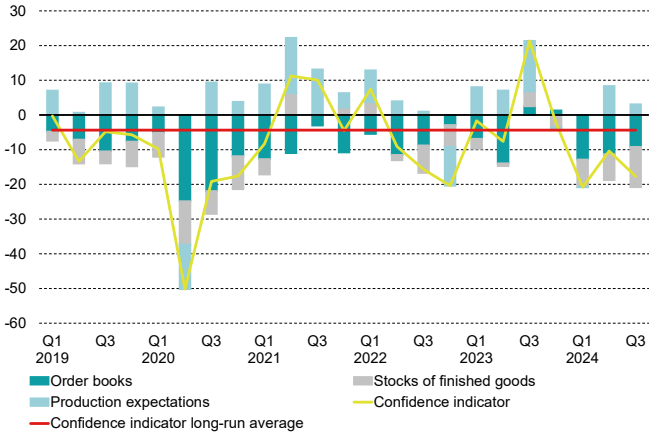


Source: European Commission.

Industrial confidence remains below its long-term average[13]

The industrial confidence indicator decreased to -17.7, from an average of -10.4 in the previous three-month period and remained well below its long-term average of -4.4 (see Chart 2.9). This mainly reflected a deterioration in production expectations for the months ahead (though these remained positive).

Chart 2.9
INDUSTRIAL CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



Source: European Commission.

Confidence in the services sector improves[14]

The confidence indicator in the services sector increased to 15.3, from 14.9 in the previous quarter. Nevertheless, sentiment in this sector remained below its long-term average of 19.4

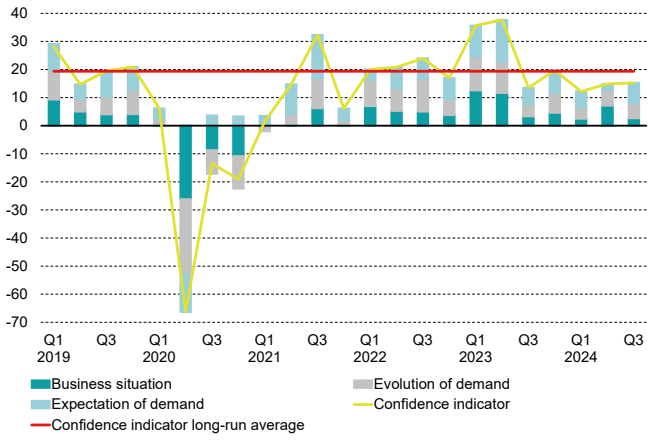
[12] The construction confidence indicator is the arithmetic average of the seasonally adjusted balances (in percentage points) of replies to two survey questions, namely those relating to order books and to employment expectations over the subsequent three months.

[13] The industrial confidence indicator is the arithmetic average of the seasonally adjusted balances (in percentage points) of replies to a subset of survey questions relating to expectations about production over the subsequent three months, to current levels of order books and to stocks of finished goods.

[14] The services confidence indicator is the arithmetic average of the seasonally adjusted balances (in percentage points) of replies to survey questions relating to the business climate, the evolution of demand in the previous three months, and demand expectations in the subsequent three months.

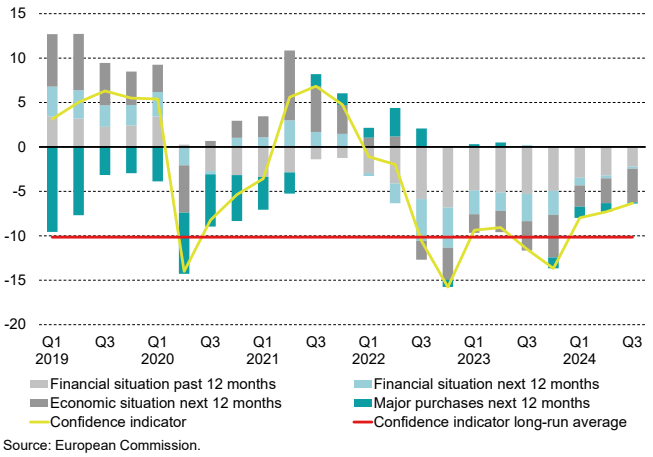
(see Chart 2.10). The latest improvement was largely driven by firms' expectations of demand for the next three months.

Chart 2.10
SERVICES CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



Source: European Commission.

Chart 2.11
CONSUMER CONFIDENCE INDICATOR
(seasonally adjusted; percentage points)



Source: European Commission.

Consumer confidence improves but remains negative[15]

The consumer confidence indicator averaged -6.3 during the third quarter of 2024, above the -7.3 recorded in the previous quarter, and its long-run average of -10.1 (see Chart 2.11). The improvement in consumer sentiment mainly reflected a less negative assessment of their finances and less negative expectations of major purchases.

Employment Expectations Indicator (EEI) increases above its long-run average

The EEI – which is a composite indicator of employment expectations in industry, services, retail trade and construction – increased in the third quarter of 2024. During the third quarter of 2024, it averaged 100.9, above 96.0 in the preceding quarter, and marginally above its long-term average of around 100.0. The index also stood above the euro area average of 98.8.[16]

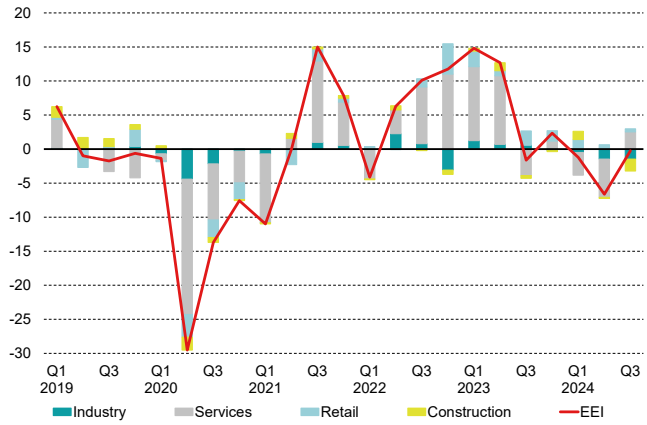
During the quarter under review, employment expectations were positive across all productive sectors, except in the construction sector and in industry. The most positive reading was recorded in the services sector.

