ECOCONJONCTURE

Issue 24.01
January 2024

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ECONOMIC RESEARCH

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Guillaume Derrien

Because of its significance and its many connections with the real and financial spheres, the residential property sector plays a central role in the economic cycle. The acceleration in property prices in the eurozone, which began in 2014, the year in which the monetary bloc emerged from recession, intensified after the «Great Lockdown» of 2020, peaking at almost 10% year-on-year in the first quarter of 2022. The tightening of monetary policy by the European Central Bank, unprecedented in its scale and speed, seems to have put a halt to this progress, although at this stage there are significant differences between countries. Economies where the property market had withstood the subprime crisis better now appear to be in greater difficulty in the face of tighter credit conditions. This is the case in Germany, which is not benefiting from the same growth drivers as in the past. However, the vulnerabilities and risks associated with monetary normalisation are not the same as during the previous cycle of interest rate hikes (2006-2008). Household debt in the countries formerly known as «peripheral» (Spain, Ireland, Portugal and Greece) has fallen sharply, the weight of the construction sector in their economies has shrunk and lending conditions have been tightened. However, the still high proportion of outstanding loans under variable rates remains a source of fragility.

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THE RESIDENTIAL PROPERTY MARKET IN THE EUROZONE PUT TO THE TEST OF MONETARY NORMALISATION ?

Because of its significance and its many connections with the real and financial spheres, the residential property sector plays a central role in the economic cycle. The acceleration in property prices[1] in the eurozone, which began in 2014, the year in which the monetary bloc emerged from recession, intensified after the «Great Lockdown» of 2020, peaking at almost 10% year-on-year in the first quarter of 2022. The tightening of monetary policy by the European Central Bank, unprecedented in its scale and speed, seems to have put a halt to this progress, although at this stage there are significant differences between countries. Economies where the property market had withstood the subprime crisis better now appear to be in greater difficulty in the face of tighter credit conditions. This is the case in Germany, which is not benefiting from the same growth drivers as in the past. However, the vulnerabilities and risks associated with monetary normalisation are not the same as during the previous cycle of interest rate hikes (2006-2008). Household debt in the countries formerly known as «peripheral» (Spain, Ireland, Portugal and Greece) has fallen sharply, the weight of the construction sector in their economies has shrunk and lending conditions have been tightened. However, the still high proportion of outstanding loans under variable rates remains a source of fragility.

This EcoConjoncture is part of a series of three publications on the European residential property sector. It follows on from a first article published in December 2023[2].

CONTRASTING TRENDS BETWEEN COUNTRIES

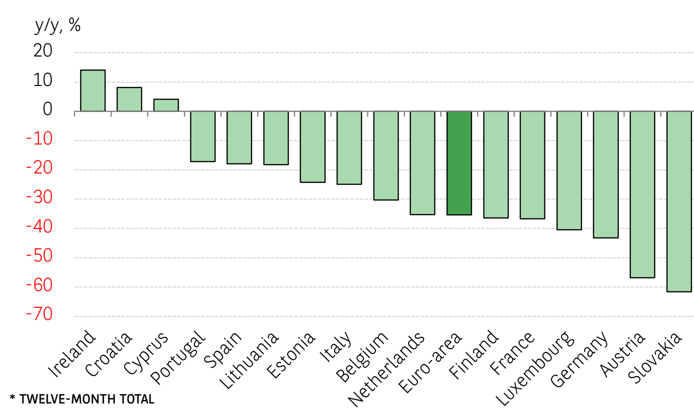
As a result of the tightening of lending conditions in the eurozone, annual issuance of new home loans has suffered an unprecedented setback, falling by 32% year-on-year in November 2023[3]. This decline is greater than those recorded in 2008 and 2011, when it did not exceed 20% on a similar scale. Between the cyclical high and low, the current decline is 37% (May 2022-November 2023) compared with 33% in 2009 (September 2006-October 2009) and 27% in 2013 (May 2011-January 2013). These figures include loan renegotiations, which in some cases can account for a significant proportion of new credit flows. With the exception of three countries where the annual issuance of new home loans, excluding renegotiations, remained positive in November, the decline is widespread across the Euro area (see chart 1).

It must be said that the speed and scale of the rise in bond yields starting at the end of 2021, followed and supported by the policy rate hikes from July 2022, is also unprecedented. Lending rates for housing are adjusted in line with the evolution in bond market for fixed-rate loans (in France, the 10-year OAT), and in line with the Euribor for the majority of variable-rate loans. Rates therefore began to rise more aggressively from spring 2022, following the outbreak of the war in Ukraine and soaring inflation in Europe. As a result, average interest rates for new home loans in the eurozone, which stood at 1.3% two years ago, have more than tripled since then, reaching 4% in November 2023 (see chart 2).

