

The reabsorption of financial imbalances and the resilience of the Spanish economy, 2008-2024: a long-range view

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Policy Brief no. 20

September, 2024

ISSN 2014-7457

Spain is one of the European Union countries that suffer from excessive macroeconomic imbalances, although the emphasis on their severity has been diminishing of late. With respect to the country's current account balance or net external borrowing, for example, the European Commission's analysis in 2023 focused on the problems of countries with an overly negative IIP (Cyprus, Greece, Hungary, Latvia, Lithuania, Portugal and Slovakia), but made no mention of Spain (EC, 2023h). Spain's absence from the list reflects the fact that the country, since 2021, has succeeded in sustaining foreign surpluses and deleveraging trends initiated over a decade ago. Overall, in May 2024, Spain achieved a degree of normality in relation to its excesses of internal and external debt that helps to explain the resilience of the country's economy to the shocks experienced since 2020. The improvement, however, is partly asymmetrical. Against a reduction in private debt, there has emerged a high level of public borrowing at a time when the levels of both internal and external debt still need to fall.

In the wake of the pandemic, the effects of inflation and the response of the ECB, where do Spain's debt imbalances stand today? Even more importantly, can we now regard the issues as resolved? To seek to answer these questions is the aim of the present *Policy Brief*, which picks up from previous policy briefs that have analysed the reasons for the rise in debt ratios among different sectors in Spain up to 2010 and their slow decline since then (EuropeG, 2012; 2014 and 2016; Oliver, 2022).

In the first section, the *Policy Brief* begins by situating the post-Covid period in the context of support provided by the European Commission and, in particular, by the ECB (1. Macroeconomic resilience to shocks, 2020-23: ECB support and European aid). Also, given the pivotal role of the financial system in the creation and alleviation of the

debt crisis of 2008-12, it has seemed appropriate to conduct a specific analysis of some of the factors in its evolution, particularly the sharp contraction in its size, the reduction in foreign debt and the improvement in asset quality, which are all aspects addressed in the following section (2. Changes in the financial sector's balance sheet in the past decade). This is followed by a review of changes in the behaviour of households and NFCs and how they resulted in an unprecedentedly high financing capacity in the private sector, to which must be added the high financing capacity of financial institutions. Together, they have more than offset high public deficits, and even transferred surpluses to the rest of the world (3. Internal financial flows and external balances, 2014-23). The subsequent two sections look at the impact of different agents' financial flows in relation to their levels of indebtedness (4. Will the private sector return to pre-euro debt ratios?) and, particularly, in relation to a change in Spain's debtor position with the rest of the world (5. Notable but insufficient progress in the reduction of net external borrowing), while the sixth section (6. Increasing public debt and the medium-term outlook) sets out a number of brief considerations on the current state and possible future of public debt. Lastly, the *Policy Brief* closes with a number of final conclusions.

Given the relationships between debt and key macroeconomic factors, it is necessary to point out that many of the most significant factors will not be addressed here, although they will be noted at least in part. Among the most substantive factors are changes in the structure of supply; changes in the consumption and investment function of households; changes that account for the lower investment of NFCs and a rise in their savings; the role of the real estate market and its financing; the evolution of employment and unit labour costs; the transformation in the export and import functions, and the impact of immigration on the

country's growth. Unless otherwise indicated, any stocks of assets or liabilities in a particular year always refer to the fourth quarter of the year in question.

1. Macroeconomic resilience to shocks, 2020-23: ECB support and European aid

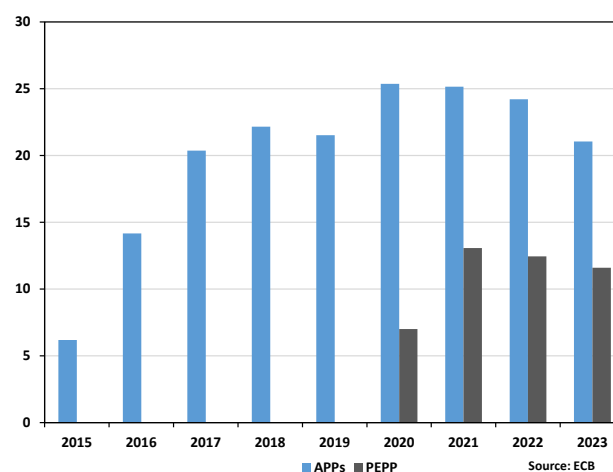
The evolution of the Spanish economy after the shocks of the pandemic and the inflationary and recessionary effects of the war in Ukraine and the tightening of monetary policy (2022-23) cannot be understood without the extraordinary intervention of the ECB starting in 2014/15 and the aid, both direct and indirect, provided by the European Commission (2020-23). Accordingly, it is necessary to give a summary of the main features of the ECB's actions in the years in question, particularly in Spain, laying out their effects on financing the country's public administrations, bank liquidity and the availability of private credit in order to offer a few reflections on EU aid.

1.1. The ECB 2014-2024: from loose monetary policy to partial tightening

Basically, the monetary policy pursued since the middle of the past decade, together with forward guidance, has focused on three broad areas: negative real, and sometimes even negative nominal, interest rates; abundant and particularly cheap long-term liquidity for the banking sector; and very significant purchases basically of public debt (i.e. quantitative easing). First, with respect to interest rates, the past decade has been defined by a sharp fall and then holding steady at zero or negative interest rates for a long period (until July 2022). Measured in terms of the MRO facility, interest rates fell from 3.75% in October 2008 to 0.0% in March 2016, reflecting the EMU's difficult recovery and the need to facilitate access to refinancing for the public sector and/or to promote deleveraging in the private sector in the south and alleviate the risks of deflation. The result was negative interest rates in real terms (average inflation for 2014-2021 in the euro area stood at 1.0%), which was most notable in the deposit facility, and fell to around -0.5% between September 2019 and July 2022. Despite such low interest rates, the ECB was compelled to hold them steady until rising prices in the summer of 2022 finally forced an abandonment of expansionary monetary policy.

Second, it is important to add the provision of three-year credit offerings to the banking sector from 2014 to autumn 2022 at very low interest rates or even nominally negative interest rates. Following the experience of LTROs in late 2011 and early 2012, the new operations began in June 2014 with TLTROs, followed by other actions in March 2016. Then, beginning in September 2019, came the quarterly operations of TLTRO-III (a total of 10), to which were added PELTROs (March 2020) at negative nominal interest rates (-0.25%) in response to Covid-19. In total, the amount provided through such long-term credit operations rose sharply: between December 2014 and the high point in July 2021, the level soared from 439 million euros to 2.217 billion euros, increasing in relative weight from somewhat more than 4% to nearly 18% of GDP across the EMU.

Graph 1. ECB Intervention: purchase of bonds through APPs and PEPP (% of GDP in the euro area), 2015-2023

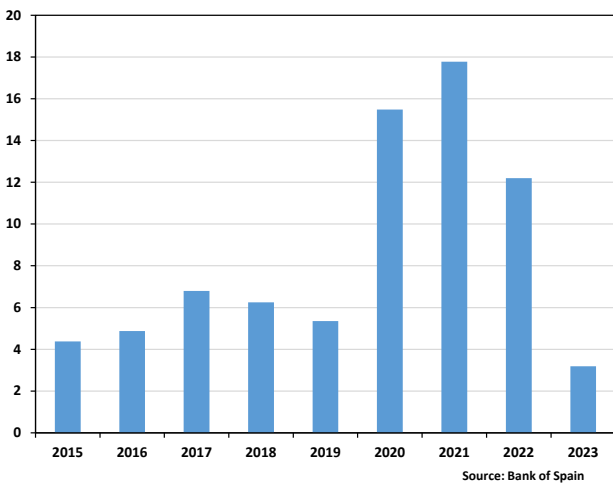


Lastly, the ECB's third area of activity related to the continuation of asset purchase programmes (APPs) in effect at the outbreak of the pandemic, in addition to the creation of PEPP in March 2020 and the designing of the TPI to contain the risk premiums of some countries in the south. By June 2022, the Eurosystem had accumulated bond purchases on its balance sheet totalling close to 4.9 billion euros (3.3 billion euros in APPs and 1.6 billion euros in PEPP), amounting to over 38% of the GDP across the EMU. Between 2015 and June 2022, the addition of debt purchases and TLTRO loans resulted in an extraordinary increase in the Eurosystem balance from the two monetary policy operations, climbing steeply from an initial share of almost 12% to over 55% of GDP for the euro area as a whole.

This expansionary policy led to strong increases in bond prices and falls in interest rates, which can be seen clearly in the yields offered on public debt for all

maturities and in all jurisdictions. This bubble in fixed-income securities inevitably came to affect private finance, signalling overheating in real markets (real estate investment, both residential and non-residential). Thus, in the area of public debt, 10-year sovereign debt in some countries, such as the German Bund, exhibited negative yields, whereas particularly cheap finance was on offer in others (for example, 10-year public debt in Italy stood at an average cost of 2.0% in 2014-22, which enabled the country to maintain modest risk premiums in spite of political changes). In the residential market, housing prices, for their part, followed a pronounced upward trend: between 2016 and 2022, after a long period of zero or negative price rises, housing in Germany increased by a torrid annual rate of 7.6%, while the increase across the entirety of the EMU was also high at 5.5% per year.

Graph 2. ECB intervention: long-term credit from the Eurosystem, 2015-2023 (% of GDP in the euro area)

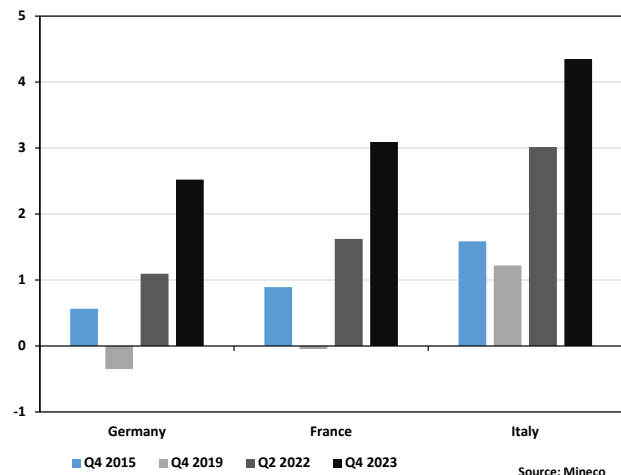


The highly expansionary policy in effect changed radically in the summer of 2022, although asset purchases had already begun to abate in the preceding months. Logically, the trigger was a sharp rise in prices across the EMU (between July 2021 and July 2022, the HICP shot up from an annual increase of 2.2% to 8.9%). In response, the ECB took fast action through a severe tightening of monetary policy: from summer 2022, the MRO rate rose 10 times, reaching a high point of 4.5% in September 2023.

Inevitably, the effects of a tight monetary policy burst the bubbles that had emerged, particularly through a decrease in the perception of risk (Bekaert et al., 2010, 2023). Indeed, the effects were very clear in the prices of public debt, housing wealth (Dieckelmann, et al., 2023) and private sector credit. Thus, in the first case, there

was a rapid increase in yields: for example, between December 2021 and December 2023, the 10-year German Bund attracted substantially higher yields (rising from -0.3% to 2.1%). The same phenomenon also occurred in France (where yields rose from 0.0% to 2.6%) and Italy (where they climbed from 1.0% to 4.1%). This generated losses, potential or real, in the portfolios of institutional investors, which became apparent in 2023 with the bankruptcies of regional banks in the United States. In the residential property market, housing prices, for their part, began to collapse: in Germany, housing prices had reached notable earlier highs, only to face a cumulative loss of 7.1% annually by the end of 2023, in addition to a correction of -1.1% across the entirety of the euro area, marking the first drop since 2014. Similarly, the situation in commercial real estate deteriorated sharply (Ryan et al., 2022; ESRB, 2023), chalking up losses in summer 2023 that were close to 40% not only in the euro area but also elsewhere (particularly in Sweden). Lastly, the change in monetary policy also had an effect on the provision of private sector credit: from the second quarter of 2022, the credit terms for households and NFCs tightened. This was reflected in a fall in borrowing and moderate rises in NPLs and loans under special vigilance in some areas (households and certain productive subsectors).

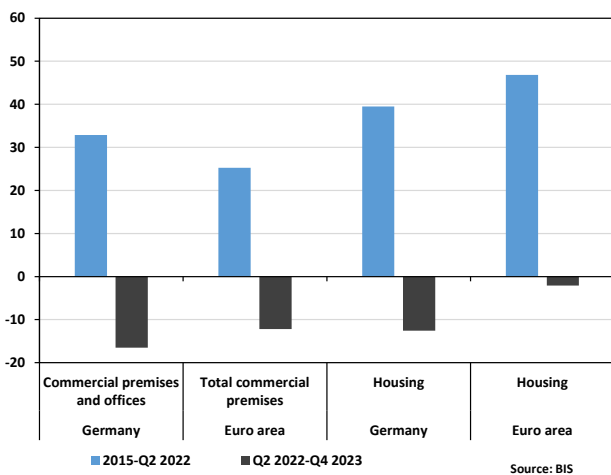
Graph 3. Interest rates on 10-year public debt in Germany, France and Italy at Q4 2015, Q4 2019, Q2 2022 and Q4 2023



However, the tightening of monetary conditions was not confined to the interest rates that attached to different ECB facilities. It also had a direct effect on the purchases of assets and, especially, on long-term credit to the banking sector, which fell sharply. In the latter case, TLTRO balances dropped more than 25% between July

2022 and December 2022 (falling from 2.192 billion to 1.639 billion euros), a decline that accelerated rapidly until it reached a merely anecdotal level of 150 million euros in April 2024. With respect to asset purchases, the ECB’s change in policy became plain to see in spring 2022, when the bank decided not to reinvest redemptions from the APPs. After reaching their high point in June 2022, therefore, redemptions dropped by roughly 11% by April 2024 (falling from 3.265 billion to 2.897 billion euros), and there are now expectations of a gentle downward movement to 2.595 billion by the end of 2025. As for PEPP, the ECB likewise agreed to undertake only a partial reinvestment in December 2022. As a result, the Eurosystem had accrued some 1.714 billion euros by April 2024, which was also expected to stabilise and fall modestly to 1.498 billion euros by the end of 2025 (ECB, 2024b). As a whole, the ECB’s tight monetary policy has been more aggressive in interest rates and long-term credit than in its bulging debt portfolio, precisely so as not to trigger more extensive bankruptcies in the markets, particularly among the more indebted markets in the south: between June 2022 and April 2024, there was only a modest decline in debt of -7.7% (from 4.9 to 4.6 billion euros).

