Warning

Some estimated coefficients in the equations shown in Box 1 were corrected on 23/01/2025; these corrections do not affect Figure 4.

European household savings ratios have increased since 2019 but the factors contributing to this rise would partially reversed in 2025

In the four main Eurozone economies, the savings ratio at the beginning of 2024 was higher than before the health crisis. In France, Germany and Spain, this drop in the proportion of income consumed is not explained by the more traditional determinants (mainly purchasing power and unemployment rate). In addition, apart from Italy and, to a lesser extent Spain, it is not accompanied by increased investment in housing: these excess savings are therefore of a financial nature. There are several factors that can account for this.

One series of possible explanations arises from the episode of high inflation that occurred in Europe in 2022 and 2023 and the resulting behaviour shown by households. This has certainly left its mark. On the one hand, household perceptions take some time to adjust to actual price changes, which is likely to increase their savings ratio temporarily in a period of disinflation. On the other hand, high inflation may have pushed households to save more in order to maintain their "real cash holdings", i.e. the real value of their financial assets, which had been undermined by the sharp rise in prices over the previous two years. Additionally, the rise in interest rates limited households' access to consumer credit. Finally, the link between excess household savings and the financial situation of the Eurozone Member States and the existence of "Ricardian" effects is not easy to establish on the basis of past behaviours. However, in Germany and France, the political uncertainty of 2024 could be such as to give rise to a certain wait-and-see attitude among households, thus encouraging savings behaviour.

A second type of possible explanation can be put forward, concerning changes in the demographic structure in Europe and fluctuations in the composition of income since the health crisis. The aging population seen in the Old Continent results in a decrease in the youngest age groups, who have a low propensity to save. This is an underlying trend, however, unlikely to account for a fairly sudden shock to the savings ratio occurring over just a few quarters. There are other factors that have changed more rapidly. Thus the change in the composition and distribution of income since the inflationary shock has favoured saving behaviour: gains in purchasing power have been driven notably by wealth income, which is more likely to be put into savings and is concentrated in the wealthiest households, who save more.

Finally, the increase in the savings ratio can be explained temporarily when households no longer favour certain products: energy expenditure in particular has been falling since 2019, as a result of households' energy-saving behaviour, while the sluggishness of the European automobile market against a backdrop of technology transition is fuelling a certain wait-and-see attitude and affecting the consumption of durable goods.

Some of these phenomena seem to be temporary by nature: inflation is returning to normal, household perceptions are adjusting, and consumer credit rates are falling. In addition, income is now driven more by wage income, which is more likely to be consumed than income from assets. On the other hand, some factors persist: the wait-and-see attitude does not seem to have been lifted in the automobile market and the real value of households' financial assets remains below its earlier trend, even though it is picking up a little. These factors suggest a forecast of a moderate decline in the savings ratio, but it is nevertheless likely to remain higher in the medium term than its level before the health crisis.

Émilie Cupillard, Enzo Iasoni, Alexandre Simcic

In the four main Eurozone economies, the mid-2024 household savings ratio was between 2 and 5 points above its average in the 2010s

Since the 2000s and until the end of the 2010s, the savings ratio, defined as the unconsumed share of households' gross disposable income, has remained remarkably stable both in France and Germany, fluctuating around 15 and 17% respectively. In Italy, this unconsumed share of income tended to decrease at the beginning of the 2010s, dropping from 16 to 11%, but stabilised at a little below 11% between the middle of the decade and 2019. In Spain, the savings ratio has historically fluctuated more from quarter to quarter but after a significant rise in the wake of the 2008 crisis, which saw it reach over 12%, it fell during the 2010s, to an average of 8% across the decade.

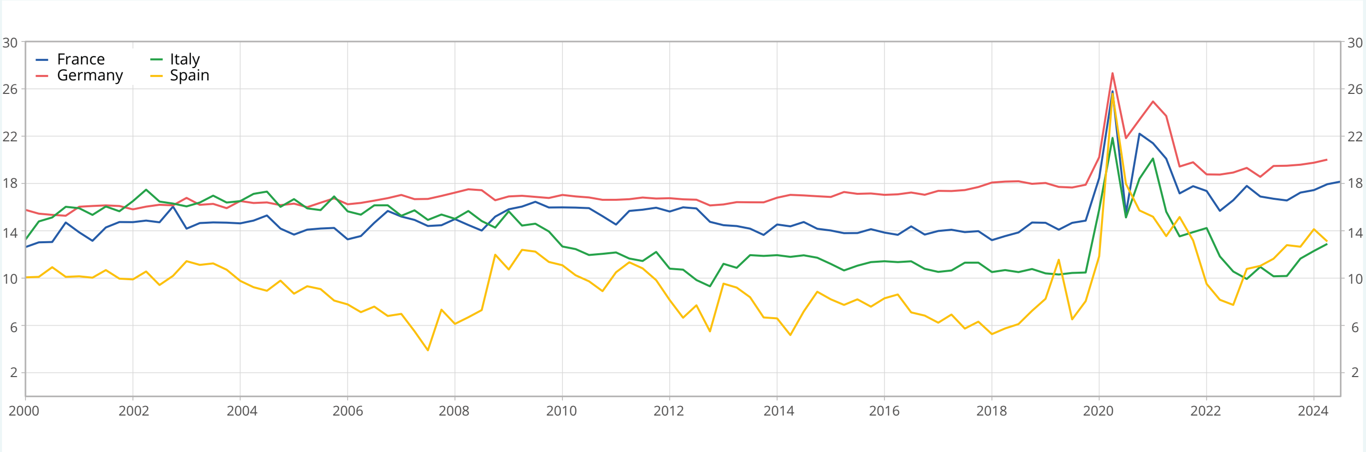
In all four countries, the health crisis resulted in a sharp increase in household savings in 2020 and 2021: in fact, the periods of administrative restrictions effectively limited consumption while incomes were partly protected by government intervention, mainly through the implementation of short-term working schemes. Mid-2022 in Spain and Italy saw the savings ratio return to levels close to those preceding the health crisis, but it has since started to rise again and reached around 13% in spring 2024 in both these countries, i.e. respectively 5 and 2 points higher than their average in the 2010s (► **Figure 1**). In France and Germany, the household savings ratio certainly declined during 2021, but it has never returned to its average in the 2010s and exceeded it by more than three points at mid-2024.

In France, Germany and Spain, the most traditional determinants of consumption cannot account for its relative sluggishness compared to purchasing power

In the four economies considered here, the purchasing power of households' gross disposable income in Q2 2024 was significantly above its 2019 level, generally following its pre-health crisis trend (▶ Figure 2) – except in Italy, where it was relatively stable in the late 2010s and has picked up substantially since the start of 2023. The unemployment rate was below its 2019 level in France, Spain and Italy and remained at a contained level in Germany (▶ Figure 3). These economic variables are among the most important determinants of household consumption: Keynesian theory suggests in the long term a unitary indexation of consumption to purchasing power, and an increase in the unemployment rate traditionally leads to households building up precautionary savings. For example, this is the model selected for the last version of the Mésange model (▶ Bardaji et ali, 2017): in the long term, consumption is indexed unitarily to purchasing power, while in the short term variations in the unemployment rate and real interest rates also intervene. ▶ Boissinot (2004) also notes that among the variables likely to account for changes in household consumption and savings ratio, only changes in the purchasing power of disposable income, interest rates and inflation have achieved consensus among economists.

▶ 1. Savings ratio of households' gross disposable income

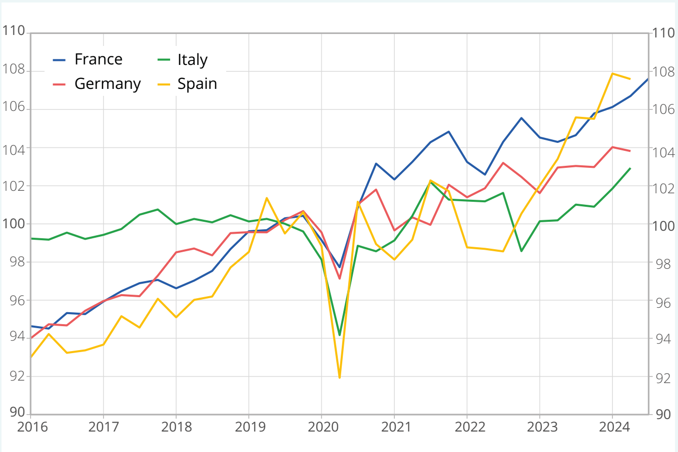
(in % of gross disposable income)



Last point: Q3 2024 for France, Q2 for other countries.
Note: for Germany, Italy and Spain, the savings ratio shown corresponds to the savings ratio of households and NPISHs.
How to read it: in Q3 2024, the household savings ratio stood at 18.2% of their gross disposable income.
Source: INSEE, Destatis, Istat, INE, INSEE calculations.

