## **Asset prices**

# The bubble without any fizz

Low interest rates have made more or less all investments expensive



Print edition | Briefing

Oct 7th 2017

USUALLY, when asset prices boom, people get excited. As America's stockmarkets scaled wild peaks in 1929 and 1999 they did so amid feverish enthusiasm. Search for such euphoria on Wall Street today and you will come back empty-handed. Look at underlying numbers, though, and it is at first hard to see why. Over the past 136 years the cyclically adjusted price-earnings ratio (CAPE), a useful measure of how expensive stocks have become, has reached its current heights only twice before: during the dotcom bubble; and just before the Crash of '29.

Why does this remarkable surge not spur frantic enthusiasm—or for that matter deep trepidation? One reason is that in most market bubbles you can point to a

particular type of asset which is seeing its price rise inexorably: tech stocks in the 1990s; houses in the mid-2000s. Today, though, America and much of the rest of the world are amid a bull market in almost everything: stocks, bonds and property are all strikingly expensive compared to long-term averages, and getting more so. When everything is going up, things are less exciting, and perhaps less worrying.

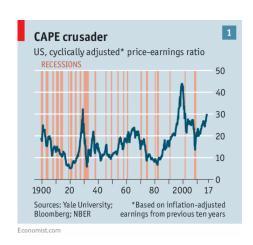
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But it is still a time to take care. The hunger for assets that is driving up prices is also leading investors to take more risks—risks which may not be fully priced into their investments and which they may not fully understand, any more than they understood the risks of mortgage-backed securities and other instruments in the run up to the financial crisis ten years ago. And the underlying driver of this oddly broad

bull market, low long-term real interest rates, has conflicting explanations—some comparatively benign, others less so.

Start with the evidence that stocks are dear. Investors find CAPE a useful measure because the price of stocks reflects the value investors assign to profits. Since 1881 the average CAPE for the S&P index of the 500 biggest stocks listed in America has been 17. Today it has risen to 30; buying a stream of profits is currently uncommonly expensive (see chart 1).

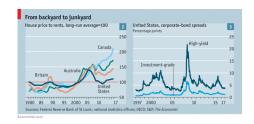
This year's rise in American equities—the S&P 500 is 13% higher than it was on January 1st—has been almost matched by stockmarkets in Europe and Japan, and outpaced by those in emerging markets. When measured against a benchmark similar to CAPE, European and emerging-market stockmarkets are not as strikingly priced as American ones. But they are handily above their long-run average. They can no longer be regarded



as cheap, even if they are not as expensive-looking as American stocks.

Or take property. In countries that were unscathed by the global financial crisis, such as Canada and Australia, house prices are far above their long-run average, relative to the cost of renting. In America, where house prices plunged in the crisis, they have now surpassed their peak of 2008 in nominal terms, and they are back above their long-run average relative to rents. In Britain, property prices are close to their peak against both average earnings and rents (see chart 2).

In bond markets credit spreads have narrowed dramatically. These spreads, which are the gaps between the interest rate offered by safe bonds, such as US Treasuries, and by riskier ones, such as those issued by companies or other countries, are a



measure of how much compensation investors require to bear the extra risk. When the price of a risky bond rises relative to the price of a safe benchmark, the credit spread narrows.

In the early weeks of 2016, when fears for China's economy surged and the oil price sank below \$30, the credit spread for investment-grade bonds was 2.2 percentage points. It has since narrowed to around one percentage point, only a little higher than it was during the credit boom of 2004-06. For high-yield or junk bonds, those rated below investment grade, the story is more or less the same (see chart 3).

### Raised on promises

Venturesome investors looking for higher yields can buy bonds denominated in dollars but issued by countries other than America. The spread between dollar bonds in the emerging-market bond index collated by J.P. Morgan and Treasuries has narrowed sharply this year to 3.1 percentage points. Investors have been willing to buy bonds that look remarkably risky. In June, Argentina received a flood of bids for a bond maturing in 2117. In the past century, Argentina has defaulted six times. It did so most recently in 2014.

Put off by the high prices of bonds and stocks (particularly those of tech giants, whose prices explain a lot of the S&P's stratospheric CAPE), investors are showing ever more interest in private markets—thus pushing prices up there, too. The borrowing costs for private-equity firms have reached an all-time low. There is a

keen appetite for investment funds with a technology bent. SoftBank, a Japanese telecoms company with a sideline in venture capital (it was an early investor in Alibaba, now one of China's e-commerce giants), has raised \$93bn from asset managers, including sovereign-wealth funds, to put to work in young technology firms.