However, the scale of the decline in home loans varies from country to country: very significant in Germany, France, Austria and Slovakia, and more moderate in Spain, Italy and Portugal. These trends reflect the different dynamics of economic growth in 2022 and 2023, marked in particular by a stronger recovery in activity in the southern countries of the eurozone.[4]

The rise in property prices in the Euro area initially slowed in summer 2022, before becoming negative, quarter-on-quarter from Q4 2022 onwards, and year-on-year from Q2 2023 onwards (see chart 3).[5]

NEW HOUSING LOANS (EXCLUDING RENEGOTIATIONS)*, NOVEMBER 2023



* TWELVE-MONTH TOTAL

CHART 1 SOURCE: ECB, BNP PARIBAS CALCULATIONS

Prices recovered slightly in quarter-on-quarter terms in Q3 2023 (+0.3% q/q), but the year-on-year figure fell again to -2.1%. However, the decline was mainly seen in existing homes. New home prices are also stalling, but valuations in this segment are holding up better, against a backdrop of demand for energy-efficient homes and rising construction costs.

The current price correction is only erasing a small part of the significant rise that has occurred over the last decade. After falling for almost six years between 2008 and 2014, property prices in the eurozone started to rise again sharply. Their increase (in nominal terms), which averaged 3.5% each year between 2015 and 2021, far outstripped the rate of inflation in consumer prices and disposable incomes. In real terms, property prices in the Euro area have therefore risen sharply.

In addition to the ultra-low interest rate environment, other factors, highlighted in a report by the Bank for International Settlements[6], helped to stimulate the rise in property prices during this period: an increase in the population and in the number of households; an influx of foreign investment encouraged by attractive property valuations and by the introduction in a number of countries (Ireland, Portugal, Spain, Greece, Malta and Italy) of investment programmes giving access to

1Throughout this article, the term «property price» will refer to property prices in the residential sector only.
2 See BNP Paribas EcoConjoncture Housing supply problems in France: an unsolvable equation?, 15 December 2023.
3 Rolling 12-month cumulative values.
4 It should also be noted that these lending figures are expressed in nominal terms and include a price effect in addition to the simple volume effect, linked to the number of transactions, which has fallen significantly. In other words, for a constant volume of transactions, rising prices lead to an increase in the volume of loans.
5 The residential property price index calculated by Eurostat includes price changes for all types of housing (apartments, detached houses, terraced houses, etc.).
6 See the BRI article Property price dynamics: domestic and international drivers, 18 February 2020.

visa facilities (the ARI programme[7], also known as "golden visas"). Moreover, the budgetary support given to European households during the health crisis resulted in the accumulation of significant savings, some of which were reinvested in property[8].

Property prices in some countries are still well below the levels seen before the subprime crisis, but they are catching up. This is particularly the case in Greece, where the gap with the 2008 peak narrowed to 8.6% nationally in the third quarter of 2023, and price rises have continued to accelerate in recent years. Supported by a recovering economy and labour market, Athens has become the European capital with the highest property inflation[9]. Average property prices in the Greek capital have almost returned to their 2008 levels, down by just 2.7% (see chart 6). In other countries, which have also been hit hard by the global financial crisis, but which have benefited from a faster economic recovery than Greece, prices are soaring rather than catching up. In Portugal and Estonia, for example, prices are more than 70% higher than their 2007 peak.[10] Moreover, until this autumn, monetary tightening had only a moderate effect on property prices in these economies, which continued to rise at a steady pace.

In countries where the property market was comparatively more resilient to the financial crises of 2008 and 2011, the downturn is now more severe. This is particularly the case in Germany, which is already experiencing one of the biggest property shocks in its recent history. The slowdown in property lending, one of the most marked in the eurozone, has been coupled with a fall in prices of almost 10% year-on-year in the second quarter of 2023.[11] Finland is also experiencing a significant correction in property prices. These economies are all the more exposed to the shock on the property market because, unlike the trend seen in the rest of the eurozone, the share of residential investment in GDP has continued to increase in recent years. In these countries, the share of residential investment is now the highest in the monetary union. At the same time, the economic model on which the German economy was built – a high-performance manufacturing sector and a strong export sector – has been undermined by the energy crisis, increased competition, particularly in the automotive sector, and labour shortages.[12] The growth outlook for the eurozone's leading economy remains challenging for 2024 and 2025, which would further limit the support provided by demand in the property market.

THE "PERIPHERAL" COUNTRIES HAVE TURNED THE PAGE ON 2008

To understand why the so-called "peripheral" economies – once the weak links in the eurozone and among which can be included Italy and the Baltic States – are showing greater dynamism and resilience in their property markets, it is important to take a step back and analyse the major structural changes that have taken place over the last decade.