Graph 4. Consequences of the ECB’s intervention: prices of commercial real estate and housing in Germany and the EU, cumulative change in 2015-Q2 2022 and Q2 2022-Q4 2023 (in %)



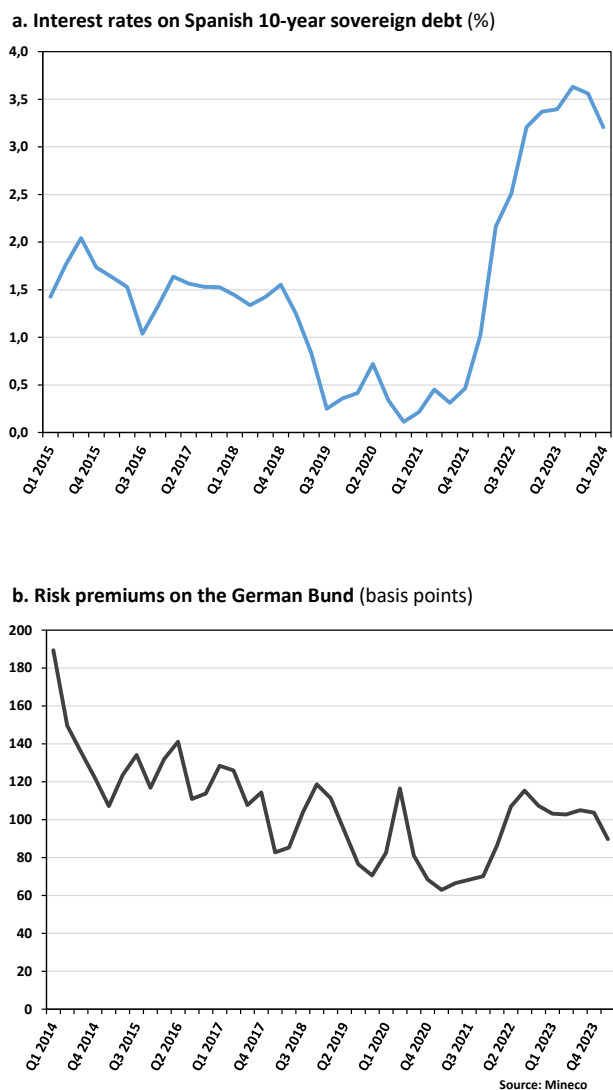
The changes in the ECB’s balance sheet resulting from long-term credit and asset purchases have led to quite a significant reduction in the weight of such operations in the GDP of the EMU, which fell from nearly 56% in December 2021 to slightly higher than 36% in December 2023. Reflecting the heightened activism of the ECB in comparison to other central banks, the sum total of its assets in 2023 reached 48% of GDP in the EMU, a figure that is far higher than the equivalent figure for the Fed

(28% of US GDP) or the Bank of England (35% of UK GDP), although it is sharply lower than the figure for the Bank of Japan (127% of Japanese GDP).

1.2. The implementation of ECB support and EC assistance in Spain: higher than the EMU average

Prior to July 2022, ECB intervention in Spain had taken the form of improvements in public sector finance, liquidity in the financial system, and recovery in private sector credit (Escolar and Yribarren, 2021; Aguilar et al., 2024). As for the EU’s actions, support for the public sector was reflected in suspension of the Stability Pact, while support for improvement in activity and/or overcoming the shock of the Covid-19 pandemic involved assistance through the SURE and NextGen programmes.

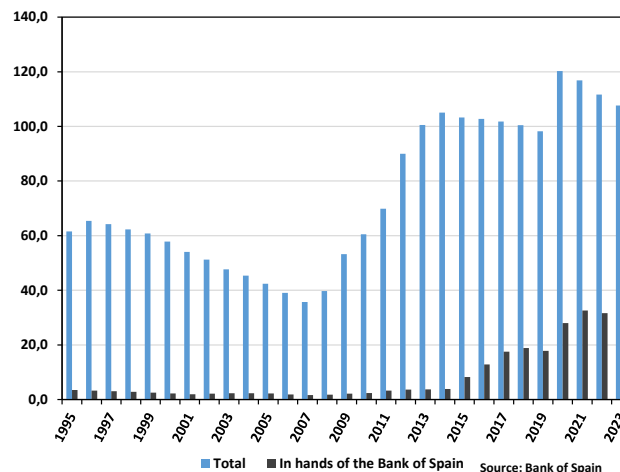
Graph 5. Interest rates on Spanish 10-year sovereign debt and risk premiums on the German Bund, 2015-24 (% and basis points)



For the public administrations in Spain, the positive impacts of the ECB's intervention came both in the lowering of interest rates on new issues and in a growing absorption of not insignificant volumes of the debt in circulation. First, turning to lower interest rates, 10-year sovereign debt fell to a historic low (0.4133%) in December 2021 at the same time that yields on shorter maturities (for example, 3-year and 5-year bonds) hit unprecedented levels (-0.520% and -0.375%, respectively). From July 2022, the ECB's higher interest rates prompted other significant increases: Spain's 10-year sovereign debt in the primary market climbed to 3.616% (although subsequent downward expectations put the rate at 3.255% in April 2024). For their part, 1-year notes, which had a yield of -0.594% in December 2021, increased their yield to 3.449% in April 2024, while the remaining instruments presented a similar profile.

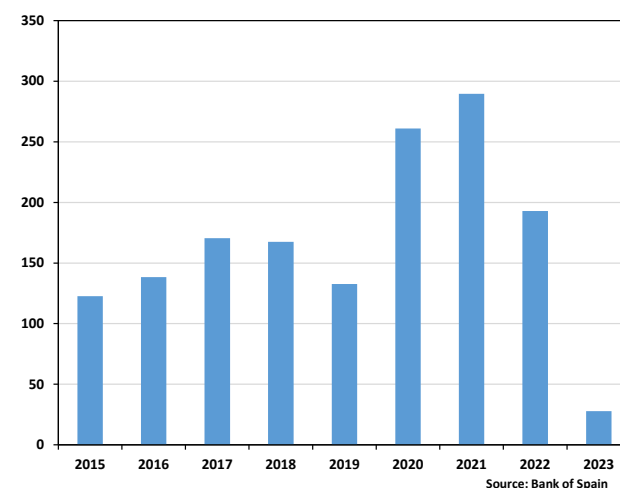
As for refinancing public debt, the Eurosystem responded to the steep increase in 2020 (between the end of 2019 and the end of 2020, public debt rose from 98.2% to 120.3% of GDP) by sharply expanding asset purchases: the securities purchased for the purposes of monetary policy practically doubled in size on the Bank of Spain's balance sheet, growing from 332 million euros to 606 million euros, or from almost 27% of GDP in 2019 to over 41% of GDP in 2023. As the purchases were only partly Spanish public securities, the share that actually represented government debt increased from close to 18% of GDP to nearly 29% of GDP (rising from 223 million euros to 419 million euros), which surpassed a quarter of the public debt in circulation in December 2023. This supplied the funds required to meet public sector needs, which stood at close to 20% of GDP/year on average from 2020 to 2023 (80 million/year to cover the deficit and over 200 million/year to refinance debt). As a result, it was possible to prevent the economic shocks in the period 2020-23 from resulting in capital outflows abroad, as had happened previously in the financial crisis (Oliver, 2017; Álvarez et al., 2021) or leading to substantial hikes in risk premiums. Against this backdrop, risk premiums held steady in the region of 110 basis points until October/November 2022, when the figure began trending gently downward to reach 83 basis points in April 2024. Logically, this restraint was also indirectly aided by the existence of the transmission protection instrument.

Graph 6. Total public debt (% of GDP) and public debt in the hands of the Bank of Spain (% of GDP), 1995-2023



The second pillar of the ECB's support to Spain was an abundant provision of liquidity to the financial system. At the end of 2019, TLTRO credit stood at close to 11% of GDP (133 million euros). However, the figure rose steadily over the next two years to reach a high point in June 2021 (291 million euros, or 24.9% of GDP), where it remained until October 2022. From then on, the balance of TLTRO credit plummeted to a paltry 2 million euros in April 2024 in keeping with the ECB's change of policy. In terms of financing needs in the Spanish banking sector, the provision of TLTRO-III operations rose from 6% of current liabilities (cash and deposits and debt securities from OMFIs) in 2019 to somewhat more than 11% in June 2021 and, lastly, to barely 1.0% in 2023.

Graph 7. ECB support to the Spanish banking sector: TLTRO evolution, 2015-23 (in million euros)

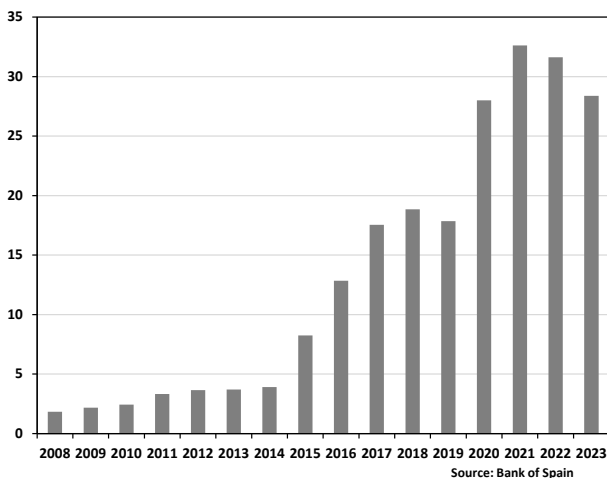


In total, the items on the Bank of Spain's balance sheets that related to asset purchases and long-term bank financing, which had risen sharply from 21% of GDP in 2015 to 37% of GDP in 2019, grew substantially until they

reached an unprecedented 72% of GDP at the end of 2021 (nearly 48 points in asset purchases and 24 in TLTROs). This figure held steady until mid-2022 after which, thanks to a sharp fall in TLTRO-III balances, it fell to 43% in 2023.

One prominent aspect of the ECB’s intervention in 2015-22 concerns the marked differences in favour of Spain, which have tended to diminish in the last year and a half. Thus, in June 2022, the operations of asset purchases and long-term banking credit represented 71% of GDP in Spain compared to a much lower figure of 48% across the EMU (excluding Spain). By 2023, Spain had witnessed a sharp fall in the figure to 43% of Spanish GDP, which was nevertheless still far higher than the 32% of GDP across the EMU (excluding Spain). That said, the greater reduction in Spain reflected not only a higher starting point but also and especially a sharper contraction in long-term finance: between November 2022 and April 2024, TLTRO-III balances in the Spanish banking sector fell more than 99%, compared to a smaller -92% across the EMU (excluding Spain). Accordingly, the respective credit operations to Spanish banking fell from roughly 13% of the total provided by the Eurosystem to a paltry 1.4% in April 2024. As for the purchases of debt, their weight has remained practically level: from October 2022 to March 2024, they fell by only 6.9% (from 4.3 billion euros to 4.0 billion euros) across the countries of the EMU (excluding Spain), while the contraction in Spain has been even smaller (-4.4%, from 627 million euros to 600 million euros).

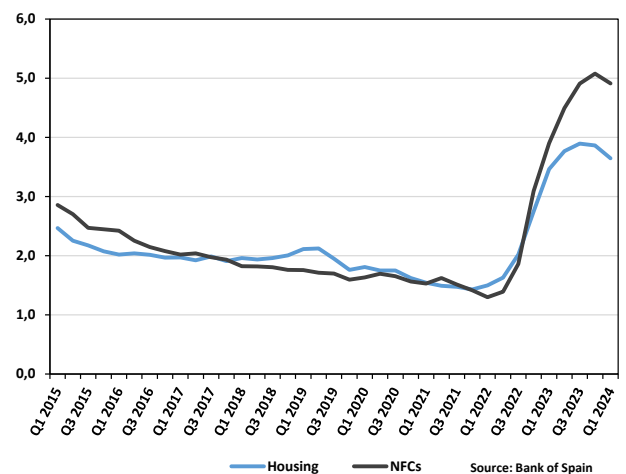
Graph 8. ECB intervention in Spain: Spanish debt on the Bank of Spain’s balance sheet, 2008-23 (% of GDP)



Lastly, in the area of private sector financing, the recovery initiated at the end of 2014 rested on low-cost credit, which permitted moderate increases in credit

volumes (from an average of 560 million euros in 2013-19 to 592 million euros in 2022-23). For households, the interest rates on new operations to purchase housing continued to fall from 2015 onwards: between December 2015 and December 2021, interest rates fell from 1.98% to 1.38%; then they began to rise until they reached 3.80% in December 2023 and, given the prospect of rate cuts in 2024 and 2025, fell back again to 3.49% in March 2024. In terms of new mortgage loans, the post-financial crisis low point in 2013 (22 million euros) gradually rose to 37 million euros on average in 2014-19 and then to nearly 60 million euros in 2022-23. Other types of household credit (credit cards, consumption and other purposes) presented the same profile, standing at 175 million euros in 2013-19 and 185 million euros in 2022-23.

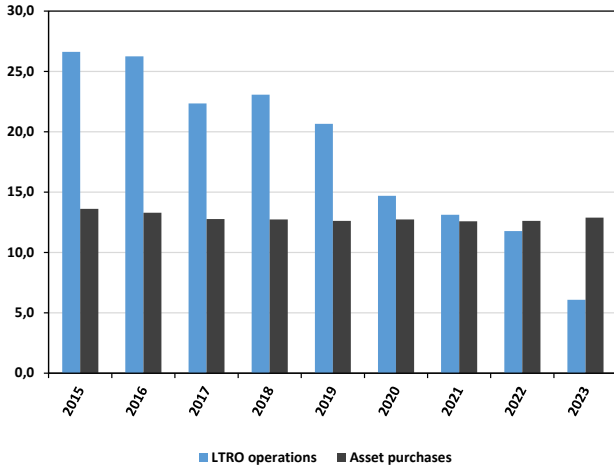
Graph 9. ECB support to private sector credit in Spain: interest rates for the purchase of housing and for NFCs, Q1 2015-Q1 2024



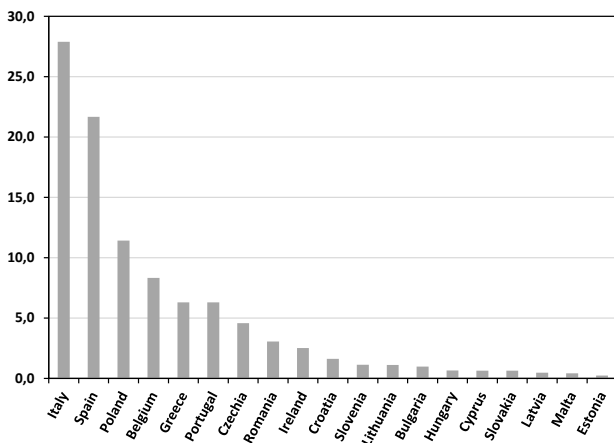
For NFCs, the rise in interest rates on new credit operations starting in the summer of 2022 was steep: while rates had fallen from 2.37% to a low point of 1.24% between December 2015 and December 2021, the shift in monetary policy saw rates rise sharply to 5.04% in December 2023, although they did fall back to a slightly lower level in March 2024 (4.90%). This, together with the fact that zero rates or negative rates in real terms had facilitated business financing in the bond market, was reflected in moderate falls in the volume of new credit from, on average, 393 million euros in 2013 to 351 million euros in 2014-19 and 345 million euros in 2020-23.

