Analysis

Services have driven the euro area economy, but productivity growth rests on a few industries

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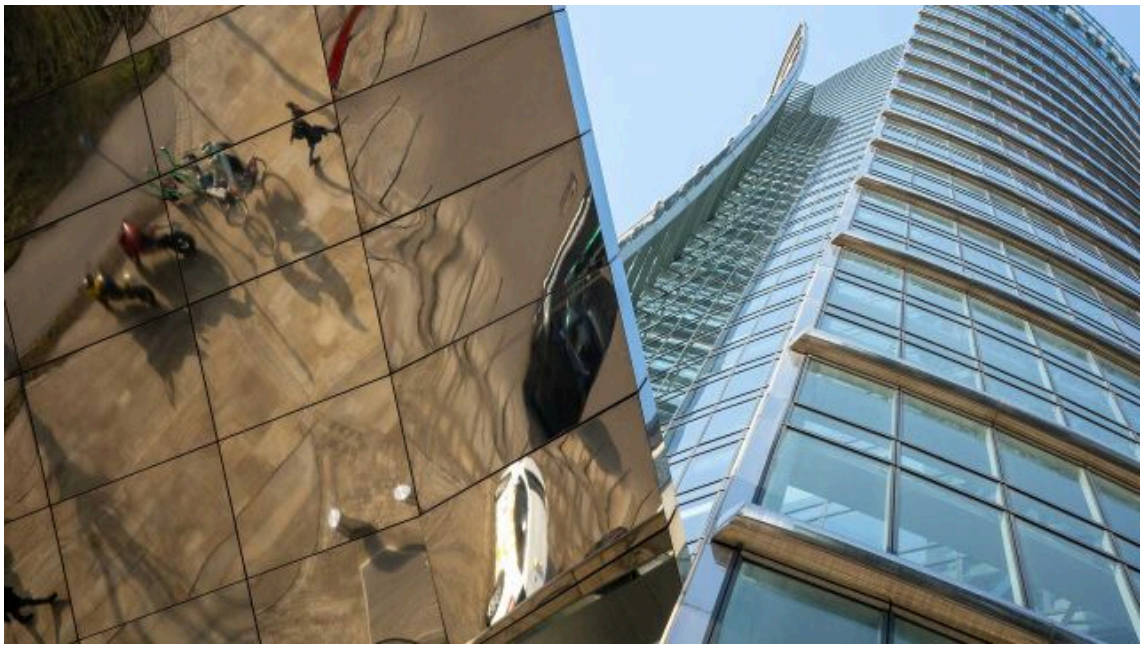


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Since the pandemic, economic growth in the euro area has been propelled almost entirely by the service sector. The growth in the service industries is attributable to the recovery from the pandemic and the steady increase in the service sector's role in the economy. There are considerable differences between the various service industries, however. The information and communications industries have grown strongly, while growth in the more traditional service industries is slow. The use of artificial intelligence and robotics would provide the euro area's service industries with an opportunity to improve productivity, but European companies are still lagging behind US companies in this area.

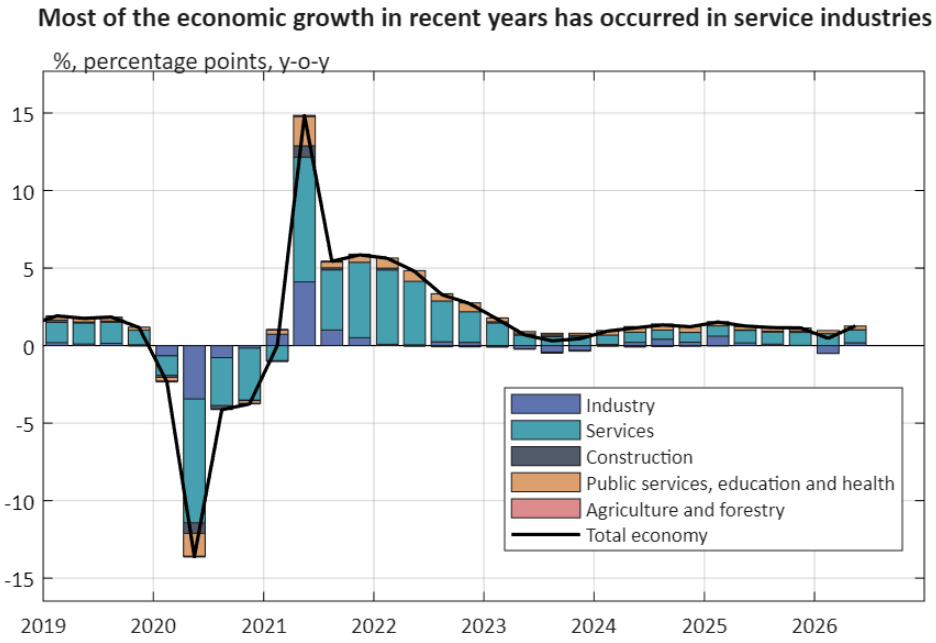
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- Growth in the euro area economy has been strongly focused on the service industries, particularly since the pandemic. Growth has been unevenly divided among the industries, however.
- Most of the economic growth in the service industries is focused on the information and communications industries and professional services.
- While extensive use of artificial intelligence and robotics would provide an opportunity to increase productivity in the euro area's service industries, European companies are lagging behind US peers, for example.