▶ 2. Purchasing power of household income

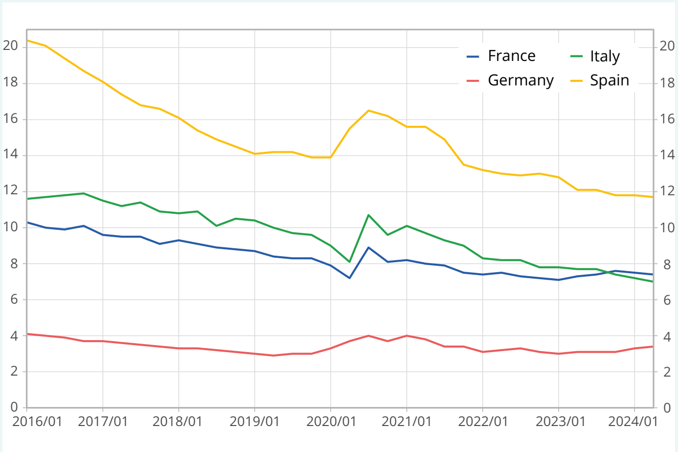
(base 100 in 2019)



Last point: Q3 2024 for France, Q2 for other countries.
Note: purchasing power is defined as households' gross disposable income deflated by household consumer prices. For Germany, Italy and Spain, the purchasing power shown corresponds to the purchasing power of households and NPISHs.
How to read it: in Q3 2024, the purchasing power of French households was 7.6% below its 2019 level.
Source: INSEE, Destatis, Istat, INE, INSEE calculations.

▶ 3. Unemployment rate

(in % of working population)



Last point: Q2 2024.
How to read it: Q2 2024, in Germany, the unemployment rate was 3.4%.
Source: Labour Force Survey, Eurostat.

The effect of inflation is theoretically indeterminate (▶Howard, 1978): on the one hand, it may encourage purchases of goods and services to the detriment of monetary holdings (flight from money) and thus have a favourable impact on consumption in the short term, especially in the event of high inflation; on the other hand, it may cause households to save in order to maintain the purchasing power of their financial assets, or at least of their monetary holdings.

These variables can be combined in a simple behavioural model: in the long term, consumption is indexed unitarily to purchasing power, while in the short term, variations in unemployment and inflation also play a role (▶Box 1). For France, Germany and Spain, a simple model of this kind can explain only part of the increase in savings ratio since the end of the crisis (▶Figure 4).

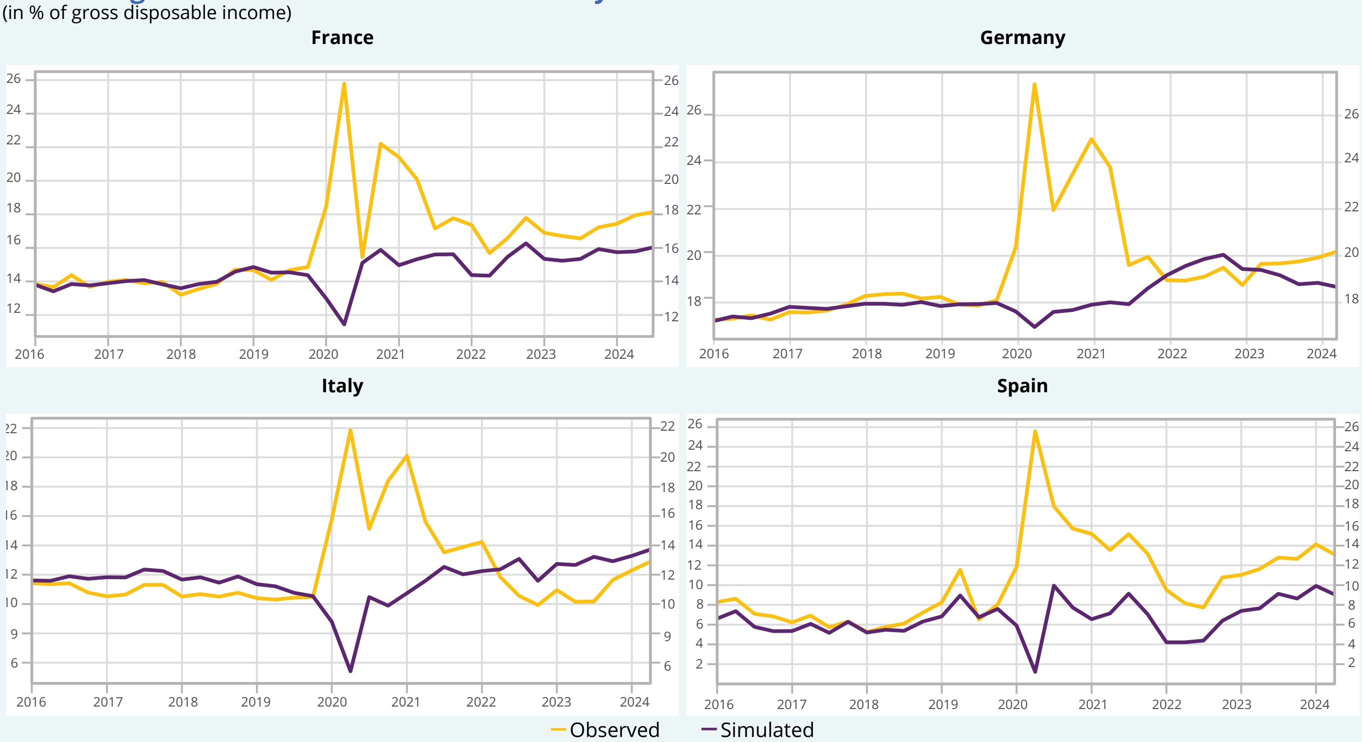
In France, the model accounts for about half of the increase in the savings ratio: it stands at about 1.5 points above its level as modelled between early 2022 and late 2023. The simulated rise in the savings ratio comes almost entirely from inflation: in the short term, this may reflect, at least in part, real cash effects, highlighted on the basis of past fluctuations. On the other hand, the continued increase in the savings ratio in 2024 is not explained by the model: with disinflation, the model suggests instead a decrease in the savings ratio.

In Germany, the savings ratio returned to a level in line with its determinants in 2022. However, since the beginning of 2023, it has started to grow again, which the usual determinants are unable to account for. At the beginning of 2024, the simulated ratio was 1 point lower than the observed ratio: half of the increase over the period was due to the dynamism of inflation. It was in Spain that the gap between the simulated savings ratio and the observed ratio was greatest: this gap has been relatively constant since mid-2022, fluctuating between 3 and 4 points. Finally, Italy is the exception: the rise in the savings ratio at the end of 2023, at the same time as a sharp increase in purchasing power, is well demonstrated in the model, suggesting that it corresponds to a consumption smoothing behaviour on the part of households.

In France and Germany, this increase in savings is not accompanied by a rise in household investment

The unconsumed portion of households' gross disposable income is made up in part of their reported expenditure on investments: purchase of new housing, major maintenance and improvements to housing, agency and notary fees incurred when purchasing second-hand housing. Thus, a particularly pronounced increase in household investment over the recent period could account for the increase in savings ratio.