Graph 10. The greater support of the ECB and the EU provided to the Spanish economy: % of LTRO operations and asset purchases (averages 2015-Q2 2022) and EU aid (SURE and NextGen, % of total)

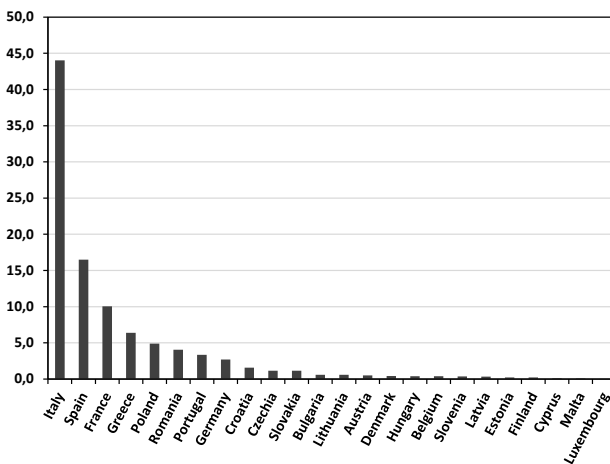
a. LTRO operations and asset purchases (monetary policy)



b. Allocation from SURE programme in December 2022 (in %)



c. Allocation from Recovery and Resilience programme through Q1 2024 (in %)



Source: Bank of Spain

Together with ECB support, the period 2020-23 has also witnessed marked and extraordinary assistance from the EU, both in the temporary suspension of European Commission controls over public finances and in the provision of funds. The suspension of the Stability Pact covered a four-year period from 2020 to 2023, enabling the Spanish public sector to run high deficits without the need to make immediate fiscal adjustments. On the other hand, direct assistance came in the form of lower interest rates through the SURE programme (for Spain, roughly 20 million euros helped to finance temporary job furloughs in March-May 2020), NextGen programme grants for investment in certain sectors (70 million euros), and a similar figure in loans (for an analysis of the programmes listed above, see Castells, 2021). When looking at the whole range of actions, it is important to note that Spain has benefitted to a particularly large extent: the weight of funds received has been in the region of, or greater than, 20% of the total, which is practically twice as great as the share of Spanish GDP in the EMU.

2. Changes in the financial sector's balance sheet in the past decade

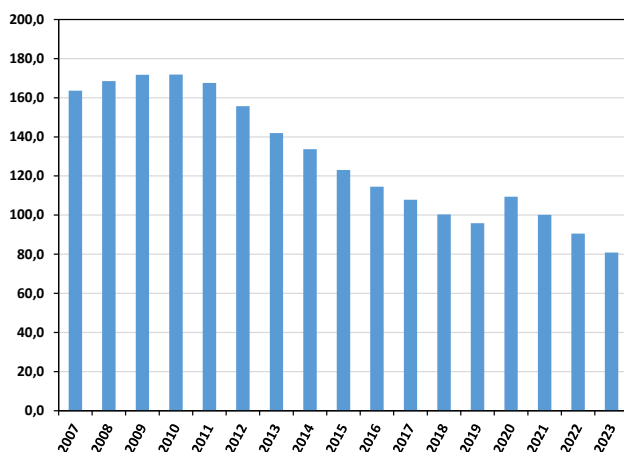
In the crisis of 2008-12, Spain's excesses of internal and external debt were the flipside of the expansionary evolution of bank credit in 1997-2008 (Oliver, 2017). Indeed, the severity of the later crisis cannot be understood without the very sharp growth in internal credit (particularly in relation to real estate), financed in no small measure through the external borrowing of the banking system. Accordingly, any consideration of the extent to which the country has reduced its vulnerabilities must necessarily look at the characterisation of the evolution and current state of the banking sector. In the past decade, the banking sector has been the subject of rolling reviews, not only by the European Commission in its efforts to tackle macroeconomic imbalances in Spain (EC, 2021 and 2023e) but also in the IMF's balance sheets (IMF, 2022a, 2024a) and more specifically, in the analyses of financial stability (Bank of Spain, 2022; 2023a, 2023b; 2024a, 2024b and 2024c), bank supervision (EC, 2023c and 2023d), credit quality and the fulfilment of the new Basel III criteria (EBA, 2020; 2023a, 2023b and 2023c), and risks in the real estate market (ESRB, 2022 and 2024). Given the vast breadth of the literature, the focus here turns to

an analysis of two aspects that have received less attention: in terms of assets, the substantial reduction in their size; and in terms of liabilities, the reduction in external financing. There will also be a brief mention of the evolution of capital ratios, asset quality, and especially, given the major changes in monetary policy, liquidity.

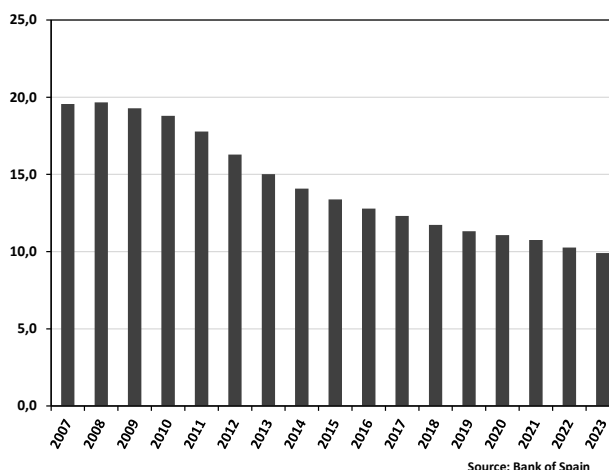
First, in relation to the relative decline in the weight of bank loans in the Spanish economy, the financial crisis initiated a marked reversal back towards values that predate the expansion of the 2000s. This was part of a process fuelled by consolidation in the sector, ordinary amortisations, the acceptance of losses, the sales of doubtful assets, moderation in the growth of credit, and nominal rises in GDP. Thus, the weight of total credit in the banking sector in relation to Spanish GDP has not stopped falling since its high point of 172% of GDP in 2010 (in spite of macroprudential measures adopted in the 2000s by the Bank of Spain, Beday et al., 2020). Indeed, its weight had already been cut practically in half by 2019 (96% of GDP) and, even though the recession of 2020 pushed the figure up temporarily (to 109%), the nominal growth of GDP and the very moderate growth in private sector credit from 2014 onwards pushed it down to 81% of GDP in 2023. The 2023 figure is not far from the 70% of GDP on average in 1995-2001, confirming that after periods of excessive growth in credit, credit tends to revert to the situation prior to expansion (Tang and Upper, 2010; Claessens and Kose, 2013). Doubtless, the exceptional downturn made it possible in 2023 to keep the countercyclical capital buffer (i.e. the difference between the credit-to-GDP ratio and its trend) at 0% (Bank of Spain, 2023c).

Graph 11. Weight of bank loans to the private sector over Spanish GDP (%) and as a % of total lending to the private sector across the EMU, 2007-2023

a. Weight of bank loans to the private sector over Spanish GDP (%)



b. Weight of bank loans to the private sector as a % of total lending to the private sector across the EMU



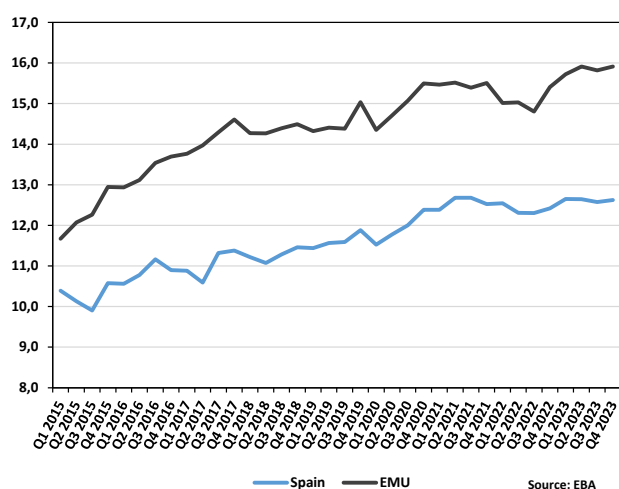
This process has altered the share of Spain as a proportion of the stock of private credit across the entirety of the EMU: in 2008, they contributed a very high 19% of the total, far above the level of Spain's GDP at the time, which was 11.4%. This generated a "theoretical excess" of private sector credit that was greater than 40% (the difference between 1.844 billion euros in cash and 1.077 billion that would correspond to the weight of Spain's GDP within the EMU). That said, however, the gap has not ceased to fall since then. By late 2023, it was even -2.7% lower than it should have been theoretically.

A second key aspect of the balance sheets of monetary financial institutions (excluding the Bank of Spain) in relation to their liabilities has been the sharp decline in external debt. While external debt reached as high as 86% of GDP in the last quarter of 2008, it had fallen back to 60% by the end of 2023, reflecting a loss that has affected all OMFI's instruments of current liabilities (deposits fell from 45.5% to 30.2% of GDP; debt securities fell from 23.6% to 17%; and remaining liabilities fell from 16.7% to 13%).

Alongside the relative reduction in the weight of credit and external financing, it is also necessary to give a brief mention to other important factors in the evolution of OMFI's over the past decade: capital, liquidity and asset quality. First, in the case of capital, Basel III introduced changes in capital structure and the priority of different instruments for the absorption of losses or the liquidation of an entity. Ranked from higher to lower quality, the different capital aggregates have improved in proportion to risk-weighted assets, but they remain at levels below the average for the countries in the Single Supervisory Mechanism (SSM). Thus, between 2015 and late 2023, the CET1 rose from 11.6% to 12.6%, which is

still below the average of 15.9% for the banking sector under the SSM and also below the levels recorded in Germany (16.5%), Italy (15.8%) and France (15.9%). The TIER1 aggregate (CET1+AT1), for its part, rose from 12.5% in 2015 to 14.3% in 2023, which is also lower than the 17.3% for the banking sector in the countries of the SSM. Lastly, the total capital ratio (CET1+AT1+TIER2), which had reached 14.4% in 2015, stood at 16.7% in Spain in 2023, reflecting a level three points below the average of 19.9% under the SSM (EBA, 2023c and 2023d).

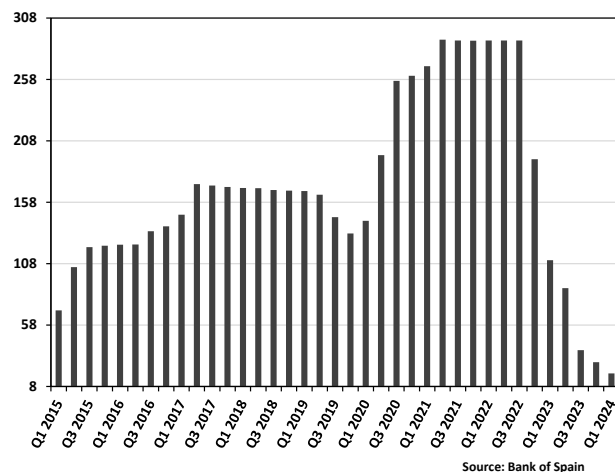
Graph 12. CET1 ratio in Spain and the EMU, 2015-2023 (% of risk-weighted assets)



Second, in the case of liquidity, it has been particularly affected in 2022-24 by the repayment of TLTRO-III loans (EC, 2023c) and the initial cutbacks in the purchases of assets by the Eurosystem. Nonetheless, the Bank of Spain (2023a, 2023b and 2024b) continues to note that liquidity remains ample. Specifically, in December 2023, the liquidity coverage ratio (that is, unencumbered assets in relation to net outflows that may arise over a 30-day scenario, or LCR) stood at 178.3%, which is far higher than the required 100% and even greater than the European average of 167.1%. In turn, the net stable funding ratio (i.e. funding in relation to net outflows that can arise over a 1-year scenario, or NSFR) reached 131%, which was also higher than the compulsory 100% and similarly greater than the EMU figure of 127%. By maintaining these liquidity ratios, it has been possible to offset the TLTRO-III reduction with cumulative balances in the deposit facility (between November 2022 and April 2024, the net standing facilities of the Spanish banking sector at the Bank of Spain fell by roughly 150 million euros, from 353 million euros to 204 million

euros), involving mobilisation of the debt portfolio through repos or an increase in the issues of debt (Castillo Lozoya, et al., 2024; Bank of Spain, 2024c). In the last area, the Spanish banking sector has continued to issue debt in spite of the higher financing costs to meet MREL requirements, which, according to the EBA, there should be no problems in meeting (EBA, 2023a).

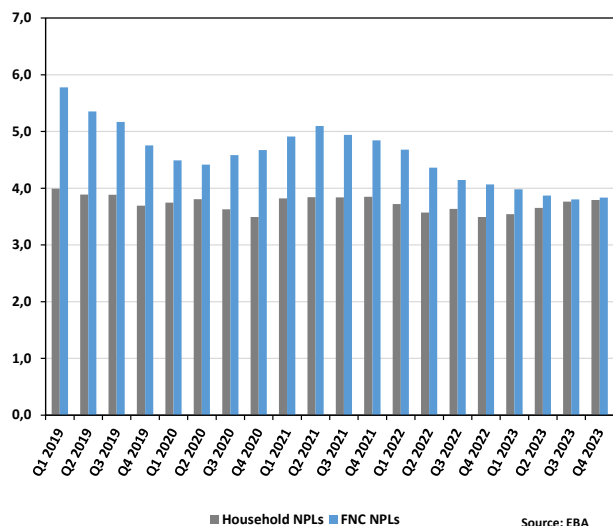
Graph 13. Injections and drawdowns of long-term liquidity: evolution of TLTRO-III operations in Spain, Q1 2015-Q1 2024 (in million euros)



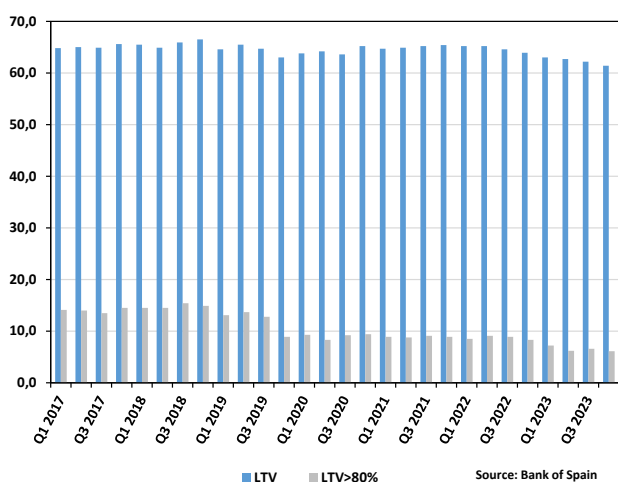
Lastly, with respect to asset quality, there has been a notable reduction in problematic credit over the past decade, although 2023 saw a slight uptick (EC, 2023c, 2023d and 2023e). In the case of doubtful credit, the Bank of Spain put the figure (in February 2024) at 3.6%, which is far below the high mark of 13.6% at the end of 2013. If asset quality is measured in terms of NPLs appearing in the EBA's statistics (2020 and 2023a), there has also been a sharp decline, falling to 1.4% in Q2 2022 and climbing modestly again by the end of 2023 to 2.2%, which exceeds the average of 1.8% across the EMU. Lastly, Stage 2 credits (loans that have undergone a significant rise in credit exposure) have deteriorated to some extent, rising from 6.27% in June 2023 to 6.53% at the end of 2023 (Bank of Spain, 2024a).

