Investment

Investment in Spain and the EU

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1. Summary

- With a similar starting level to that of a little more than two decades ago, gross fixed capital formation per working-age person in Spain stood at 2,217 euros in 3Q2023, 5.3% less than in 2001. Meanwhile, in the EU27, it stood at 3,282 euros, 35.6% more than in 2001 and 48.0% more than in Spain.
- This poor relative performance of investment per working-age person for more than a decade is undoubtedly one of the factors that explain why Spain's relative per capita income has fallen from 105.2% of the EU average in 2006 to 86.7% in 2023, as well as labor productivity.
- Everything points to the fact that the various factors explaining this poor relative performance of Spain's investment include mainly the increase in public expenditure and fiscal pressure, as well as the relative deterioration compared to the EU in the institutional quality of the public sector as measured by World Bank indicators.
- Other explanatory factors (deleveraging, financing restrictions, the COVID-19 crisis, bottlenecks and disruptions in global production chains, or disruptions in energy markets) may have been relevant at different points in time, but they do not seem capable of explaining a relative deterioration in investment that has lasted 15 years, given their transitionary nature.
- Excluding investment in housing, we find that the relative performance of the rest of Spain's investment per working-age person with respect to the EU has been similar to that of total investment.
- Spain needs a medium and long-term strategy to encourage investment, improve opportunities for the creation and growth of companies and to attract the productive physical, human and technological capital necessary to face the energy and digital transition, as well as to resume the path of convergence in terms of employment, productivity, per capita income and welfare with EU countries.

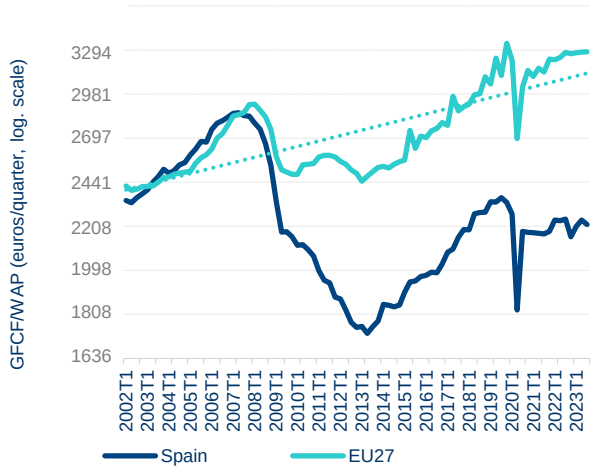
2. Investment in Spain and the EU since 2022

The latest available data indicates that investment **is the slowest component of aggregate demand to recover from the COVID-19 crisis**. While GDP in 4Q2023 was 2.9 points above its pre-crisis level, gross fixed capital formation is 5.1 points below.

This fall in the weight of GDP investment is worrying in itself, but it becomes even more so if we take into account that it is neither a recent phenomenon nor a development that we share with our neighboring countries. In fact, **it is far from the levels prior to the international financial crisis** and is further away **from the growing trend**

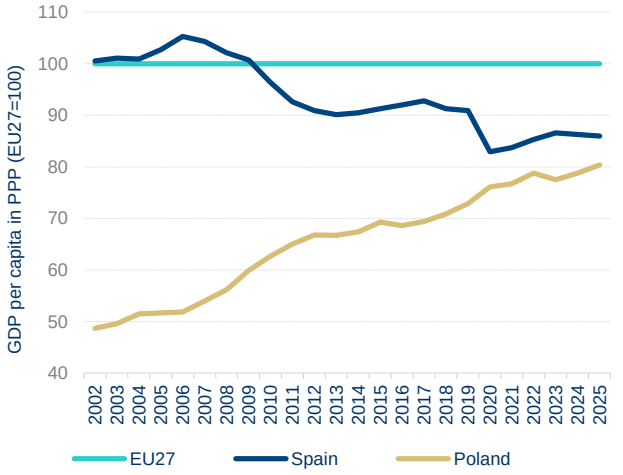
observed in the European Union (EU27)[1] as a whole. **Figure 1** shows the deflated volume of quarterly gross fixed capital formation (GFCF) per working-age person (WAP, 15-64) in euros in 2022, from 1Q2021 to 3Q2023 (seasonally and working day-adjusted data, SWDA), for Spain and the EU27.[2] With a similar starting point, in just over two decades, the GFCF per working-age person (WAP) in **Spain stood at 2,217 euros quarterly in 3Q2023, 5.3% less than in 2001**. Meanwhile, in the **EU27, this figure stood at 3,282 euros quarterly, 35.6% more than in 2001 and 48.0% more than in Spain.** The difference in the prices of investment goods, which are cheaper in Spain, can only explain a third of this gap.