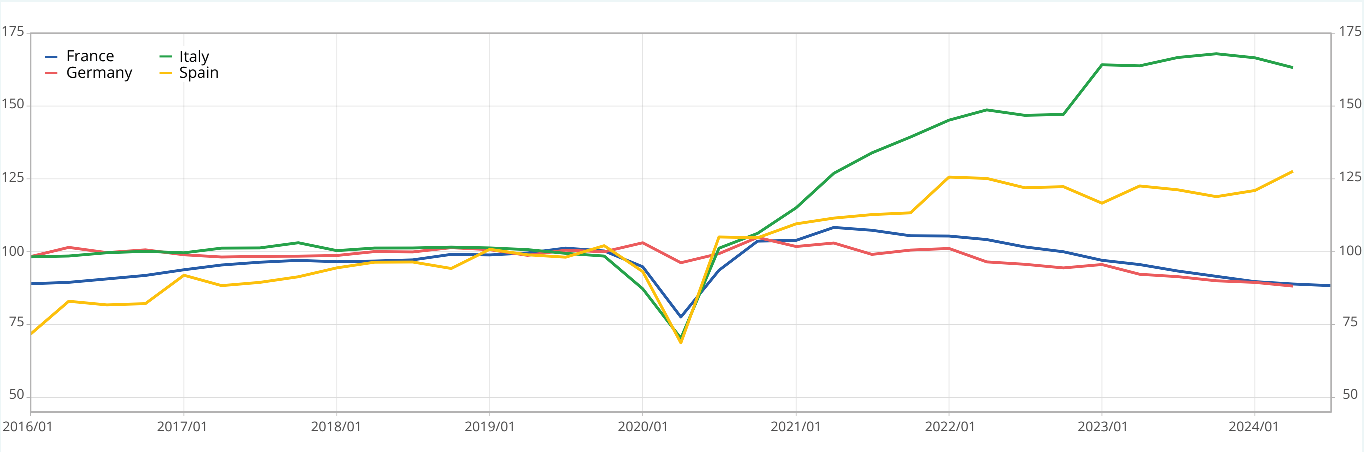
▶4. Savings ratios observed and simulated by error correction models
(in % of gross disposable income)



Last point: Q3 2024 for France, Q2 for other countries.
Note: for Germany, Spain and Italy, the savings ratios shown correspond to the savings ratios of households and NPISHs. The characteristics of the models (estimation period, variables selected, etc.) are presented in Box 1.
How to read it: in the third quarter of 2024, the savings ratio of French households was 18.2% of their gross disposable income, whereas the model forecast a savings ratio of 16.1%.
Source: INSEE, Destatis, Istat, INE, INSEE calculations.

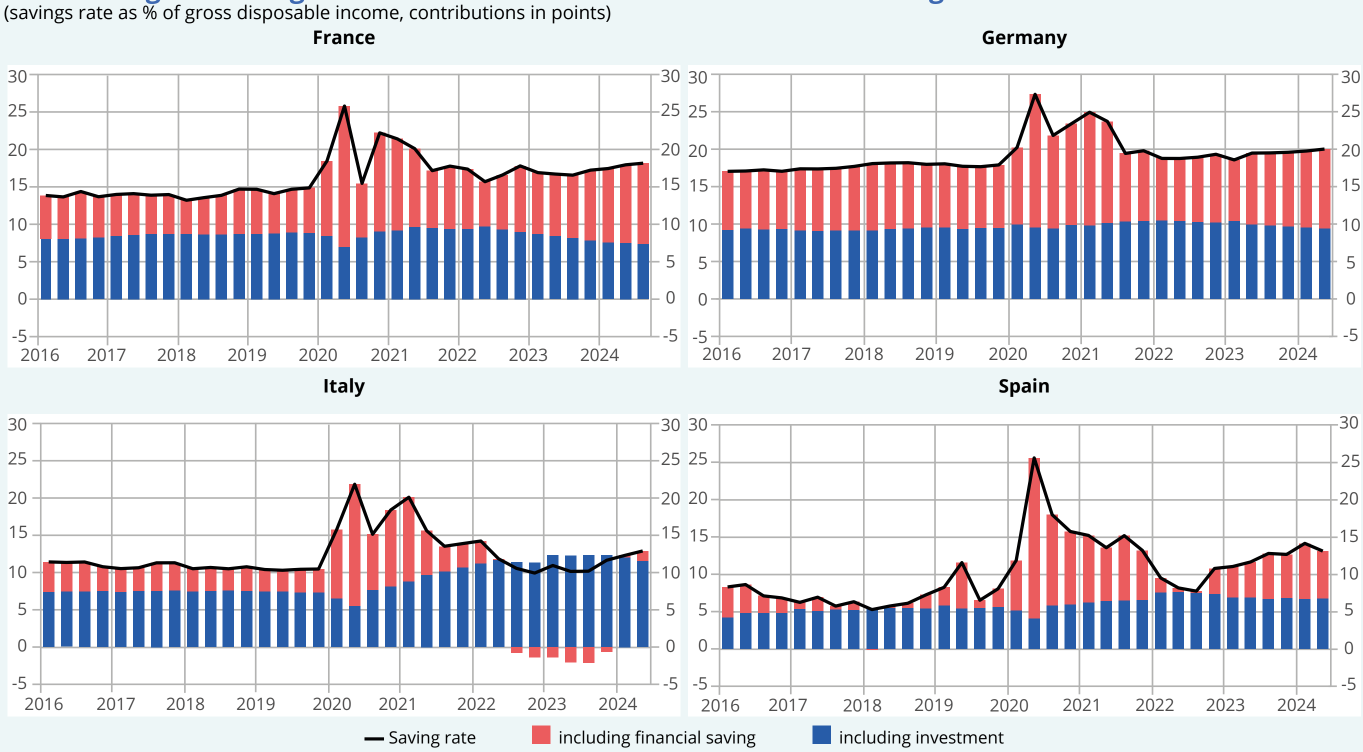
In France and Germany, however, household investment by volume has been in sharp decline since the end of the health crisis: in Q2 2024, in both countries, it stood at about 12% below its 2019 average (►Figure 5). Even taking the buoyancy of prices into account, the increase in the unconsumed share of household gross disposable income in these two countries is not driven by an increase in their investment by value (►Figure 6) but rather corresponds to an increase in financial savings. In Spain, household investment in 2024 significantly exceeded its 2019 average, standing at 28% above this level in Q2. Part of the increase in the savings ratio (just over a quarter) therefore comes from the increase in investment and not from financial savings. Finally, in Italy, household investment has soared since 2019, boosted by schemes to aid investment (especially the "Superbonus" scheme) which have driven activity since the health crisis, and now absorb all household savings.

►5. Household investment by volume
(base 100 in 2019)



Last point: Q3 2024 for France, Q2 for other countries.
Note: for Germany, Italy and Spain, the aggregate is constructed from the GFCF of households and NPISHs by value, deflated by the price of the GFCF in construction over the whole of the economy.
How to read it: in Q3 2024, household investment in France was 11.6 points below its 2019 level.
Source: INSEE, Destatis, Istat, INE, INSEE calculations.

►6. Sharing the savings ratio between investment and financial savings
(savings rate as % of gross disposable income, contributions in points)



Last point: Q3 2024 for France, Q2 for other countries.
Note: for Germany, Italy and Spain, the savings ratios shown correspond to the savings ratios of households and NPISHs.
How to read it: in Q3 2024, the savings ratio of French households was 18.2% of their gross disposable income, and financial savings contributed 10.8 points.
Source: INSEE, Destatis, Istat, INE, INSEE calculations.

International economic outlook

Households take time to perceive the rise in inflation

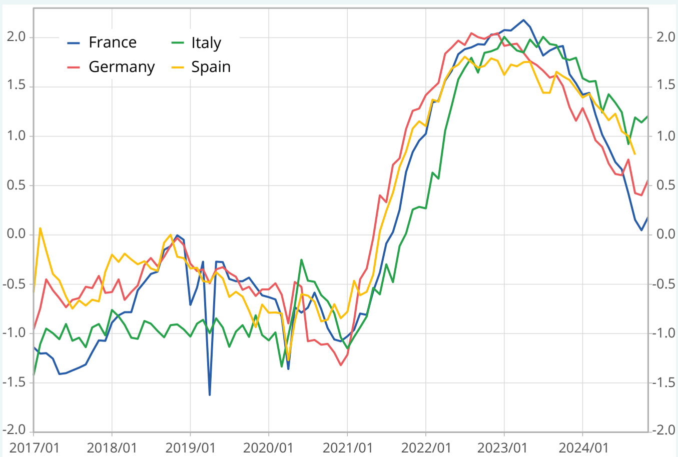
The difficulty that the econometric models have had in tracking changes in savings in France, Germany and Spain in 2024 could be linked in part to the gap between the observed level of inflation and households' perception of this inflation. Even though inflation has returned to its 2019 average, or even slightly below, the balance of opinion of households on change in past prices is slow to return to its long-term average in the four main Eurozone economies (►**Figure 7**). This is also the case at the level of the Eurozone as a whole, with regard to the quantitative estimate of inflation felt by households (►**RESF 2025**). This gap in perceptions is nevertheless in the process of narrowing, which could favour a future drop in savings ratios. However, expectations of inflation seem to have increased for the long term after the inflationary episode: the equilibrium level of the savings rate could be higher than before the health crisis (►**Box 2**).