Graph 14. Quality of assets in the Spanish banking sector: NPLs for households and NFCs in 2013, 2019, 2023 (% of total lending to the sector) and loan-to-value figures (LTVs) and LTVs greater than 80% (figures for Spain and the EMU in 2017, 2021 and 2023, % of home loans)

a. NPLs for households and NFCs, 2019-2023 (% of total lending to the sector)



b. Loan-to-value figures (LTVs) and LTVs greater than 80%, 2017-2023 (% of home loans)



At the sector level, the new credit terms in 2023 were reflected in a marginal rise to 3.8% in NPLs among households (up from 3.5% in 2022), while the NPLs among NFCs continued to fall, but at a slower pace (dropping to 3.8% in late 2023 from 4.8% in 2019 and 4.1% in 2022) (EBA, 2023a). This picture, however, does not imply that NPLs have fallen at the same rate in all sectors, particularly the sectors most affected by the Covid-19 pandemic. In particular, NPLs stood at 8.9% for artistic and recreational activities; 7.2% for hotels and restaurants; 4.5% for commerce; and 4.0% for transport. Indeed, all of these weights are higher than their

counterparts in the same sectors in Germany, France and Italy.

As for banking assets and their quality, one last consideration should be made in relation to real estate sector assets. The real estate sector posed problems for the European Commission that deserve special attention (EC, 2022). For Spain, the European Systemic Risk Board (2022) characterised the state of the residential sector in 2021 as one of low risk in terms of credit exposure, pointing to its favourable position in the housing market cycle (slowing/change of direction). Subsequently, their view was confirmed with lower transactions and mortgages (which pointed to a moderation in price growth) and a reduction in LTVs (loan-to-value figures) for new operations (falling from 64% in Q1 2006 to 61.4% in Q4 2023), particularly for LTVs greater than 80% (falling from 17% to 6.1% over the same period), reflecting a lower level than in other European countries. By contrast, the aspects of concern notably included the higher proportion of mortgage loans taken out at variable rates of interest, a certain degree of overvaluation in housing prices (rising from 6.7 years of gross household income in 2012 to 7.6 years in 2023), and greater service costs as a share of income owing to higher interest rates (ESRB, 2024).

3. Internal financial flows and external balances 2014-2023

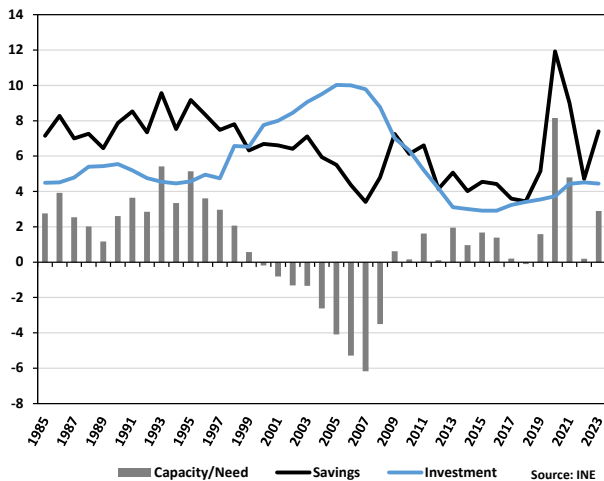
The strong correction of financial imbalances accumulated during the expansion of the 2000s, together with a correction in the debtor balance of Spain's IIP as set out in greater detail below, emerge as one of the most substantial macroeconomic changes of the past decade. Prior to an assessment of the changes, however, it is necessary to identify the behavioural changes of agents in the economy: ultimately and without considering any changes in the prices of financial assets and liabilities, their stocks reflect the evolution of the flows. Below, therefore, is a succinct overview of the evolution of savings, investment and financing capacity/need in the private sectors of the Spanish economy in recent years.

3.1. Private financing capacity near 7% of GDP, which more than offsets public needs

Starting with households, it is important to recall that their savings/investment balance has historically been

positive, given an average annual financing capacity of 1.2% of GDP over roughly 40 years from 1985 to 2023. This evolution reflects rates of savings and investment at 6.5% and 5.6% of GDP, respectively. That said, the average has experienced sharp swings, notably marked by a significant change that occurred with the adoption of the euro: between 1999 and 2008, gross household savings not only fell with respect to previous years, but was also much lower than the 8.8% rate for household investment, giving rise to an unfamiliar need for annual financing at -2.5% of GDP. The next decade from 2009 to 2019 brought another notable change, as the surpluses reverted to their historical mean: an average annual financing capacity of 0.9% of GDP for households, which reflected falls not only in savings (4.9% of GDP) but also and especially in investment (4.1% of GDP). While the downturn in GDP in 2020 altered the averages to some extent, a look at the post-crisis period of 2012-23 as a whole gives us an average annual financing capacity for Spanish families at 2% of GDP as a result of rates of investment falling to significantly lower than their historical rates, specifically by 2 points of GDP (3.6% of GDP compared to 5.6% of GDP in 1985-2023), which reflects a dramatic fall in housing investment, while savings were only one point lower. This surplus, which far exceeds the long-term surplus, accounts for a large portion of the country's external balance over the years in question.

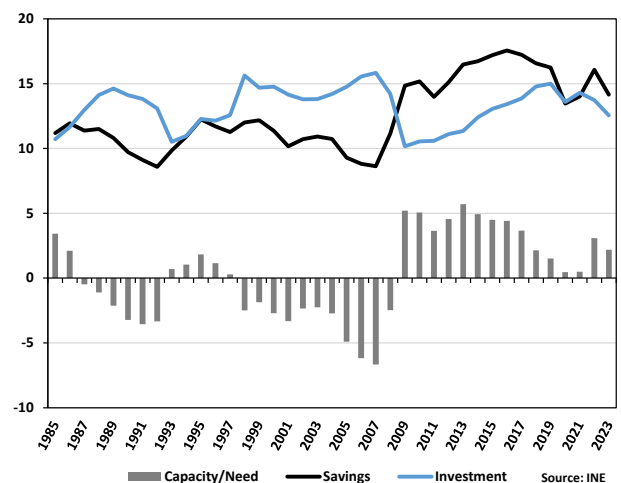
Graph 15. Savings, investment and financing capacity/need of Spanish households, 1985-2023 (% of GDP)



For their part, non-financial corporations (NFCs) have also exhibited substantial changes in their traditional need for funds. Given a savings/investment balance of 0.3% of GDP between 1985 and 2023 (average investment of 13.2% and savings of 12.6%), their needs

for financial resources rose sharply at the start of the expansion, so that in 1999-2008 they reached quite a significant -3.5% of GDP. Logically, the financial crisis and its subsequent effects radically changed this picture, so that their need for resources took off in 2009-2019, reaching a very high level of 4.1% of GDP/year. Indeed, in 2020-23, the rate kept its positive sign, although it was much lower (1.6% of GDP). Taking the average for 2012-23, what emerges is a significant financing capacity among NFCs at 3.1% of GDP, a level that is certainly exceptional and far from the traditional need of NFCs for funds to supplement savings.

Graph 16. Savings, investment and financing capacity/need of Spanish NFCs, 1985-2023 (% of GDP)



To what extent do the factors responsible for this major change in the capital account balance of NFCs reflect changes in their savings and investment? In the case of savings, the long-term average for the period 1985-2023 stood at 12.6% of GDP, although it did go through significant ups and downs. Notably, NFC savings fell appreciably in the expansion of 1999-2008 (10.4% of GDP), increased in the post-crisis period of 2009-19 (16.1% of GDP) and once again fell in 2020-23 (14.4% of GDP), although it was still 2 points of GDP above its historical average. For the entirety of the post-crisis fiscal period (2012-23), NFC savings stood at 15.9% of GDP, which is some 3 points of GDP higher than the average for the past 40 years. Given this evolution, the gross fixed capital formation (GFCF) of NFCs fluctuated moderately around the level of 13.2% in the period 1985-2023, marked by a greater investment effort in the expansion of 1999-2008 (14.6% of GDP), a reduction in 2009-19 (to 12.4%), which was a period in which deleveraging was the norm, then a modest rise to 13.5% in 2020-23. For the period 2012-23, the average of 13.3% stood

practically at the long-term average for the period 1985-2023. Overall, the change in the capital account balance of NFCs reflects significant increases in their savings together with reductions in their investment: the long-term average for savings in 1985-2023 rose more than 3 points of GDP (from 12.6% to 15.9% in 2012-23), while investment in 2012-23 held steady at 13.3% of GDP, a figure that is practically identical to the level for 1985-2023.

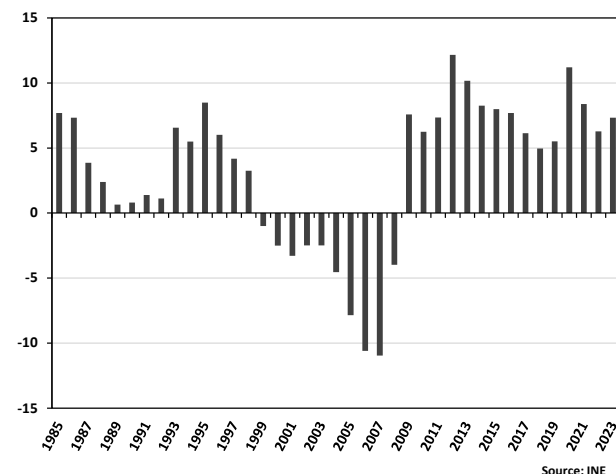
A different, but related question pertains to the evolution of the different components of GFCF, namely capital goods and construction. Although no disaggregated data exist for NFCs, the figures for Spain as a whole do make it possible to draw a few important conclusions. First, with respect to investment in capital goods, their weight fell from 7.0% of GDP on average in the period 1995-2008 to 5.9% of GDP in 2018-23 (following a practically identical pattern to the EMU, where the figure fell from 7.0% to 6.3% of GDP). Second, investment in construction declined more sharply, plummeting by more than 7 points of GDP from 17.5% in 1995-2008 to 10.3% in 2018-23, culminating in a figure that is very similar to the average for the euro area (where it fell from 11.9% to 10.9%).

In addition to the behaviour of households and NFCs, it is necessary to look at financial institutions. In the case of financial institutions, however, it is only possible to present aggregate figures. This is because the non-financial accounts provided by the INE do not draw any distinctions between subsectors (financial institutions, monetary and non-monetary, plus the Bank of Spain). As a whole, though, FIs have always posted surplus resources, reflecting a savings rate that far exceeds their investment rate (only 0.2% of GDP in 1985-2023, although it was somewhat higher in the final years of the period). Indeed, the savings rate stood at 1.8% of GDP, growing strongly in 2009-19 and 2020-23 (climbing to 2.6% and 2.7% of GDP, respectively).

Changes in the behaviour of households, NFCs and FIs point to a shift that is certainly radical, that is, from a high need for resources in 1999-2008 (-5.0% of GDP on average), reflecting the strength of domestic demand, to a very strong financing capacity in 2009-19 (7.6% of GDP). It must be stressed that positive values in the region of 7% of GDP had been achieved only in periods of crisis, such as 1984-86 and 1993-96. The period from 2012 to 2023, however, began to see moderate increases in demand becoming compatible with financing capacities of 8.0% of GDP on average, far from the 1.1% recorded in 1985-2011. It should be noted that,

in terms of accounting, this financing capacity of households, NFCs and FIs explains why the higher public deficit (from 2012 to 2023, it was -5.7% of GDP on average) not only posed no financing problems, but also helped to generate external financial surpluses for Spain. In short, there was a very high level of financing capacity at 8% of GDP for 2012-23, which can be broken down into 2 points for families, 3.1 points for NFCs and 2.9 points for FIs.

Graph 17. Private sector financing capacity/need, 1985-2023 (% of GDP)



Source: INE

Given a trajectory that differs so greatly from the traditional one, does this reflect changes in sector-specific behaviour that might be regarded as sustainable? It proves to be an important question because, given the far-reaching transformations of the past decade, it is not obvious that the lower investment of households or the greater savings of NFCs and FIs (including the Bank of Spain) can be maintained. While conducting an analysis of the underlying reasons is not the aim of the present *Policy Brief*, though, it is important to note some of the hypotheses that might point to sustaining the changes in question. For households, two changes suggest a higher savings rate in the years ahead, based on the abundant literature addressing the consumption function. For younger groups, the savings rate would appear to be driven upwards by their uncertainty over the future, wage moderation, and rising housing prices. In addition, profound demographic changes suggest a rise in the household savings rate: pointing in this direction are the decline in under-45 cohorts (who have a high propensity to consume), the accumulation needs of the baby boomers prior to retirement, and the strong increase in immigration (a group with an above-average savings rate). For NFCs, given their needs for GFCF and especially

capital goods, it is necessary not to forget the skew towards tertiary production and personal services (36.1% of GDP in 2022-23, which is greater than the figure of 32.9% across the EMU), although their reduction might also be due to falling returns on investment (Rovira, 2024, forthcoming).

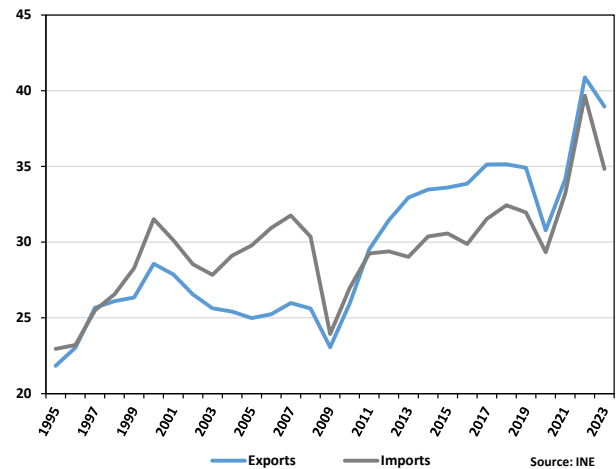
3.2. The persistence of an external surplus: a new normal?