Figure 1. **QUARTERLY GROSS FIXED CAPITAL FORMATION PER WORKING-AGE PERSON** (15-64), 1Q2021-3Q2023



2022 deflated volume in euros, SWDA, logarithmic scale.
Source: BBVA Research based on Eurostat data.

Figure 2. **PER CAPITA INCOME RELATIVE TO THE EUROPEAN UNION IN PURCHASING POWER PARITY** (EU27=100)



Source: Source: BBVA Research based on the HVGDPR variable, AMECO, European Commission (2024).

This drop in investment per WAP is concerning for long-term growth prospects. Investment in capital implies a renunciation of consumption in the present in exchange for increasing capacity and generating higher levels of production, productivity, income, consumption and well-being in the future. Under normal conditions, investment per WAP grows in the long run at the same rate as GDP per WAP, and **the rate of investment (particularly private investment) is the driving force of growth** (see Doménech and Sicilia, 2021). In this sense, the **empirical evidence is compelling**: Taking data from 1960 to the present for a broad sample of countries with different levels of development, we find that, in the long run, increases of 5 percentage points in the investment-to-GDP ratio result in increases in per-capita growth of 1.5 points. The countries with economic policies that encourage permanent advances in private investment experience higher growth rates and levels of well-being. This evidence is also found in OECD countries (see de la Fuente and Doménech, 2023).

1: Although investment is a component that can present measurement problems since an increasingly important part of it is intangible, where the deflation process can be more complex, these challenges should be similar to those of other European countries given the convergence of methodology of European statistical institutes.
2: As argued by Boscá et al (2020) and Fernández-Villaverde et al (2023), differences in the trend in working-age population can be of such magnitude that comparisons in the growth rates of economic aggregates between countries or time periods are meaningless, even if expressed in per capita terms. Therefore, from the perspective of economic growth theory, it is more natural to use variables in terms of the working-age population, which is usually defined as from the ages of 15 to 64.

In contrast to the convergence of countries such as Poland and other central and eastern European economies, this poor relative performance of investment per working-age person compared to the European Union is undoubtedly one of the factors that explain why, as shown in **Figure 2**, **Spain's relative per capita income has fallen from 105.3% of the EU average in 2006 to 86.3% in 2023[3],** as well as the relative progress of **labor productivity**, the engine of growth that relies on investment, as shown by de la Fuente and Doménech (2023)**.**

Figure 1 suggests that the Great Recession and the sovereign debt crisis mark a turning point that has had very persistent effects on investment per WAP, which has not been the case for GDP and employment (which is currently above the peak reached in 2007) and the unemployment rate (at 11.8% in 3Q2023, well below its average over the past four decades). A decade later, just as there has been a cyclical recovery in economic activity, the normal scenario would have been for investment to return to its path of balanced growth, as has happened in the case of the EU.