Looking beyond perceptions, the sharp rise in interest rates over the last three years has seriously undermined households' access to consumer credit

In the four main Eurozone economies, interest rates on consumer credit were still well above their pre-health crisis levels in mid-2024 (►**Figure 8**). Consumer credit volumes have not returned to their 2019 level, except in

►7a. Perceptions of past prices over the last 12 months in the Eurozone

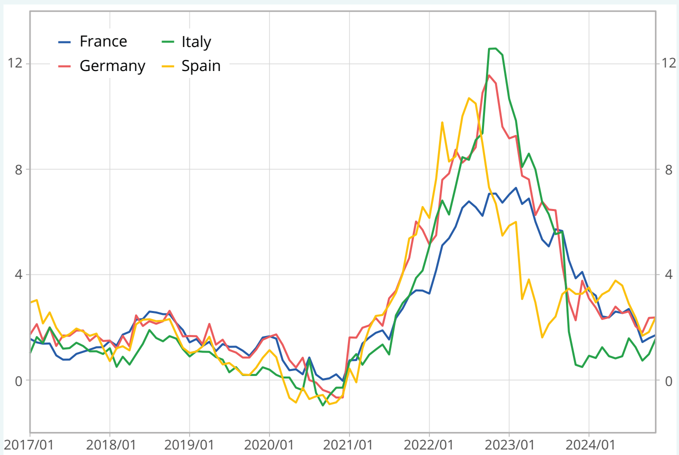
(centred reduced balance)



Last point: november 2024.
How to read it: in France, in november 2024, the centred reduced balance of households' perception of price changes over the last 12 months was 0.2 standard deviations above its long-term average (average for the period January 2005 to September 2024).
Source: DG ECFIN, INSEE calculations.

►7b. Comparison of inflation (within the meaning of the HICP) in the Eurozone

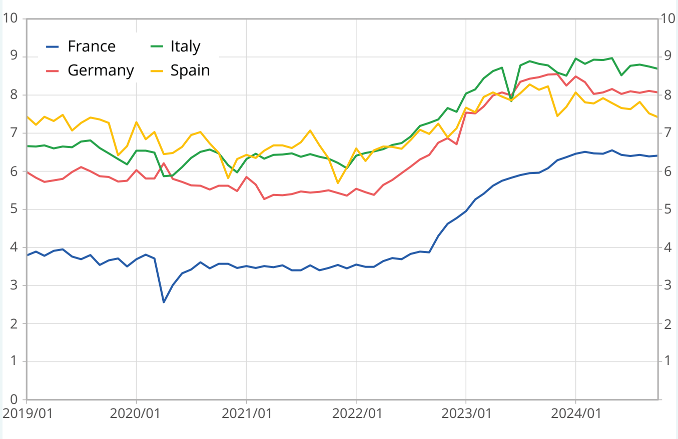
(year-on-year % change)



Last point: november 2024.
How to read it: in november 2024, inflation in France within the meaning of the HICP was +1.7% year on year.
Source: Eurostat, INSEE calculations.

►8. Consumer credit interest rates

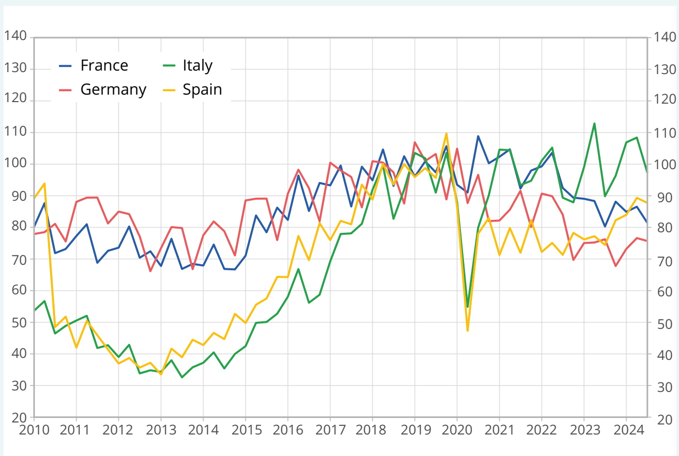
(in %)



Last point: october 2024.
How to read it: in octobre 2024, the consumer credit interest rate for households in France was 6.4%.
Source: European Central Bank, bank interest rates - consumer loans to households (new contracts, excluding revolving loans and overdrafts, payday loans and extended credit).

►9. Consumer credit volumes

(in constant euros, base 100 in 2019)



Last point: october 2024.
How to read it: in Q3 2024, in France, the real amount of consumer credit granted by the banks was 24.3% below its 2019 level.
Source: European Central Bank, volume of bank business - household consumer credit (new contracts, excluding revolving loans and overdrafts revolving loans and overdrafts, convenience loans and extended credit extensions), INSEE calculations.

Italy (►Figure 9), even though structurally they concern a significant proportion of the population (in France, 27% of households had consumer credit debts in 2020-2021; ►INSEE 2024). The high level of interest rates (including in real terms since 2024) may thus have contributed to slowing household consumption, by restricting their access to credit and therefore exerting a liquidity constraint. The ECB's reduction in its base interest rates, which began in the summer of 2024, is expected to be passed on gradually and could therefore facilitate a drop in the savings ratio.

The real value of financial assets is below its pre-health crisis trend

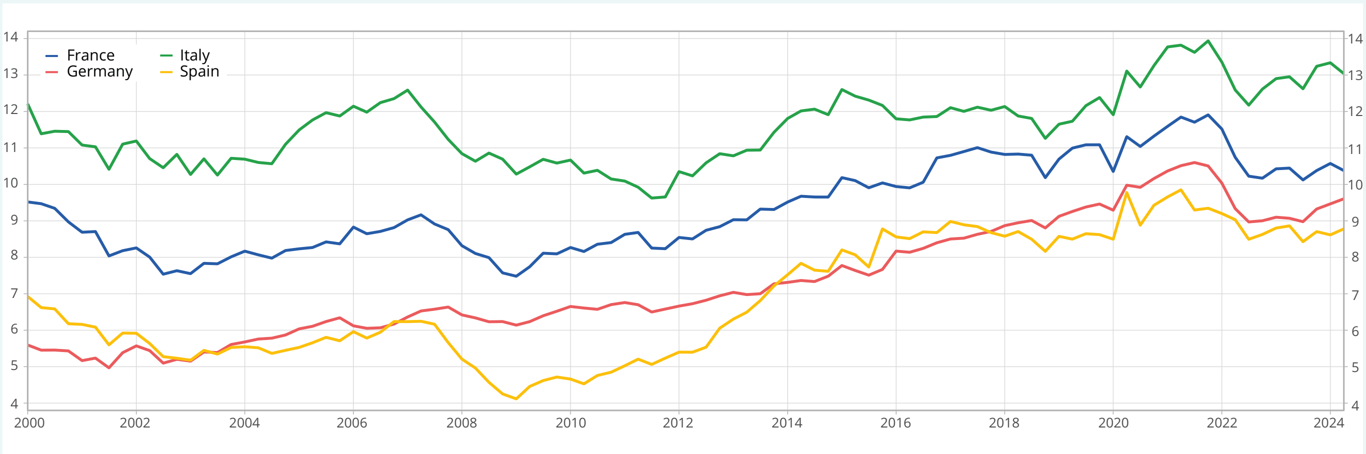
Inflation reduces the purchasing power of cash and deposits held by households, which may encourage them to save more in nominal terms: this is the phenomenon known as "real cash holdings". This phenomenon is only partially taken into account in the model, via the introduction of inflation as an explanatory variable for consumption. Similarly, inflation also reduces the real value of other financial assets held by households, which may affect consumption via "wealth effects". In fact, at the beginning of 2024 in Germany and Spain, the net financial worth of households, expressed in the number of quarters of gross disposable income, was only very slightly higher than its 2019 average (►Figure 10). In France, it is even now still slightly below. In all three countries, it is significantly below the pre-health crisis upward trend. In Italy, the real value of financial assets is close to its trend value.

With inflation having nevertheless peaked between mid-2022 (Germany, Spain, Italy) and early 2023 (France), the real value of household financial assets is tending, in part, towards recovery, which could also contribute somewhat to unblocking consumption behaviour. However, as the savings ratio remains below its previous trend level, it is nevertheless likely to remain at a relatively high level in the medium term.