When GDP growth is high, the behaviour of institutional sectors has historically given rise to a deficit in the external balance. Seen through this lens, their behaviour has driven strong rises in imports (between 1995 and 2008, an annual average of 7.6% in real terms) that exceeded the rises in exports (at 6.0%). One effect can be seen in traditional current account deficits (-4.6% of GDP on average). The way that this operated, however, underwent major change with the financial crisis, which prompted a structural shift in the behaviour of the external sector, giving rise to significant implications for financial stability in the medium and long term. In the period 2012-23, the current account surplus rose to 1.7% of GDP annually, marking a rather important transformation with respect to the traditional deficit and reflecting an increase in average exports in real terms (3.5%) in 2012-23 in excess of the increase in imports (2.5%).

Beyond any short-term changes in the different balances (for example, the changes in energy that occurred in 2021-22), the changes in the contributions of exports and imports to GDP may well be even more relevant for the outlook of the external balance. As for exports, their increase has been exceptional. In 2022-23, they stood at 40% of GDP, some 20 points above their level in 1995 and almost 10 points higher than in 2013. This was the case not only with the balance of goods (15% of GDP in 1995, 23% in 2013 and 26% in 2023), but also with the balance of services, including tourism services (in the region of 5% of GDP) and remaining services (with exports of 2.4% of GDP in 1995 rising to nearly 6.7% in 2023). Imports, for their part, followed the same trajectory: in 1995, 2013 and 2023, the weight of imports rose from 23% to 29% and then to 35% of GDP, respectively. In total, since 2012, the balance of goods and services has remained positive, achieving an average of 3.2% of GDP in 2012-19 and 2.7% of GDP in 2020-23. In any case, it is necessary to subtract the deficits of primary and secondary income from the balances of goods and services, with the result that the current account posted an average surplus of 2.0% (2012-19)

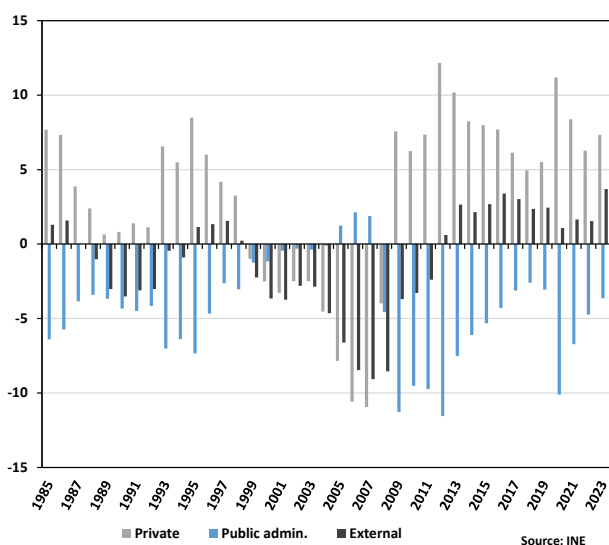
and 1.1% (2020-23), respectively. After adding a positive capital account balance (between 0.4% and 1.0% of GDP, fuelled only in part by inflows linked to the NextGen programmes), all of this resulted in a balance-of-payments surplus of 2.4% in 2012-19 and 2.0% in 2020-23. Doubtless, this phenomenon reflects another very significant shift in the behaviour of the Spanish economy since the mid-1990s, that is, from needing external resources to finance part of its domestic investment to lending resources to the rest of the world.

Graph 18. Exports and imports of goods and services in Spain, 1995-2023 (% of GDP)



As noted earlier, identifying the reasons for the changes described above is not the aim of the present *Policy Brief*. An analysis of this sort would require, for example, the estimation of models to obtain the current account balance that would stabilise Spain's IIP and/or situate it at certain levels (NIIP-stabilising current account benchmarks) (Coutinho et al., 2018) or the estimation of models that would help to define current account balances in line with the country's fundamentals (Phillips et al., 2013). It may be noted, however, that the current account deficits of the past decade were initially attributed to the confluence of contextual factors (linked to the recession and lower post-crisis growth) and structural factors (improvement in the export base, a fall in the elasticities of imports, population ageing, fiscal tightening, lower expectations for GDP growth, and enhanced internal competitiveness) (IMF, 2017; Myro, 2018; Alves et al., 2019). Indeed, the contextual factors accounted for 40% (Bank of Spain, 2018) while the structural factors accounted for 60% (Delgado-Tellez et al., 2020).

Graph 19. Financing capacity/need of private, public and foreign sectors, 1985-2023 (% of GDP)



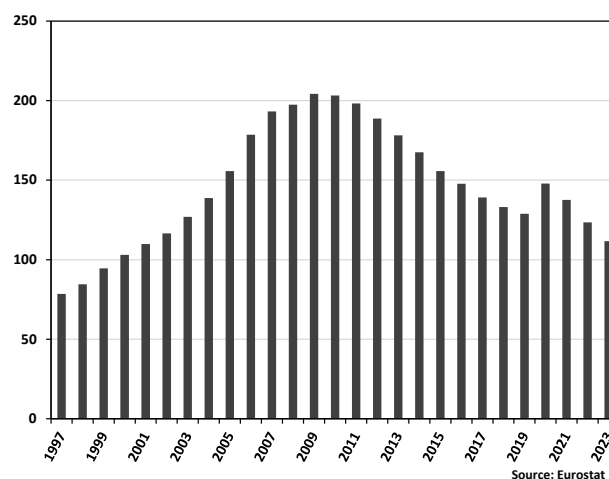
4. Will the private sector return to pre-euro debt ratios?

The evolution of internal financial flows is a critical window, albeit only a partial one, into the reduction of private debt and its trend toward values from before Spain's membership in the euro area. For the non-financial private sector, the consolidated debt in 1996 (including loans and debt securities) stood at 75% of GDP, then soared in the period of expansion to reach 204% in 2009, reaching levels that were far higher than the levels across the EMU at the time. From that high mark, private debt set off on a clear downward path, which brought the figure down to 129% of GDP in 2019. Indeed, the steep decline put the figure on par with levels across the euro area. While Covid-19 temporarily increased the weight of private debt (to 148% of GDP), the subsequent end of the pandemic brought a resumption of the previous rapid deleveraging. By 2023, private debt had fallen to 112% of GDP, culminating a sharp decline that had been occurring since 2009, although the level in 2023 was still some 20 points of GDP above the average in 1997-2001 (94% of GDP).

The reasons for this exceptional adjustment are no different from the reasons for changes in other financial variables: a nominal rise in GDP (up nearly 42% from 2012 to 2023), a moderate increase in new credit to households and NFCs (nominally 6.3%, on aggregate), ordinary amortisations, the assumption of losses and, logically, modifications in the value of different debt instruments. In spite of the improvements, however, the assessment of private debt is less favourable when it is

compared to prudential limits (above which the likelihood of a banking crisis increases) or reference limits (estimated with models that use representative variables for each country). In 2019, for example, Bricogne et al. (2020) estimated a prudential debt ratio of 85% for NFCs and 55% for households across 65 countries, while the reference limit was lower at 75% for NFCs and 50% for families. Using similar procedures, the European Commission, in 2021, warned of a significant excess of private debt in Spain in relation to the reference value, and somewhat higher if the limit was prudential. Accordingly, in the context of the changes undertaken between 2019 and 2023, all signs point to the fact that the reversion to the Spanish mean of 94% of GDP in 1997-2001 should continue.

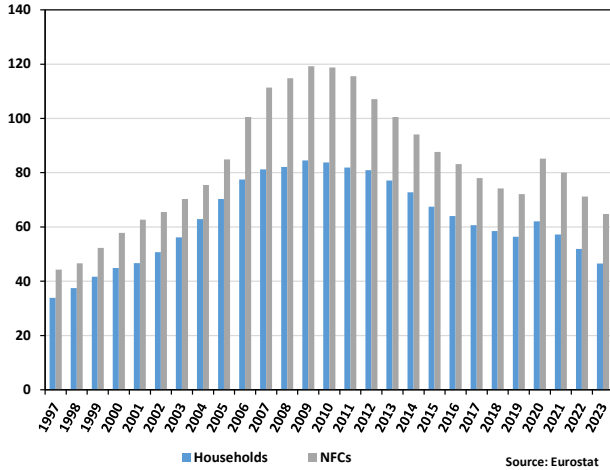
Graph 20. Debt of non-financial private sector in Spain, 1997-2023 (% of GDP)



At the sector level, household debt and NFC debt have not contracted with the same intensity, although both sectors share the same downward trend noted previously. For families, the reduction in debt (total financial liabilities) has been large, plummeting from a high mark of nearly 91% of GDP in 2010 to 57% of GDP in 2019 and, in spite of a brief uptick because of Covid-19, down to 47% in 2023. This level must be put in its broader historical context: in absolute terms, the 917 million euros of household debt in 2008 fell to 685 million euros by 2023. As a result, the 47% of GDP achieved in 2023 takes the level of household debt back to its weight in 2001 and puts it very close to its average of 41% of GDP in 1997-2001. Basically, the fall reflects a decline in all forms of credit (credit for mortgages, consumption and other purposes) that reached 43% of GDP in 2023, which is below the levels in Germany (54.5%) and Italy (50.5%). Lastly, as with aggregate private debt, the European Commission has been

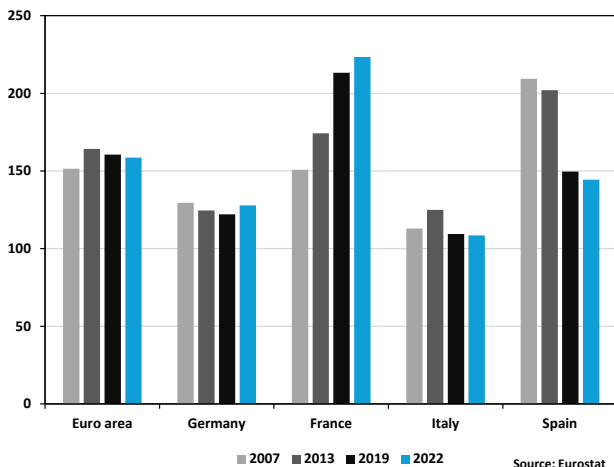
warning that household debt continues to exceed prudential and reference limits.

Graph 21. Consolidated debt of households and NFCs, 1997-2023 (% of GDP)



In turn, NFCs have made greater efforts to reduce their level of debt. Precisely in this sector, debt fell sharply in the period 2009-19 (from 119% to 72% of GDP in consolidated terms), reflecting not only the broad reasons affecting indebtedness, but also the destruction in the productive sector that occurred in 2008-14, especially in production with a direct or indirect relationship to construction. In any event, the downturn in GDP in 2020 caused a brief uptick in NFC debt to 85% of GDP, although it fell to roughly 65% by 2023, marking the lowest level since 2002 and very close to levels in 1997-2001 (53% of GDP). Also, in keeping with its view on households, the European Commission considers that, in spite of these falls, NFC debt remains above both the reference limits and the prudential limits.

Graph 22. Consolidated private debt in Spain and other countries in the euro area in 2007, 2013, 2019 and 2022 (% of GDP)



Also contributing to the decline is a moderation in new credit to NFCs, although it must be remembered that the weight of other debt instruments has been growing since 2015, thanks to the change in terms. In any case, the reduction in credit to the sector from 2009 reflected, to no less an extent, the credit provided to the construction and real estate sectors: while the levels of credit to NFCs was close to 50% in 2007-08, it has since converged toward the average of 21% in 1997-2001, reaching even lower levels in December 2023 (at 18%).

In comparison with the EMU (debt in non-consolidated terms), the debt adjustment of NFCs has been intense. At the high mark of NFC debt in Spain in June 2010, the difference with the EMU was greater than 40 points of GDP (with the figure in Spain close to 141% of GDP compared to 101% in the euro area). By 2023, however, the level of NFC debt in Spain (approximately 82%) was lower than the level in the euro area (95%).

5. Notable but insufficient progress in the reduction of net external borrowing

The refinancing of high external debt accumulated in the expansion, especially foreign debt in the financial sector, was the weak link that triggered the financial crisis in Spain. Indeed, this was a new process in the EMU because it affected countries that shared a single currency: the crisis showed that when a lack of trust in the ability to make foreign payments spreads, debt refinancing becomes critical (Reinhart and Rogoff, 2010; Catão and Milesi-Ferretti, 2013). Thus, between 2008 and 2012, the emergence of sudden stops or reversals of capital flows, which are by and large typical in less advanced countries (Mendoza, 2002 and 2010; Waysand et al., 2012; Obstfeld, 2012a and 2012b), became the norm in the southern region of the euro area. In any assessment of the state of the Spanish economy in 2022-24, therefore, it is vital to identify the current state of external debt and its evolution in recent years.

When dealing with external debt, it is necessary to draw a distinction between the different meanings of the term: total liabilities, gross debt and net debt (international investment position, or IIP). Whatever the definition, however, it must be noted that any variations in their relative values reflect changes in nominal GDP, changes in the prices of assets and liabilities (owing to changes in profitability, interest rates or exchange rates,

and other factors that can affect expectations of capital gains/losses), or changes in factors that can alter their volume (balance of payment figures or changes in the flows of internal or external investment). In any event, the sum total of external liabilities indicates the volume of resources on loan from the rest of the world, regardless of enforceability. By contrast, gross debt only takes into consideration the resources that generate interest payments or amortisations. Both definitions raise potential problems in financing or refinancing as a result of changes in international financial terms. For its part, net external debt (i.e. the difference between assets and liabilities with the rest of the world) points to the solvency of the country, that is, its capacity to pay back its accrued liabilities.

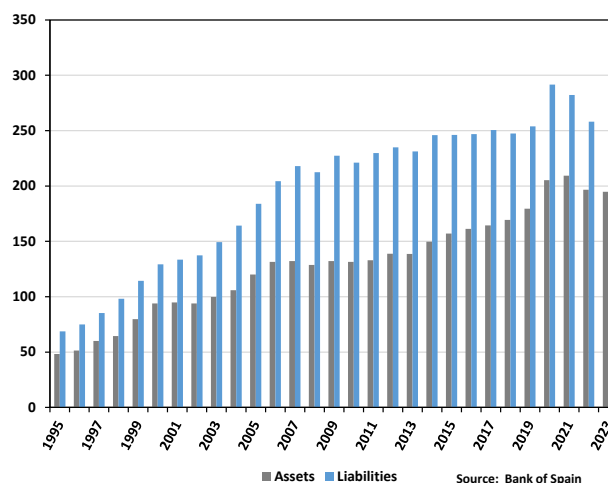
5.1. External deleveraging in 2020-2023 and changes in its structure: substituting the private sector for the public sector

Prior to an assessment of the improvement in Spain's IIP, it is important to look briefly to what has happened with total liabilities and gross debt. First, with respect to total liabilities, the most characteristic aspect in the past two decades has been their strong rise, indirectly reflecting the removal of exchange rate risk from 1999 onwards and thereby demonstrating the country's increasing international financial integration. In any event, bearing in mind that any upward or downward movement may reflect price changes, Spanish liabilities in the hands of the rest of the world rose steeply in the expansion phase (from 85% of GDP in 1997 to 231% of GDP in 2008). Indeed, the increase carried on into the next decade, reaching 254% of GDP in 2019. Logically, changes in nominal GDP in 2020-23 affected their weight, and so did interest rate hikes from the summer of 2022 onwards. As a result, the level of 249% of GDP at the end of 2023 was no longer very far from the relative level of 2019. It was also in line with the level posted in the leading countries of the euro area. Importantly, the rise in external debt from 2008 onwards occurred in spite of a reduction in international banks' creditor positions with Spain (i.e. the Grand Retrenchment, Miles-Ferretti and Tilles, 2011), from a high point of 1.1 billion dollars in Q1 2008 to 370 million euros in Q4 2016, although there has since been some recovery (rebounding to 527 million dollars in 2023).