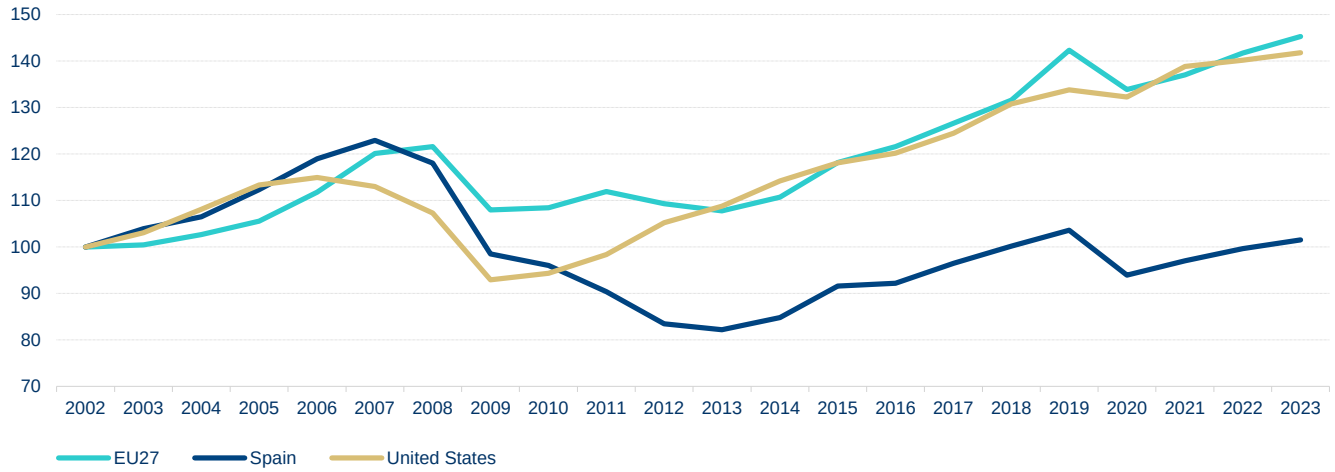
3. Possible explanatory factors

What **can account for the lower growth in WAP investment in Spain compared to the EU**? There is a wide range of potential explanatory factors. First, it could be believed that this difference is due to the **adjustment of the housing construction sector following the housing bubble prior to the Great Recession.** Although the decrease in housing investment in Spain was very marked after the real estate boom at the beginning of the century, other European countries have undergone similar adjustments without showing this behavior in investment. Moreover, in Spain, this behavior is also replicated when excluding residential investment. Eurostat does not provide quarterly data by type of investment, but we do have annual data in the European Commission's AMECO database, so it is possible to carry out a similar exercise to analyze the trend in total investment excluding residential investment working-age person, and a similar conclusion emerges. By using the AMECO database, it is also possible to include the U.S. in the comparison. As shown in **Figure 3**, discounting inflation and excluding investment in housing, in the last two decades, all other investments per working-age person have increased in Spain by 1.5% compared to 45.3% in the EU27. In other words, the relative gap between the Spanish economy and the EU is also maintained in investment in machinery, transport, non-residential construction and intangible assets. Figure 3 also shows that the impact of the 2008 international financial crisis on investment was more intense in the United States than in the EU27, although both regions have seen their productive investment in WAP grow at similar rates since 2013.

A second possible explanation is that the **indebtedness of Spanish companies during the real estate bubble** reached such high levels that the subsequent deleveraging—which has allowed them to reach debt levels even lower than those of other European countries—weighed down their investment capacity. While this has been a major factor in the aftermath of the Great Recession of 2009 and the sovereign debt crisis of 2011, it alone cannot explain what has happened over these two decades. First, because during the expansion from 2001 to 2008 there was no difference in Spain's WAP investment performance compared to the EU, which would have required a greater correction of its companies.[4] Second, because since before the pandemic, Spanish companies have been less indebted than their European counterparts. Third, because since the end of the sovereign debt crisis, as shown in Figure 3, the growth trend in the EU27 has been higher than that of Spain.

3: The definition of the variable used in this comparison is "GDP per head, at current prices, relative to a country or aggregate (HVGDPR)" from the European Commission's AMECO database, consulted in January 2024.
4: In fact, excluding construction, real estate and a few other services sectors for which we have no information, the bank debt spread of Spanish companies was only about 15 points of GDP prior to the Great Recession.

Figure 3. **GROSS FIXED CAPITAL FORMATION WITHOUT INVESTMENT IN HOUSING PER WORKING-AGE PERSON (15-64),** 2002-2023 (2002=100)



Source: BBVA Research based on data from AMECO ([OIGT-OIGDW]/NPAN)

An additional explanation linked to the previous one is the possible presence **of financing constraints and/or increases in funding cost**. Again, these factors were relevant during the sovereign debt crisis, with Spain's risk premium rising higher than in other countries and shifting to the banking and corporate sector, but financing conditions in the capital and banking markets have long been similar to those in countries with lower risk premiums[5], such as Germany, and interest rates are determined for most EU27 countries by a common monetary policy from the ECB, as well as very stable sovereign and corporate debt spreads, which have provided abundant liquidity since 2015.