Public deficits on the rise overall but difficult to establish a link with the recent rise in household savings ratios

Compared to the situation before the health crisis, the public balance has deteriorated in France, Germany and Italy, whereas in Spain it has returned to fairly similar levels. According to the Ricardian equivalence theory, households are likely to react to a deterioration in public finances, especially via an increase in public spending, by reducing their consumption accordingly, anticipating a future increase in taxes and contributions. Empirically, the validity of such effects in France and even in Europe is a question for debate. ►Rocher et Stierle (2015), based on a panel study of European data, conclude that effects can be ambiguous (government deficit can have a positive effect on savings ratio, but government debt has a negative effect). Using data prior to the financial crisis of 2008, the ►OFCE (2017) highlights the presence of Ricardian effects in the case of Germany only and not in other European countries. In the case of France, ►Fraisse (2004) shows that the increase in government deficit is offset by an increase in private savings by up to a quarter and only in the short term, with zero effect in the long term. ►Röhn (2010), on the contrary, finds a unitary Ricardian behaviour in France with private savings increasing as much as the government deficit in the short term and only by half as much in the long term. On the panel of 16 OECD countries that he studies, Ricardian effects are also highlighted in Italy, but not in Germany. Finally, ►Bardaji, et al. (2014) consider, on the contrary,

►10. Net financial wealth of households, expressed in the number of quarters of income
(data not seasonally adjusted)



Last point: Q2 2024.
Note: for France, net financial wealth is relative to household income; for the other countries, it is relative to the income of households and NPISHs.
How to read it: in Q2 2024, in Italy, households' net financial worth represents 13 quarters of income.
Source: INSEE, Destatis, Istat, INE, INSEE calculations.

that in France, the Ricardian equivalence is rejected, with households reacting only weakly and only in the short term to a variation in government savings.

Thus the link between the recent increase in household savings ratios and the overall deterioration in the government finances of the Eurozone Member States seems difficult to establish on the basis of past behaviour. However, this does not presuppose a possible change in household behaviour in the recent period, particularly if there are threshold effects, as debt has reached record levels in most European countries. In addition, in Germany and France, the political uncertainty prevailing in 2024 could also give rise to a certain wait-and-see attitude by households, thus encouraging savings behaviour.

The aging of the population in all four economies may contribute to maintaining the savings ratio, but does not account for the jump compared to before the health crisis

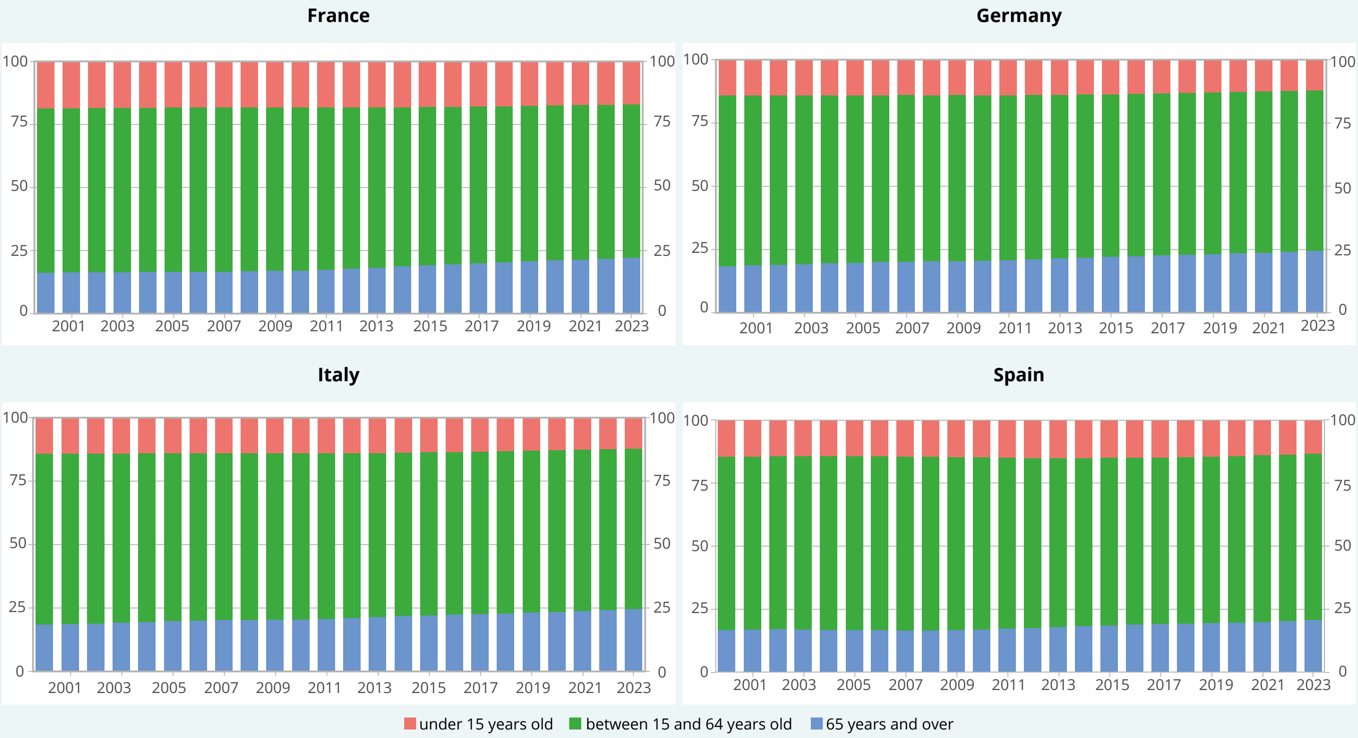
The increase in the savings ratio in the recent period may also be linked to the demographic changes currently underway in Europe, with the gradual aging of populations. At the macroeconomic level, the age structure in an economy should contribute to the dynamics of the savings ratio.

The life-cycle theory (►**Ando-Modigliani, 1963**, and ►**Modigliani-Brumberg, 1954**) concludes that the savings ratio at an individual level is likely to be negative at the beginning of life (period of studies) and at the end, and positive during the period of activity. However, the effect of the proportion of older people in the economy on the level of consumption observed, all other things being equal, and therefore on the savings ratio, is more ambiguous in the empirical literature. Panel studies covering a wide range of countries generally examine the effect on household consumption of the ratio of the share of over-64s to the share of 20-64-year-olds (from ►**Serres et Pelgrin, 2003**; ►**Grigoli et al., 2014**). This literature concludes that there is a positive effect on the variation in household consumption of an increase in the dependency ratio, even if the results are not always significant when estimates are carried out country by country, especially for France and Germany (from ►**Serres et Pelgrin, 2003**). In fact, for France, the latest available data by category, consistent with national accounting, conclude that the net savings ratio for over-65s is only slightly lower than for 30-64-year-olds (8%, with the savings ratios for other categories above 10%; ►**André et Buresi, 2024**). It is more certain that the savings ratio for the youngest category is lower and an increase in the proportion of these young people in the economy is associated with an increase in consumption, all other things being equal (►**OFCE, 2017**), and therefore with a decrease in the savings ratio.

Over the last twenty years, the share of under-15s in the population has decreased (►**Figure 11**). In France, Italy

►11. Composition of the population by age

(in % of total population)



Last point: 2023.
How to read it: in 2023, in France, the under-15s represented 17% of the population.
Source: World Bank.

and Spain, this trend was still current in the first years of the 2020s, favouring an increase in the savings ratio. Since, in any event, this trend is gradual over a long period, it does not seem to explain the sudden rise in the savings ratio in France and Spain compared to before the health crisis.

