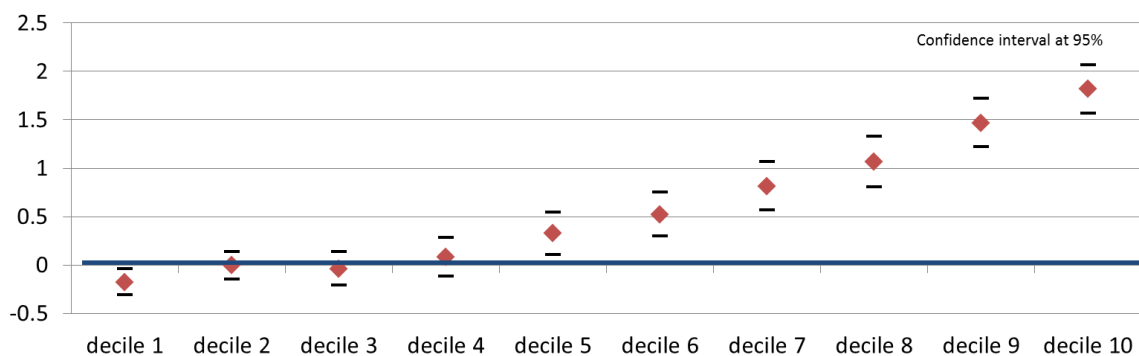


# Real estate boom and French corporate investment

By [Simon Ray](#), with Denis Fougère and [Rémy Lecat](#)

*The boom of the 2000s in France stimulated investment by firms with significant real estate holdings (positive collateral channel). Conversely, it was unfavourable to investment by younger firms, with fewer holdings, because of the induced cost (negative profit channel), which justifies the current attention given to the financing of SMEs.*

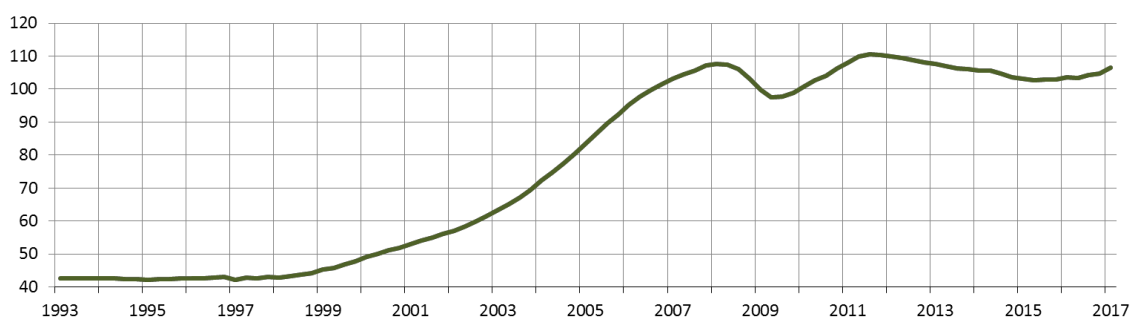
**Chart 1: Dominant effect of collateral for firms with real estate assets**



*Percentage change in the investment rate associated with a 1% increase in real estate prices in each decile of real estate asset volume. Sources: FiBEN, INSEE, Solicitors databases.*

Real estate prices rocketed in France during the 2000s. Due to the common land component, corporate real estate price levels and dynamics can be approximated by those observed in the residential market, for which local data are available. Between 1998 and 2008, the residential housing price index, published by INSEE, grew more than 2.5 times. The fluctuations observed subsequently have not corrected this sharp rise. In the first half of 2017, this index stood at a level close to its historical high (see Chart 2).

**Chart 2: Price index for old dwellings in metropolitan France**



*Q1 2010 = 100 – seasonally adjusted series (since 1996). Source: INSEE.*

Has this trend had an impact on corporate activity and competitiveness? This post draws from a recent study by Fougère, Lecat, and Ray (2017), which analyses the relationship between local real estate prices and French corporate investment behaviour since the mid-1990s.

### **Positive collateral channel, negative profit channel**

Several articles document a causal relationship between the market values of real estate assets held by firms and their level of corporate investment (Gan, 2007 or Chaney et al., 2012). In a context of credit markets characterised by the fact that the creditor is unable to perfectly control the behaviour of the entrepreneur, an increase in the market value of the asset that can be pledged as collateral with a creditor, and therefore seized in the event of default, facilitates lending, and consequently investment. As real estate assets are mainly used as collateral with financial institutions (Beck et al., 2008), this collateral channel is responsible for a mechanism that positively links real estate prices to investment of non-financial corporations.