Since the recovery from the 2020 COVID-19 pandemic, economic growth in the euro area has largely emerged from the positive development of the services sector (Chart 1). The volume of GDP in the euro area has increased by an average of 1.3% annually since 2020. Of this, private service production has accounted for around 0.9 percentage points, and public services (including education and expenditures on social services and health care) have contributed an additional 0.2 percentage points. Growth in manufacturing, construction and agriculture and forestry, on the other hand, has been almost non-existent. In these, the value added in real terms is still the same as before the pandemic.

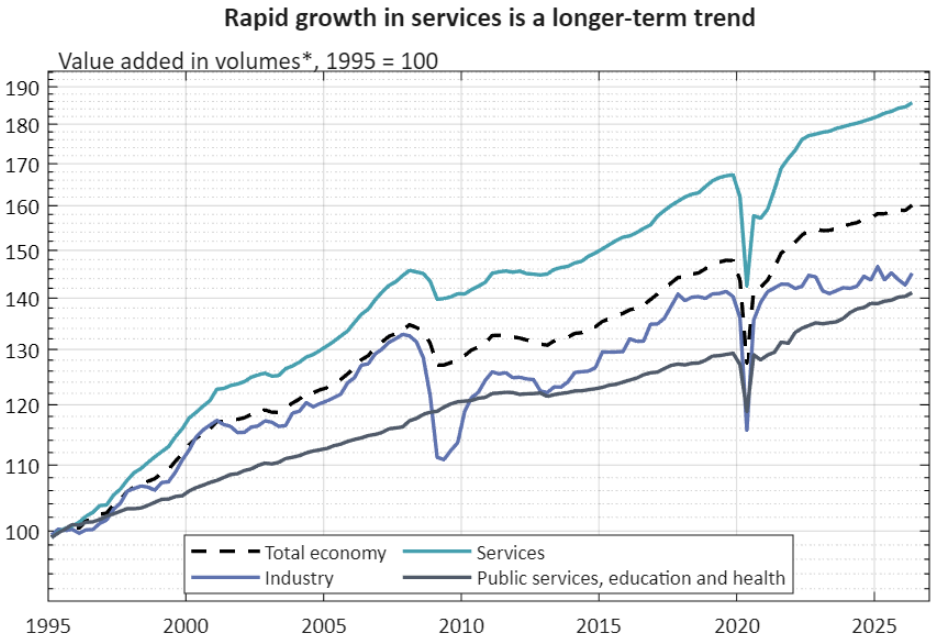
Chart 1.



Sources: Eurostat and calculations by the Bank of Finland.
Calculations based on National Accounts data.

Growth in the service industries, measured by real value added, has also been faster than in other industries in the longer term (Chart 2). After a rapid recovery, the volume of services has returned to its pre-pandemic trend (Chart 2). Service growth accelerated in 2021 and 2022 (Chart 1), when the restrictions imposed during the pandemic eased. There is no sign, however, of a long-term acceleration in service growth.

Chart 2.



Sources: Eurostat and calculations by the Bank of Finland.
*Real value added based on the National Accounts data.

Increasing role of service sector is reflected in structure of consumption and production

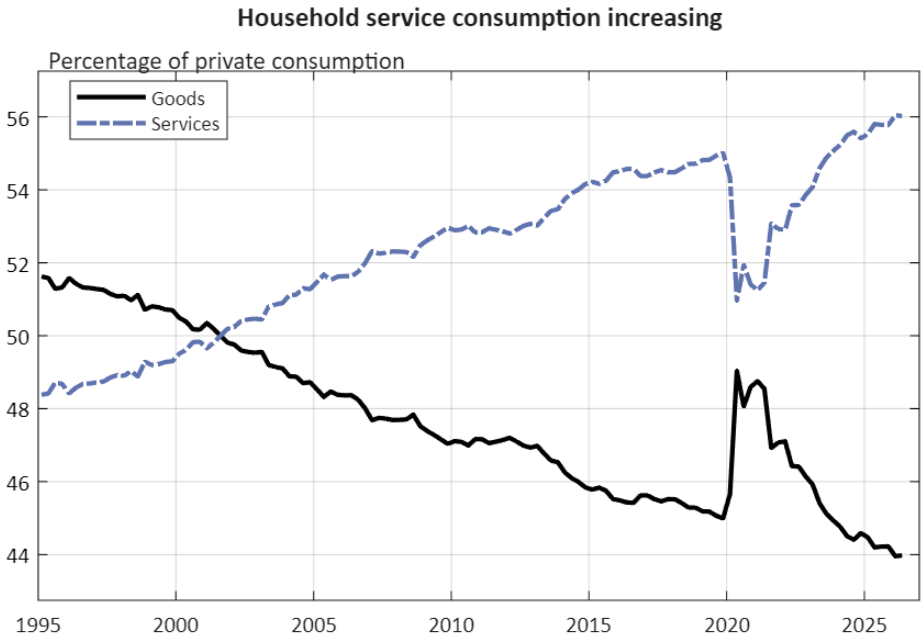
The rise in the value added of services is mainly related to the increasing role of the service sector in society, as the importance of services in both corporate production and household consumption is growing. To an increasing extent, companies have shifted from manufacturing goods to providing services, and they are also more often using services produced by other companies in their operations. Service exports from the euro area, particularly in telecommunications, computer and information services, have also grown strongly (Oinonen et al., 2026).[1]

