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“ The knowledge problem

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What can investors know? This simple question must be the basis of the investment process simply because many decisions to buy or sell a share are taken in the belief that that we know better than others where it is heading.

But can we know this? There's a big tradition in economics which says we can't. Some economists have thought that knowledge of the future is just impossible. "What does not yet exist cannot know be known" wrote George Shackle in his under-rated book, *Epistemics and Economics* in 1972. And others have thought that knowledge even of the present is imperfect. Information, said Friedrich Hayek, "is not given to anyone in its totality" but instead consists in "dispersed bits of incomplete and frequently contradictory knowledge" scattered across millions of individuals.

This tradition suggests we should be passive investors not because of any grand theory that markets are informationally efficient but simply because we can't know enough to know any better.

The fundamental question for investors is: is this tradition correct? I'd suggest it's partly so: there are some things we cannot know, but some things we can - which might justify a less passive approach to investing.

One thing we can't seem to know is which firms will succeed and which won't. Sussex University's Alex Coad has shown that corporate growth is largely random. The fact that most actively managed funds underperform their benchmarks over the long run is consistent with this.

This could be because success depends partly upon dumb luck: sometimes, even good products don't sell and mediocre ones do.

Another reason, though, is environmental change. The only knowledge we can possibly have is of the past and present. But if the world is changing, such knowledge mightn't be a guide to the future. This is a problem for stock pickers in two ways.

First, new companies are - by definition - different from others: a firm that merely replicated what another did wouldn't be much use. This newness, though, means we don't have a reliable guide to its likely success. Perhaps for this reason investors have been consistently bad at predicting the fortunes of newly-floated companies and have consistently over-paid for them.

Secondly, environmental change can turn good firms into bad ones, simply by putting them on the wrong side of technical change and creative destruction. Xerox, Polaroid, Kodak, Netscape and Nokia to name but a few were all once market leaders until newer products came along that rendered them obsolete.

Often, companies cannot adapt to such change. This can be because they have what Peter Rousseau and Boyan Jovanovic have called vintage organisational capital: their expertise consists in being able to use only specific technologies. Or it can be because, as Bridget Rosewell and Paul Ormerod at Volterra Consulting have shown, they simply don't have the foresight to anticipate future change.

There's something else we can't know - short-term market moves. Since 1985, the dividend yield has explained only 1.8 per cent of the variance in subsequent monthly returns. This tells us that cheap markets can get cheaper in the short-run, and dear markets dearer. In this sense, market timing is a fool's errand.

A third area of ignorance is economic forecasting. Economists have consistently failed to foresee recessions. This could be because they are the inherently unpredictable result of company - or industry-specific shocks which are amplified by network effects.

It seems then, that Hayek and Shackle were right: there's a lot that we cannot know.

But they weren't entirely right. One thing can help us predict recessions: the yield curve. When this inverts - so that (say) 10-year yields fall below two year ones - the probability of recession increases. Inverted yield curves in 1990, 2000 and 2007 all led to economic downturns a few months later. Granted, the curve doesn't seem to forecast the severity of recessions - it was more steeply inverted before the mild recession of 1991 than before 2008's slump - but it does give us a clue.

The yield curve works as a recession predictor because it aggregates together the dispersed and incomplete knowledge of which Hayek wrote. An inverted curve tells us that investors in aggregate expect yields to fall: this is the sort of thing that happens in recessions. Each individual investor might have only a faint and perhaps inarticulate inkling that bad times are possible, but across thousands of

them such hunches based upon partial information can add up to something valuable.

This isn't the only way in which we can use aggregate fragmentary information to predict the future. Ratios of consumer spending to wealth can help predict medium-term equity returns, because aggregate consumer spending collects together millions of consumers' expectations about their economic futures.

What's more, medium-term forecasting is more feasible than short-term forecasting. Although the dividend yield has little short-term predictive power, it does have some power for the longer-term; since 1985, it has explained over 44 per cent of the variation in subsequent three-year returns on the All-share index.

There are other things we know, at least to some degree. We know that, in the past, some types of shares have out-performed others: momentum, defensives, value and quality shares (defined by objective factors such as profitability and payout ratios. Of course, we can't know for sure that this will continue to be the case. But it's possible that their good performance is due to exposure to additional risks such as benchmark risk (for momentum and defensives) or cyclical risk (for some value stocks). Because higher risk should mean higher returns, such factors should continue to pay off, on average over the longer run.

What's more, we also know that there are countless errors of judgement which it is possible to make: wishful thinking causes us to hold onto losing stocks in the hope of breaking even; underreaction causes us to fail to change our beliefs about a share in light of new information; overconfidence causes us to over-estimate what we really know; and so on. Such errors warn us that we can be too quick to reject Hayek's and Shackle's scepticism because what we think is hard knowledge might turn out to be no such thing. They help explain a finding by Brad Barber and Terrance Odean, two California-based economists - that most individual investors underperform the market. All this warns us to be cautious about using our judgement to pick stocks.

There's something else we should be able to know - ourselves. We should be able to assess how much risk we are comfortable with, and we should also know what particular risks we should be able to bear and what not. For example, someone on a flat rate annuity is more exposed to inflation risk than someone who can expect their wages to rise with inflation - so the former should hold more inflation-proofed assets than the latter. And retired people or those in stable jobs are more able to take on cyclical risk than those, such as architects or builders, whose incomes fall in recessions.

However, even our knowledge of ourselves is fallible. Harvard University's Matthew Rabin and colleagues have shown that we are bad at predicting our future preferences, because we under-estimate how our tastes will change. And Christoph Merkle at the University of Mannheim has shown that we might be systematically too cautious in our investments because we under-estimate our ability to tolerate losses.

Perhaps, then, Hayek and Shackle over-stated our ignorance. But they alerted us to an important fact - that, often, we know less than we think. Before taking any investment decision, we should ask: what do we really know here? And the answer might be: not much.

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