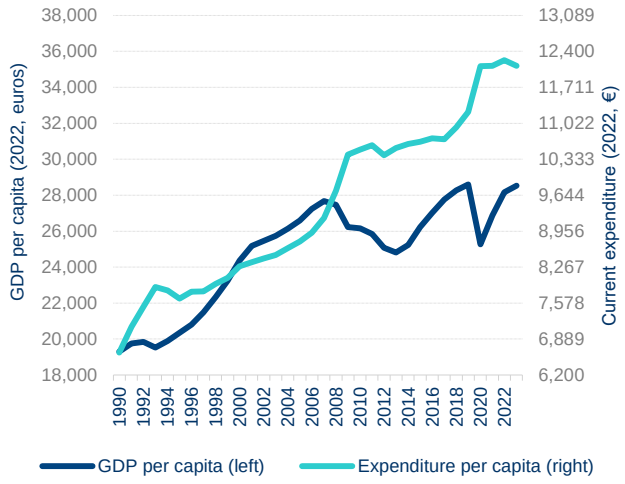
Fourth, **the COVID-19 crisis, bottlenecks and disruptions in global production chains, or upheavals in energy markets** are more recent and transitory—as well as shared—factors, but they do not explain what is now a nearly two-decade-long gap. Additionally, in the opposite direction, Spain, in recent years, has been able to make abundant European funds available through the NGEU plan which, for the time being, have not managed to boost the investment differential in favor of the Spanish economy in a significant way, although this factor may have a lagging impact and lend support to a better dynamic in the coming years.

The fifth possible factor is an **increase in public expenditure and fiscal pressure**. Unlike the previous factors, the performance of the public sector has had a differential and structural behavior during these two decades. As shown in **Figure 4**, between 2008 and 2023, Spain's GDP per capita increased by a **cumulative 3.8%**, while current public expenditure (total expenditure without public investment) increased by **24.6%**. This divergence is smaller in the EU, where GDP per capita has grown by **13.1%** and current expenditure per capita by **19%** between 2008 and 2023. To cope with this higher public spending in relation to GDP, Spain has been among the countries that increased its fiscal pressure the most during this period, to the point that it is already above the average for EU countries, without increasing its public sector efficiency. In this sense, the hypothesis is that the resources drained from the private sector have had a less productive use by the public sector, with a lower impact on the economy's productivity and total investment. In this sense, it should be noted that **the tax increase has been skewed toward social contributions and capital income**, with a lower indirect fiscal pressure on consumption, reducing the

5: See "Bank interest rates on loans", ECB (2024).

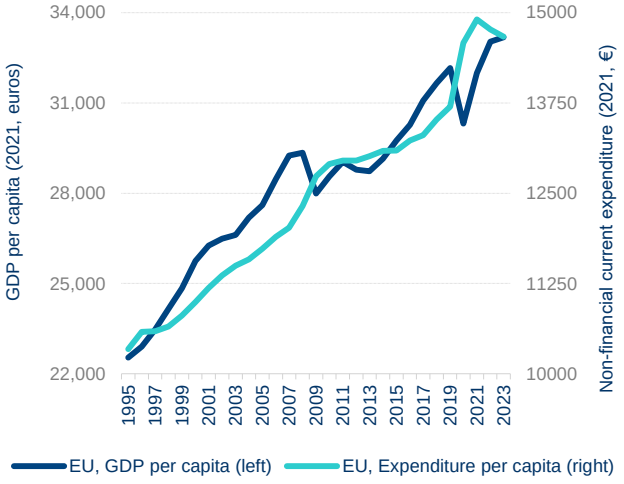
relative cost of consuming versus investing. On the public expenditure side, social expenditure has increased and public investment has decreased, with resulting negative effects on GDP growth per capita and well-being.

Figure 4.a **GDP PER CAPITA AND CURRENT PUBLIC EXPENDITURE PER CAPITA,** SPAIN, 1990-2023



Source: BBVA Research based on data from AMECO, the European Commission, INE and IGAE.