While the concepts of "debt deflation" and "financial accelerator" are often used in the context of the Great Depression of the 1930s in the United States, or sometimes also to understand the Japanese "lost decade", there are similarities between these episodes and the mechanisms at work in the countries at the epicentre of the 2008-11 European crisis (see Box 1 page 8). The excess debt generated during the upward phase of the cycle, the formation of a property bubble in a number of countries, followed by its deflation (deflation of financial and property asset prices) and the cumulative effect of interactions between the financial and real spheres, all helped to amplify the recessionary phase experienced by some countries during the crisis of the last decade.

EUROZONE COMPOSITE HOUSING LOAN RATE

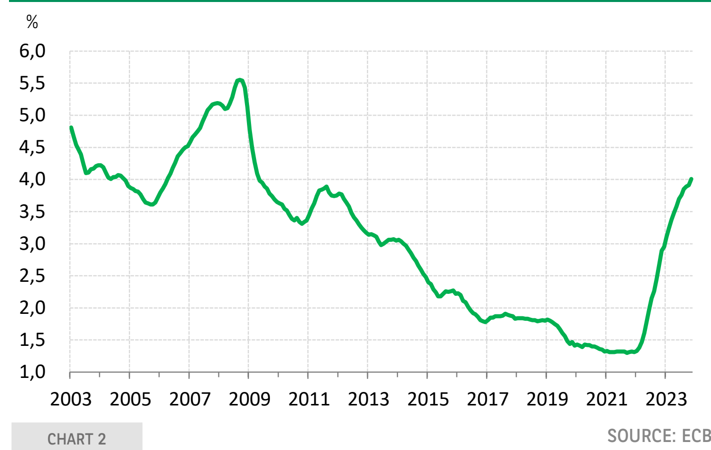


CHART 2 SOURCE: ECB

EVOLUTION OF HOUSE PRICES IN THE EUROZONE

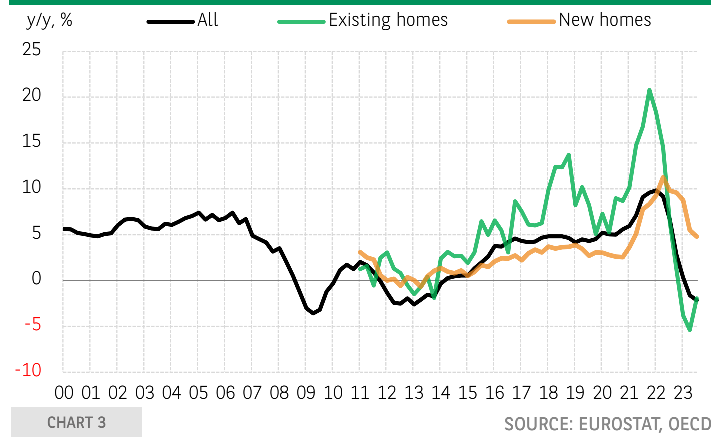


CHART 3 SOURCE: EUROSTAT, OECD

EXISTING HOME PRICES BY COUNTRY (Q2 2023)

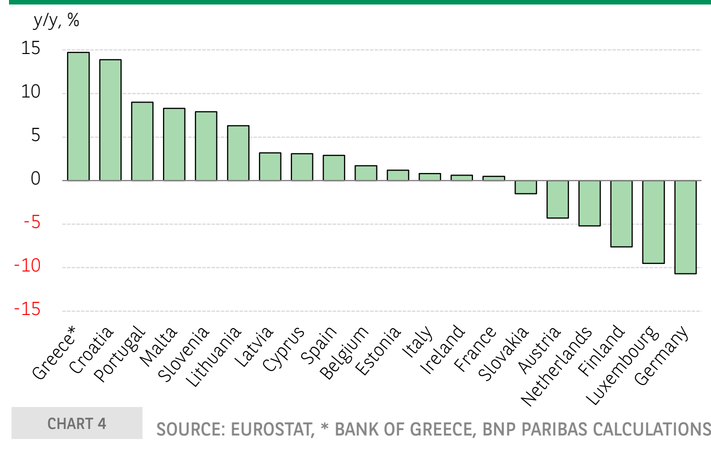


CHART 4 SOURCE: EUROSTAT, * BANK OF GREECE, BNP PARIBAS CALCULATIONS

7 Residence Permit for Investment Activity.
8 On this topic, see The consumption impulse from pandemic savings – does the composition matter? ECB Economic Bulletin, June 2023.
9 See Athens Home Prices Are Surging Faster Than Other European Cities, Bloomberg, 17 November 2023.
10 Adjusted for consumer price trends, the increase is still very significant in Portugal (+36%) but less marked in Estonia (+1.7%).
11 Source: Eurostat.
12 See BNP Paribas Ecoperspectives, Germany: Standort Deutschland?, 13 October 2023.