The second channel, which has the opposite effect, is that firms' real estate holdings are a factor of production whose cost impacts corporate profit levels. If the debt capacity of firms is also determined by this profit, an increase in real estate prices has an ambiguous effect on investment capacity.

The relative strength of the collateral channel and the profit channel depends on the volume of the firm's ex ante real estate holdings. Faced with an increase in real estate prices, firms with significant real estate holdings benefit from the collateral effect without suffering the negative impact to their profit levels that would result from rising costs; conversely, firms with fewer holdings are confronted with a sharper decline in their profit levels without benefiting from a significant collateral effect.

### **The price effect depends on the volume of real estate holdings**

On the basis of firm-level data, we can study the effect of real estate prices on investment behaviour using a double difference estimate. These estimations highlight the differentiated effect of local real estate price levels on investment according to the volume of real estate holdings, normalised by total net assets.

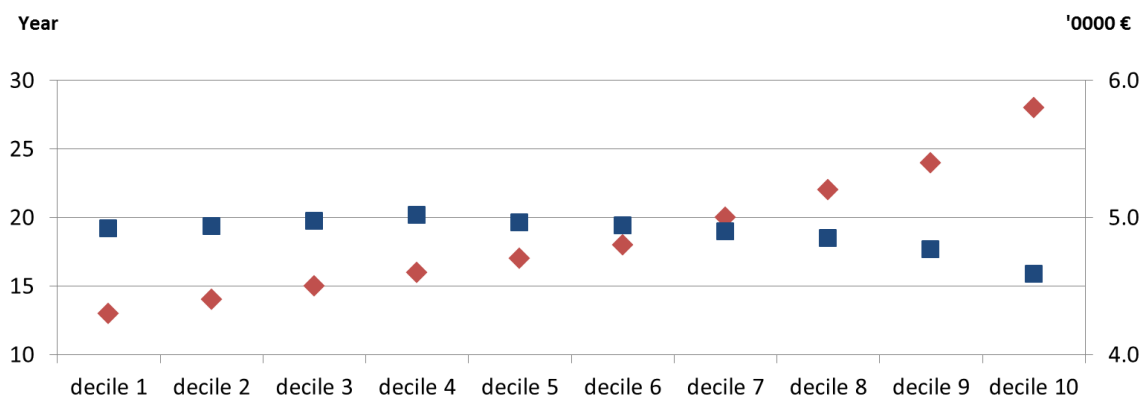
The distinct real estate price effect according to the firm's position in the sectoral distribution of volumes of real estate holdings can be very clearly seen in the results of our estimation. Chart 1 summarises the estimation results by showing the elasticity of the median firm's investment rate to the real estate prices for each decile of the distribution. A firm in the first decile of this distribution reduces its investment rate by 0.5 percentage points when prices rise by 10%, while a firm in the last decile increases its investment rate by 3.2 percentage points following an identical price rise.

Based on these elasticities and median investment rates in these two deciles, a 10% annual increase in real estate prices over a ten-year period, i.e. a scenario close to that observed in France in the 2000s, leads to an increase of almost 34% in the total volume of productive capital at the end of the period compared with a stable price scenario for a firm in the last decile. However, the volume of productive capital drops 4% compared with the stable price scenario for a firm in the first decile.

### Price rises benefit more established firms

The link between real estate prices and the allocation of capital between firms can be analysed in the light of the heterogeneous effects documented in this study. The firms that benefit from an increase in real estate prices are those that have significant ex ante real estate holdings. However, the median firm belonging to the last deciles is older and less productive than the median firm in the first deciles (see Chart 3). This suggests a negative relationship between real estate price dynamics and productivity dynamics.

**Chart 3: Age and apparent labour productivity of the median firm in each decile**



*Median number of years since the firm's creation (red diamond, left-hand scale) and median apparent labour productivity (blue square, right-hand scale), in each decile. Sources: FiBEN.*

These stylised facts appear to demonstrate that high real estate price levels contribute to the financing difficulties that can face certain promising early-stage firms with few fixed assets. In this respect, the public initiatives intended to give these firms easier access to financing would appear to be particularly justified in a high-price environment.