[15] The consumer confidence indicator is the arithmetic average of the seasonally adjusted balances (in percentage points) of replies to a subset of survey questions relating to households' assessment and expectations of their financial situation, their expectations about the general economic situation, and their intention to make major purchases over the subsequent 12 months. The computation of this indicator was changed as reflected in the January 2019 release of the European Commission.

[16] The EEI is based on question 7 of the industry survey, question 5 of the services and retail trade surveys and question 4 of the construction survey, which gauge the respondent firms' expectations as regards changes in their total employment over the next three months. Before being summarised in one composite indicator, each balance series is weighted on the basis of the respective sector's importance in overall employment. The weights are applied to the four-balance series expressed in standardised form. Further information on the compilation of the EEI is available in European Commission (2020). *The Joint Harmonised EU Programme of Business and Consumer Surveys User Guide*.

Demeaned data suggest that the increase relative to the preceding quarter was mostly driven by the services sector (see Chart 2.12). This sector largely explains why the overall EEI stood above its long-term average.

Chart 2.12
EEI
(seasonally adjusted; demeaned)

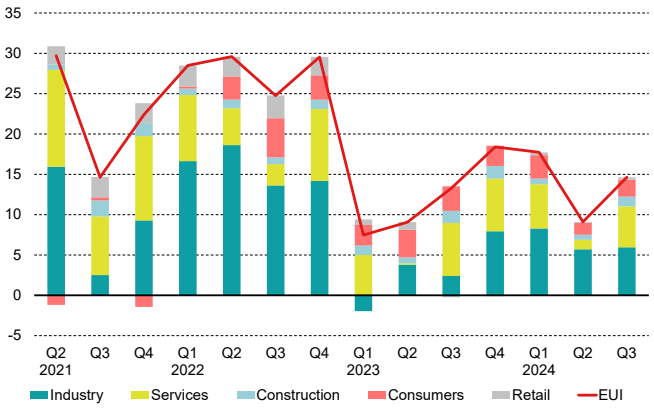


Sources: European Commission; Central Bank of Malta workings.

Economic Uncertainty Indicator (EUI) increases

The European Commission's EUI is a composite indicator which measures how difficult it is for sectors to make predictions about their future financial or business situation. In Malta, this indicator increased to 14.6 in the third quarter of the year, from 9.1 in the preceding quarter (see Chart 2.13). The indicator however remained below that in the euro area, which averaged 17.7.[17,18]

Chart 2.13
EUI[(1)]
(not seasonally adjusted)



Sources: European Commission; Central Bank of Malta.
(1) Data for Malta is available from May 2021.

Higher uncertainty was recorded across all surveyed sectors, although the strongest increases were recorded in the services and construction sectors.

When considering each sector's weight and past volatility, industry and the services sector had the highest contributions to uncertainty during the quarter under review.

[17] The EUI is made up of five balances (in percentage points) which summarise managers'/consumers' answers to a question asking them to indicate how difficult it is to make predictions about their future business/financial situation. The series are not seasonally adjusted. The five-balance series are summarised in one composite indicator using the same weights used to construct the ESI. The questions asked correspond to Q51 of the industry survey, Q31 of the services survey, Q41 of the retail trade and construction surveys and Q21 of the consumer survey.

[18] Data on consumer uncertainty became available in October 2020, while data for industry, services, retail, and construction became available in May 2021.

The labour market[19]

Labour force and activity rate increases at a slower pace

Labour Force Survey (LFS) data show that in the third quarter of 2024, the labour force grew by 13,701 persons, or 4.3% on an annual basis, slower than the 5.6% increase recorded in the previous quarter (see Table 2.4).[20]

The activity rate stood at 82.9% in the quarter under review, higher than the 81.8% recorded a year earlier.[21] This was due to increases in both the female participation rate, and that of males, although the increase in the former was more significant. While the male participation rate increased by 0.3 percentage points to 88.9%, that of females increased by 1.9 percentage points to 75.5%. Both rates exceeded the corresponding rates for the euro area.

Employment increases at a slower pace

Employment rose by 5.0% in annual terms, following a rise of 6.2% in the previous quarter. The increase in absolute terms was driven by full-time employment, as this rose by 15,810 persons, or 5.8% on a year earlier. This increase mainly stemmed from the sectors comprising construction, human health, financial and insurance activities and education.

Table 2.4
LABOUR MARKET INDICATORS BASED ON THE LFS
Persons; annual percentage changes

	2023 Q3	2024 Q3	Annual change %
Labour force	**319,727**	**333,428**	**4.3**
Employed	307,937	323,207	5.0
By type of employment:			
Full-time	270,997	286,807	5.8
Part-time	36,940	36,400	-1.5
Unemployed	11,790	10,221	-13.3
Activity rate (%)	**81.8**	**82.9**	
Male	88.6	88.9	
Female	73.6	75.5	
Employment rate (%)	**78.7**	**80.3**	
Male	85.1	86.0	
Female	71.0	73.2	
Unemployment rate (%)	**3.7**	**3.1**	
Actual hours worked (per week)	**32.1**	**33.9**	

Source: NSO.

[19] This section draws mainly on labour market statistics from two sources: the LFS, which is a household survey conducted by the NSO based on definitions set by the International Labour Organization (ILO) and Eurostat; and administrative records compiled by Jobsplus according to definitions established by domestic legislation on employment and social security benefits.

[20] The LFS defines the labour force as all persons aged 15 and over who are active in the labour market. This includes those in employment, whether full-time or part-time, and the unemployed, defined as those persons without work but who were actively seeking a job during the previous four weeks and available for work within two weeks of the reference period.

[21] The activity rate measures the number of persons in the labour force aged between 15 and 64 as a proportion of the working age population, which is defined as all those aged 15 to 64 years.

The number of persons in part-time jobs – which also includes those employed full-time on reduced hours – declined by 540, or 1.5% in annual terms. This decrease was mostly driven by the sector comprising administrative and support service activities, the education and health sectors, and accommodation and food service activities.

In the third quarter of 2024, the overall employment rate reached 80.3%, 1.6 percentage points higher than the rate prevailing during the same period of 2023.[22] Both the female and male employment rate increased in annual terms. However, the female rate recorded a more significant increase. The female employment rate rose by 2.2 percentage points to 73.2%, while that of males rose by 0.9 percentage points to 86.0%. These increases were driven by those over 24 years, as the employment rate for the 15-24 age bracket decreased among both males and females.

