

Economic Watch

Private investment as the engine of economic growth and social welfare

Rafael Doménech / Jorge Sicilia

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- In the long run, countries with higher private investment experience higher rates of growth. Therefore, good public policies that encourage permanent increases in private investment rates lead to increases in long-term economic growth and welfare.
- The empirical evidence for a large sample of countries at different stages of development since 1960 to the present shows that an increase of 10 percentage points in the ratio of private investment to GDP corresponds to an increase of 3.1 points in the long-term growth rate of per capita income, higher than the elasticity of 2.7 obtained between total investment and growth.
- This evidence points to private investment being typically allocated more efficiently than public investment, indicating that the best strategy is for public investment to be complementary and incentivize higher private investment.
- We see this as evidence that the focus of policies oriented to providing fiscal stimulus to incentivize private investment, such as the European Fund NGEU as an adequate strategy to increase per capita income growth in the long term in European economies.

Investment and economic growth

Behind a successful economic growth story there are always good economic, social and political institutions and policies that favor the accumulation and efficient use of production factors that are increasingly important for economic progress: productive capital, human capital and technological capital.

When conditions are favorable, the (domestic and foreign) private sector invests in new projects, innovates and takes advantage of the opportunities offered by available technologies, thereby creating jobs and increasing productivity. These conditions bring about efficient public investment that compounds with private investment to increase growth. All this translates into an increase in per capita income and welfare.

In addition to good governance, policies and regulations, the role of institutions is key to generate an environment conducive to sustained economic activity. Adequate, efficient and independent institutions generate confidence, ensure good regulations and policies, bring legal certainty, reduce corruption, increase market competition and openness, improve the protection of property rights and the economy's business environment. These conditions are key to ensure a good platform in which, however, some countries develop and organize their economic activity better than others.

Behind the institutions and the rules and norms that govern societies are people, with their human capital. Institutional quality, human capital and investment interact with each other dynamically in a virtuous circle of economic progress and social welfare. The interaction of these factors helps to explain the paradox posed by Nobel laureate Robert Lucas (1990), according to which productive investment, particularly the most

technologically advanced, does not always flow from rich countries (where it is more abundant) to less advanced economies (where it is scarcer) as its profitability remains higher in the former.

This interaction between institutional quality, human capital and investment is precisely at the heart of endogenous growth models (see, for example, Romer, 1990, Jones, 1995, Barro and Sala-i-Martin, 1995, or Aghion et al., 2014). Unlike exogenous growth, in endogenous growth models technical progress is no longer a manna whose generation is independent of the allocation of resources (capital and labor), but the result of decisions to accumulate human capital, investment in productive capital and R&D to develop new processes and products. These decisions depend on factors that directly affect the ability to generate and disseminate ideas as determinants of technical progress: the quality of institutions and international trade. The ability of societies to create the conditions for these determinants to generate growth is very diverse and explains the success or the failure of some economies compared to others (see Acemoglu and Robinson, 2012). As a result, good public policies that encourage a permanent rise in the private investment rate lead to an increase in long-term economic growth.

The Empirical Evidence

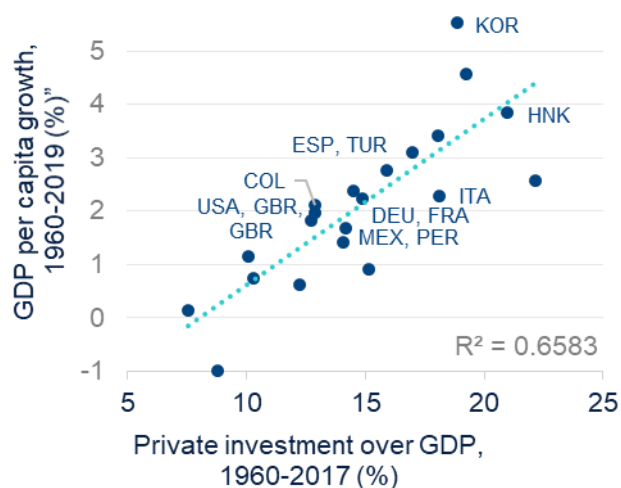
The functioning of institutions and the rules and norms that emanate from them explain why some societies end up having more human, technological and physical capital than others. All this translates into a simple hypothesis to be tested empirically: under the right economy's business environment, foreign and domestic capital invest, through firms and entrepreneurs, and per capita income grows, as proposed by endogenous growth models.

The empirical evidence is clearly favorable to this hypothesis. Using data from the Penn World Table version 10.0 (see Feenstra, Inklaar and Timmer, 2015) and IMF (2020), Figure 1 shows the correlation for a sample of 104 countries for which data are available from 1960 to 2017, between per capita income growth and private investment in gross fixed capital formation, which includes investment in construction and (only for recent years and with some measurement problems) R&D investment. Following McGrattan (1998), to simplify the representation, each point reflects the average of 5 countries, ranked by their per capita income growth, although we have also highlighted the particular position of some countries.

Figure 1 clearly reveals that those countries with higher investment also show higher growth: an increase of 10 percentage points in the ratio of private investment to GDP corresponds to an increase of 3.1 points in the long-term growth rate of per capita income. The implications of this increase are enormous, if we consider that 3 points of growth allow per capita income to double in each generation (in just under 25 years). Additionally, the private investment rate is able to explain two-thirds of the variance in long-term growth.