EVOLUTION OF HOUSE PRICES IN THE EUROZONE

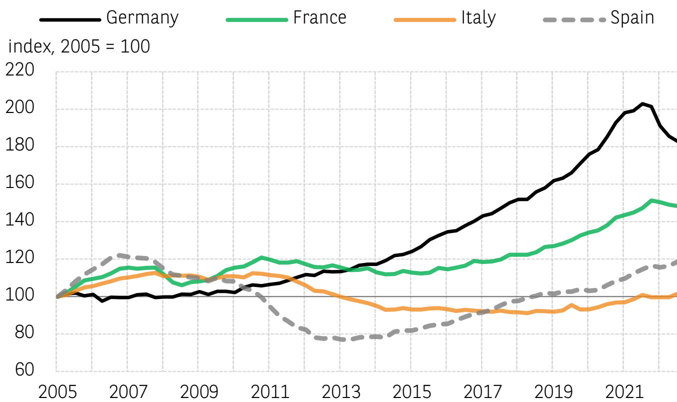


CHART 5 SOURCE: EUROSTAT, BNP PARIBAS CALCULATIONS

HOUSE PRICES IN GREECE

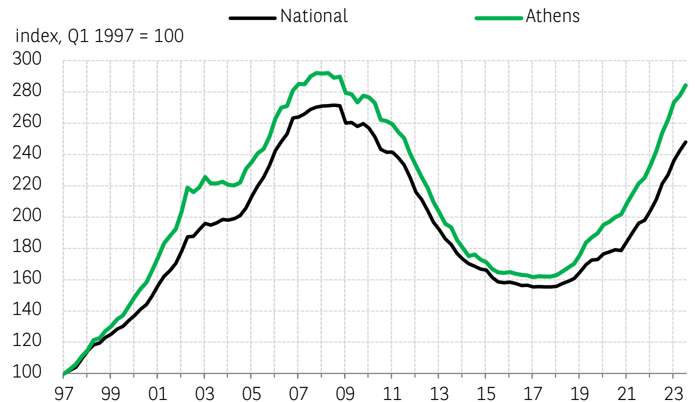


CHART 6 SOURCE : BANK OF GREECE, BNP PARIBAS

In the run-up to and during the global financial crisis, rising property prices allowed households to take on more debt in the so-called "peripheral" countries, where most loans were at variable rates and backed by mortgages (Spain, Portugal and Ireland). This practice, known as mortgage extraction, kept the ratio between the amount of debt and the value of the property at a very high level, which helped to exacerbate the economic, banking and financial shock at the time of the downturn.

A fall in GDP, a rise in home repossessions and non-performing loans, a plunge in house prices: the knock-on effects were colossal, fuelled by the budget crisis and the austerity programmes implemented in these countries. The recovery took more or less time depending on the country. In Italy and Greece, in particular, property prices only bottomed out in the first quarter of 2019 and the summer of 2017 respectively, eleven and nine years after their respective peaks. The price recovery in Ireland and Portugal was much earlier, starting in the first half of 2013. The Baltic States also began their reflationary phase quite quickly, with a new cycle of price rises starting in the third quarter of 2009 in Estonia and in the first quarter of 2010 in Latvia and Lithuania.[13]

Against this backdrop, the drastic fall in interest rates from October 2008 onwards was decisive in breaking this "debt trap". The fall in the cost of credit to historically low levels loosened the financial stranglehold on households and businesses, but did not immediately put an end to the property crisis, whose downward inertia persisted for many months. We should also not forget the profound structural adjustments made in these countries, which were very painful for the local population, but which eventually bore fruit on the macroeconomic level in terms of current dynamics. As a result, business activity and property prices have gradually recovered.

Property prices have now risen to such an extent that some governments have decided to take a step backwards, by limiting or even ending some of the incentives introduced when the market was at its lowest. In particular, the conditions of access to investment-based residency programmes (the famous "golden visas" or ARI, mentioned above) have been tightened. Ireland simply abolished this programme on 15 February 2023, while the Portuguese authorities this year put an end to the possibility of accessing an ARI through a property investment. Greece, meanwhile, has doubled the property investment threshold required to qualify for this programme to €500,000. The screws have also been tightened on short-term rentals, where the US company dominating this market is well known to everyone.

Spain has also seen a rebalancing between housing supply and demand in recent years. More specifically, supply has fallen behind demand. In fact, for almost ten years now, the volume of new residential buildings has been falling below the number of new households created, in an inverse scenario to what prevailed before. This situation amplified in 2022, against a backdrop of severe constraints on supply, linked to the energy crisis and the rising cost of building materials.