Since 2021, the composition and distribution of income have encouraged saving

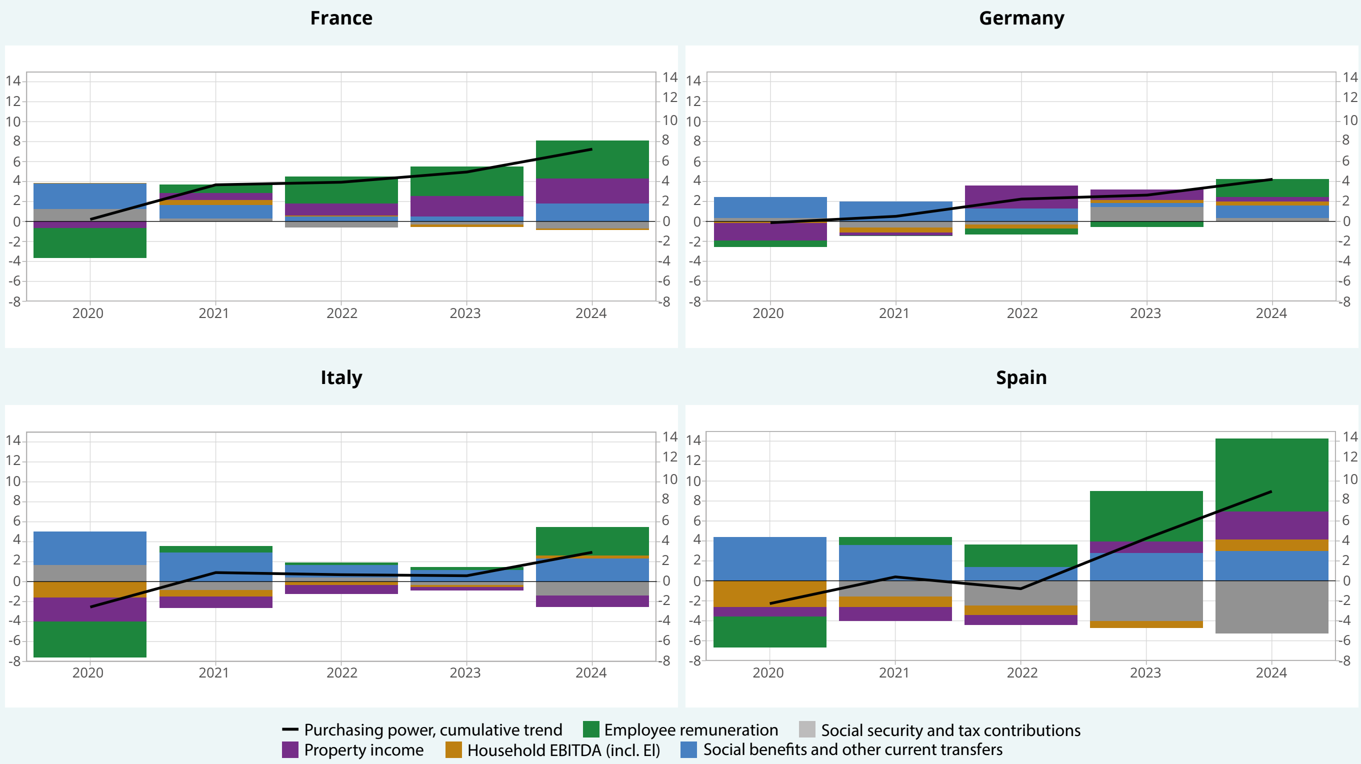
Since 2021, the increase in purchasing power has been driven mainly by property income (►**Figure 12**), whereas real wages have fallen in France, Germany and Italy. However, the differences in the marginal propensity to consume the different components of household gross disposable income are well documented. For France in particular, ►**Bonnet et Poncet (2004)** demonstrate for example that there is a greater marginal propensity to consume payroll, social benefits and the income of sole proprietors. This is consistent with a lower marginal propensity to consume net financial income and reductions in taxes and social contributions rather than other income (►**Banque de France, 2020**).

Between 2019 and 2024, the share of property income in household income increased in France and Spain. By selecting a marginal propensity to consume this income of virtually zero (►**Banque de France, 2020**), which is obviously a lower bound, this increase could account for at most between 1.5 and 2 points of increase in the savings ratio in these two countries. On the other hand, in Germany, the share of wealth income in households' income has not increased and therefore cannot account for the increase in savings ratio.

Income from financial assets is concentrated in the wealthiest household categories (see for example ►**Beatriz et al., 2019**) who have therefore benefitted more than others from the increase in this component. The consumer confidence surveys suggest that there is an increased inequality in ability to save: in Germany, Spain and France, the balance of opinion on the financial situation of the wealthiest 25% of households is up compared to 2019, whereas for the least well-off 25% it is stable (►**Figure 13**).

Thus, the moderate reaction of consumption to purchasing power gains since 2019 may, in part, be explained by a concentration of these gains in types of income and categories of household where the marginal propensity to consume is lowest, especially in France and Spain. In 2025, the situation should start to reverse: the fall in interest rates is expected to slow financial income, while real wages are likely to increase with disinflation. The composition of income should therefore become more favourable to consumption.

►12. Breakdown of change in purchasing power by income type, cumulative since 2019
(evolution in % and contributions in points, deflated by the consumption deflator)



Last point: 2024.
Note: in 2024, the point corresponds to the cumulative year-on-year variation since 2019 of the average of the first two quarters for all countries, except for France where it is the average for the first three quarters. Each contribution is expressed in real terms. For France, "employee remuneration" corresponds to gross wages and salaries, "social security and tax contributions" do not include employer-paid contributions, and the changes are adjusted for the FISIM effect.
How to read it: 2023, in France, household purchasing power was 5% above its 2019 level, and property income contributed 2.1 points to this change.
Source: INSEE, Destatis, Istat, INE, INSEE calculations.

The rise in savings ratios may ultimately be due temporarily to households' loss of appetite for consuming certain products

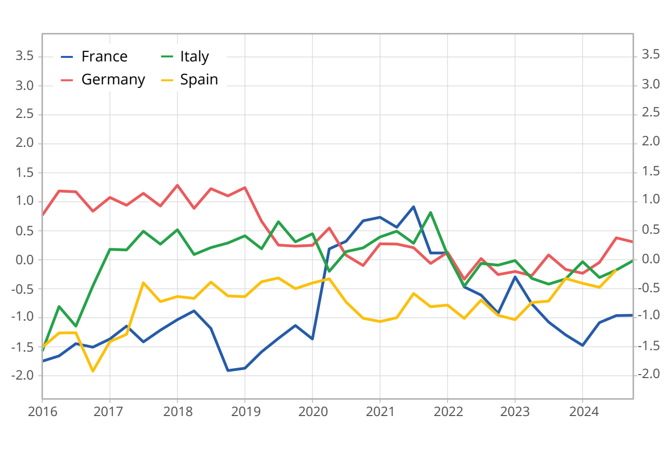
Finally, the rise in savings ratios can be explained temporarily by a loss of appetite on the part of households for certain products. Across Europe, consumption of non-durable goods (i.e. food and energy) is down compared to 2019: this may be due to the sharp price increase specific to these products following the inflationary shock and, regarding energy expenditure, the resulting energy-saving behaviour. Concerning the consumption of durable goods, demand for automobiles is significantly depressed throughout Europe: the number of private vehicle registrations is between 20 and 25% below its 2019 level in the four main Eurozone countries (►Figure 14). This sluggishness in automobile consumption probably reflects a certain wait-and-see attitude in the face of the period of technology transition that the sector is currently experiencing, and decisions that the public authorities may implement to support the energy transition.

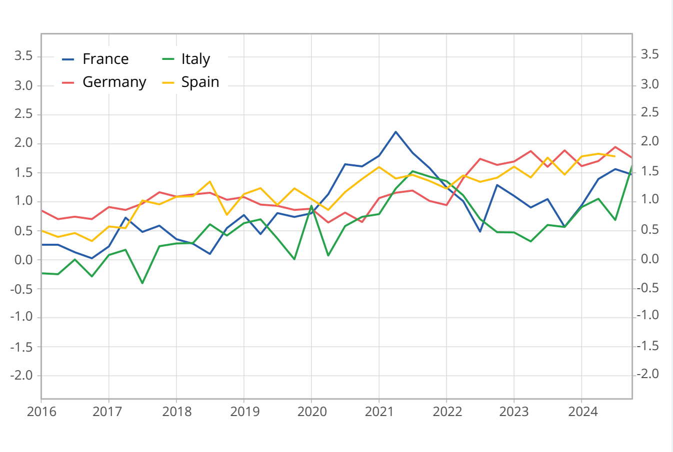
The depression in the real estate market may also have hampered consumption recently: moving into a new home (new or second-hand) is likely to be accompanied by major purchases (large household appliances, furniture, electronic equipment, etc.). In France, real estate transactions at the beginning of 2024 were almost 20% down on their 2019 level.

This apathy in consumption throughout Europe is expected to be temporary to some extent: in particular, purchases of household goods are expected to no longer decline and may even increase slightly with the upturn in real estate markets. However, any unblocking of the automobile market remains very uncertain in the short term.