The role of services in private consumption has also continued to increase in recent years (Chart 3). In the 1990s, the household consumption basket contained a larger proportion of goods than services. Nowadays, services account for 56% of household consumption in the euro area, while the share of goods has fallen to 44%. During the pandemic, consumption of goods increased temporarily, but the share of services in consumption quickly returned to even higher levels than before.

Possible explanations for the increase in the role of household consumption include the increase in household wealth, and rapid productivity growth in goods production, which has reduced the

prices of goods (Ledden, 2026). In addition, technological advances, particularly in the information industry, have led to the emergence of new services.

Chart 3.



Sources: Eurostat and calculations by the Bank of Finland.
Calculated based on the National Accounts data.

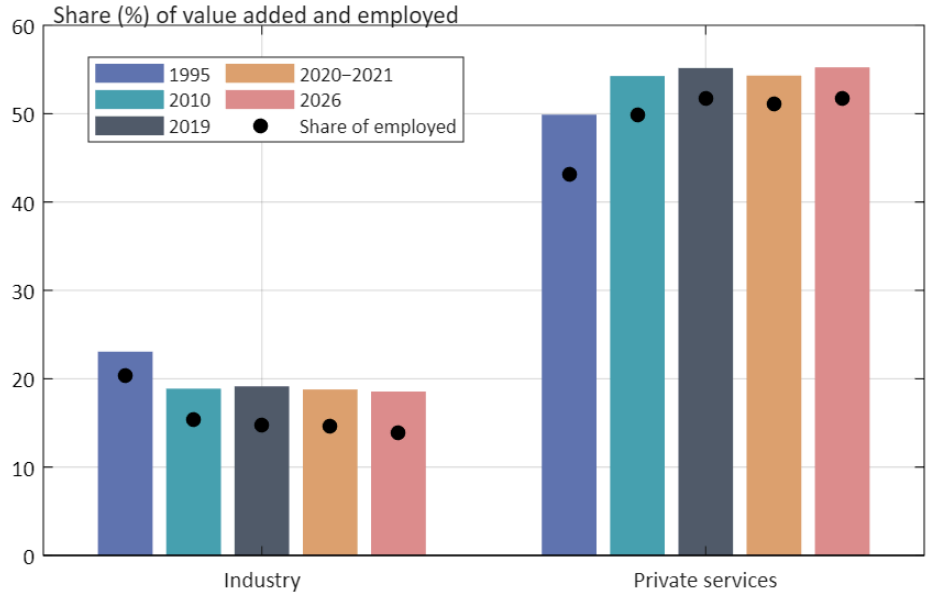
As a result of the higher volume of services produced in the euro area, the share of private service industries in the nominal value added of the euro area economy has increased from around 50% in 1995 to the current level of 55%, while the share of manufacturing has decreased steadily (Chart 4). After 2019, the pandemic caused the share of public services in value added in the euro area to increase substantially and, with businesses in lockdown, the share of manufacturing in value added also increased temporarily owing to a decline in use of private services. In recent times, however, private services' share of value added has returned to 2019 levels. On the other hand, the share of services in value added in the euro area has not increased further since 2019.[2]

The slower increase of the service sector's role in the euro area can also be seen in employment growth. The share of the labour force in the service industries has increased from around 44% in 1995 to the current 52% (Chart 4, dots). The share has not increased since 2019, however. In contrast, the share of the public sector and social welfare and health care services in the labour force has grown steadily. The increase in the share of the public sector differs from the United States, where employment growth has been heavily concentrated in private service sector jobs, even after the pandemic (Ledden, 2026). The disparity is partly attributable to health care mainly

belonging in the private sector in the United States.[3]

Chart 4.

Services' share of the economy's value added and employment has grown in recent decades



Sources: Eurostat and calculations by the Bank of Finland.
Share of nominal value added in the economy and of all employed persons.