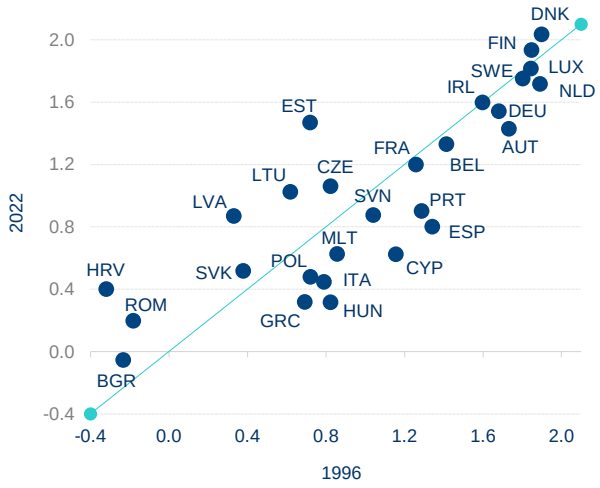
Figure 4.b **GDP PER CAPITA AND CURRENT PUBLIC EXPENDITURE PER CAPITA,** EU27, 1990-2023



Source: BBVA Research based on data from AMECO.

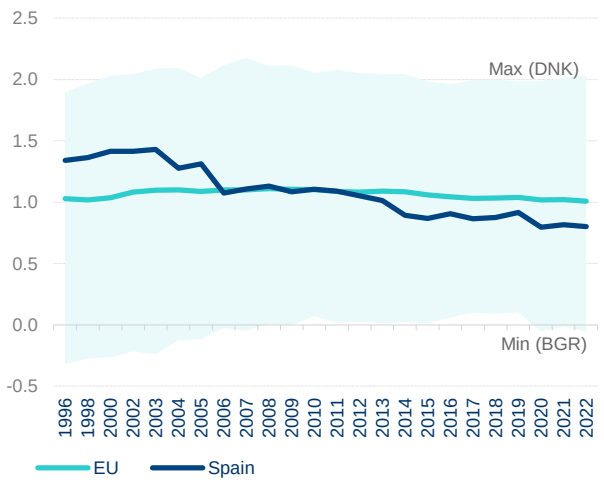
Sixth, key determinants of investment include the level and progress of **institutional quality, regulatory uncertainty and economic policy uncertainty**. Societies that have increased their per capita income and productivity levels to a greater extent have done so on the basis of incentivizing investment, improving their human capital and innovation by improving their institutions (see Acemoglu and Robinson, 2012). All of this helps their economies to attract or generate more physical, human and technological capital and to use these more efficiently, contributing to higher levels of productivity and GDP per capita. As shown in **Figures 5 and 6**, from 1996 to 2022 Spain was the second country in the EU, behind Cyprus and ahead of Hungary, where institutional quality has declined the most, as measured by the World Bank's World Governance Indicators, which are constructed as the average of four categories: rule of law, regulatory quality, public sector effectiveness and control of corruption, where the values range from -2.5 to +2.5 (see, for example, Masuch et al., 2023). Some examples of initiatives that do not help to boost investment and reduce the gap that has opened up with the EU include the creation of **sectoral taxes (on banking or energy)** and their uncertainty about other productive sectors, regulatory changes in some sectors such as real estate and rental and the expectation of an increase in social contributions due to the imbalance of pensions that automatically activates them if there are no other measures.

Figure 5. **EU INSTITUTIONAL QUALITY INDICATOR,** 1996-2022



Source: BBVA Research based on data from the World Governance Indicators, World Bank.

Figure 6. **EU INSTITUTIONAL QUALITY INDICATOR,** 1996-2022



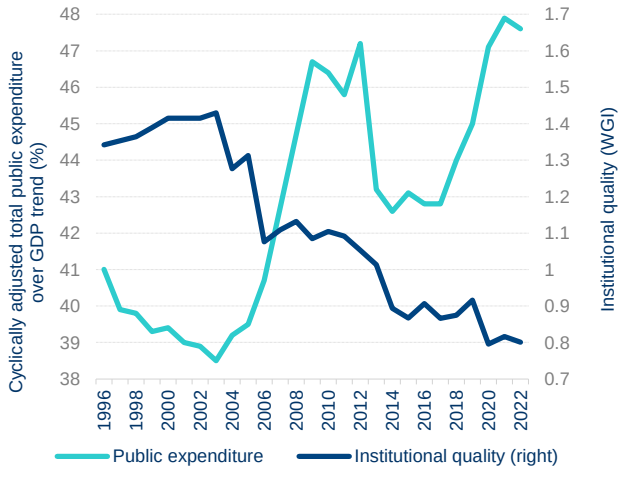
Source: BBVA Research based on data from the World Governance Indicators, World Bank.