►13a et b. Balance of opinion on current personal financial situation, for the least well-off 25% of households (left) and the wealthiest 25% of households (right)

(centered-reduced balances, seasonally adjusted)

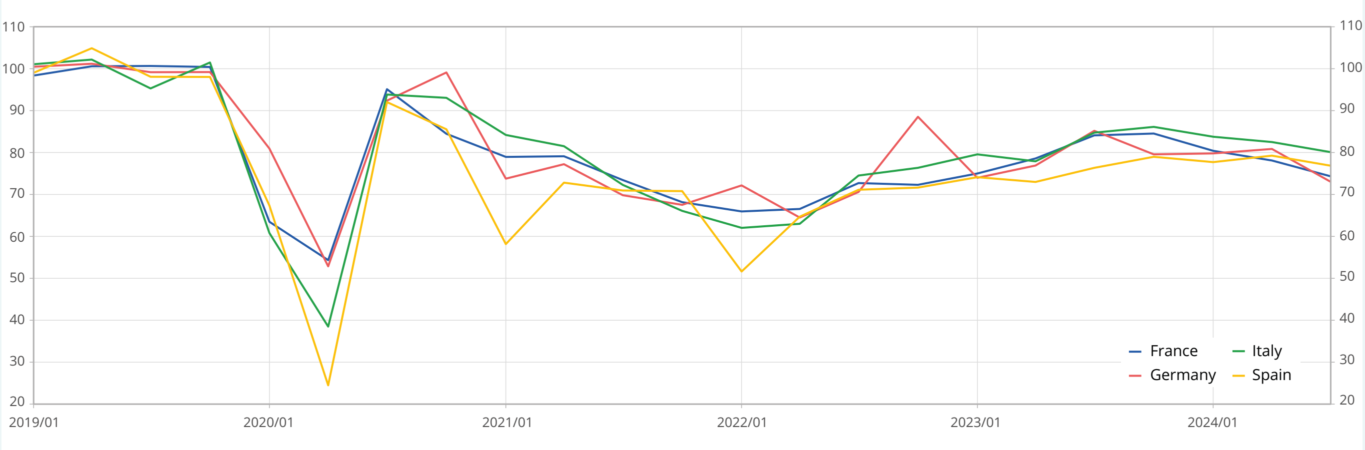




Last point: Q3 2024.
How to read it: in France, in Q3 2024, the centred reduced balance of opinion on the current personal financial situation of the least well-off 25% of households was 0.9 standard deviations below its long-term average (average of all available data for each country, with the period starting between 1980 and 1990 depending on the country.
Source: DG ECFIN, INSEE calculations.

►14. Registration of private vehicles

(base 100 in 2019, seasonally adjusted)



Last point: Q3 2024.
How to read it: in Germany, in Q3 2024, the number of private vehicles registered was 27% below its 2019 level.
Source: European Automobile Manufacturers' Association (ACEA), INSEE calculations.

A moderate fall in the savings ratio is forecast, which would still leave it higher in the medium term than its pre-health crisis level

All in all, some of the phenomena that have been highlighted seem temporary by nature: inflation is returning to normal, household perceptions are adjusting, and consumer credit rates are falling. In addition, income is now driven more by wage income, which is more likely to be consumed than wealth income. Some factors persist, however: the wait-and-see attitude does not seem to have lifted in the automotive sector and the real value of household financial assets remains below its earlier trend, although it is beginning to pick up a little. These points suggest that a moderate drop should be forecast for the savings ratio, which would still be higher in the medium term than its pre-health crisis level. ●

Box 1 – Modelling household consumption in the four main Eurozone economies

Econometric modelling of household consumption in the main Eurozone countries is based on error correction models. Using these models, the contribution of different explanatory factors in each country (France, Germany, Italy, Spain) can be measured: purchasing power, unemployment rate and consumer prices. They are estimated over the period 1990-2019 for France, 1999-2019 for the other countries.

For the long term, the only determinant retained for consumption is purchasing power of gross disposable income, for which a unitary elasticity is used. The estimate is then applied to the short-term determinants, incorporating the "restoring force" of consumption towards its estimated long-term equilibrium level. The explanatory variables are described below. The simulated savings ratio is then recalculated from the simulated consumption and the observed disposable income.

In addition to the purchasing power of gross disposable income, the determinants retained in the short-term equation are the following:

- **Unemployment rate**: the unemployment rate according to the ILO definition is used, and thus precautionary savings can be included. A rise in the unemployment rate can in fact encourage savings behaviour on the part of households, who have to cope with uncertainty in the labour market. The variable is introduced as a difference in the equation (change in the unemployment rate is in points and not %), the coefficient estimated before this variable is therefore a semi-elasticity.

- **Inflation**: the metric used in the equations for inflation is the CPI for France, and the HICP (harmonised European inflation) for Germany and Italy (quarterly variations in seasonally adjusted indices). As the estimation period selected corresponds to a low inflation regime, this variable is applied only in the short term. For France, the estimated short-term coefficient is an elasticity of -0.4, consistent with the long-term elasticity estimated in the first Mésange model (▶**Allard-Prigent et al., 2002**).

As the price variable did not prove significant and had a coefficient of almost zero for Spain, it is not included in the final model. Apart from this, the equations are fairly similar in the four countries.

Simple model of consumption by country (figures in brackets correspond to standard deviations of the estimated coefficients):

France

$$\Delta \log(C_t) = 0{,}04 + \underset{(0{,}08)}{0{,}13}\,\Delta \log(rdbr_t) - \underset{(0{,}24)}{0{,}75}\,\Delta U_t - \underset{(0{,}16)}{0{,}37}\,\Delta \log(Pc_t) - \underset{(0{,}06)}{0{,}19} * [\log(C_{t-1}) - \log(rdbr_{t-1})]$$

Germany

$$\Delta \log(C_t) = 0{,}15 + \underset{(0{,}05)}{0{,}74}\,\Delta \log(rdbr_t) - \underset{(0{,}17)}{0{,}27}\,\Delta U_t - \underset{(0{,}11)}{0{,}39}\,\Delta \log(Pc_t) - \underset{(0{,}06)}{0{,}20} * [\log(C_{t-1}) - \log(rdbr_{t-1})]$$

Italy

$$\Delta \log(C_t) = -0{,}01 + \underset{(0{,}05)}{0{,}16}\,\Delta \log(rdbr_t) - \underset{(0{,}15)}{0{,}75}\,\Delta U_t - \underset{(0{,}14)}{0{,}24}\,\Delta \log(Pch_t) - \underset{(0{,}02)}{0{,}05} * [\log(C_{t-1}) - \log(rdbr_{t-1})]$$

Spain

$$\Delta \log(C_t) = -0{,}06 + \underset{(0{,}06)}{0{,}14}\,\Delta \log(rdbr_t) - \underset{(0{,}12)}{0{,}85}\,\Delta U_t - \underset{(0{,}04)}{0{,}15} * [\log(C_{t-1}) - \log(rdbr_{t-1})]$$

C – Household consumer spending, by volume.
rdbr – Household real disposable income, deflated by the consumption deflator (log).
U – Unemployment rate.
Pc – Consumer price index.
Pch – Harmonised index of consumer prices. ●

Box 2 – Household perceptions are adjusting towards disinflation, as seen in the price indices, but their expectations are still affected in the long term by the inflationary episode

Each month, INSEE's monthly consumer confidence survey of households ("CAMME") interviews 2,000 households resident in France on their economic environment and their opinion on their personal economic situation. In particular, this survey is able to measure each month the share of households that consider that prices have "increased significantly", "increased moderately", "increased a little", "stagnated" or "decreased". This question is harmonised at European level (► **Figure 7a**) and is used to calculate households' balance of opinion on previous price changes, which correspond to the difference between the share of households who consider that prices have "increased significantly" and those who consider that they have "increased a little", "stagnated" or "decreased".