The strong expansion in liabilities until 2012 fundamentally reflected a need for foreign resources to finance the acquisition of external assets, together with the funds needed to offset the external deficit. In effect,

the stock of assets amounted to 60% of GDP in 1997, but doubled in weight by 2007 (to 132% of GDP) and then practically tripled in weight by 2023 (to 195% of GDP). This steep increase has only been financed very partially, and only since 2012, by surplus resources from the external balance (Alves et al., 2019), so that the bulk of assets purchased in the rest of the world have again required external debt.

Graph 23. Spain's external assets and liabilities, 1995-2023 (% of GDP)



Specifically, between 2001 and 2008, Spain's external balance was in deficit (with a cumulative total of -493 million euros), but the purchase of assets rose to 973 million euros (adding the annual net variations), so that, excluding any changes in their prices, the liabilities had to increase in the region of 1.4 billion euros. At the same time, the total financing capacity of the country between 2012 and 2019 exceeded 215 million euros, yet the net variation in assets was also much higher (776 million euros), thereby requiring another significant increase in external liabilities (net variation close to 800 million euros). Lastly, between 2020 and 2023, the balance-of-payments surplus contributed a paltry 62 million euros, while the purchase of assets in the rest of the world (a net variation of 669 million euros that includes changes in prices) had to be financed with new liabilities (556 million euros), although the rise in interest rates in 2022 and 2023, it must be noted, make it impossible to provide a direct estimation of the amount needed for this financing operation.

In the context of movements in Spain's external liabilities, what sectors account for them? When considering this aspect, it is necessary to emphasise that there have been major changes in the structure of the country's external liabilities since the financial crisis. That is, some transformations have diminished the potential problems in their refinancing, namely the

substitution of external liabilities in the monetary financial sector (excluding the Bank of Spain) and the non-monetary financial sector by a growing weight of external liabilities belonging to the Bank of Spain and the country's public administrations as well as the steady weight of NFCs.

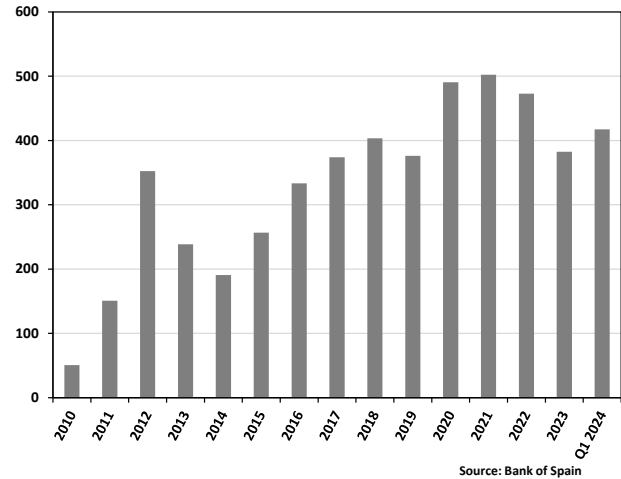
Across the aggregate of financial institutions (both monetary and non-monetary, including the Bank of Spain), the change in external liabilities since the financial crisis has been modest: 121% of GDP in 2008, 106% of GDP in 2013 (partly reflecting losses in value because of higher risk premiums), 113% of GDP in 2019, and finally 117% of GDP in 2023. Overall, the figure has been practically stable. Nevertheless, it masks quite significant differences in the changing debtor positions of the various sectors. For example, the external liabilities of OMFIs (other monetary financial institutions, excluding the Bank of Spain) fell between 2008 and 2023 from 86% to 60% of GDP, as did the figure for non-monetary financial institutions (from 31% of GDP in 2008 to 20.0% of GDP in 2023). In sum, between 2008 and 2023, other financial institutions (monetary and non-monetary) forcefully reduced the volume of their external liabilities from 117% to 80% of GDP.

At the other extreme of risk emerge the external liabilities of the Bank of Spain and the public administrations. First, in the case of the Bank of Spain, a very significant change took place. The bank's debtor position was moderate in 2008 (4% of GDP), then climbed to a high of 42% of GDP by August 2012 (basically in the form of TARGET2 balances), then fell sharply before stabilising (18% of GDP in December 2014). From that point, the Bank of Spain's purchases of debt once again pushed the amount of external liabilities higher (above 39% of GDP in 2019), given that an important portion of the funds used in their purchases ended up in financial institutions with external hubs (in the Netherlands or Germany) in the form of TARGET2 debtor balances (Baldo et al., 2017; Bank of International Settlements, 2017; Eisenschmidt et al., 2017 and 2022; Alves et al., 2018; Arce et al., 2019). After Covid-19, the Bank of Spain's external liabilities continued to rise until 2023 when they reached 37% of GDP (26 points in TARGET2 debtor balances).

In short, the financial sector has helped in substituting private external liabilities for public ones (from monetary and non-monetary financial institutions to the Bank of Spain). In addition, the country's public administrations have witnessed a growing indebtedness

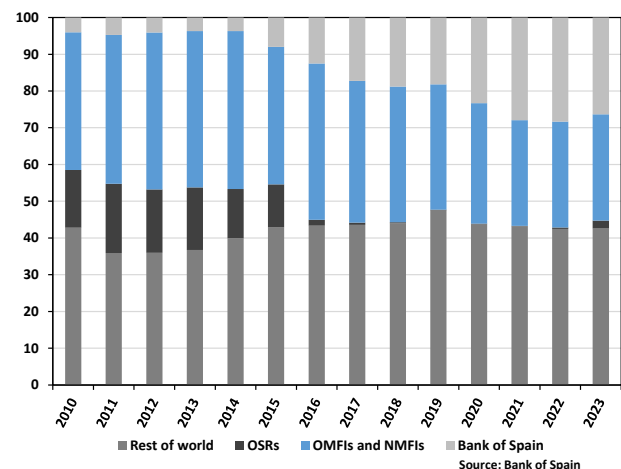
to the rest of the world, which rose from 19% of GDP in 2008 to 53% of GDP in 2019 and 45% of GDP in 2023. Lastly, it is necessary to add the debtor positions of FNCs to those of the financial sector and the public administrations. Since the outbreak of the financial crisis in 2008, FNCs have increased their external liabilities modestly from 72% in 2008 to 83% in 2013 and 87% in 2023.

Graph 24. TARGET2 balances, 2010-2024 (in millions of euros)



Source: Bank of Spain

Graph 25. Public debt by counterparty sectors, 2010-2023 (% of total)



Source: Bank of Spain

As for gross debt, it is important to add a few brief remarks on its sharp increase and its composition by instruments. With respect to its evolution, recent years have witnessed the same expansion that has occurred across liabilities as a whole: from 50% to 147% of GDP between 1997 and 2008 and up to 164% in 2019, while the changes in GDP and interest rates fell somewhat in 2020-23 (to 158%), dropping back nearly to pre-Covid levels, although still 100 points of GDP above the 1997 level. In addition, it is important to highlight modifications in the instruments in which gross debt is expressed, given that the strain resulting from refinancing depends crucially on their composition.

Thus, between 2008 and 2023, cash and deposits rose (from 49% to 66% of GDP), basically reflecting deposits in the Bank of Spain (which shot up from 4% to 36% of GDP), which indicate that a portion of the TLTROs were deposited in accounts in the issuing institution. At the same time, the contribution of debt securities fell (from 69% to 62% of GDP) and loans held steady (at roughly 29% of GDP). Lastly and no less importantly, FDI has also risen (from 41.2% to 56.0% of GDP). In short, the smaller contribution of debt instruments and the greater weight of FDI are indicative of a better structure among the different gross debt instruments, although it must also be noted that the strong increase in the Bank of Spain's deposits do not prompt any particular concerns.

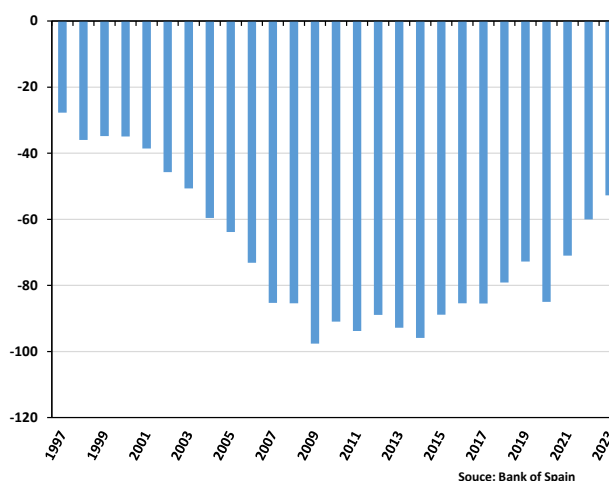
5.2. Post-Covid improvement in Spain's international investment position (IIP)

The excessive values of Spain's international investment position (IIP), which is a critical variable, have been significantly corrected to -53% in 2023, the lowest level since 2002. Considering the period 2009-23, it is difficult not to underscore such an unprecedented fall, which is close to 45 points of GDP, from a high mark of 98% in 2009. Despite such significant improvements, however, the country's IIP in 2023 remained far above the level of -35% of GDP required by the MIP, exceeding other net debtor countries like France (-29%), trailing very far behind the creditor positions of countries like Italy (7%), Austria (17%), Belgium (65%), Germany (70%) and the Netherlands (72%), and yet also coming nowhere near the group of countries with the highest levels, such as Greece (-141%), Ireland (-106%) and Portugal (-73%).

Spain's strong improvement reflects not only the impact of factors that contribute to lower IIP (a nominal growth and upward revision of GDP and a contribution to the external balance), but also the impact of factors that can help to increase IIP (different increases in the prices and volumes of assets and liabilities), together with other factors that have no definite sign (discrepancies between the balance of payments and financial accounts or valuation effects at the end of 2022 and the beginning of 2023 owing to the rise in interest rates). Thus, the fall in the country's IIP in 2016-18 (from -89.7% to -79.1% of GDP) can be explained by the rise in nominal GDP (-9 points) and financing capacity (-6 points), while the valuation effects and other variations in volume pushed Spain's IIP even higher (+3 points) (Alves et al., 2019). In turn, the nominal collapse of GDP in 2020 and the negative impacts of a rising euro pushed it to -85% (Álvarez et al., 2021). Lastly, in 2022, debtor IIP fell by 60

million euros because of the balance of external financial transactions (some 24 million euros) and, especially, revaluations (almost 40 million euros); because of changes in prices (more than 28 million euros from the falling value of liabilities as a result of higher interest rates), and because of the exchange rate (some 12 millions euros) and other changes in volume (Alves et al., 2023).

Graph 26. Spain's IIP, 1997-2023 series (% of GDP)

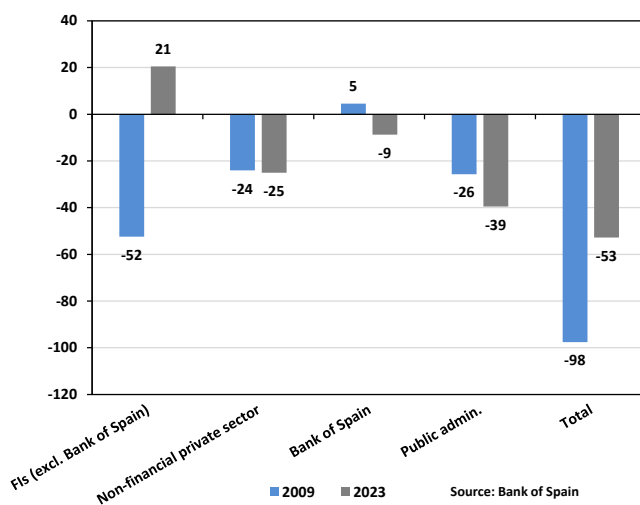


It is necessary to add substantial changes in the sector-specific composition of the IIP to its strong reduction. Basically, the high IIP in 2009 (-98% of GDP) reflected more than 77 points contributed by the private sector (financial and non-financial), which is a very high proportion that made it particularly vulnerable to changes in market perceptions such as occurred between 2008 and 2012. In addition, the 77 points in question reflected quite a substantial contribution from the monetary financial sector (excluding the Bank of Spain), which accounted for 44 points of the total, while non-monetary financial institutions contributed 9 points. Also, 24 points came from the net debt of NFCs. Lastly, the Bank of Spain posted a surplus position (+5%), whereas the public administrations accounted for the remaining 26 points.

The situation began to change significantly in 2013/14. The changes came in the form of external debt in sectors such as the financial sector and the public administrations. The ECB also intervened: directly, through asset purchase programmes and a corresponding increase in the Bank of Spain's TARGET2 positions; and indirectly, through the rise in prices and the decline in profitability associated with asset purchases, which encouraged the rest of world to purchase the assets of the public administrations.

Accordingly, between 2009 and 2019, the country's IIP declined and there was a pronounced asymmetrical behaviour among the main sectors responsible. Specifically, the IIP of the public administrations and the Bank of Spain worsened, while the private sector (financial and non-financial) witnessed notable improvements. Indeed, while the private sectors had reduced their IIP dramatically (from -77% to -10% of GDP), the public sectors (Bank of Spain and public administrations) raised their IIP substantially (from -21% to -62% of GDP).

Graph 27. Sector-specific composition of Spain's IIP: FIs (excluding the Bank of Spain), the non-financial private sector, the Bank of Spain and the public administrations, 2009 and 2023 (% of GDP)



The very sharp contraction in private sector IIP basically reflects the contraction in the banking sector (from a high mark of -43.6% of GDP in 2009 to the very low level of -1.5% of GDP in 2019), while at the same time, non-monetary financial institutions changed the sign of their position, shifting from a debtor balance in 2009 (at -8.9% of GDP) to a creditor balance in 2019 (at 20.4% of GDP). Lastly, NFCs increased net debt moderately (from -24% to -29%). At the other extreme of risk, the public sectors (Bank of Spain and public administrations) saw substantially worse IIPs between 2009 and 2019. Specifically, the public administrations increased their debtor balance sharply (from -26% to -47% of GDP), while the Bank of Spain changed its net external position, switching from a creditor position in 2009 to a debtor position in 2019 (from +5% to -15.3% of GDP).

