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Holding on for tomorrow

How economic uncertainty dulls investment
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IT TAKES a cool head to invest. A firm’s decision to build up capacity or spend cash on research pays out tomorrow but must be paid for today. That makes investment returns uncertain, influenced by factors—from oil prices to politics—that firms cannot control. With rich-world investment rates looking anaemic, many wonder why big firms are hoarding cash rather than putting the money to work. According to new research, doubts about the future, some of them self-inflicted, are a likely cause.

Common sense suggests that doubt might dull investment. But in some cases uncertainty might spur investment too, as an influential 1996 paper* by Avner Bar-Ilan of the University of Haifa and William Strange of the University of British Columbia argued. The authors’ first observation was that investment—building a house to sell, say—takes years. The protracted “time to build” means that if property prices shoot up, only the builders who started work years ago benefit. In addition, since long-term projects can often be shelved or sold while under way, downside risks are limited. In other words, the potential benefits of investment in such circumstances exceed the potential costs, making investment a rational choice despite the unknowns.

Testing such theories requires an empirical calculation of the relationship between investment and uncertainty. Yet measuring uncertainty is tricky, as is untangling it from the decision to invest. Some investments—splashing out on a pricey advertising campaign, or buying a rival firm—create uncertainty of their own. In other cases a big investment can reduce worries about where a firm is headed. Because the relationship is two-way, with investment and uncertainty influencing one another, simple correlations of the two variables can jumble the effects.

In a 2007 paper Nick Bloom of Stanford University, Stephen Bond of Oxford and John Van Reenen of the London School of Economics showed one means of avoiding this “reverse causality”. They took data for a sample of 672 British manufacturing firms between 1972 and 1991, and turned to stock-price volatility as their measure of uncertainty. When looking at investment in a given year, they use previous years’ uncertainty in their analysis. The logic is that past uncertainty tends to predict current uncertainty pretty well: there is more doubt about some firms than others. But historic volatility cannot be influenced by a firm’s current investment decisions, making it a clean measure. The analysis reveals that as uncertainty rises, firms cut investment rates and respond less to investment opportunities.

A paper published this year relies on more timely data. Luke Stein of Arizona State University and Elizabeth Stone of Analysis Group, a consultancy, study 3,965 American firms between 1996 and 2011. They first collect data on options: contracts that give the right to buy and sell stocks in the future. Since options prices represent traders’ estimates of future stock values, a wider spread between the price of a share when the option is sold and the one at which it can be exercised indicates greater uncertainty about where a firm is heading. The data allow the researchers to work out the future “implied volatility” for each firm.

That still leaves a causality conundrum: implied volatility will tend to be influenced by firms’ investment decisions. To get a clean volatility measure the researchers looked at forms of uncertainty that companies cannot control—changes in oil prices and exchange rates. These hit different firms in different ways: an oil-price spike, for example, is good for oil producers, bad
for airlines, and only slightly negative for retailers. As a first step, they work out how much of each firm’s implied volatility has its root in some economy-wide uncertainty. The rest they ignore, since it could be down to bosses’ investment decisions.

They find that doubts about tomorrow have a big influence on what happens today. For every ten percentage points their measure of uncertainty rose, investment fell by one percentage point. During the financial crisis of 2008-09, for example, they calculate that implied volatility rose by almost 40 percentage points, suggesting a drop in investment due to uncertainty of just under four percentage points. That implies that uncertainty accounted for around half of the total drop in investment during the crisis. And it is not just spending on physical assets that declines. The authors find that other long-term outlays—hiring staff and launching advertising campaigns—also plunge when uncertainty rises.

Lifting the fog

Those in charge of fiscal and monetary policy should heed the research. Some types of uncertainty—oil shocks, wars—are beyond their direct influence. But the research of Messrs Bloom, Bond and Van Reenen shows that when uncertainty is high, companies’ response to policy stimulus tends to be muted. With worried firms sitting on their hands, crisis-response medicine needs to be generous, with a shot of stimulus to offset the slump, and an extra one to assuage corporate bosses’ anxieties. It is a lesson central banks seem to have learned: every one of them among the G7 club of big economies has committed itself to a long period of low interest rates.

Governments, however, are still breeding fears about the future. The most glaring form of uncertainty in the rich world is fiscal. In the euro area cash-strapped peripheral states rely on bail-outs from richer members or the IMF. As each round of talks—on a banking union, or a deposit-insurance scheme—approaches, sensible bosses decide to wait and see what happens. In America endless budgetary brinkmanship has led to a quarterly debate over whether the government will default on its debts (the next deadline is in February). This is self-imposed uncertainty. If the fiscal path were a little clearer, the reduction in uncertainty should spur investment and output, which in turn should improve the fiscal picture. To cut the debt, first clear the doubt.

Sources


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