Growth in services focuses on a few sectors

Services form a highly heterogeneous economic sector with activities ranging from labour-intensive health care, retail trade and food services to digital information and professional services (Sorbe, Gal and Millot, 2018). In addition, there are many special features associated with the production and consumption of services. Services are often intangible, and their production and consumption occur simultaneously. Their quality may vary depending on the customer and the situation, and output cannot usually be stored for later use. For example, in health care, education, accommodation and food service activities, and in various personal services, increased production typically also requires an increase in labour input. As a result, service production typically does not scale as easily and quickly as goods production. On the other hand, digital services, for example, can be provided to a large group of users without the need for labour input to grow at anywhere near the same proportion.

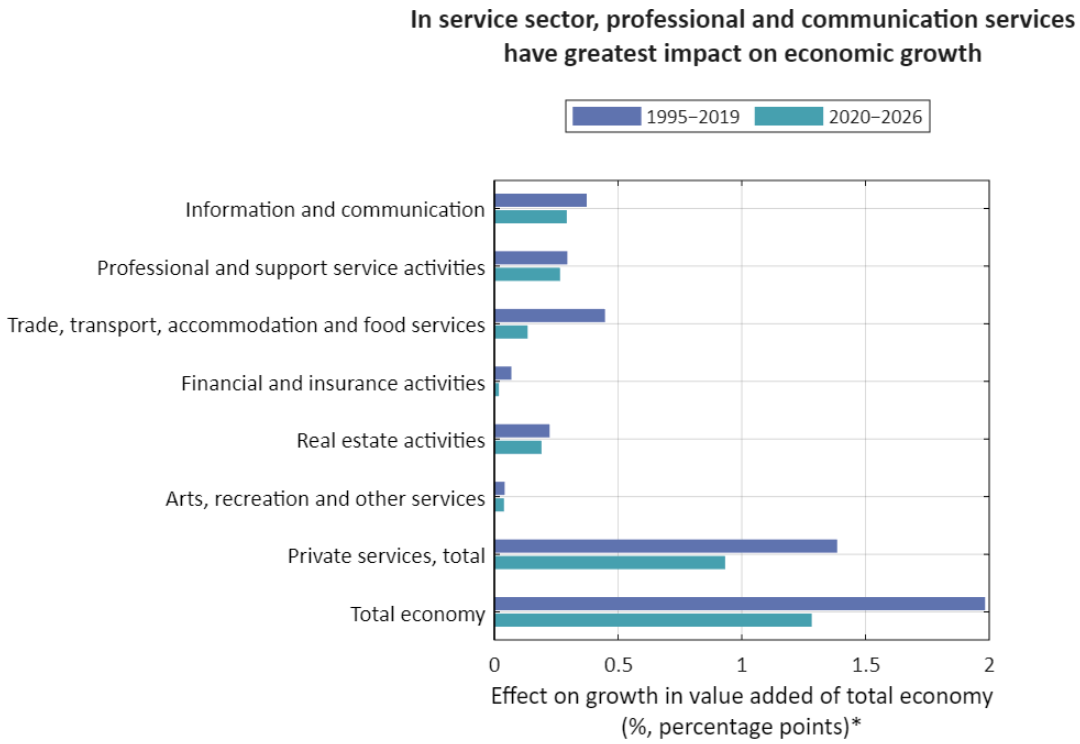
Due to these peculiarities, the increasing role of the service sector will have an impact on the development of economic output, productivity and employment. For example, in some service industries the scaling of production has traditionally been difficult, and it has been thought to slow

productivity growth, keep service companies smaller than manufacturing companies and reduce competition. The increase in the service sector's role may also change the responses of the entire economy to supply and demand shocks, as the service industries react to changes in the external environment differently than manufacturing companies, and in some service industries, prices are slow to change (see e.g. Corsello and Neri, 2026; Hauptmeier and Holm-Hadulla, 2023).

As services are very diverse, it is not possible to draw direct conclusions from the increased role of services in demand and production regarding its impact on, for example, productivity, employment and growth in the overall economy. Demand for labour and productivity also vary significantly between service industries. In 2025, the proportion of highly educated labour in the euro area's professional and information and communication services was nearly 70%. Numerous new duties have also been created in the industry. In the more traditional industries of retail trade, transport, and accommodation and food service activities, on the other hand, labour demand and productivity may differ from this considerably. In these sectors, for example, the share of highly educated employees is significantly smaller, at 20–25%.

Although economic growth in the euro area has largely been generated in the service industries, their growth rate has slowed in recent years. Growth is also not uniform between industries (Chart 5). A large proportion, nearly two thirds, of the post-pandemic growth in the production of services, has been generated by the information and communications industries and professional services, although the growth rate of these industries has also been slightly lower than before the pandemic. During the opening of the economy following the pandemic, demand increased significantly in transport and in the accommodation and food service industries, but these industries account for only a small share of the growth in recent years.