Between 2019 and 2023, the trends described above continued to build. Private sector IIP fell to values close to zero (from -10% to -4.5% of GDP) and the OMFIs notably achieved stability practically at the minimum position (from -1.5% to -2.9% of GDP), while other non-

monetary financial institutions continued to increase their creditor positions (from 20.4% to 23.4%) at the same time that the NFCs moderately reduced their debtor balance (from -29.2% to -25.1% of GDP). For their part, the public institutions (Bank of Spain and public administrations) exhibited a certain downward correction, but kept to a very high debtor IIP (falling from -62% in 2019 to -49% in 2023), reflecting changes in the net debtor positions of the Bank of Spain (from -15.3% to -8.7%) and of the public administrations (from -47% to -40%).

In summary, the fall in Spain's IIP needs to include a key factor to understand the country's macroeconomic stability, namely the shift from private to public sectors and the growing weight of NFCs. This shift has helped to make the country's still high levels of IIP less vulnerable. Even more remarkably, the sectors where businesses could have gone bankrupt (or partially suspended payments) have dramatically reduced their net external exposure, while such exposure has gone up among institutions that would be hard pressed to end up in a similar situation (Bank of Spain or public administrations). Lastly, one more factor that bolsters the country's external solvency is the 2013-23 skew of the IIP towards less enforceable liabilities: excluding non-defaultable instruments (net IIP less direct investment, except for portfolio investments and variable income securities), the situation in 2022 exhibited a weight in the region of -30% of GDP (EC, 2024b), far below the -53% of the IIP.

To what extent are the efforts to reduce the IIP in Spain sufficient? The macroeconomic imbalance procedure (MIP) of the European Commission establishes that, in order to avoid strains on external solvency, a country's IIP should not exceed -35% of GDP. With this metric, Spain is still far from achieving the appropriate levels. Also, while the country's external balances have been positive since 2012, their average in 2015-23 (2.4% of GDP) does not permit substantial reductions in its IIP. Indeed, this evolution had already been observed in the past (Cuadrado and Moral-Benito, 2016). Ultimately, the requirements of the MIP will take years of effort (EC, 2023d). Beyond the prescribed limit, which does not distinguish between the individual situations of each country, the EU or the IMF has introduced levels estimated on the basis of fundamental characteristics (NIIP norms) or as a function of the likelihood of a balance-of-payments crisis (prudential NIIP thresholds). For 2016, the level of the IIP (near 80% of GDP) should have been reduced to 37% in line with NIIP norms and to

61% in line with prudential NIIP thresholds (or to 57% for the prudential threshold including only non-defaultable instruments) (Turrini et al., 2019). Also, while there are no estimations for recent years, the previously observed differences do suggest that they will continue to be relevant.

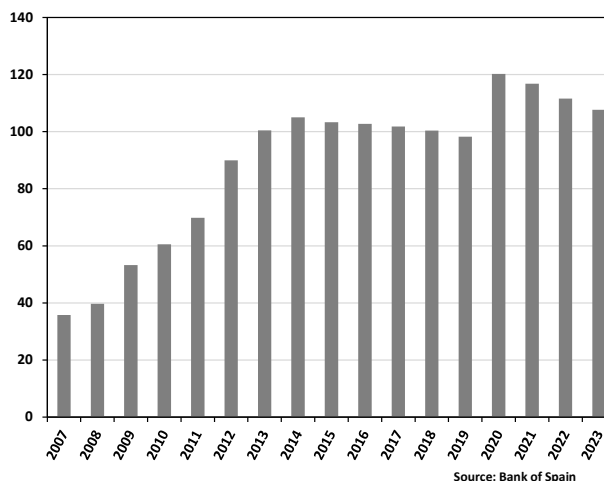
6. Increasing public debt and the medium-term outlook

One of the more far-reaching consequences of the Covid-19 shock was a substantial rise in public debt, which came to exceed 120% of GDP, although the subsequent recovery in 2021-23 did permit public debt to fall back to 107.7%. This is a variable that had seen only modest reductions from a post-financial crisis high (105% of GDP in 2014) to the pre-Covid level (98.2% in 2019). In addition, it has re-emerged as a significant and worrying financial imbalance, despite aspects that today reduce its fragility, namely the extension of its average life (to 7.84 years at the end of 2023 from 6.20 years in 2013) and the lower financial burden (from 3.6% of GDP in 2013 to 2.1% of GDP at the end of 2023). In the pre-2023 dynamic, it should be emphasised that the reduction of public debt in 2021 and 2022 was due to the nominal variation in GDP to the tune of more than 10 points in each of the two years, while the need to finance the deficit added between 6 and 5 points (García-Moral and Laporta-Corbera, 2024).

Based on the assumption that interest rates will ease over the period 2024-26, there are three aspects of the evolution of public debt that deserve attention: the difficulty in keeping real GDP growth greater than 1.5%, the foreseeable negative impact of ageing, and the sector-level composition of the owners of public debt.

With respect to the likelihood of achieving increases in GDP greater than 1.5%, the Bank of Spain was already suggesting after the pandemic that, without major structural reforms and an appropriate selection of NextGen projects, it would be hard to achieve 2% in the medium term (Cuadrado et al., 2022). Also, while not a subject of this *Policy Brief*, it is important to note that the European Commission (EC, 2023f) and the IMF (IMF, 2024b) or the AIREF (2023) have underscored the importance of low nominal growth in GDP in the context of persistent deficits and high debt.

Graph 28. Evolution of public debt, 2007-2023 (% of GDP)



Second, beyond the current decade, the ageing of the country's population will generate an inevitable deterioration in the dependency ratio and, along with it, an expected negative impact on the public finances (EC, 2024a; Bank of Spain, 2024b), even with the INE's optimistic forecasts of net inflows of immigrants. The European Commission has been using debt sustainability analysis to define the possible horizon of public indebtedness (Bouabdallah et al., 2017). The methodology in question has been partly altered under the new Stability and Growth Pact that came into effect at the end of 2024, with reductions in public debt squarely at the centre of the adjustments. To this end, both the European Commission and the proposals of each country have to define a process of gradual reductions over a period of 10 years that must incorporate the initial level of public debt, the forecasts for growth in GDP, and any budgetary risks, such as those associated with ageing that the European Commission sets out in its *Ageing Report* (EC, 2024a). In its latest analysis of the outlook for debt and deficits in the coming decade, the European Commission has used the new system of assessment to estimate that the costs of ageing will rise from 0.1% of GDP (estimated for 2025) to 2.5% in 2034, while the interest payable will climb from 2.5% to 4.4% of GDP over the same period. Considering other factors (rising GDP, inflation, etc.), public debt is estimated to reach close to 118% of GDP in 2034 (EC, 2024c).

Lastly, in relation to the distribution by sectors holding public debt, the role of the Bank of Spain cannot be overlooked. Specifically, the Bank of Spain controls a not insignificant share of the stock of public debt in circulation, thereby mitigating the negative effects of its strong increase. Indeed, from 2015 to 2023, the Bank of

Spain's purchase of assets enabled the institution to absorb close to 70% of the increase in public debt over the period (which rose by 460 million euros, from 1.1 to 1.6 billion euros), excluding changes in prices, so that the institution's positions in 2023 reached 415 million euros (28.4% of GDP). However, since the Bank of Spain began to reduce its stock of assets slowly in 2022-23, the holders of public debt issued by the Bank of Spain must also go down. This will doubtless put pressure on gross debt issues in the sector, in the region of the previously noted 20/21% of GDP, which is a high level that the European Commission expects to continue until 2034 (EC, 2024c). Lastly, together with the Bank of Spain, the other major sector to accumulate public debt is the external sector, whose weight has continued to grow, rising from close to 18% of the total in 2008 to nearly 46% in 2019, before stabilising in 2023. Logically, this is a significant amount that accentuates the fragility of the volume of public debt.

7. Conclusions

Based on the evolution of Spain's internal and external balances, the current situation is relatively favourable. Nevertheless, there do exist aspects of concern that prevent the situation from being regarded as stable. Moreover, the situation could deteriorate rapidly if there were a change in the conditions that enabled the deleveraging analysed in the present *Policy Brief*. Also, these final considerations cannot overlook the critical role played by the ECB and the European Commission in reducing the country's internal and external debt.

In any event, when looking at the positive changes that have been made over the past decade and a half, it is necessary to emphasise the sharp reduction in the external borrowing of the banking sector, which dates back to the origin of the crisis and the excesses of credit that had been financed partly with external debt. From this point of view, the sector's twofold adjustment, both in terms of size and external debt, is probably one of the most positive aspects of what took place in the wake of the financial crisis, particularly from 2015 onwards. Together with the improvement in the financial sector, the major reduction in Spain's IIP also appears to be particularly relevant: the fall in the IIP, its skewing toward sectors with little or no likelihood of bankruptcy, and the growing weight of non-defaultable instruments define a perceptibly better situation than a decade

earlier. Nonetheless, it must be noted that the absolute level of Spain's IIP continues to top -35% of GDP, which is the level required by the MIP, and it remains very far from the levels indicated by prudential limits or reference limits, which are the appropriate limits to contain balance-of-payment crises. In this area, it is necessary to stress the leap in scale of the current account balance, from the traditional negative balance to a new situation marked by positive balances from 2012, which have persisted through 2024 with forecasts of continued positive balances in the years ahead, although nearly half of the improvement in the current account balance stems from the effects of transitory factors. Lastly, partly as a reflection of the decline in the size of the financial sector, it is necessary to note the very sharp fall in debt among the non-financial private sector as one of the other achievements that has persisted even during the difficult years of 2020-23.

Together with the items described above, it is necessary to mention other less favourable effects that should not be overlooked: the absolutely exceptional nature of the ECB's intervention in redirecting the country's imbalances, the EU support provided in recent years and, linked to both factors, the pressing need to increase productivity and, with it, potential growth in GDP. It would be a mistake to forget that the Spanish economy would likely not be where it is today without the ECB's support, first in 2011/12 and then again from 2014/15 to 2022. This is particularly true now that the outlook for 2024 is radically different: higher interest rates, a decline in high volumes of debt accumulated on the Eurosystem's balance sheet, and the end of long-term loans to the banking sector. Clearly, it can be argued that the ECB would intervene again if necessary. However, it must be recalled that the EU is not a federal state. As a result, any support administered by the ECB or the European Commission can hardly be maintained without radical changes in the political configuration of the Union. It becomes even more difficult given that the gaps in the weight of public debt as a share of GDP between the south and the centre of the EMU (at a ratio of 2 to 1) points to a complex balancing act for both the ECB and the European Commission. In short, the Spanish economy has entered into a new stage in which the crutches that have helped to sustain it since 2012 begin to give way to a new situation in which, from now on, it will have to sustain itself with its own internal resources.

In the same vein, it is wise not to forget that other no less significant imbalances continue. This is the case with the indebtedness of the country's public administrations,

especially given the prospect of ageing. Their indebtedness not only has not been addressed effectively, but also, in response to the shocks of recent years, has reached alarming levels. Also worrisome is an IIP that, despite improvements, is far higher than desirable. While the non-financial private sector (households and NFCs) have substantially lowered their levels of debt, there is still a long road ahead to meet the new thresholds set by the European Commission and the IMF. In this area, it is necessary to bolster, hold steady and, if possible, increase the current account balance. Although there have been nearly 12 years of surpluses, there is no guarantee that they will continue, given the weight of transitory factors at work in their improvement, although the changes do appear to be more robust in the medium term in the case of the exports of non-tourism goods and services and thanks to the expansion of the export base. In any event, at the expense of what might happen to the prices of financial assets and liabilities, the only way to reduce Spain's high international investment position involves running external surpluses that are broader and more durable.

Given the more favourable conditions achieved in 2023/24, the gradual disappearance of support from the ECB and the EU, and current levels of internal and external debt that are still far from the requirements in effect, what is to be done? The prescription is well-known: reinforce and broaden growth in productivity, promote productive sectors that are less directly linked to personal and tourism services and, in particular, modify the composition of growth from employment to productivity per employee. Logically, this would require diverting resources towards less labour-intensive sectors, which would enable growth based on higher levels of capital endowment per employee. If such a transition is not made and the factors that point in its direction are not reinforced, it will certainly be difficult to cope with public finances that are, all signs suggest, going to deteriorate because of an ageing population. At the same time, it will also be hard to carry out the necessary reduction in Spain's high IIP and the final phase of private deleveraging.

In 2022 (*Policy Brief* no. 16), we stated that the recovery of 2013-19 had proceeded with the most traditional, least robust version of growth: strong progress in employment, combined with low labour productivity or low total factor productivity. Taking into account the impact of Covid-19, the earlier statement can largely be extended through 2024. This reflects the fact that the factor redistribution underlying export recovery is far

from desirable levels (given the excessive weight of the tertiary sector, especially personal services). This is to say nothing of the shortfalls in aspects that limit a robust increase in activity, given how many of the weaknesses in existence before the financial crisis still remain present today. In addition, since 2019, the increase in investment has been limited. This picture suggests that real increases in GDP (above 1.5%-2.0% of GDP) will be tough to achieve with lower increases in employment that reflect higher increases in productivity.

To sum up, beyond 2024, the asymptotic reduction in ECB support, the lower assistance from extraordinary EU funds, the need to curb high public indebtedness, the still concerning levels of private and external debt, and the difficulties of growth in the EMU reinforce the need for long-term investment in the factors that contribute to growth in productivity: human capital, research, innovation, and infrastructure development. These are not new recommendations. However, after a decade and a half of redressing the excesses of the early 2000s and making substantial changes in the support mechanisms of the Spanish economy, they can no longer be put off.