The key asset price, the one that sets the tone in other markets, is the long-term interest rate. Long-term real interest rates have been falling steadily since the early 1980s, and are now at historic lows (see chart 4). The yield on a ten-year Treasury bond fell close to 2% in the summer, though it has risen to 2.3% since. Allow for the effects of future inflation, even if it is modest, and the real return will be lower still. The interest rate on ten-year inflation-protected bonds in America is 0.5%. In Europe real bond yields are negative.

An interest rate is the reward for forgoing spending today, to consume tomorrow. When the desire to spend today's income tomorrow increases, interest rates fall. That makes people keen to find other ways of storing their spending power—and thus more willing to pay more for other assets.

The reasons for the decades of decline in real interest rates are not fully understood, and certainly not agreed on. Different people give more

"World" real interest rate
Average ten-year inflation-indexed bond yield, %
G7 countries, excluding Italy

\*

4

3

2

1

1985 90 95 2000 05 10 17

Source: "Measuring the 'world' real interest rate", by M. King and D. Low, NBER working paper, February 2014

\*The Economist
estimates

or less weight to three different factors: an increased appetite for saving; a structural change in the economy; and the actions of central banks. What, if anything, needs to be done depends in large part on which factor you choose to give most weight to.

The more people want to save, the lower the interest rate required to get them to do so. And in past decades various factors have been driving up the propensity to save. Ageing rich-world populations came into their prime earning years, and set aside more of their income for retirement. Bank of England economists reckon that this effect has lowered the real interest rate worldwide by 1.4 percentage points since 1990. China's integration into the world economy added a lot of thrifty people to

the world's pool of savers. In 2005, Ben Bernanke, then a governor of America's Federal Reserve and later its chairman, attributed much of the worldwide "savings glut" driving down interest rates to China. The influence of asset prices is still evident in the frothiness of property markets in cities like London and Vancouver, where the eagerness of Chinese buyers drives a wedge between house prices and local fundamentals, such as rents and income.

At the same time as the supply of savings has risen, the demand for investment has fallen. The trend growth rate of rich-world economies has been dropping. The real cost of plant and machinery has fallen and the value of firms, particularly in the technology industry, has shifted increasingly to intangible assets rather than physical assets; both those things mean the amount of investment needed for a given output has fallen. So the corporate sector ends up swimming in cash, adding yet more to the swollen supply of savings.

The third factor is the role of central banks. The reason long-term interest rates are low, the argument goes, is because short-term interest rates have been kept low for a long time. Central banks have held them close to zero for almost a decade (longer, in Japan). They have also pushed down long-term interest rates more directly by buying \$11trn-worth of government bonds and other assets since 2009—in part as an attempt to push investors into riskier assets, thus ginning up the economy. Little wonder long-term interest rates are low.

It is not quite as simple as that, comes the response. Central banks are as much shaped by economic trends as shapers of them. The increased desire to save has changed the terms of monetary policymaking. Just as the real rate of interest that balances the demand for long-term saving with supply has fallen, so has the "neutral" rate of interest which keeps inflation stable when the economy is at full capacity. If the central banks were really keeping interest rates and bond yields too low, the economy would overheat and inflation would take off. There is not much evidence of this.

In the absence of inflation it is reasonable to expect low interest rates to persist, and thus unsurprising that the prices of stocks, corporate bonds and property go up. If the yields on risk-free bonds stay depressed, then the expected returns on all

other assets—the earnings yields on equities, say, or the rental yield on houses—must fall into line.

In some ways this makes high asset prices less worrying. Take stock prices. To value the future earnings you can expect from owning a piece of a company, they must be discounted using an interest rate. If the real interest rate is lower and looks likely to stay that way, discount rates will fall, too. That makes future earnings more valuable, and goes some way to justifying paying a high price for them. Thus in a low-interest-rate world those high CAPE numbers make a lot more sense.

As logical as all this seems, though, there is nevertheless a nagging sense that something is amiss with such high-priced assets. What if, for instance, inflation is sending a false signal about where real interest rates should be? If that were the case, central banks might indeed be keeping rates lower than they ought to. This is the case made recently by Claudio Borio, who works at the Bank for International Settlements (BIS), a clearing house for central banks and a font of contrarian thinking.

Central banks steer by the inflation rate as mariners steer by their compasses. If it rises, the economy is overheating and the ship must adjust its trim. If it falls, the economy needs a dose of monetary stimulus; the sails must be unfurled. The problem, Mr Borio says, is that the compass no longer reads true.

Globalisation, the decline of union power and technological change mean that inflation does not perk up when the jobless rate falls in quite the way it used to; the short-term trade-off between inflation and the unemployment rate, known as the Phillips Curve, has weakened to the point of breakdown. Inflation has been depressed by real factors, says Mr Borio. By keeping interest rates low in a vain attempt to fine-tune it, central banks are instead amplifying a cycle of boom and bust.