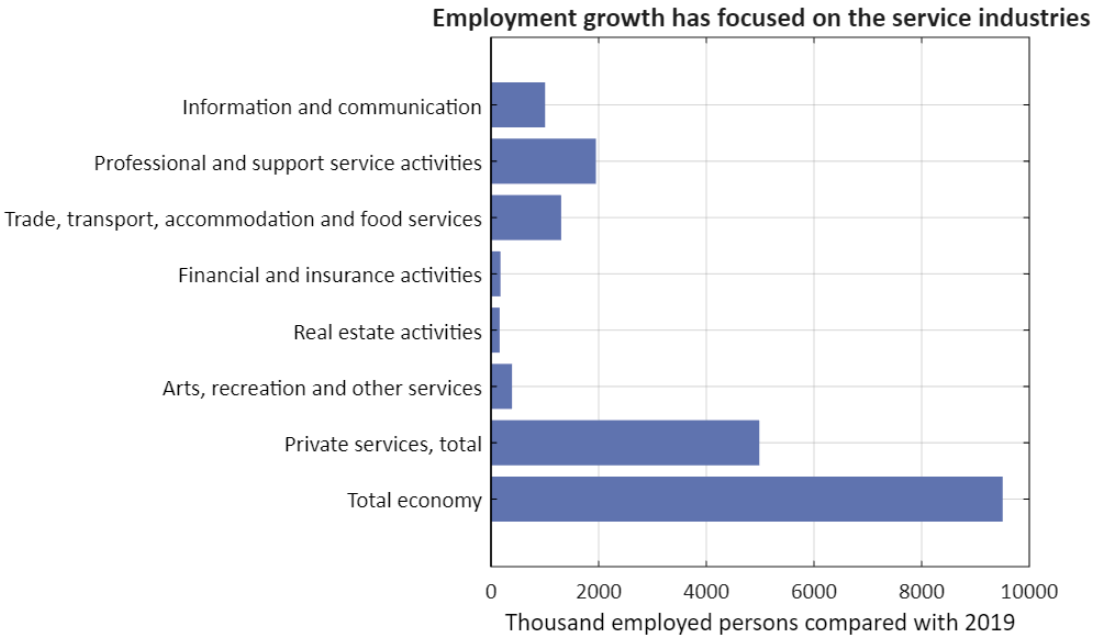
Chart 5.



Sources: Eurostat and calculations by the Bank of Finland.
*Average contribution to annual growth of the overall economy's real value added.

The growth in service-sector employment accounts for a significant share of the post-pandemic employment growth. The number of people employed in private service industries has increased since 2019 by around 5 million, which accounts for around half of the total employment growth of nearly 10 million in the euro area (Chart 6). Particularly in 2021–2023, jobs were created in the retail trade, transport and accommodation and food service industries. During this period, companies also reported a shortage of labour in the service industries.[4] Since 2023, growth in demand for the most traditional service industries has levelled off, and growth continues to be driven by professional services and the information and communications industries, where roles typically require higher education. Since 2019, more than 3 million new jobs have been created in these industries. In other service industries, employment growth has been subdued.

Chart 6.



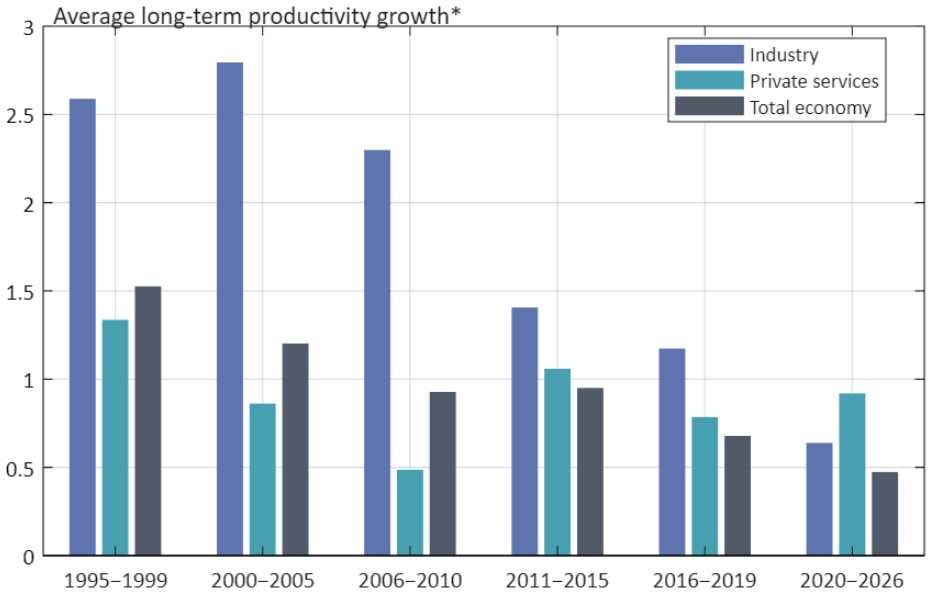
Sources: Eurostat and calculations by the Bank of Finland.
Calculated based on employed persons according to National Accounts data

Productivity growth in the euro area heavily relies on the information, communications and professional services industries

