The Economist

The dangers of deflation

The pendulum swings to the pit

Politicians and central bankers are not providing the world with the inflation it needs; some economies face damaging deflation instead

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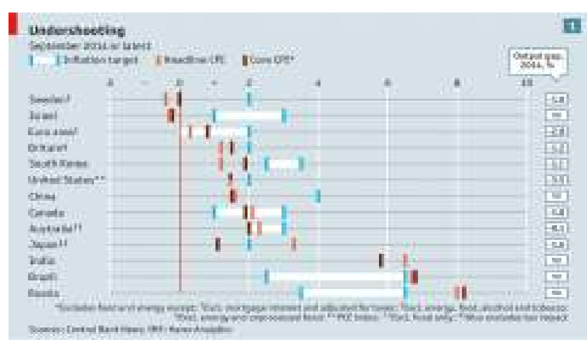
IT IS a pernicious threat, all the more so because, at its onset, it seems almost benign. After two generations of fighting against inflation, why be worried if the victory looks just a bit too complete, if the ancient enemy is so cowed as to no longer strain against the chains in which it is bound? But the stable low inflation fought for in the 1980s and 1990s and inflation hazardously close to zero are not so far apart. And as inflation drops, slipping into deflation becomes ever easier. It is in that dangerous position that the world now stands.

In America, Britain and the euro zone central banks have a 2% target for inflation. In all three, it is below that target. In Italy, Spain and Greece, which have experienced wrenching crises and recessions, it is below zero (as it also is in Sweden and Israel). Japan, which finally escaped from deflation in 2013 after more than a decade of struggle, is battling not to return. Leave out the effects of a consumption-tax increase and inflation there is barely half way to its 2% target. Even in China inflation is below 2%, compared with a 4% central government target (see chart 1).



The lowflation of being consistently below an already low target is bad in itself; the deflation it could easy lead to is even worse. There are several reasons. The belief that money made tomorrow will be worth less than money today stymies investment; the belief that goods bought tomorrow will be cheaper than goods bought today chokes consumption. Central bankers can no longer set real (that is, inflation-adjusted) interest rates low enough to restore demand. Wages, incomes and tax revenue all stall, undermining the ability of households, businesses and governments to pay their debts—debts which, in real terms, will grow more burdensome under deflation.

The threat is especially acute because central banks in much of the rich world have already lowered their interest rates to zero. Alternative paths to stimulate spending, such as fiscal policy, are blocked by politicians seeking to look tough. Increasing anxiety about this was a central factor in the plunge in equities, bond yields and commodity prices which shook markets in the week that began October 13th.

The perversity of the low-inflation world is shown by the fact that the catalyst for the latest deflation scare is in itself a largely positive development. The price of a barrel of oil has fallen from $115 at the end of June to about $85 today, prompting a sharp drop in headline inflation (core inflation, which excludes energy, is not quite as low). Across the board lower commodity prices will knock another 0.4 percentage points off global inflation in coming months, according to J.P. Morgan.

This poses problems for various oil exporters (see article (http://www.economist.com /news/international/21627642-america-and-its-friends-benefit-falling-oil-prices-its-most-strident-critics)) but for oil importers it is tantamount to a gigantic tax cut. An IMF rule of thumb has it that a $20 drop in the oil price adds about 0.4 percentage points to global growth.

A descent into the maelstrom

But let joy be confined. The drop in oil prices is in part due to higher supply, but it is also the product of slowing growth around the world. China's slackened appetite for raw materials has hit emerging-market commodity suppliers particularly hard. And an energy-induced drop in prices, though good for consumer purchasing power, risks reinforcing expectations of lower inflation overall; it is part of the threat's pernicious nature that such expectations easily become self-fulfilling.

In recent months investors have lost faith in either the ability or the will of central banks to get inflation rates back up. The inflation rate they expect can be inferred by looking at derivatives contracts linked to inflation or by subtracting the yields of inflation-indexed bonds from yields on ordinary, nominal, bonds. The spread represents expected inflation in coming years.