During the quarter under review, average weekly hours worked derived from the LFS increased to 33.9, from 32.1 a year earlier (see Table 2.4).[23] This increase was reported by both full-time and part-time employees.

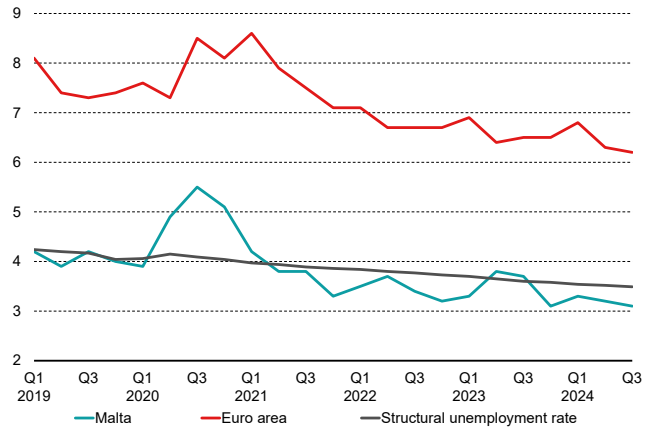
The unemployment rate declines further

The unemployment rate based on the LFS fell to 3.1%, from 3.7% a year earlier (see Table 2.4). This reflects continued strong demand for labour.[24] Labour market conditions remained more favourable than those in the euro area, where the unemployment rate on average stood at 6.2% (see Chart 2.14).

During the quarter under review, the unemployment rate also stood below the Bank's structural measure of 3.5%.[25] This indicates a degree of labour market tightness, which is also confirmed by the Bank's Business Dialogue publication and other indicators (see below).

Jobsplus data show that the number of persons on the unemployment register decreased on a quarterly basis but increased in annual terms.

Chart 2.14
UNEMPLOYMENT RATE
(per cent)



Sources: Eurostat; NSO; Central Bank of Malta.

[22] The employment rate measures the number of persons aged between 15 and 64 employed on a full-time or part-time basis as a proportion of the working-age population.

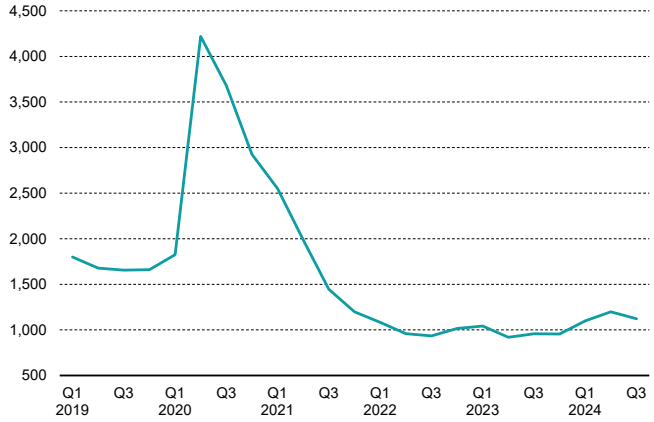
[23] Actual hours refer to the number of hours actually spent at the place of work during the reference week for LFS. A person may work extra hours (e.g. overtime, variable hours) or work less hours than usual (e.g. vacation leave, education, sick leave or slack work) due to various reasons. Owing to increased flexibility at workplaces coupled with technology, the place of work may also include one's home. In this regard, actual hours worked also include the hours of work conducted by persons who telework.

[24] According to the LFS, the unemployed comprise persons aged between 15 and 74 years who are without work, available for work and who have actively sought work during the four weeks preceding the Survey. In contrast, the number of unemployed on the basis of the Jobsplus definition includes only those persons registering for work under Part 1 and Part 2 of the unemployment register.

[25] The structural unemployment rate in this chapter refers to the non-accelerating inflation rate of unemployment (NAIRU), that is, the unemployment rate that is consistent with stable inflation. This measure of the unemployment rate is based on an unobserved components model (UCMPF). For further details, see Borg, I. (2023), "Box 1: Latest Estimates of the NAIRU" *Outlook for the Maltese Economy* 2023:1, pp. 7-9 and Ellul, R. (2019), "Box 1: An Unobserved Components Model for potential output in Malta" *Quarterly Review* 2019:2, pp. 17-21.

During the third quarter of 2024, the average number of persons on the unemployment register stood at 1,123, compared with 1,198 in the second quarter of 2024 and with 957 a year earlier (see Chart 2.15).

Chart 2.15
REGISTERED UNEMPLOYED
(number of persons)



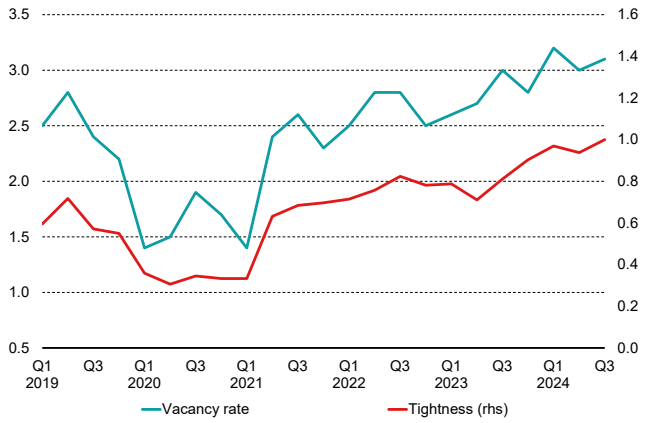
Source: NSO.

The vacancy rate increased slightly

In absolute terms the number of vacancies increased from 8,013 in the third quarter of 2023 to 8,579 in the same quarter of 2024, that is, a 7.1% increase. The sector comprising professional, scientific and technical activities accounted for around 60% of this increase.

Eurostat's job vacancy rate for industry, construction and services also increased over this period, reaching 3.1% from 3.0% a year earlier (see Chart 2.16).[26] The highest vacancy rates were recorded in the mining and quarrying sector (6.2%), in the information and communication sector (5.5%), and in the arts and entertainment sector (4.8%).

Chart 2.16
VACANCY RATE AND LABOUR MARKET TIGHTNESS INDICATOR
(per cent)



Sources: Eurostat; NSO; Central Bank of Malta.