The increasing role of the service sector has been regarded as one of the factors behind the slower productivity growth of the economy, as the special features of services are thought to easily lead to slow productivity growth (see e.g. Sorbe et al., 2018). Indeed, in the long term, productivity growth has been slower in the service sector than in manufacturing (Chart 7). The productivity of manufacturing developed particularly rapidly in 1995–2010. At the time, annual productivity growth in manufacturing was as much as 2 percentage points faster than in the service sector. Although productivity growth in manufacturing has slowed since then, it was faster than in the service sector until 2019. In the euro area, productivity growth in the service sector has remained weak on average (Chart 7), although in recent years it has accelerated slightly, even overtaking manufacturing. Due to the weak growth in both manufacturing and services, productivity growth in the economy as a whole has been slow in the years following the pandemic.

Chart 7.

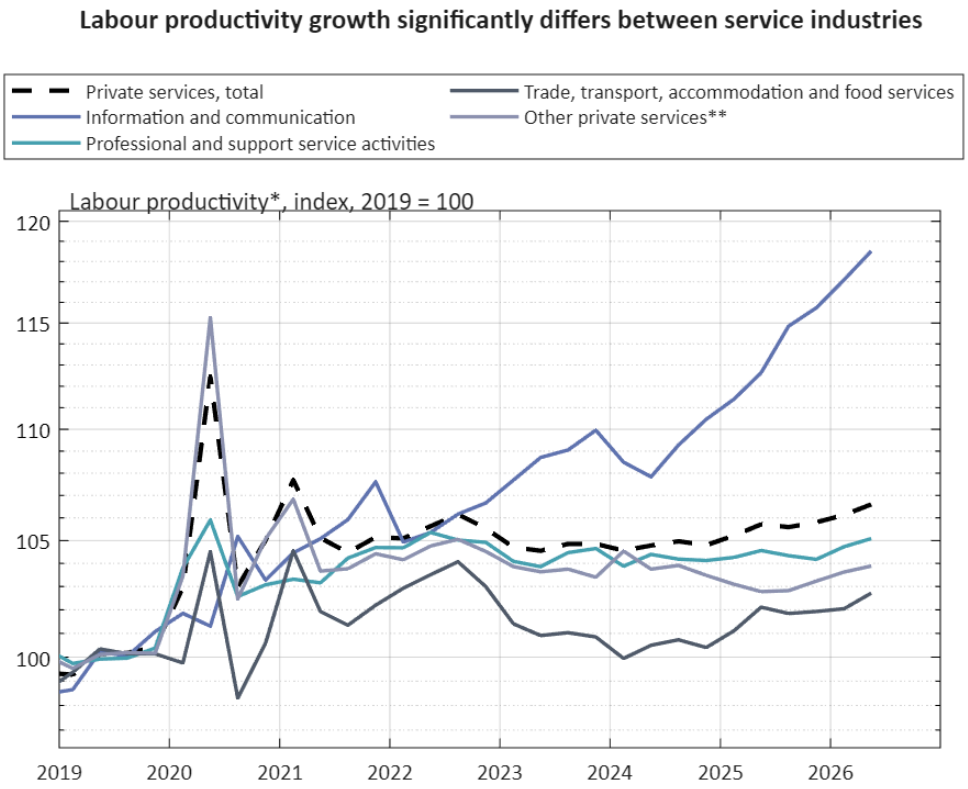
In the long term, productivity growth has been slower in services than in industrial production



Sources: Eurostat and calculations by the Bank of Finland.
*Average productivity growth (annualised) during the period.

There are significant differences, however, in the productivity development of different service industries. In most service industries, labour productivity has hardly grown since 2019 (Chart 8). The only industries in which productivity growth has been particularly rapid is the information and communications industries[5], where productivity has increased by nearly 20% compared with 2019. These industries are often highly scalable: once developed, software, digital content or information services can be duplicated at almost no additional production cost.