Both measures are subject to other influences, too, like the level of liquidity in the markets; such factors probably explain some wild fluctuations of the expected rate during the recent market turmoil. Look beyond such volatility, though, and there is a steady pattern: inflation expectations in America, Europe and Japan have been on the slide since the summer (see chart 2). In Europe, expected inflation in five years' time has dropped from 2.1% in July to 1.82%, well below the 2% inflation target set by the European Central Bank. It was this drop that prompted Mario Draghi, the president of the ECB, to promise in August that the bank would "use all the available instruments" to get it back up. Inflation in the euro zone promptly slipped further, to 0.3% in September, and though that may have been largely due to oil, core inflation at 0.8% remains uncomfortably low. The IMF recently put the odds of deflation in the euro zone—defined as two quarters of falling prices in a 12-month span—at 30% in the coming year.

A short spell of deflation driven by cheaper oil would in some

circumstances be a tolerable thing. Indeed there are times when deflation can be a symptom of encouraging underlying developments. It can, for example, be brought about when advancing productivity enables the economy to produce more goods and services at lower cost, raising consumers' real incomes. There were several such periods of "good deflation" while the world was on the gold standard; with growth in the money supply constrained, prices were pushed down whenever the volume of output grew rapidly. Michael Bordo and Andrew Filardo, two economic historians, point to America's 1880s as a period of "good deflation", with output rising by 2% to 3% a year from 1873 to 1896. For all the aggregate benefit, though, falling real wages hurt workers in many sectors.

By contrast bad deflation results when demand runs chronically below the economy's capacity to supply goods and services, leaving an output gap. That prompts firms to cut prices and wages; that weakens demand further. Debt aggravates the cycle: as prices and incomes fall, the real value of debts rise, forcing borrowers to cut spending to pay down their debts, which ends up making matters worse. This pathology did great harm during America's Great Depression, which was when Irving Fisher, an economist, diagnosed it under the name "debt deflation". Deflation in Germany at the same time, though eclipsed in the common memory by the damage done by the hyperinflation of the 1920s, caused a number of multiple bank collapses. The resulting unemployment, wage cuts, and credit crunch helped radicalise workers and fed support for the Nazis.

The premature burial

What swings one way swings back the other. Memories of the 1930s lent an inflationary bias to fiscal and monetary policy in the years after the second world war that helped bring about the collapse of fixed exchange rates in the 1970s. It then took decades to squeeze unacceptable levels of inflation out of the system. Deflation disappeared from the memories and concerns of policymakers—until Japan slipped into deflation in the late 1990s as a collapsed property bubble left the banking system choking with bad debt.

One of the lessons of Japan's deflation is that it took economists by surprise. During the run-up economists expected merely to see low inflation, not deflation—just as they do today. They could be wrong again. Even if they are not, the problems of low inflation are quite similar to, if not as severe as, those of deflation proper.

Firms hit with weak sales often adjust by freezing nominal wages and allowing higher prices to restore profits. That is, they cut real wages. If prices aren't rising, that won't work. Cutting nominal wages is hard, so firms may sack workers instead. A recent staff paper by the Federal Reserve Bank of San Francisco argues this wage stickiness hampered American firms' ability to adjust costs during the last recession, probably exacerbating unemployment. Mr Draghi argues that wage stickiness explains why unemployment got so much worse in Spain, where until recently wages were relatively rigid, than in Ireland.

This points to another problem. For the euro zone, lowflation overall means genuine deflation for the weakest. Countries in the periphery need to redress their loss of competitiveness against the core—which is to say, Germany. Since they can't devalue, their prices and wages must rise more slowly. If Germany's inflation is already quite low—it stands today at 0.8%—wages and prices have to fall outright in the periphery. This is indeed what is happening in Spain, Italy and Greece.