Figure 7 shows the divergent trends over the past two decades between the increase in public expenditure as a percentage of GDP (corrected for economic cycle effects) and the decline in the composite indicator of public sector quality. As Andrés et al (2024) demonstrate, for OECD countries between 1960 and 2019, it is the combination of both variables that affects economic activity. The effect of government size on growth follows an inverted U-shape: positive for levels below the size for the optimal public sector and negative above that threshold. In other words, an undersized public sector can be just as damaging as an oversized one. As Acemoglu and Robinson (2019) point out, the gap between a state that is too weak and one that is too strong is narrow, and the consequences of deviating from the more virtuous path are that not only political freedom, but also economic prosperity and social well-being are put at risk. In addition, the range of values for which the size of government positively affects growth expands significantly with government quality, productive spending and low levels of public debt. An efficient public sector on all these fronts is more important for maximizing social welfare than the size of government per se.

The problem with the Spanish economy is that the evidence for the last two decades indicates that, while the indicator of institutional quality and the weight of productive public expenditure over the total have decreased, public expenditure over GDP, fiscal pressure and public debt have increased. The combination of these trends has negatively affected the growth of productive investment per WAP.

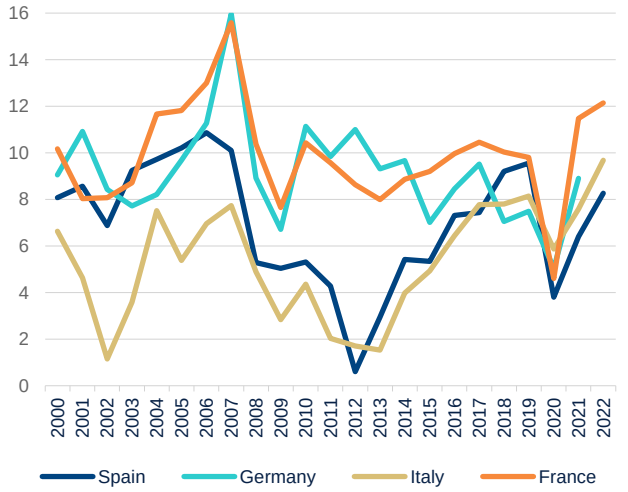
As a result of all of the above, and consistent with the relative performance of investment per working-age person, as shown in **Figure 8**, the return on equity of Spanish companies after tax has been several points below their counterparts in Germany or France over the last 15 years, and at levels similar to those in Italy, according to the BACH project, which collects information from non-financial companies in EU countries. This evidence is symptomatic (in line with the Lucas paradox, 1990) since, on a path of Spain catching up with Germany's and France's higher levels of GDP per capita and productivity, just the opposite should occur, so that the higher profitability of capital would encourage productive capital to flow from the richer economies to those with higher growth expectations. This should be the case in an economy such as Spain's, which is so integrated into the European economy.

Figure 7. **PUBLIC EXPENDITURE OVER GDP** (ADJUSTED FOR THE ECONOMIC CYCLE) **AND INSTITUTIONAL QUALITY INDICATOR IN SPAIN,** 2002-2022



Source: BBVA Research based on data from AMECO, UUTGA variable and World Governance Indicators, World Bank.

Figure 8. **RETURN ON EQUITY AFTER TAX,** 2000-2022



Source: BBVA Research based on data from BACH, R38_WM variable.

Fortunately, the prospects for Spain to capitalize on this convergence in per capita income are still present in the current context, where abundant investment opportunities can be generated, including in the energy and digital transitions, which contribute to increasing productivity growth and quality employment, and to having more resources with which to improve social welfare. The keys in the coming years to reversing the current trend and taking advantage of existing opportunities include greater ambition in training in order to increase the qualifications and skills of workers and entrepreneurs, evaluation of spending policies to ensure their efficiency and generation of an economic environment that encourages private investment, with the deepening of the single market in Spain and in Europe. This will encourage competition between companies, fostering their growth in order to take advantage of economies of scale and strengthen the integration of capital markets to facilitate financing (banking and non-banking).

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