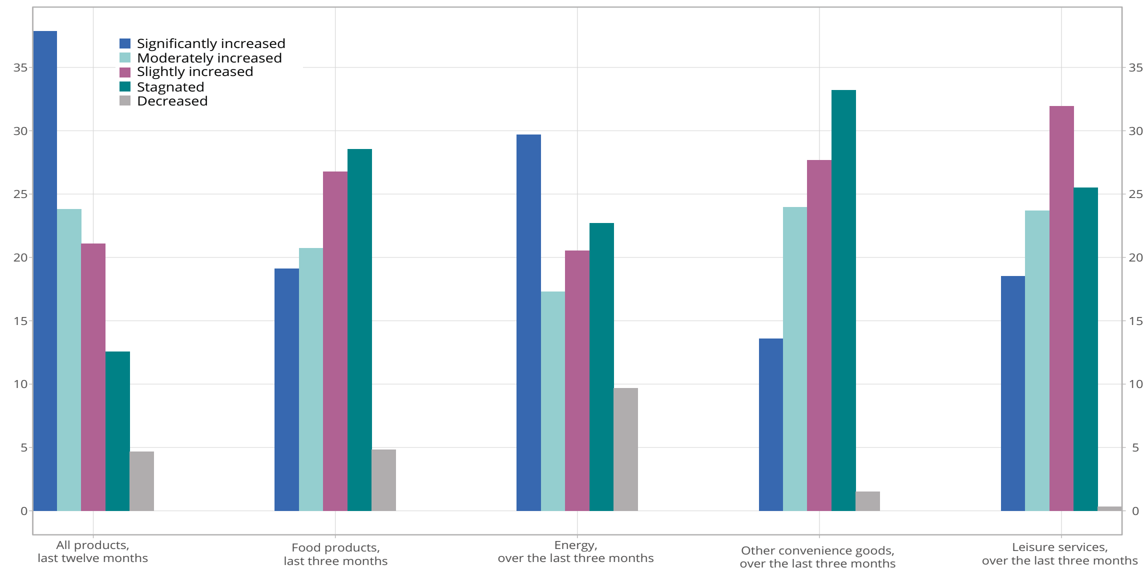
In September 2024, French households were also asked about their perception of price changes for certain products over the last three months (► **Figure A**). For three of the four types of product on which households were questioned (food, non-food manufactured goods, services), the share of households who consider that prices have increased significantly over the last three months was around 20 points below the share who believe that prices overall have increased significantly over the last twelve months (between 19 and 24 points below). Households' perceptions of energy prices were clearly differentiated: this was the only type of product for which more households believe that prices have increased significantly over the last three months (30%) than believe that they have stagnated (23%), even though the price of energy (fuel and housing energy), measured in the consumer price index in September 2024, was 2% below its level for June (►**Figure B**). This discrepancy can be explained by the relative inertia of the price of energy for the home that households actually pay each month. In fact, residential energy contracts are often taken out on the basis of a monthly amount that is fixed for the year, followed by an annual adjustment, whereas CPI prices are monitored on the basis of new contracts offered by the suppliers. Thus, in the course of the next few months there could be a gradual alignment of households' perceptions of inflation over the year and of changes measured via the consumer price index.

Regarding inflation in the future, households' expectations on year-on-year price changes in the next twelve months are also still well above their pre-health crisis level. The CAMME survey questionnaire collects quantitative responses on expectations regarding inflation over the next twelve months. When the extreme values have been removed, the level that households expect on average in November 2024 for the next twelve months is around 10%, whereas this level has been relatively stable since the 2000s, fluctuating around 6%, already well above the inflation level measured by the CPI (►**Figure C**). In 2022 and 2023, when inflation rates that had not been seen since the 1980s actually happened, this may have accustomed households to seeing high levels of inflation and hence increased the average level of inflation that they expected.

Thus there are two conclusions that can be drawn concerning future change in the savings ratio. First, responses regarding the perception of past inflation over the last three months suggest that perceptions are indeed adjusting towards the disinflation that is currently observed in the price indices, which would be likely to fuel a recovery in consumption. Second, the quantitative responses concerning expectations of inflation to come suggest that they remain affected in the long term by the inflationary episode. Thus, the savings ratio is expected to fall but should remain above its pre-crisis level. ●

►A. Households' perception of change in prices overall in the last twelve months, and of change in the prices of certain products in the last three months

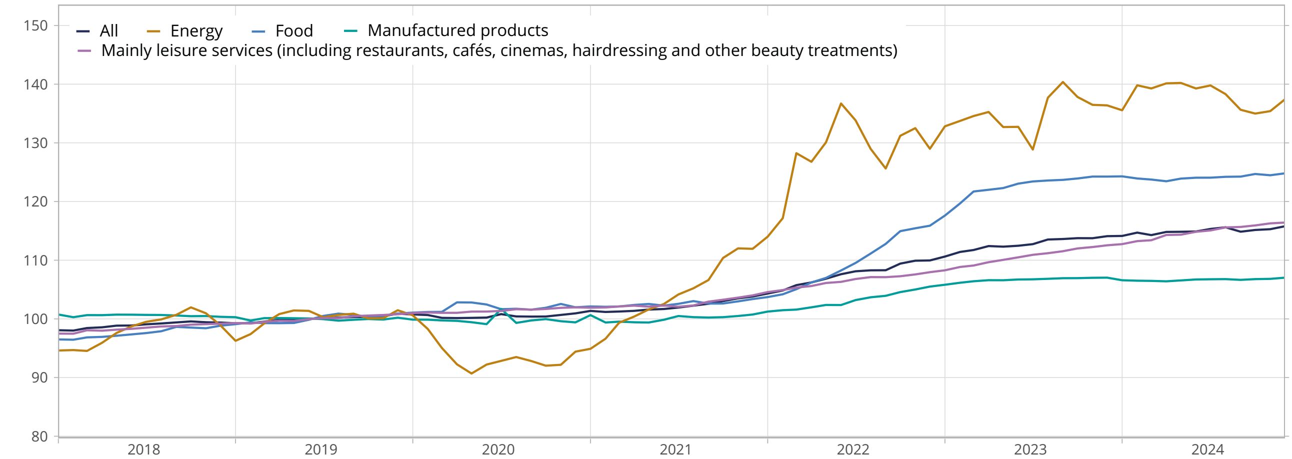
(in % of all households)



Note: households interviewed in September 2024.
How to read it: in september 2024, 29% of households reported that the prices of food products had stagnated over the last three months.
Scope: households living in mainland France in ordinary housing.
Source: INSEE, monthly household business survey.

►B. Price levels for certain products

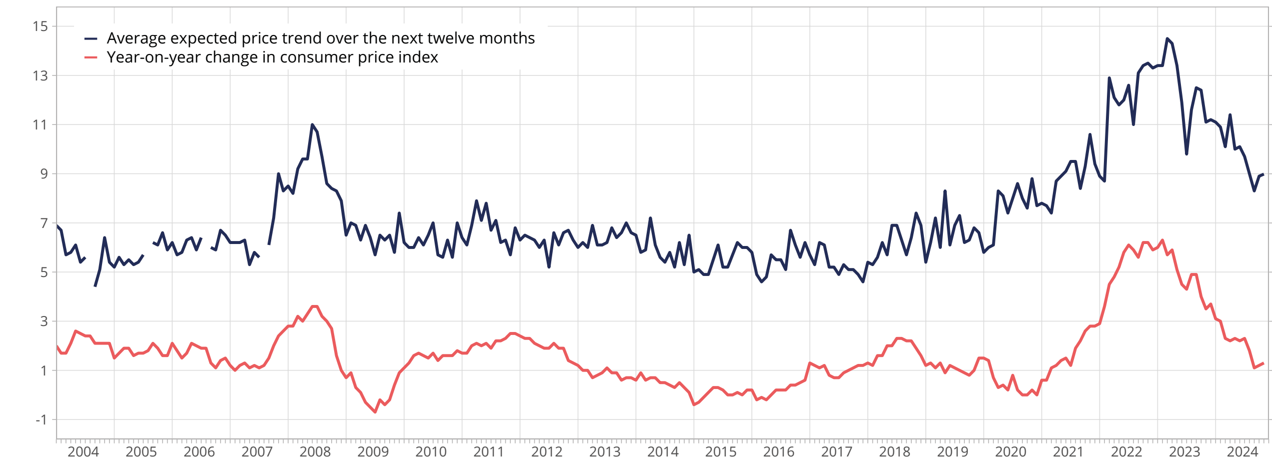
(CPI in France, seasonally adjusted, base 100 in 2019)



Last point: september 2024.
How to read it: in september 2024, the consumer price index for all products was around 16 points above its 2019 average.
Scope: entire France.
Source : INSEE.

►C. Year-on-year change in consumer prices measured over the last twelve months, and change expected by households over the next twelve months

(in %)



Last point: november 2024.
Note: survey data for August are not available prior to 2008.
How to read it: in november 2024, the average change in prices anticipated by households for the next twelve months was 9.9%. The year-on-year change in the consumer price index was 1.3%.
Scope: households living in mainland France in ordinary housing for change in prices anticipated by households; all of France for the consumer price index.
Source: INSEE, monthly household survey. INSEE, consumer price index.

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