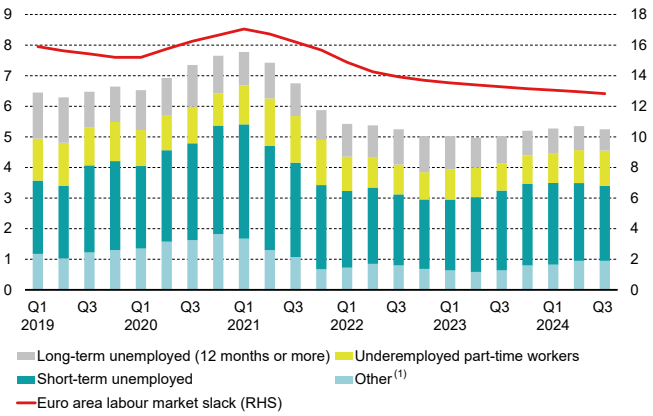
The ratio of the job vacancy rate to the unemployment rate is an indicator of the imbalance between labour demand and supply and, therefore, of labour tightness. During the quarter under review, this ratio stood at 1.0, higher than in the previous quarter, and above the ratio of 0.8 recorded a year earlier. Market conditions thus remained very tight compared to recent outturns. This contrasts with the euro area average, where the tightness indicator declined to 0.4. Labour market conditions in the euro area continue to be significantly less tight compared to those in Malta.

To measure better labour market slack (unemployed and underutilised labour), one can consider an extended labour force definition, which in addition to the unemployed, also includes persons available to take up work but not seeking it, persons seeking work but not immediately available, and underemployed part-time workers. By this measure, on a four-quarter moving average basis, labour market slack was equivalent to 5.3% of the extended labour force in the third quarter of

[26] The job vacancy rate measures the number of job vacancies as a percentage of total jobs (occupied and vacant). Data for Malta are available since 2017.

the year (see Chart 2.17).[27] This rate appears to have stabilised in recent quarters, to a level which is well below its average of around 8.0% estimated since 2010. It is also significantly lower than the rate of 12.8% recorded for the euro area over the four quarters to September 2024.

Chart 2.17
LABOUR MARKET SLACK
(percentage of extended labour force; four-quarter moving average)



Sources: ECB-SDW; Eurostat; Central Bank of Malta's estimates.
(1) Persons seeking work, but not immediately available and Persons available to take up work but not seeking.

The gap between the broader measure of labour market slack and the unemployment rate declined considerably since its recent peak in early 2021, indicating a reduction in the share of underutilised labour. However, this decline was somewhat interrupted in recent quarters as the gap registered a slight uptick since the last quarter of 2023.

During the four quarters ending in September, 60% of the labour market slack stemmed from unemployment (primarily from short-term unemployment). The remaining part of slack was broadly equally distributed across underemployed part-time workers, i.e., those working part-time but willing and able to work additional hours, and the 'other' component in Chart 2.17.

[27] For further details on the methodology underlying the measure of labour market slack, see Ellul, R. (2019). "Labour Market Slack," *Quarterly Review* 2019:1, pp. 37-41, Central Bank of Malta. Given that this methodology partly relies on internal estimation, the slack indicator reported in this *Review* may differ slightly from that published by Eurostat.

BOX 1: THE EVOLUTION OF THE LABOUR INCOME SHARE IN MALTA[1]

Typically defined as the proportion of GVA paid to workers, the long-run stability of the labour share of income was for many years accepted as a 'stylised fact' in macroeconomic theory.[2,3] However, a multitude of empirical evidence has since documented widespread declines in the labour share of numerous advanced countries over more recent years.[4] From an accounting point of view, a persistent fall in labour shares reflects overall wage growth not keeping up with the growth in labour productivity. Evidence of such declining trends in labour shares suggests that the historical consensus around may no longer hold and has further fuelled research interest in cross-country developments in the labour share of income.

While arguably rather straightforward to conceptualise, persistent issues surround the measurement of the labour income share. In its most basic form, it can be represented by the share of employees' compensation – comprising wages, salaries and social contributions paid by employers – in the country's GVA measured at basic prices. However, this measurement does not account for the labour income of the self-employed, and despite being a good indication of the employees' share of national income, the resulting estimates are implicitly a lower bound of the share of national income attributed to all people in employment. In light of the difficulty to extract the *labour* income (as opposed to other forms of income such as return to capital employed that also accrues as self-employed income) of the self-employed from published data, a number of possible adjustments have been put forward as a proxy in related literature. These typically rely on the use of national accounts data on 'mixed income', or adjustments based on the workforce composition, with both strategies suffering from their own respective limitations.

Notwithstanding these measurement issues, continuous analyses of developments in the labour share of income remain crucial in view of the potential repercussions on consumption expenditure, investment, and aggregate demand, among others.[5] For example, depending on the marginal propensity of consumption, a higher labour share might stimulate domestic demand and consumption, with potential implications for inflation. In light of these economic implications, this article sets out to examine developments in Malta's aggregate labour share in recent years. This analysis is further complemented by an in-depth study of sectoral developments in the labour share, particularly in view of Malta's continued transition towards a more services-oriented economy over the recent decades.

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[1] Prepared by Nathaniel Debono, a Senior Research Economist within the Modelling Office of the Central Bank of Malta. Helpful comments by Mr Alexander Demarco, Dr Aaron G. Grech, Mr Noel Rapa and Mr Owen Grech are gratefully acknowledged. The views expressed in this article are the author's own and do not necessarily reflect those of the Central Bank of Malta.

[2] GVA is the sum of *compensation of employees* (including the employers' social security contributions) and *gross operating surplus and mixed income*.

[3] Kaldor, N. (1961). "Chapter 10: Capital Accumulation and Economic Growth", In Lutz, Friedrich; Hague, Douglas (eds.). Capital Accumulation and Economic Growth, pp. 177-222.

[4] See for example Estrada, A. and Valdeolivas, E. (2012). "The fall of the labour income share in advanced economies", *Banco de Espana Occasional Paper* No. 1209, and Dao, M. C., Das, M., Koczan, Z., and Lian, W. (2017). "Why is Labor Receiving a Smaller Share of Global Income? Theory and Empirical Evidence", *IMF Working Paper* WP/17/169.

[5] Archanskaia, E., Meyermans, E., and Vandeplas, E. (2019). "The labour income share in the euro area", *Quarterly Report on the Euro Area (QREA)*, Directorate General Economic and Financial Affairs (DG ECFIN), European Commission, vol. 17(4), pp. 41-57, March.