Like deflation, lowflation raises the burden of private debt; incomes grow more slowly than firms, consumers and governments expected when they took out their loans. This may cause firms to reduce investment and households to trim their spending. "This is fertile ground for a pernicious negative spiral, which then also affects expectations," Mr Draghi noted in May. As for governments, the IMF has studied four previous episodes of lowflation—Italy in 1912, Switzerland in 1996 and 2001, and Japan in 1986—and found on average they boosted public debt to GDP ratios by 1.25 percentage points per year.

This is not a good time for such boosts. Since the financial crisis struck in 2008 the world has become more leveraged; total public and private debt reached 272% of developed-world GDP in

2013, according to a report put out under the aegis of the Geneva Reports on the World Economy. Household debt may no longer be as high as it was in Britain and America, but governments have taken up the slack. In those countries, where governments can print their own money, this does not raise solvency concerns, and in the euro zone, where they cannot, public debt has risen less than in Britain and America. But again that overall figure masks differences within the group. Debt has gone down in Germany, but it has risen sharply in the periphery (see article (http://www.economist.com/news/finance-and-economics/21627647-debt-some-euro-zone-economies-looks-unsustainable-back-reality)).

These debts are bearable so long as governments can borrow at their current, low rates—2.5% in Italy, 2.2% in Spain. But if deflation sets in and nominal GDP stagnates they will become unsustainable. Investors will insist on much higher interest rates, debt will spiral upward and fears of default will fulfil themselves. As Peter Berezin of the *Bank Credit Analyst*, a forecast journal, says, the ECB can help a country that's illiquid, but not one that's insolvent. "It's why Greece defaulted and ECB was helpless to do anything about it."

Loss of breath

The most troubling effect of low inflation is on monetary policy. Central banks stimulate spending by reducing the real interest rate, which is the nominal interest rate minus the rate of inflation. This boosts investment and discourages saving, reducing the output gap. The real rate required to raise demand enough to balance investment and saving is called the equilibrium real rate. When demand is weak, the equilibrium real rate may be negative, and under low inflation it is difficult for a central bank to set a nominal rate that brings this about. And because nominal rates are in practice never less than zero (you can always just keep money in cash) deflation proper makes a negative real rate not just hard but arithmetically impossible: subtract a negative number (the inflation rate, in circumstances of deflation) from a number that has to be zero or higher and you always get something positive.

While economists disagree on the current level of the equilibrium real rate, they broadly agree it is lower than in the past. According to a widely followed methodology developed by Thomas Laubach and John Williams of the Federal Reserve, America's equilibrium real rate fell from above 4% in the 1960s, to 2% in the 1990s, and is now slightly negative. Markets seem to share that verdict. Andy Haldane, the Bank of England's chief economist, recently noted that British markets expect real rates to remain negative for the next 40 years, probably a good approximation of the expected equilibrium real rate.

This long term difficulty in matching savings and investment has been attributed to "secular stagnation", a term coined by Alvin Hansen in the 1930s to describe the inability of the American economy to return to full employment. Those using it to describe today's woes see it as having come about in part as a response to the recent global crisis, which made firms and households less able or willing to borrow at any given interest rate, and in part as the result of longer term trends.

Since 2008 corporate investment in America, the euro zone and Japan has fallen short of cashflow, notes ISI Group, an investment-research provider, making firms net savers rather than borrowers. This reflects both subdued expectations about near term sales and a more deep seated belief that, as populations age, markets will shrink and good opportunities for investment will become rare. Rising inequality may aggravate the process: the rich save more than the poor. Efforts by emerging markets to hold down their currencies and plough the resulting trade surpluses into rich-world bond markets do further harm.

Secular stagnation makes low inflation more costly because it lowers the real interest rate necessary to achieve full employment. Larry Summers of Harvard University argues that there is no possible nominal interest rate that could balance investment and saving at today's inflation rates. It also makes lowflation and deflation more likely: the lack of demand further depresses prices and wages.