Since 2011, household debt in the countries at the centre of the property and sovereign debt crisis of the previous decade has fallen sharply, except in Italy where the ratio has stabilised but remains low (see chart 8). The biggest adjustment has taken place in Ireland, where the debt ratio has more than halved since 2007, bringing it to the eurozone average (89.4% in Q2 2023). Spain has also managed to reduce its debt ratio by almost fifty percentage points, which places the country now as a good performer in the eurozone. Portugal has also made significant progress.

This fall in household debt in the so-called peripheral countries has gone hand in hand with the decline in construction activity as a driver of economic growth. Residential investment, which represented over 10% of GDP in Spain, Ireland and Greece at the height of the 2008 bubble, has since halved. These countries now have a less unbalanced economic development model, with growth levers (tourism, financial services, FDI) that rely less on debt than those used in the past.

Thus, the terms commonly used during the eurozone crisis – periphery, PIIGS[14] – to describe these countries in economic difficulty now seem obsolete. In many respects (unemployment rate, budget balance[15], private and public debt, unit labour cost), the catching-up process is well underway, if not already in place. However, there is still some way to go

13 Source: Eurostat.
14 Acronym for Portugal, Italy, Ireland, Greece and Spain.
15 See BNP Paribas Ecoflash, Southern Europe: restoring public accounts, 9 May 2023.

INVESTMENTS IN DWELLINGS

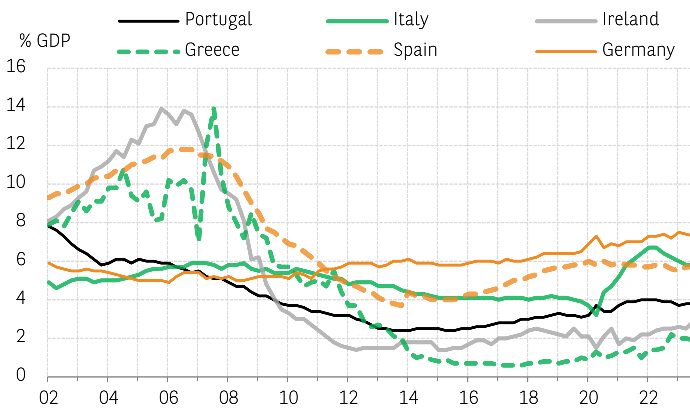


CHART 7 SOURCE: EUROSTAT, BNP PARIBAS CALCULATIONS

HOUSEHOLDS DEBT-TO-DISPOSABLE-INCOME RATIO

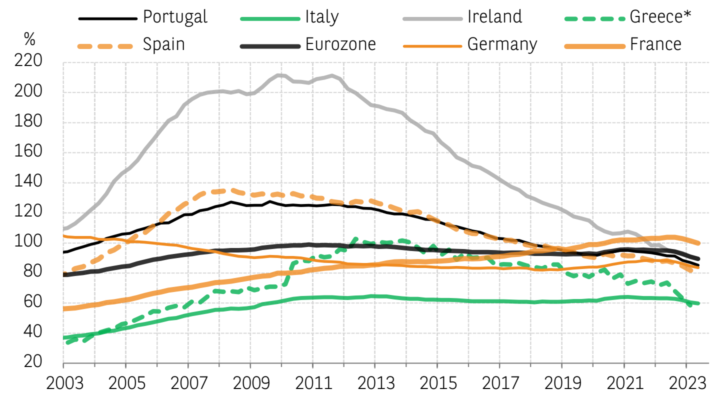


CHART 8 SOURCE: ECB, *BANK OF GREECE

on certain key indicators: apart from Ireland, where GDP per capita was already well above the European average fifteen years ago, and the gap has widened since then thanks to the establishment of multinationals in the country, the deficit remains high in the other four countries. In fact, the gap has only narrowed slightly, mainly due to a relatively low rate of investment and productivity[16].

A CAUTIOUS APPROACH FOR 2024

According to the ECB and its chief economist, Philip Lane, the transmission time of policy rates to property rates should be between six months and one year[17]. Irrespective of this estimate, there are differences between countries in both the scale and speed of transmission of monetary tightening, mainly due to the regulatory framework in each country (*taux d'usure* in France, use of fixed or variable rates). The fall in bond yields in the eurozone at the end of 2023, and the start of a policy rate cut by the ECB expected in 2024, suggest that, as far as the rise in property rates is concerned, much of the work has already been done. The ECB's latest quarterly survey of bank lending in the eurozone (Bank Lending Survey) also points to some signs of stabilisation ahead, with a deterioration in demand for home loans that would be less significant again in the fourth quarter of 2023.

In its Global Financial Stability Report, published in October 2023, the IMF was reassuring about the ability of households to cope with the higher interest rate environment, pointing to the past fall in debt and the tightening of lending conditions as factors that are helping to reduce the risk of financial instability.[18] While rising property prices will contribute to increasing the cost of debt for households borrowing at variable rates (households borrowing at fixed rates are not exposed to this risk), the reduction in debt, which is also used to calculate the cost of interest for households, will mitigate its effects. Furthermore, in some countries (Italy, Spain and Greece), the proportion of homeowners who are still in the home loan repayment phase is fairly low, and will escape the effects of rising interest rates (see Box 2 page 9).