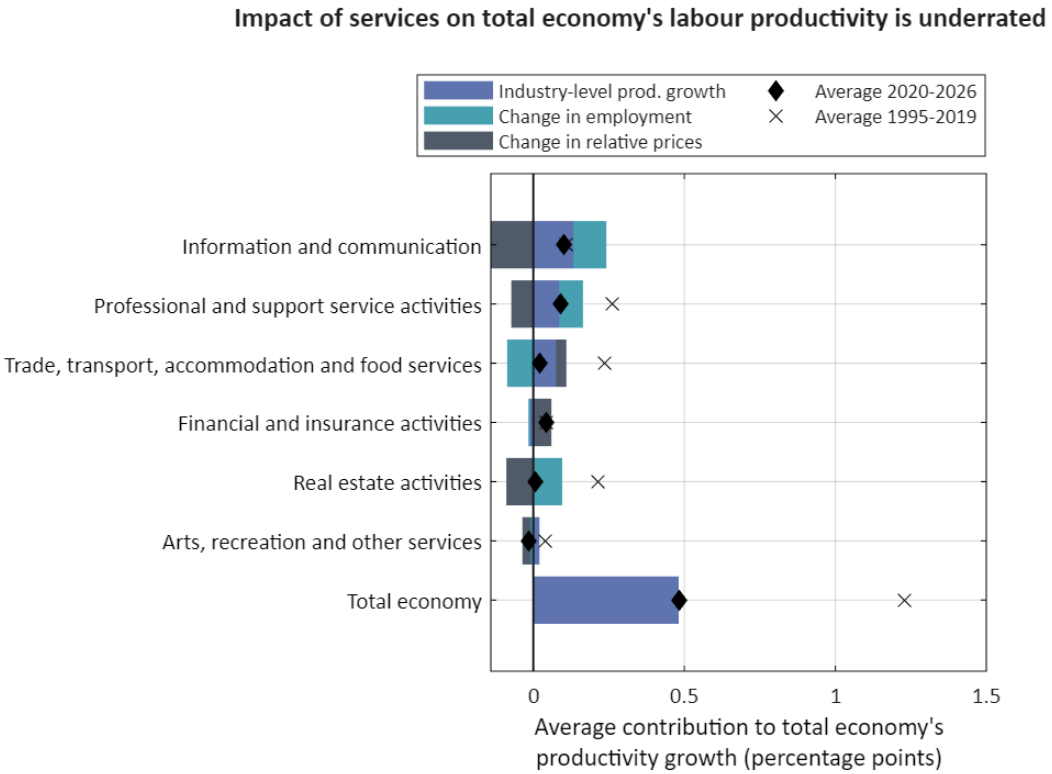
Chart 8.



Sources: Eurostat and calculations by the Bank of Finland.
*Productivity per hour worked, calculated based on National Accounts data.
**Financial, insurance and real estate activities, and art, recreation and other activities.

In practice, productivity growth in the entire service sector and in the economy as a whole has been generated in recent years in the information and communications industries and, to some extent, in professional services (Chart 9). Productivity growth in the overall economy consists of productivity growth in various industries and their relative position. Productivity growth can thus be broken down into three factors: productivity growth within an industry, impact of changes in the employment rate, and impact of changes in relative prices. In other words, the productivity of the overall economy will increase if productivity increases within an industry, when the number of hours worked increases in relative terms in productive industries, or when productive industries raise their prices more in relative terms. This will increase their share of the value added and the productivity of the overall economy.

Chart 9.



Sources: Eurostat and calculations by the Bank of Finland.
Calculated using industry-level National Accounts data. All categories except 'Total economy' show contributions to average annual productivity growth in the total economy (percentage points).

The euro area economy's annual productivity growth in 2020–2026 has remained at just under 0.5% on average (Chart 9, diamond shapes), which is significantly lower than the average in 1995–2019 (1.2%, indicated in the chart with crosses). Productivity growth has also slowed in all sectors from previous levels. The service sector, however, is responsible for over half of the productivity growth in the overall economy in 2020–2026.

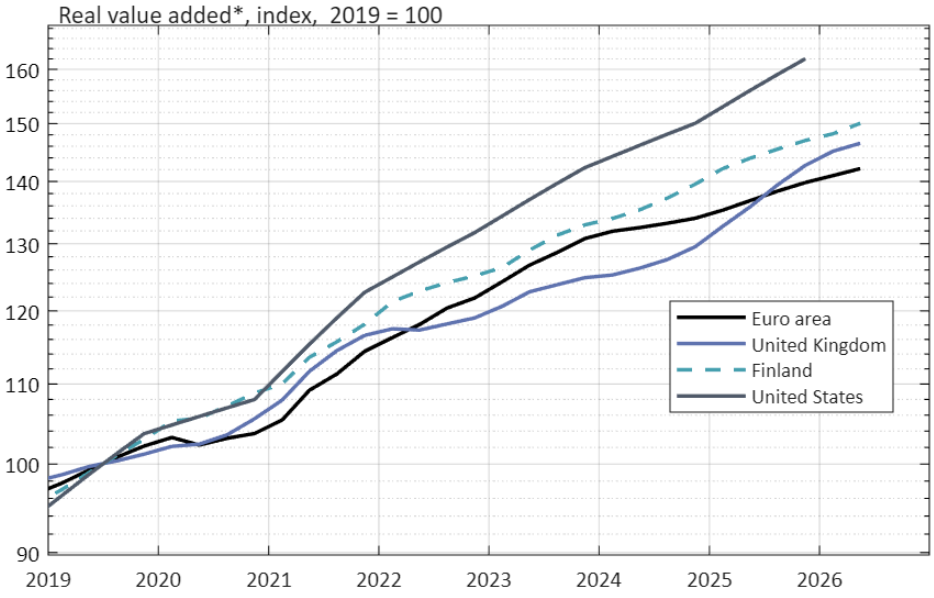
The information and communications industries and professional services, in particular, are important for productivity growth in the entire euro area (Chart 9, diamond shapes). Productivity growth has been rapid in these industries (Chart 8 and Chart 9, blue bars). At the same time, employment in these high productivity industries has increased substantially (Chart 6). Thus, the productivity of the economy as a whole has increased, as labour has also migrated to these industries (Chart 9, green bars).[6] The information industries also play a major role in productivity growth in the United States, where they account for some 45% of the productivity growth in the economy as a whole over the past 45 years (David et al., 2025).[7]