The aggregate labour share of income in Malta

Given the continuous debate surrounding the measurement of the labour income share, the following analysis of the aggregate labour income share in Malta centres around two methods. The most straightforward methodology adopted yields what is commonly termed the '*unadjusted labour share*' (or '*wage share*'). Denoted by LS_t^u and shown in equation (1), this is given by the share of employees' compensation (CE_t) in GVA measured at basic prices:

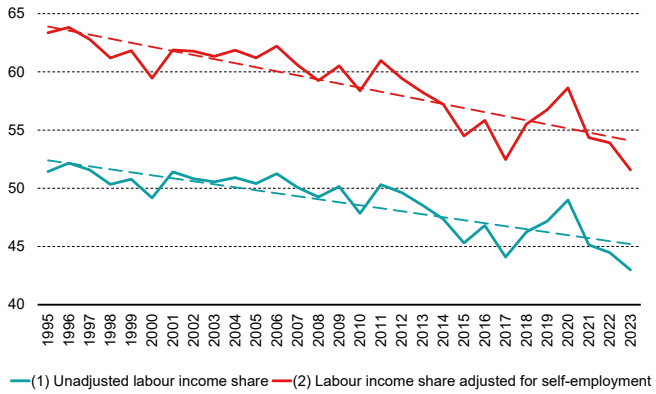
$$LS_t^u = \frac{\mathrm{CE_t}}{\mathrm{GVA_t}} \tag{1}$$

As this measure does not consider the income earned by the self-employed, '*adjusted labour share*' estimates are derived by assuming that, on average, the self-employed earn the same average wage as employees. This assumption is commonly adopted both in similar studies and in the construction of labour share estimates by other institutions.[6] The calculation of these estimates, denoted by LS_t^{adj}, is shown in equation (2), where TE_t represents the hours worked by those in employment (including self-employed) and E_t represents the number of hours worked by employees.[7,8]

$$LS_t^{adj} = \frac{\mathrm{CE_t}}{\mathrm{GVA_t}} * \frac{\mathrm{TE_t}}{\mathrm{E_t}} \tag{2}$$

Chart 1 shows the evolution of the aggregate labour share of income in Malta between 1995 and 2023. By definition, *unadjusted* labour share estimates are consistently smaller than those which adjust for self-employed income. Having said that, the two indicators follow very similar trends, even if the underlying gap between the two has somewhat narrowed over time. These dynamics reflect the marginal decline in the share of hours worked by the self-employed in Malta's labour input, from 18.8% in 1995 to 16.6% in 2023.

Chart 1
THE AGGREGATE LABOUR SHARE OF INCOME IN MALTA
(per cent)



Source: Author's calculations using national accounts data from Eurostat.
Note: Qualitatively similar results are obtained if such calculations are based on the number of *persons* in employment. Dotted lines represent the linear trend of each indicator of the labour share.

[6] For example, the European Commission's AMECO database calculates an *adjusted* wage share based on this method, assuming that the self-employed in the economy earn the same average compensation as employees.

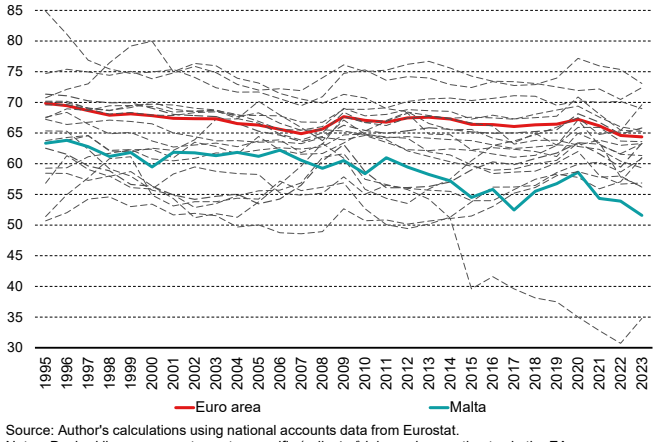
[7] A separate *adjusted* labour share is calculated considering total employment and total employees in terms of the *number of persons*, rather than *hours worked*. This yields slightly smaller but qualitatively similar labour share estimates to those based on the number of *hours worked*.

[8] A separate *adjusted* labour share is also derived assuming that the self-employed earn the same compensation as the employees working in the sector, rather than the economy-wide compensation. This approach yields very similar results to those constructed following equation (2).

Notwithstanding some volatility, the recent developments in Malta's labour income share can be dissected into a number of episodes characterised by particular trends. In the early part of the period considered, both methodologies show a downward trend, with the *adjusted* labour share dipping below 60% in the year 2000. The labour share remained broadly constant above 60% for a number of years thereafter, before declining again in the years leading to 2010. A particularly pronounced and (relatively) lengthy decline was observed between 2011 and 2015, at which point the *adjusted* labour share of income stood at 8.9 percentage points lower than the corresponding 1995 value.[9] A partial reversal of the downward trend in the labour income share was recorded during the years 2018-2020, before declining again in the following three years, according to the latest data available. Labour share movements around the year 2020 are influenced by labour market developments during the COVID-19 pandemic, when employment and work compensation in Malta were well-insulated by the timely implementation of job-retention schemes. These dynamics helped drive the labour share upwards in 2020, which was then reversed during the ensuing economic recovery as such schemes were gradually phased out.

Chart 2 compares the labour income share in Malta to that in the rest of the euro area (EA) between 1995 and 2023. This analysis shows that Malta's labour income share has been consistently lower than the average recorded in the EA, which has hovered between 65% and 70%, and this discrepancy has widened further since the decade starting in 2010. In more recent years, Malta's labour share has been among the lowest in the EA bloc.[10] The results for the EA presented in Chart 2 also show substantial cross-country heterogeneities in the evolution of the labour share in the EA but are overall indicative of declining labour shares in the long run. In fact, labour shares in 2023 were lower than their corresponding 1995 estimates in 15 of the 20 EA member states, including Malta, and also on average in the EA.

Chart 2
THE (ADJUSTED) LABOUR INCOME SHARE IN THE EURO AREA
(per cent)



Source: Author's calculations using national accounts data from Eurostat.
Notes: Dashed lines represent country-specific (*adjusted*) labour share estimates in the EA.