If the Euro area avoids a recession in 2024 and stays on a growth trajectory, which is unlikely to be strong, but positive (+0.8% according to our forecasts as an annual average), this would not further weaken the dynamics of the residential property market. The catching-up of wages growth with inflation, the fall in inflation and the expectation of a limited deterioration in the labour market should support a recovery in household purchasing power. Moreover, governments have not been inactive and have introduced a whole series of measures to cushion the interest rate shock for homeowners and first-time buyers. In Spain, this took the form of longer grace periods and the introduction of a state guarantee covering part of the home loan for young first-time buyers. For its part, the Italian government has relaxed the conditions for restructuring a variable-rate loan to a fixed rate loan.

Nevertheless, there are still areas of vulnerability. The use of variable-rate loans remains the norm in several eurozone countries. Spain, Greece and Ireland have gradually moved towards a model with a higher proportion of fixed-rate loans, which was very little used in 2008. However, a significant proportion of households are still contractually tied to adjustable rates. In addition, some hybrid contracts, combining an initial fixed-rate period followed by a variable-rate period – generally considered as fixed rates in the statistics – could lead to further increases in the cost of lending in the medium term. French households are less exposed to this phenomenon, as almost all home loans are taken out at a fixed rate for the entire duration of the loan.

Moreover, the succession of major shocks experienced by the eurozone and the global economy as a whole over the past three years calls for increased caution. The macroeconomic situation remains fragile, and a further deterioration, particularly in the labour market, would have repercussions for the residential property sector, given the significance of real estate property in household assets (see Box 3 page 10) and its role as collateral.

***

16 See BNP Paribas EcoConjoncture Southern Europe: why is potential growth so low?, 30 November 2020.
17 See Philip R. Lane, The transmission of monetary policy, 11 October 2022.
18 Indeed, the IMF stresses that a sharp rise in household defaults remains a risk, albeit a significant one, but one that is unlikely to occur. IMF Global Financial Stability Report, October 2023, page 18: "However, a severe increase in defaults remains a tail risk, as underwriting standards remain tighter and household debt is generally lower than before the global financial crisis."

As the consequences of monetary tightening on the real economy are sometimes felt with a significant time lag, it still seems too early to fully assess the effects of the tightening that has been taking place in the eurozone since mid-2022. Households' resilience to rising interest rates will be tested again in 2024, with the risk of deterioration increasing if conditions on the labour market worsen. Although activity in the Euro area is expected to pick up slightly in 2024, the situation remains uncertain, weakened by the geopolitical context and the rise in interest rates, which will continue to weigh on the solvency of households and businesses. Nevertheless, at this stage, the outlook for economic growth remains positive, supported by the start of a fall in key rates. Furthermore, as the ECB pointed out in its latest financial stability report in November 2023[19], the European banking sector has more than enough capital to absorb any increase in credit risk.

Article completed on 3 January 2024

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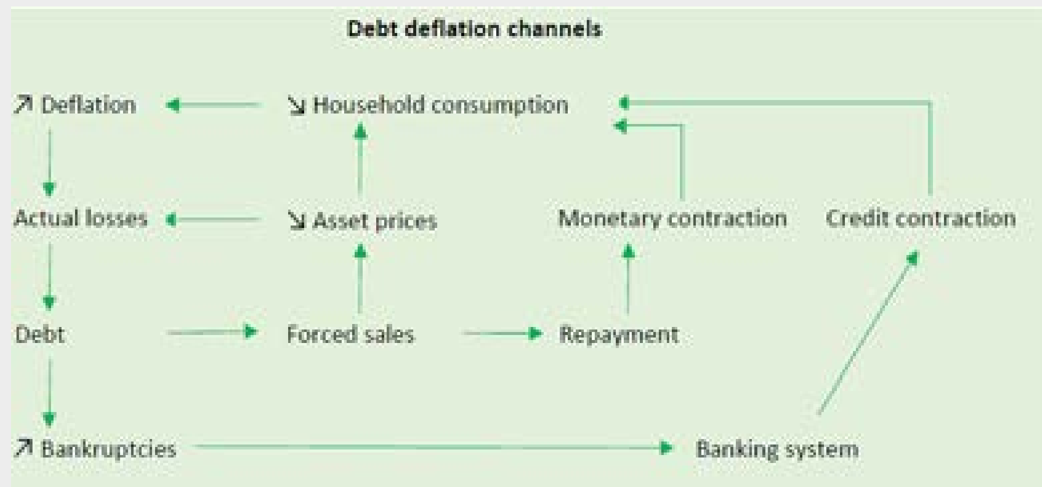
19 https://www.ecb.europa.eu/pub/pdf/fsr/ecb.fsr202311~bfe9d7c565.en.pdf

WHAT IS DEBT DEFLATION?