AI would provide an opportunity for a broader productivity leap in services

Although the information and communications industries are key to the euro area's recent productivity and economic growth, their output has fallen behind the output of these industries in the United States and the United Kingdom, for example (Chart 10). In the United States, in particular, the value added generated by the information and communications industries has grown rapidly in recent years. Compared with 2019, the increase in value added in the United States has exceeded that of the euro area by more than 20%.

Chart 10.

Value added of information and communication services in the euro area has fallen behind the United States



Sources: Eurostat, ONS, BEA and calculations by the Bank of Finland.
*Real value added in the information and communication services, calculated based on National Accounts data.

The development and use of new digital technologies such as artificial intelligence could boost growth in the information and communications industries in the euro area. The industries would then be able to produce more digital services for other companies, potentially also bringing productivity benefits to the wider economy.

New technologies, in particular, could contribute to productivity growth in the services sector. In fact, artificial intelligence has been found to have a stronger impact in the services sector and on highly educated employees than in manufacturing (Gmyrek et al., 2023; Peltonen and Silvo, 2025; Pizzinelli et al., 2023). Based on the European Investment Bank's Investment Survey 2025, the use

of artificial intelligence also seems to extend to the service industries, as according to the survey 36% of service companies reported using generic artificial intelligence, which is very close to the corresponding figure for manufacturing companies (38%).

Artificial intelligence and robotics provide an opportunity to break down several barriers that have traditionally restricted productivity growth in the service industries (Gmyrek et al., 2023; Sorbe et al., 2018). They can be used to automate an increasing proportion of routine tasks in data processing and administration, as well as customer contacts and advisory services, which are particularly common in the service industries.[8] The productivity dynamics of some service industries may therefore start to resemble digital goods production more than traditional labour-intensive services. The introduction of artificial intelligence can also create completely new professions and industries (Peltonen and Silvo, 2025).

The magnitude of the impact of artificial intelligence on economic growth remains uncertain, however (Parviainen, 2025). The adoption of artificial intelligence is still difficult to detect in euro area economic statistics.[9] Intangible investment in the euro area has not accelerated in recent years. European service companies reported only a slight increase in intangible investment on the previous year.[10] According to the OECD (2026), private equity investment in AI companies and AI-related patent applications have also grown significantly more slowly than in the United States.

On the other hand, according to the European Investment Bank (2025), companies in Europe have adopted artificial intelligence and innovations related to other new technologies almost as often as in the United States. This gives cause for optimism that productivity growth will spread to European companies as well. There is a concern, however, that companies in the United States seem to have adopted artificial intelligence in various functions more broadly than European companies. In addition, according to Dúrre and Camatte (2026), investment in new innovations by European small businesses is low. Indeed, investment growth is heading in the right direction, but more extensive investment in new technologies would boost the productivity gains brought by new technologies.

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Notes

1. The majority of the euro area's exports of telecommunications, computer and information services are service exports via Ireland. ↑

2. Although the production volumes of the service industries have grown, the prices of services relative to the prices of other industries have not increased. The growth in the share of value added in services has therefore remained more moderate. In the information and communications industries, in particular, good productivity growth has been combined with a sharp decline in relative prices. ↑

3. In the United States, the number of private social and health care jobs has grown by more than 3 million since 2019, accounting for around half of the private employment growth from 129 million before the pandemic to 136 million. ↑

4. The Commission measures the labour shortages of companies by asking whether a shortage of professional labour is hindering the company's sales. In mid-2023, as many as 35% of service companies reported labour shortages based on this question. In mid-2026, the figure had returned to the pre-pandemic figure of around 20%. ↑

5. In the information and communications industries, measuring productivity can be challenging, particularly in relation to changes in the quality of services and the related price measurement. ↑

6. However, as prices in these industries have increased more slowly than in the total economy, the overall impact of services on productivity is smaller (Chart 8, grey bars). ↑

7. The analysis by David et al. (2025) is not limited to information and communication services, however, as their definition of the IT sector also includes the manufacture of computers and other electronic products. ↑

8. New technologies can increase the scalability of some services by enabling the provision of, for example, customer service, professional services, advisory services and knowledge-intensive services to many users without a corresponding increase in labour input. ↑

9. However, activity related to artificial intelligence is reflected to some extent in digital services, corporate investment and exports (see Lagarde, 2026). ↑

10. See the investment survey of the European Commission's Business Survey for April 2026. ↑

Keywords

euro area, services, value added