References

- Aguilar, P.A., Alloza, M., Costain, J., Hurtado, S. and Jaime Martínez-Martín (2024), "[El efecto de los programas de compras de activos del Banco Central Europeo en las cuentas públicas de España](#)." Documentos Ocasionales, Bank of Spain, no. 2409, March.
- Álvarez, L.; Alves, P.; López, E.; Martín, C. (2021). "[La balanza de pagos y la Posición de Inversión Internacional de España en 2020](#)", Boletín Económico, 2, Bank of Spain.
- Alves, P.; Millaruelo, A.; del Río, A. (2018). "[El aumento de los saldos TARGET en la UEM desde 2015](#)". Boletín Económico 4/2018. Bank of Spain, 5 December.
- Alves, P.; Martín, C.; Roibás, I. (2019). "[La Balanza de Pagos y la Posición de Inversión Internacional de España en 2018](#)". Boletín Económico 2/2019. Bank of Spain, 23 May.
- Alves, P, Jiménez, P., Del portillo, G. and María Isabel Simón (2023). "[La balanza de pagos y la posición de inversión internacional de España en 2022](#)". Boletín económico. Bank of Spain 2023/T2, 26 May.
- Arce, O.; Nuño, G.; Thomas, C. (2019). "[La política monetaria del Eurosistema tras el final de las compras netas de activos](#)". Boletín Económico 1/2019. Bank of Spain, 21 February.
- Autoridad Independiente de Responsabilidad Fiscal (2023). "[Report on the Rebalancing Plan](#)". Report 75/23, December 12th.
- Baldo, L.; et al. Hallinger, B.; Lemus, C.; Herrala, N.; Martins, D.; Mohing, F.; Petroulakis, F.; Resinek, M.; Vergotte, O.; Usciافي, B.; Yixhou Wang (2017). "[The distribution of excess liquidity in the euro area](#)". Occasional Paper Series, no. 200, November, ECB.
- Banco de España (2018). "[Informe anual 2017](#)".
- Banco de España (2022). "[Risks to the financial sector and its resilience](#)", in Financial Stability Report, Spring.
- Banco de España (2023a). "[Informe de Estabilidad financiera. Primavera 2023](#)", 19 April 2023
- Banco de España (2023b). "[Informe de Estabilidad financiera. Otoño 2023](#)"
- Banco de España (2023c). "[El Banco de España mantiene el colchón de capital anticíclico en el 0%](#)", Press release, 13 December.
- Banco de España (2023d). "[Cuentas anuales del Banco de España 2023](#)."
- Banco de España (2024a). "[Estadísticas supervisoras de las entidades de crédito 2023/T3](#)", Statistical press release, 19 January.
- Banco de España (2024b). "[Informe de Estabilidad financiera. Primavera 2024](#)", 15 April.
- Banco de España (2024c). "[Memoria de supervisión 2023](#)", 18 April.
- Banco de España (2024d). "[Informe Anual 2023](#)".
- Bank of International Settlements (2017). "[What is driving the renewed increase in TARGET2 balances?](#)". *Quarterly Review*, March.
- Beday, M., Estrada, A., and Jesús Saurina (2020). "[Bank capital, lending booms, and busts: Evidence from Spain over the last 150 years](#)". *Latin America Journal of Central Banking* 1 (2020).
- Bekaert, G., M. Hoerova and Lo Duca (2010). "[Risk, uncertainty and monetary policy](#)", NBER Working paper 16397, September.
- Bekaert, G., Hoerova, M. and Nancy R. Xu (2023). "[Risk, monetary policy and asset prices in a global world](#)", Working Paper no. 2879. ECB, November.
- Bouabdallah, o., Checherita-Westphal, Ch., Warmedinger, T., Stefani, R. de, Drudi, F., Setzer, R. and Andreas Westpha (2017), "[Debt sustainability analysis for euro area sovereigns: a methodological framework](#)", Occasional Paper no. 185, April 2017, European Central Bank.
- Bricogne, J-Ch., Coutinho, L., Turrin, A. and Stefan Zeugner (2020), "[Is Private Debt Excessive?](#)". *Open Economies Review* (2020) 31:471-512.
- Castells, Antoni (2021). "[Para hacer frente a la crisis de la COVID-19: avanzar hacia la integración europea](#)", Policy Brief no. 15, EuropeG, February.
- Castillo Lozoya, M^a. C., M^a. L. Pérez, and Enrique Esteban García-Escudero (2024). "[El efecto de la amortización de las TLTRO III en el balance de las entidades de crédito españolas](#).", Boletín Económico 2024/T2, Bank of Spain, 21 march.
- Catão, A. V.; Milesi-Ferretti, G. M. (2013). "[External Liabilities and Crises](#)". IMF, Working Paper, 13/113, May.

- Cecchetti, S.; McCauley, R. N.; McGuire, P. (2012). [“Interpreting Target 2 Balances”](#). BIS Working Paper, no. 393.
- Claessens, S.; Ayhan Kose, M. (2013). [“Financial Crises: Explanations, Types, and Implications”](#) in Stijn Claessens. Laeven, L.; Valencia, F. (edit.). *Financial Crises, Causes, Consequences, and Policy Responses*, chapter 1, p. 3-61. Washington: International Monetary Fund.
- Couthino, L., Turrini, A. and Stefan Zeugner (2018). [“Methodologies for the Assessment of Current Account Benchmarks”](#), Discussion Paper 086, September.
- Cuadrado, Pilar and Enrique Moral-Benito (2016). [“El crecimiento potencial de la economía española”](#), Documentos Ocasionales, no. 1603, Bank of Spain.
- Cuadrado, P., Izquierdo, M., Montero, J.M., Moral-Benito, E. and Javier Quintana (2022). [“El crecimiento potencial de la economía española tras la pandemia”](#), Documentos Ocasionales, no. 2208, Bank of Spain.
- Delgado-Téllez, M., Moral-Benito, E. and Francesca Viani (2020). [“An anatomy of the Spanish current account adjustment: the role of permanent and transitory factors.”](#), *SERIEs* (2020) 11:501-529.
- Dieckelmann, D., Hempell, H.S., Jarmulska, B., Lang, J.H. and Marek Rusnák (2023). [“House prices and ultra-low interest rates: exploring the non-linear nexus”](#), Working Paper no. 2789. ECB, February.
- Eisenschmidt, J.; Kean, D.; Schmitz, M.; Adalid, R.; Papsdor, P. (2017). [“The Eurosystem’s asset purchase programme and TARGET balances.”](#) Occasional Paper Series, no. 196. European Central Bank, September.
- Eisenschmidt, J., Kedan, D. and Martin Schmitz (2022). [“Euro area monetary policy and TARGET balances: a trilogy”](#), Working Paper no. 2750. ECB, November.
- Escolar, J. and José Ramón Yribarren (2021), [“Medidas del Banco Central Europeo y del Banco de España contra los efectos del covid-19 en el marco de los activos de garantía de política monetaria, y su impacto en las entidades españolas”](#) Documentos Ocasionales no. 2128.
- European Banking Authority (2020). [“Report on NPLs. Progress made and challenges ahead”](#)
- European Banking Authority (2023a). [“MREL Dashboard”](#), Q3 2023.
- European Banking Authority (2023b). [“Ad-Hoc analysis of unrealised losses on EU bank’s bond holdings”](#), 28 July.
- European Banking Authority (2023c). [“Basel III monitoring exercise results based on data as of 31 December 2022”](#), EBA/Rep/2023/32, 26 September.
- European Banking Authority (2023d). [“Risk Dashboard”](#). Data as of Q4 2023.
- European Central Bank (2024a). [“Supervisory banking statistics of significant institutions for the fourth quarter of 2023”](#), 10 April.
- European Central Bank (2024b). [“The ECB Survey of Monetary Analysts”](#), April.
- European Central Bank (2024c). [“Annual report on supervisory activities”](#).
- European Commission (2020). [“Country Report Spain 2020”](#). Commission Staff Working Document. Brussels, February 26.
- European Commission (2021). [“In-Depth Review for Spain”](#). Commission Staff Working Document (SWD(2021) 404 final, Brussels, June.
- European Commission (2022). [“Alert Mechanism Report 2023”](#). Strasbourg, 22.11.2022, COM(2022) 781 final.
- European Commission (2023a). [“External Sustainability Analysis. Thematic Note to Support In-Depths Reviews”](#), Institutional Paper 196, April.
- European Commission (2023b). [“Debt Sustainability Monitor 2023”](#), Institutional Paper 199, April.
- European Commission (2023c). [“Post-Programme Surveillance Report”](#), Institutional Paper 204, May.
- European Commission (2023d). [“Post-Programme Surveillance Report. Spain, Autumn 2023”](#), Institutional Paper 264, 21 December.
- European Commission (2023e). [“In-depth review for Spain”](#), Commission Staff Working Document, SWD(2023) 632 final, Brussels, 24 May.
- European Commission (2023f). [“2023 Country Report. Spain”](#), Institutional Paper 233, June.
- European Commission (2023g). [“2024 Euro Area Report”](#), Institutional Paper 259, November.

- European Commission (2023h). [“External Sustainability Analysis. Thematic Note to Support I-Depth Reviews”](#), European Economy, Institutional Paper 196, April.
- European Commission (2024a). [“2024 Ageing Report. Economic and Budgetary Projections for the EU Member States \(2022-2070\)”](#), Institutional paper 279, European Economy, April.
- European Commission (2024b). [“Alert Mechanism Report 2024”](#). Commission Staff Working Document, Strasbourg, 22.11.2023, SDW(2023) 901 final.
- European Commission (2024c). [“Debt Sustainability Monitor 2023”](#). European Economy, Institutional Paper 271, March.
- European Systemic Risk Board (2022). [“Vulnerabilities in the residential real estate sectors of the EEA countries”](#), February.
- European Systemic Risk Board (2023). [“Vulnerabilities in the EEA commercial real estate sector”](#), January.
- European Systemic Risk Board (2024). [“Follow-up report on residential real estate sector vulnerabilities”](#), 1 February.
- EuropeG (2012). [“Competitividad y desaplancamiento exterior: los retos pendientes”](#). Policy Brief, no. 2, July.
- EuropeG (2014). [“Aspectos clave en el ajuste de la economía española 2012-2014”](#). Policy Brief, no. 5, May.
- EuropeG (2016). [“Recuperación y persistencia de fragilidades: deuda interna y sector exterior en España 2013-2016”](#). Policy Brief, no. 9, September.
- García-Moral, B. y M^a. Isabel Laporta-Corbera (2024), [“La evolución de la deuda pública en España en 2022”](#). Boletín Económico, 2024/T1, Bank of Spain.
- International Monetary Fund (2017). [“Spain, Financial Sector Assessment Program. Impaired Assets and Nonperforming Loans”](#). November.
- International Monetary Fund (2021). [“Spain. Staff Report for the 2021 Article IV Consultation”](#), January 16.
- International Monetary Fund (2022a). [“Spain. Staff Report for the 2022 Article IV Consultation”](#), November 16.
- International Monetary Fund (2023b). [“External Sector Report. External Rebalancing in Turbulent Times”](#)
- International Monetary Fund (2024a). [“Spain: Staff Concluding Statement of the 2024 Article IV Mission”](#), April 12.
- International Monetary Fund (2024b). [“Fiscal Monitor”](#). April.
- Mendoza, E. (2002). [“Credit, Prices, and Crashes: Business Cycles with a Sudden Stop”](#). Preventing Currency Crises in Emerging Markets. Jeffrey A. Frankel, Sebastian Edwards (ed.). 335-92, Chicago: University of Chicago Press.
- Mendoza, E. (2010). [“Sudden Stops, Financial Crises and Leverage”](#). American Economic Review (December). 1941-1966.
- Milesi-Ferretti, G. M.; Tille, C. (2011). [“The Great Retrenchment: International Capital Flows During the Global Financial Crisis”](#). Economic Policy 26(66), 285-342.
- Myro, Rafael (2018). [“Crecimiento económico con equilibrio exterior. Un nuevo escenario para la economía española”](#) Policy Brief, no. 13, EuropeG.
- Obstfeld, M. (2012a). [“Does the Current Account Still Matter?”](#). American Economic Review: Papers & Proceedings, 102(3). 1-23. Richard T. Ely Lecture.
- Obstfeld, M. (2012b). [“Financial Flows, Financial Crises, and Global Imbalances”](#). Journal of International Money and Finance 31, 469-480.
- Oliver Alonso, J. (2017). [“La crisis económica en España”](#). RBA Editores, Barcelona.
- Oliver Alonso, J. (2022). [“Desequilibrios financieros de la economía española 2013-2019, efectos de la covid-19 e impacto de la intervención del BCE”](#), Policy Brief no. 16., Fruary, EuropeG.
- Phillips, S., Catao, L., Ricci, L., Bems, R. Das, M., Di Giovanni, J., Unusual, D.F., Castillo, M., Lee, J., Rodriguez, J. and Vargas M. (2013). [“The external balance assessment \(EBA\) methodology”](#), International Monetary Fund, Working Paper 13/272.
- Reinhart, C.; Rogoff, K. (2010). [“Growth in a Time of Debt”](#). American Economic Review, Papers and Proceedings 100, p. 573-578.
- Rovira, (2024). Publication forthcoming.
- Ryan, E., Horan, A. and Barbara Jarmulska (2022). [“Commercial real estate and financial stability – new insights from the euro area credit register”](#),

Macroprudential Bulletin, European Central Bank, Vol. 19.

Tang, G.; Upper, C. (2010). “[Debt Reduction After Crises](#)”. BIS Quarterly Review. September, p. 25-38.

Turrini, A.; Zeugner, S. (2019). “[Benchmarks for Net International Investment Positions](#),” Discussion Paper 097, May, European Economy.

Waysand, C; Ross, K. and De Guzman, J. (2012), “[European Financial Linkages: A New Look at Imbalances](#)”, *IMF Working Paper*, no. 295, December.

Abbreviations

AIReF: Independent Authority for Fiscal Responsibility (Spanish acronym)
APPs: Asset purchase programmes
AT1: Additional Tier 1
BIS: Bank of International Settlements
CET1: Common Equity Tier 1
EBA: European Bank Authority
EC: European Commission
ECB: European Central Bank
EMU: Economic and Monetary Union
ESRB: European Systemic Risk Board
EU: European Union
FDI: Foreign direct investment
Fis: Financial institutions (monetary and non-monetary, plus the Bank of Spain)
GDP: Gross domestic product
GFCE: Gross fixed capital formation
HICP: Harmonised Index of Consumer Prices
IIP: International investment position (assets minus liabilities with respect to the rest of the world)
IMF: International Monetary Fund
INE: Instituto Nacional de Estadística (Spanish national statistics institute)
IPC: Consumer price index (Spanish abbreviation)
LCR: Liquidity coverage ratio
LTROs: Longer-term refinancing operations
LTV: Loan-to-value
MINECO: Spanish Ministry of Economy, Trade and Business
MIP: Macroeconomic imbalance procedure
MREL: Minimum Requirement for own funds and Eligible Liabilities
MROs: Main refinancing operations
NextGen: Next Generation EU
NFCs: Non-financial corporations
NMFIs: Non-monetary financial institutions
NPLs: Non-performing loans
NSFR: Net stable funding ratio
OMFIs: Other monetary financial institutions (except the Bank of Spain)
PEPP: Pandemic emergency purchase programme
PELTROs: Pandemic emergency longer-term refinancing operations
SSM: Single Supervisory Mechanism
SURE: Support to mitigate Unemployment Risk in an Emergency
TARGET: Trans-European Automated Real-time Gross Settlement Express Transfer system
TIER1: Tier 1 capital
TIER2: Additional capital (e.g. revaluation reserves and hybrid capital instruments)
TLTROs: Targeted longer-term refinancing operations
TPI: Transmission protection instrument
ULC: Unit labour cost

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