[9] The corresponding difference in the *unadjusted* labour share between 1995 and 2015 values stood at 6.1 percentage points.
[10] Qualitatively similar results are obtained when analyses are based on *unadjusted* labour income share estimates.

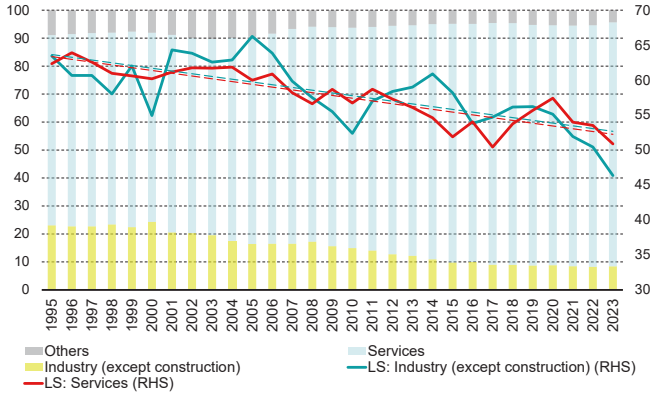
Sectoral developments in Malta's labour income share

Movements in the aggregate labour share of income mask potentially important heterogeneities in labour shares at the sectoral level. In particular, changes in the aggregate labour share could reflect developments both *within* and *across* sectors. For instance, a decline in the labour share in all economic sectors drives the aggregate labour share down, *ceteris paribus*. However, declines in the economy-wide labour share do not necessarily imply a drop in the remuneration of those in employment but may simply reflect changes in the sectoral composition of the economy. For example, even if within-sector labour shares remain constant, the aggregate labour share will invariably decline as an economy transitions from high-labour-share industries to sectors with relatively low labour shares. In this light, and in view of the Maltese economy's continued transition to a more services-oriented economy in recent decades, this section delves into the sectoral developments of Malta's labour share.

Chart 3 shows the *adjusted* labour share of income within the Maltese *industry* (NACEs B-E) and *services* (NACEs G-U) sectors, which together have been responsible for more than 90% of the GVA generated in Malta since 1995. In both (broad) economic sectors, the share of GVA attributed to labour has been on a long-term decline. Indeed, the labour share in *industry* declined by 17 percentage points between 1995 and 2023, while that in *services* declined by more than 11 percentage points over the same period. Among the most notable developments, periods of sustained drops in the *industry's* labour share are observed between 2005 and 2010 and again in the years following 2014, with a partial upturn being recorded in between. In more recent years, the *industry's* labour share has again been on the decline since 2020. The overall labour share in the *services* sectors has also followed a generally downward trend since 1995 but has been somewhat less volatile. Indeed, the only partial prolonged increase in this sector's labour share was recorded between 2018 and 2020, following which this declined again to around 51% by 2023.

While the evolution of the labour share in Maltese *industry* largely reflects developments in the manufacturing sector, that in the *services* economy is characterised by significant heterogeneity in the

Chart 3
SECTORAL DEVELOPMENTS IN MALTA'S LABOUR INCOME SHARE
(per cent)



Source: Author's calculations using national accounts data from Eurostat.
Note: Columns represent the respective sectors' contribution to aggregate GVA (thus summing to 100%), while the line charts represent the *adjusted* labour share in the *Industry* (NACEs B-E) and *Services* (NACEs G-U) sectors. The *Others* sector captures the *Agriculture* and *Construction* sectors.

services sub-sector labour intensities. In this light, Charts 4a-4f illustrate the respective labour shares calculated for six *services* sub-sectors, which together account for 92% of the total GVA generated by the *services* economy in Malta between 1995 and 2023.[11] Large sectoral disparities are noted, with some sectors' labour share typically recorded at around 40%-60%

Chart 4a
THE LABOUR INCOME SHARE – WHOLESALE AND RETAIL TRADE, TRANSPORT, ACCOMMODATION AND FOOD SERVICE ACTIVITIES
(per cent)

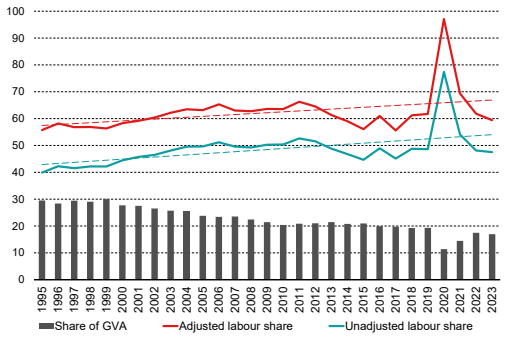


Chart 4b
THE LABOUR INCOME SHARE – INFORMATION AND COMMUNICATION
(per cent)

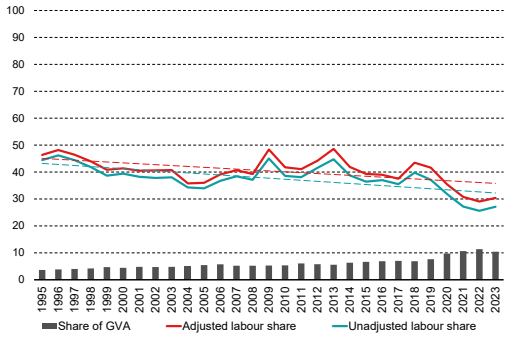


Chart 4c
THE LABOUR INCOME SHARE – FINANCIAL AND INSURANCE ACTIVITIES
(per cent)

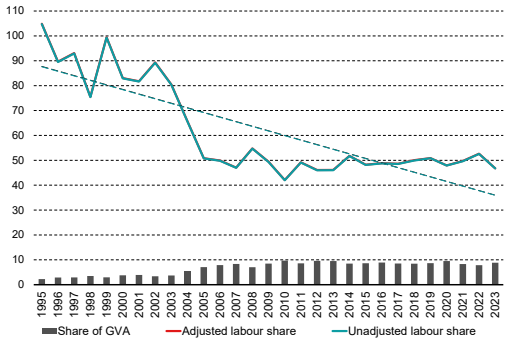


Chart 4d
THE LABOUR INCOME SHARE – PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES; ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES
(per cent)