SOURCE: G. VON PETER (2005), DEBT-DEFLATION: CONCEPTS AND A STYLISED MODEL, BIS WORKING PAPER

Developed by Fischer (1933), then extended by Minsky (1963) and Bernanke (1983), the theory of debt deflation was widely studied in the context of the Great Depression of the 1930s in the United States[1]. It is based on the principle that, following a cycle of high indebtedness, an economic downturn can generate a need for agents to reduce their liabilities, which, by taking the form of disposals of financial or intangible assets (mainly property for households), leads to a fall in activity and consumer and asset prices, in a self-perpetuating downward spiral. This combined fall (in activity and prices) helps to increase the real burden of debt, perpetuating the need to reduce debt and fuelling this debt-deflation loop.

While these three economists start from the same observation, they do not highlight the same propagation channel. Fischer stresses above all the effects of forced sales on household disposable cash flow, which is reduced and depresses consumption. Minsky incorporates asset valuation into his analysis. In this scenario, the forced sale of assets leads to a fall in their price and the resulting losses exacerbate the debt situation, leading to further liquidations. Minsky also identifies a negative wealth effect that leads to reduced consumption or investment. Here again, there is a self-sustaining effect. Bernanke identifies bank lending as a third propagation channel. In the event of an economic shock, excessive indebtedness leads to loan defaults which have an impact on banks' balance sheets, which in turn, limit their ability to allocate new loans. This rationing depresses economic activity and feeds the deflationary loop.

1 Irving F. (1933), *The Debt-Deflation Theory of Great Depressions*, Econometrica; Minsky, H. P. (1963) *Can "It" Happen Again*, Banking and Monetary Studies; Bernanke, B. (1983) *Nonmonetary Effects of the Financial Crisis in Propagation of the Great Depression*, American Economic Review. For a summary, see for example *Debt-deflation: concepts and a stylised model*, BIS working paper, April 2005.

BOX 1

THE STRUCTURE OF HOUSEHOLDS IN THE EUROZONE

HOUSING TENURES

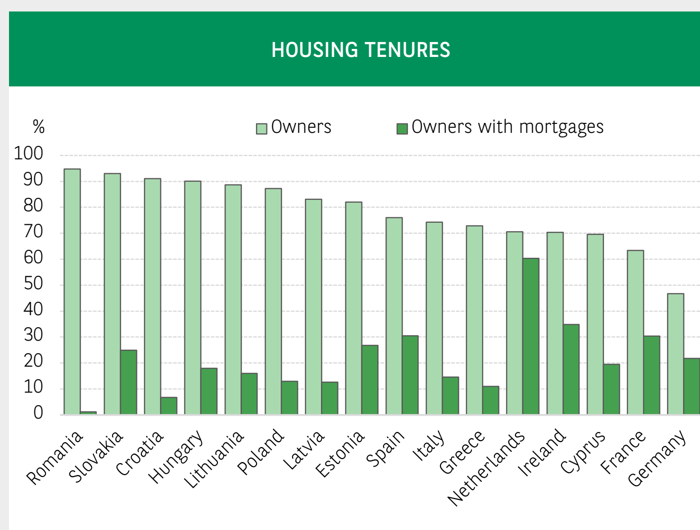


CHART 9

SOURCE: EUROSTAT, BNP PARIBAS

In 2022, two-thirds of households in the euro zone owned their home and only one-quarter had a home loan in the process of repayment[1] (see chart above). This proportion has remained broadly stable over the last fifteen years. However, there have been major structural changes within each Member State. The countries hardest hit by the 2008 housing crisis have seen a significant fall in the proportion of home-owning households over the last fifteen years[2]. These include Ireland, where the proportion of homeowners fell by almost eight percentage points (pp) between 2007 and 2022, to 70%. Spain (76% in 2022) and Cyprus (70%) each recorded a fall of more than four points over this period. Germany (-6.5 pp to 47%) and Austria (-8 pp to 51%) experienced a similar phenomenon, although in this case the fall was also due to political decisions taken by the authorities, in particular to promote the rental sector[3]. Conversely, France and the Netherlands have seen an increase in the proportion of homeowners.

A high level of home ownership in a country does not mean, however, that a large proportion of households are contractually tied to a home loan. In fact, several countries combine a high rate of home ownership with a low proportion of households having taken out a home loan. This is particularly the case in Italy and Greece, where less than 15% of homeowners were in this situation[4]. This explains why household debt in these two countries is comparatively lower than the eurozone average. Conversely, Ireland, the Benelux economies, and to a lesser extent France, have a relatively low level of home ownership but a higher proportion of households with a home loan in the process of repayment.