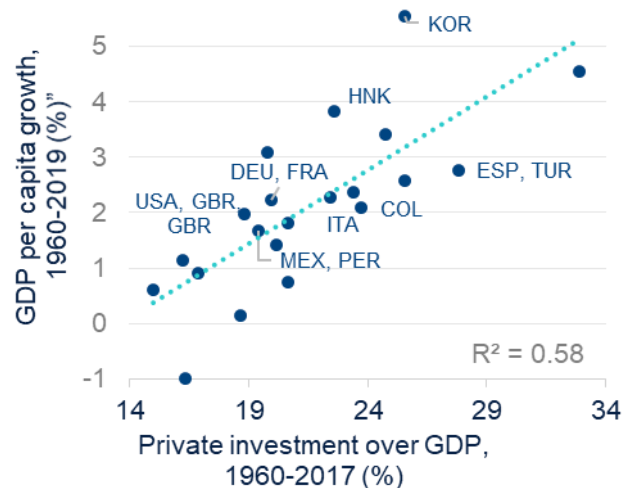
It is important to note that, by using averages of almost six decades, the long-run evidence represented in Figure 1 is not affected by the usual correlation between both variables over the business cycle.

Figure 1. **PRIVATE INVESTMENT AND PER CAPITA INCOME GROWTH**



Source: BBVA Research based on PWT 10 and IMF

Figure 2. **TOTAL INVESTMENT AND PER CAPITA INCOME GROWTH**



Source: BBVA Research based on PWT 10 and IMF

An important part of the effects of private investment on per capita income growth is due to the convergence process, mainly of OECD economies in the 1960s and 1970s, and emerging economies in recent decades. However, convergence is neither automatic nor exogenous, it is rather explained by the interaction between the distance of countries from the production frontier and a proper combination of good policies, institutions, rules and regulations that allow reducing the gap in per capita income by generating favorable conditions for investment over a long period of time. Only the right policies provide good results in terms of convergence.

Additionally, given the high correlation between per capita income and welfare, private investment is also an engine of social progress, and a necessary condition for seizing the opportunities of digital disruption and successfully addressing the challenges of social and environmental sustainability.¹

We have also extended the empirical evidence to analyze the effects of total investment (including therefore public investment) on GDP per capita growth. Figure 2 shows the correlation between both variables. As can be seen, the result is similar to that of Figure 1, indicating that public investment is also important. However, its effects on growth are somewhat smaller. For every ten-point increase in the total investment rate, GDP per capita growth increases by 2.7 points.² The contribution of total investment to explain the variance of growth is high (0.58), although somewhat lower than that of private investment (0.66). Both types of investments do matter. What about public investment on its own? This is difficult to test as there are no counterfactuals, but we can conduct a simple exercise analogous to the others.

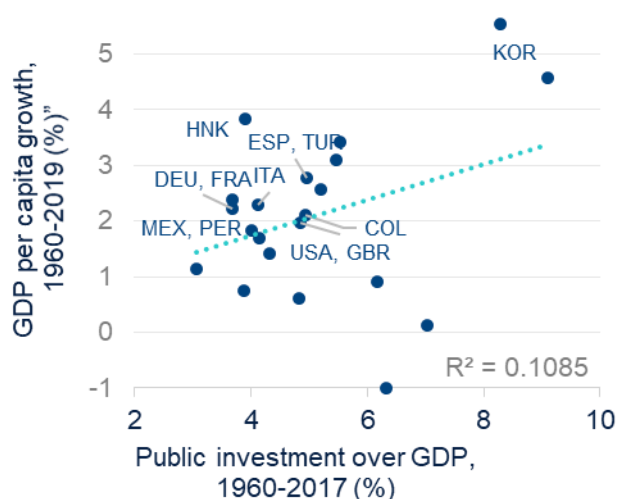
1: The correlation between GDP per capita and the welfare measure proposed by Jones and Klenow (2019) was equal to 0.95 in 2007 for a sample of 152 countries and 0.90 for OECD countries between 2010 and 2017 (see Doménech, 2021).

2: It should be taken into account that total investment in Figure 2 is measured in purchasing power parities, while private investment in Figure 1 is not. Since investment goods are relatively more expensive in poorer countries than in richer ones, the slopes in Figures 1 and 2 are not strictly comparable.

Figure 3 shows the correlation between the public investment rate and per capita income growth. Although the slope of the fitted line is similar to private investment, the adjustment is much worse. Some countries with lower public investment rate (for example, Hong Kong) exhibit higher GDP per capita growth than others with greater public investment. Thus, public investment only explains 11% of the variance of GDP per capita growth, while private investment is able to explain 66%.

We take this result as suggesting that private investment is usually allocated more efficiently than public investment, so the best strategy is for public investment to be complementary and incentivize higher private investment. Given the recent focus that we are seeing in many countries to using fiscal policy to help bring growth to pre-pandemic levels; but also to use this opportunity to increase long term growth in their economies; we see the approach taken, for example, by the European fund NGEU as an adequate strategy to increase per capita income growth in the European economies.

Figure 3. **PUBLIC INVESTMENT AND PER CAPITA INCOME GROWTH**



Source: BBVA Research based on [PWT 10](#) and [IMF](#)

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ENQUIRIES TO:

BBVA Research: Azul Street, 4. La Vela Building – 4th and 5th floor. 28050 Madrid (Spain).
Tel. +34 91 374 60 00 y +34 91 537 70 00 / Fax (+34) 91 374 25
bbvaresearch@bbva.com www.bbvaresearch.com