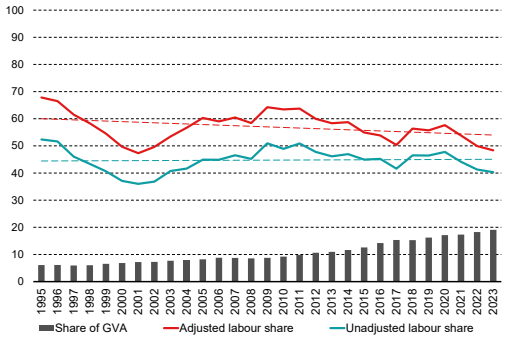


Chart 4e
THE LABOUR INCOME SHARE – PUBLIC ADMINISTRATION, DEFENCE, EDUCATION, HUMAN HEALTH AND SOCIAL WORK ACTIVITIES
(per cent)

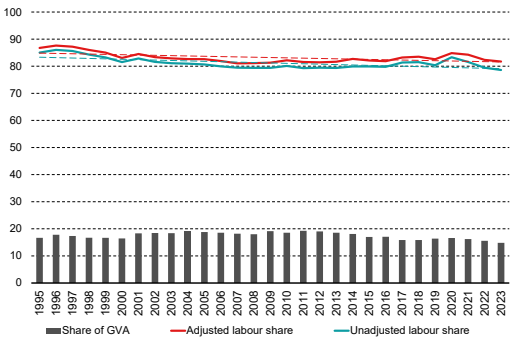
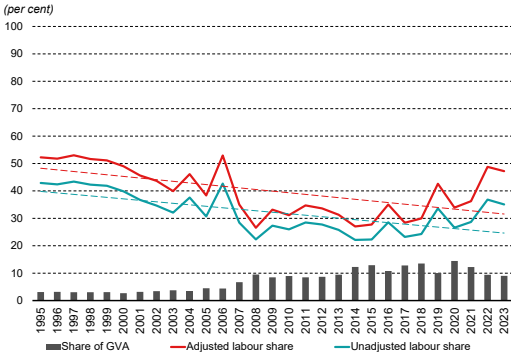


Chart 4f
THE LABOUR INCOME SHARE – ARTS, ENTERTAINMENT AND RECREATION; OTHER SERVICE ACTIVITIES
(per cent)



Source: Author's calculations using national accounts data from Eurostat.
Note: In each chart, columns represent the respective sector's contribution to aggregate GVA, while the line charts represent the adjusted and unadjusted labour share of the respective sector, calculated in line with equations (1) and (2) in the text. The adjusted and unadjusted labour share estimates for the Financial and Insurance activities are broadly identical due to the relative lack of self-employed workers in this sector.

[11] In the *Real estate activities* sector, which contributes to less than 10% of total economy GVA and is not shown for brevity, labour share estimates have hovered below 10% throughout the sample.

(e.g. *Information and communication* and *Professional, scientific and technical activities; administrative and support service activities*), while in *Public administration, defence, education, human health, and social work activities*, more than 80% of the GVA generated is typically attributed to labour income.[12]

Charts 4a-4f also uncover sectoral heterogeneities in the evolution of the respective sectors' labour share over time. For instance, falling labour shares are recorded in sectors which have gained added economic importance in recent years, namely the *Information and Communication* (see Chart 4b) and the *Arts, entertainment and recreation and other services activities* (see Chart 4f), although the downward trend in the latter sector has started to reverse in more recent years. Drops in the share of labour income from 1995 levels are also recorded in the *Financial and insurance activities* sector (see Chart 4c), although this is largely driven by a pronounced fall in the first part of the sample, following which this sector's labour share stabilised at around 50%. In contrast, the *Wholesale and retail trade, transport, accommodation, and food service activities* sector saw its labour share rise somewhat since 1995, at a time when its contribution to the aggregate GVA declined from 30% in 1995 to 17% in 2023.[13] Other sectors, namely the *Professional, scientific and technical activities; administrative and support service activities* (see Chart 4d), and the *Public administration, defence, education, human health, and social work activities* (see Chart 4e) have been marked by a general stability in their labour share in the long run.

Shift-share decomposition of labour income share developments in Malta

In this section, a shift-share analysis is performed to formally disentangle movements in Malta's labour income share estimates over the period 1995-2023 into "*within-sector*" effects, i.e. changes in the labour share driven solely by changes in sector-specific labour shares, and "*between-sector*" effects, i.e. changes in the labour share solely due to changes in the economy's sectoral composition. Starting from the original expression to calculate the *adjusted* economy-wide labour share:

$$LS_t^{adj} = \sum_i \omega_t^i \cdot als_t^i \quad (3)$$

Where ω_t^i is the share of sector i in the total economy GVA in period t and als_t^i is the *adjusted* labour share of sector i in period t, calculated as $\frac{\mathrm{CE_t^i}}{\mathrm{GVA_t^i}} * \frac{\mathrm{TE_t^i}}{\mathrm{E_t^i}}$. Then, the change in the aggregate labour share between 1995 and 2023 can be decomposed as follows:

$$LS_{2023}^{adj} - LS_{1995}^{adj} = \left\{\sum_i \omega_{1995}^i \cdot \Delta als_{2023}^i\right\} + \left\{\sum_i als_{1995}^i \cdot \Delta\omega_{2023}^i\right\} + \left\{\sum_i \Delta\omega_{2023}^i \cdot \Delta als_{2023}^i\right\} \quad (4)$$

Where Δk represents the change in the value of k between the years 1995 and 2023, in general. Expressed in this way, the first term represents the "*within*" effect, capturing the changes in the overall labour share that are strictly due to changes in sector-specific labour

[12] The relatively high labour income share in these sectors reflects the fact that *Public administration* activities are typically not for profit. Thus their 'profit' component is typically very low, as it largely reflects private sector activity, such as in education and health activities.