If central banks' influence on inflation has been overstated, it may also be the case that their influence on the long-term real rate of interest, and thus on asset markets in general, has been underestimated. Consider again the decades-long drop in interest rates since the 1980s; but this time, instead of asking why they fell, ask why they started off so high. One explanation is the savage tightening of monetary

policy under Paul Volcker, chairman of the Fed, who pushed short-term interest rates as high as 19% to crush America's double-digit inflation. The high real interest rate of the 1980s and 1990s carried the imprint of the aggressive monetary policy that went before.

This episode suggests that central banks can indeed have a lasting influence on real interest rates. If so, a decade of aggressively loose monetary policy may well have weighed down bond-market rates—and thus, for a while at least, people's idea of the neutral real rate. Indeed higher bond prices may have induced some investors, such as insurance funds, to themselves buy more bonds, driving down interest rates in a self-reinforcing spiral.

What does this mean for the future? One possibility is that the spiral may go into reverse as central banks, led by the Fed, start to unwind the bond holdings they have built up. In the past five years the bonds issued by governments in America, the euro zone, Japan and Britain to finance budget deficits have been broadly matched by the big-four central banks' bond purchases.

Believing that the world economy now has



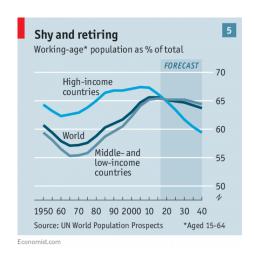
sufficient momentum to slough off the legacy of its past debts, the Fed is starting to unwind its share in this. Though the European Central Bank and the Bank of Japan are, for now, still buying, they will in time follow suit.

The Fed's economists estimate that its asset purchases have reduced the interest rates on ten-year bonds by one percentage point, and that getting its bond holdings back to a normal level might have a similar effect in the opposite direction. The Fed will sell bonds much more slowly than it bought them to try and ensure a smooth adjustment to the market. But that cannot be guaranteed. Hyun Song Shin of the BIS recently warned of the perils of a possible "snapback" in global bond yields if, for instance, some investors start dumping bonds as yields rise, just as they snapped them up as yields fell. The prices of other assets, such as stocks, might also lose support. Indeed, the prices of other assets might be more destabilised than those in the bond markets themselves.

## Into the great wide open

And what of central-bank interest-rate policies? The banks' choice of what to aim for as they cautiously start to tighten will be made more vexed by indications that the increased propensity for saving, is itself in the process of turning round. China's current-account surplus (a measure of its excess saving) narrowed from 10% of GDP in 2007 to under 2% of GDP in 2016. In a recent paper, Charles Goodhart of the London School of Economics and Manoj Pradhan of Talking Heads Macro, a research firm, argue that the rich world's demography is at a turning point, too, with the share of working-age people in the population about to fall (see chart 5). That implies less saving for retirement and more spending in retirement. In a recent lecture at the IMF, Mark Carney, the governor of the Bank of England, said that the neutral interest rate may be rising worldwide, "meaning that monetary policy has to move in order to stand still".

Who should worry about this? One view is that, because stockmarket booms tend to end badly, policymakers should take deliberate action now to deflate prices before it is too late. It is often said that central banks, notably the Fed, mollycoddle markets by delaying interest-rate rises while they are unsettled. If the Fed were less considerate, asset prices would be jumpier, making investors more attuned to the inherent riskiness of their portfolios.



For some tastes, this comes close to arguing that the Fed has to destroy the recovery in order to save it; the steep rise in the federal funds rate required to bring American share prices to earth might tip the economy into recession. And central banks still have some purchase on inflation: if they raise rates too much, they might entrench today's low inflation, or risk deflation.

There is a better case for a less astringent form of intervention. It says, broadly, that the stockmarket is a sideshow. Hardly any capital is allocated with reference to stock values, since IPOs are so scarce. What matters to the economy are banks and (in America, at least) credit markets. Research by Jeremy Stein of Harvard

University and two co-authors at the Fed (where Mr Stein was once a governor) has found that when the mood in credit markets is bullish (ie, corporate-bond spreads are unusually narrow and the share of junk-bond issuance high), the economy will soon suffer, with an abrupt tightening of credit and slower growth. Given this finding, says Mr Stein, "I'm wary of targeting inflation so aggressively that you are not mindful of the risks from bullish sentiment."

It is the nature of investment that some risky bets will not pay off. If portfolio managers wake up in two years regretting the high price they paid for shares in one tech giant or another, or wishing they didn't own a 98-year dollar bond issued by Argentina, so be it. The least—and perhaps the best—that can be done is to ensure that the real economy is protected should prices suddenly fall. That means guarding against purchases made with too much borrowed money of illiquid assets, especially property. It also means ensuring banks have enough capital to withstand a correction in asset prices. The policy tools already exist to do this. Now is a good time to put them to work.