1 Source: Eurostat. Specifically, 65.0% of households in the eurozone owned their own home in 2022, but only 26.7% had a home loan in the process of repayment.
2 There are many reasons for this decline: worsening social conditions and rising unemployment have forced some households to sell their properties, while rising property prices have excluded some households from home ownership.
3 One incentive factor is the fact that in Germany, home loan interest is only deductible from income tax when the property is rented out.
4 One of the reasons for this low figure is the extensive use of family bequests of property, rather than resale to a third party.

BOX 2

THE PROPERTY MARKET IN THE ECONOMIC CYCLE: A FEW CONSIDERATIONS

EUROZONE HOUSEHOLDS HOUSING ASSETS

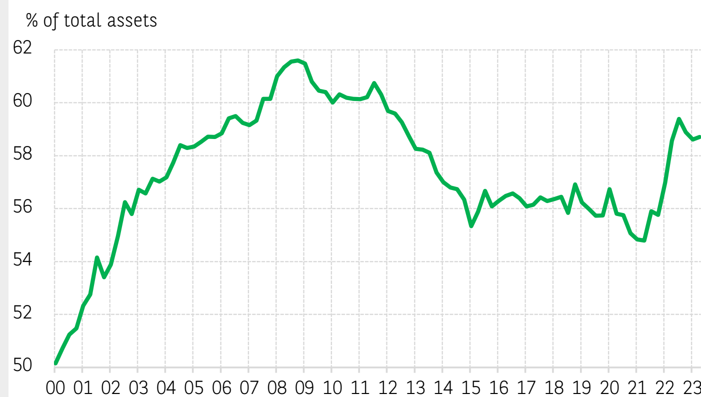


CHART 10 SOURCE: ECB, BNP PARIBAS CALCULATIONS

The property market is an important channel in the economic cycle, and its knock-on effects on the rest of the economy are manifold[1]. While residential investment only accounts for a relatively small share of GDP in the euro zone (around 6% in 2022), its fluctuations are generally much larger, in the order of a factor of three, according to a recent study by the ECB[2]. This explains, in particular, the significant contribution made by this component to variations in GDP during violent downturns, such as in 2008-09, especially as the preceding years were years of boom or even a property bubble. A similar, albeit less significant, effect was seen following the bursting of the dotcom bubble in the early 2000s, while the phenomenon was less visible during the Covid-19 crisis in 2020, due to the singular nature of that event.

Developments in property activity are also often seen as a harbinger of the economic downturn to come. Leamer (2007) estimates that in the majority of US recessions recorded between 1949 and 2001, i.e. six recessions out of the last ten, residential investment was the main drag on activity a year before the economic downturn. The other components of investment (capital goods, software) deteriorated later in the recessionary cycle. Ferrara and Vigna (2009)[3] estimate, in the case of France, that several property market indicators (housing starts, building permits, residential investment) are correlated with GDP cycles, «with a certain lead varying between one and four quarters».

The argument that rising property prices support household consumption through positive wealth effects (increased wealth) is not universally accepted[4]. More certainly, the «price effect» has in the past led to a greater concentration of household wealth in this asset class. This was particularly evident in the first part of the 2000s, leading up to the 2008-09 crisis. Property prices in the eurozone had risen at a very sustained rate, averaging almost 6% a year. Property, which accounted for around 50% of total household assets in the early 2000s, peaked at 61.7% in the fourth quarter of 2008[5]. After a phase of decline linked to the fall in property prices in the eurozone, they have regained some importance since the end of the health crisis (see chart above). However, this concentration effect would tend to exacerbate the economic shock when the cycle turns and property prices fall, in particular by causing more households to be in negative equity, i.e. in a situation where the household remains in debt after selling the property acquired as a result of the loan. These effects, which can be linked to the "financial accelerator" mechanism described by Bernanke, Gertler and Gilchrist (1998)[6], are all the stronger the higher the level of household debt.

1 For a summary of these channels, see, for example *Property and the economic cycle: what the Great Recession teaches us*, OFCE, Revue d'Economie Financière, 2014.
2 Baptistini, Delle Chiaie & Gareis. *Monetary policy and housing investment in the euro area and the United States,* ECB Economic Bulletin, May 2023.
3 E.E. Leamer, *Housing is the business cycle,* NBER, September 2007.
4 L. Ferrara and O. Vigna. *Economic cycles and the property market in France: Stylised and decisive facts,* Banque de France Working Paper, December 2009.
5 For a list of results, see *Property and the economic cycle: what the Great Recession teaches us,* OFCE, Revue d'Economie Financière, 2014.
6 Source: ECB

BOX 3