[13] The spike in this sector's labour share in 2020 is largely due to events related to the COVID-19 pandemic. The restrictions put in place at the time led to lower sectoral activity (as manifested by a drop in this sector's GVA), but the job-retention schemes in place helped preserve employees' compensation, implicitly leading to an increase in this sector's labour share during the year.

shares over time. The second term is the "*between*" effect, quantifying the change in aggregate labour share purely due to shifts in the economy's sectoral structure. The third term is an "*interaction term*", which reflects the extent to which sector-specific labour shares move in the same direction as the GVA share of the respective sector.[14]

Table 1 presents the sector-specific shift-share decomposition of the changes in *adjusted* labour shares in Malta between 1995 and 2023.[15] The labour share in Malta declined by 11.7 percentage points between 1995 and 2023, of which 7.9 percentage points are attributed purely to "*within*" effects. This implies that had the sectoral composition of the Maltese economy remained identical to that of 1995, the overall labour share would have declined by 7.9 percentage points. These "*within*" effects are predominantly driven by the *Industry*

Table 1

SHIFT-SHARE ANALYSIS OF CHANGES IN THE (ADJUSTED) LABOUR SHARE IN MALTA: 1995-2023

Percentage points

	NACE	Within effects	Between effects	Interaction term
B-E	Industry (except Construction)	-4.05	-9.69	2.61
F	Construction	-0.60	-1.21	0.20
G-I	Wholesale and retail trade; repair of motor vehicles and motorcycles; Transportation and storage; Accommodation and food service activities	1.12	-7.42	-0.49
J	Information and communication	-0.60	3.11	-1.07
K	Financial and insurance activities	-1.34	6.86	-3.80
L	Real estate activities	-0.24	0.13	-0.04
M-N	Professional, scientific and technical activities; Administrative and support service activities	-1.22	8.69	-2.49
O-Q	Public administration and defence; compulsory social security; Education; Human health and social work activities	-0.85	-1.96	0.11
R-U	Arts, entertainment and recreation; Other service activities; Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use; Activities of extraterritorial organisations and bodies	-0.16	3.03	-0.29
	Total (*NACE B-U*)	**-7.93**	**1.54**	**-5.27**

Source: Author's calculations using national accounts data from Eurostat.
Notes: The overall economy-wide change in the labour share between 1995 and 2023 can be calculated as the sum of the "*within*" effects, "*between*" effects and the interaction term. The NACE A: 'Agriculture' sector is excluded from the analysis.

[14] For related studies which employ a similar shift-share decomposition, see for example Archanskaia, A., Meyermans, E. and Vandeplas, A. (2019). "The labour income share in the euro area", *Quarterly Report on the Euro Area (QREA)*, Directorate General Economic and Financial Affairs (DG ECFIN), European Commission, 17(4), pp. 41-57.

[15] Qualitatively similar results are obtained when the analysis is based on *unadjusted* labour shares. In this scenario, the "*within*" effect, "*between*" effect and "*interaction term*" are quantified at -6.40 percentage points, 2.08 percentage points, and -5.27 percentage points, respectively.

sector, which was relatively important to the Maltese economy in 1995 and registered pronounced declines in its labour share in the period up to 2023 (see Chart 3). The overall negative "*interaction term*" (-5.3 percentage points) reflects falling labour shares in sectors which gained added importance to Maltese economic activity over time. These sectors are predominantly services-oriented, with the most notable being *Information and communication*, *Financial and insurance activities*, and the *Professional, scientific and technical activities; administrative and support service activities*. In contrast to these two effects, the overall "*between*" effect is positive and markedly smaller. This suggests that, had the sector-specific labour shares remained constant at 1995 levels, the subsequent changes in the structural composition of the Maltese economy would have boosted the overall labour share by 1.5 percentage points between 1995 and 2023. The small positive sectoral composition effect is largely driven by developments in *Financial and insurance activities*, and the *Professional, scientific and technical activities; administrative and support service activities*, which had relatively high labour shares in 1995 and whose share in the economy's GVA increased further in the following years. On the other hand, the falling GVA share of the *Industry* and *Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities* exert substantial downward pressure on the "*between*" effect.

Concluding remarks

This analysis documents the main developments in the labour share of income in Malta between 1995 and 2023. It uncovers a long-term decline in this share, manifested by drops in the labour share of both the *Industry* and *Services* sectors. Moreover, a shift-share analysis confirms that the overall decline in Malta's labour share over time has predominantly been driven by drops in sector-specific labour shares, further compounded by the fact that such falling labour shares were recorded in sectors which gained added importance to the Maltese economy. In contrast, changes in the sectoral structure of the Maltese economy have been a relatively minor contributor to the developments in Malta's aggregate labour share between 1995 and 2023.

While this study analyses the recent evolution of Malta's labour share, further work is needed to determine the underlying causes behind these developments. Global evidence of falling labour shares has been commonly attributed to a number of factors, including rapid technological advances, increased globalisation, and changes in markets' regulation and structure.[16] Other studies have also found a role for demographic factors, labour market structure and policies, and employees' skill levels, all of which could potentially be important considerations to understand the recent developments of the labour income share in the Maltese context.[17,18] Further research could especially focus on the role of these factors in explaining the sectoral heterogeneities in the level and evolution of the labour share, as documented in this analyses.

[16] See for example Dao, M. C., Das, M., Koczan, Z., and Lian, W. (2017). "Why is Labor Receiving a Smaller Share of Global Income? Theory and Empirical Evidence", *IMF Working Paper* WP/17/169.
[17] d'Albis, H., Boubtane, E., and Coulibaly, D. (2021). "Demographic changes and the labor income share", *European Economic Review*, 131(6): 103614.
[18] Dimova, D. (2019). "The Structural Determinants of the Labor Share in Europe", *IMF Working Paper* WP/19/67.

Determining the reasons behind the declining labour share in Malta is crucial in view of its important policy implications. For instance, if such a decline is driven by productivity-enhancing technological progress, which in turn increases labour incomes, falling labour shares would reflect a positive economic development.[19] In contrast, with capital returns typically being more unevenly distributed than labour income, declines in the labour share of income in favour of a higher capital share may also be indicative of higher income inequality, with potential implications for fiscal policy.[20,21] Moreover, these considerations should be contextualised within existing evidence that higher-skill workers typically enjoy higher labour income shares than workers with relatively lower skills.[22] As such, besides the resulting productivity gains, continuous investment in the skill levels of Malta's workforce could also be a crucial tool to broaden the sharing of productivity gains and enhance workers' welfare.

[19] Bellocchi, A., Marin, G. and Travaglini, G. (2023). "The labor share puzzle: Empirical evidence for European countries", *Economic Modelling*, 124 (2023).
[20] Moreira, S. F. (2022). "Inside the decline of the labor share: Technical change, market power, and structural change", *Journal of Economic Dynamics and Control*, 145(3): 104566.
[21] Atesagaoglu, O. E., Yazici, H. (2021). "Optimal Taxation of Capital in the Presence of Declining Labor Share", *Bristol Economics Discussion Paper* 21/739, School of Economics, University of Bristol, UK.
[22] See footnotes 5 and 17.