This makes it all the more urgent that central banks get inflation back up. But the markets do not think they can or will: hence those falling inflation-rate expectations. Michael Pond of Barclays points out that, when America's core inflation has stayed at just 1.5% despite three rounds of quantitative easing (QE) putting trillions of newly created dollars into the financial system, it is easy to understand why the markets might think that way.

But markets may be selling central banks short. Japan's multi-front attack on deflation was yielding results until a second-quarter tax increase set the economy back. The Fed's QE and zero-rate policy have helped pull unemployment below 6% and kept inflation from falling further in the face of deflationary headwinds.

Nevermore

The ECB has put its hopes in targeted loans to banks, purchases of covered bonds that began on October 20th and purchases of asset-backed securities that are yet to start. Those efforts have yet to change the market's psychology by much, in part because they will not significantly expand the ECB's balance-sheet, which has been shrinking as banks pay off previous loans. Investors associate larger central-bank balance sheets with a greater commitment to lifting up inflation.

If that doesn't work, the ECB could directly buy corporate bonds. There is €1.1 trillion ($1.4 trillion) of non-financial corporate debt and €7.8 trillion of financial corporate debt outstanding. Buying up some of this debt would allow a significant expansion of the ECB's balance-sheet. The next step would then be purchases of government bonds. The German government and the country's central-bank chief, Jens Weidmann, remain deeply opposed to such steps (see article (http://www.economist.com/news/europe/21627710-europes-leaders-need-rediscover-resolve-they-showed-during-euro-crisis-gummed-up)), but that opposition could melt in the face of euro-zone-wide deflation. Whether QE would work, though, is another matter. "If it didn't work for the Fed, why should it work for the ECB?" Mr Pond imagines pessimistic investors asking themselves.

If European QE were to help, one of the ways in which it would do so would be by pushing the euro lower. Having watched the Fed weaken the dollar and push up the euro through its own QE, "the ECB thinks, 'Now it's our turn'," says Elga Bartsch of Morgan Stanley. That in turn will make the Fed's job harder; the dollar's recent rise will nudge inflation a bit lower.

Fed officials will confront that issue when they meet on October 28th. They have already said they plan to bring QE, now running at $15 billion a month, to an end. That robs them of one tool with which to weaken the dollar and convey their determination to get inflation back up. Instead, they will have to rely on forward guidance—promising if necessary to leave interest rates at zero for a year or more. That job has been complicated by suspicions that the Fed considers 2% a ceiling rather than a target. In their own projections, almost no Fed policymaker expects inflation to top 2%, and many think it will fall short in the next few years. A more explicit verbal commitment that inflation could exceed 2% might dispel suspicions that the Fed will tighten as soon as it approaches that level.

The constraints on monetary policy have shifted attention to fiscal policy. One radical way to boost demand and push inflation back up takes its name from a tongue-in-cheek prescription for ending deflation offered by Milton Friedman: drop money from helicopters. In the modern variant this "helicopter money" would consist of governments initiating significant new spending, perhaps on infrastructure, or cutting taxes, and the central bank buying the bonds used to finance the resulting deficit. If the central bank promises never to get rid of those bonds, then neither the public nor investors need worry about how the money gets repaid.

Willem Buiter of Citigroup thinks this would be a "no-brainer" for America, which badly needs better public infrastructure and which can issue virtually unlimited volumes of treasury bills thanks to the dollar's reserve currency status. In Europe, Mr Buiter says, the equivalent would be for the EU to permit peripheral countries to run larger deficits with the ECB independently initiating QE to buy the resulting bonds. Peripheral countries would have to commit to structural reforms that raise their long-term growth rate and thus their ability to support more borrowing.

Although the economics of such schemes are straightforward, the politics are anything but.

Governments remain fixated on reining in deficits. In America, Republicans may control both houses of Congress after November's elections, and they steadfastly oppose new stimulus. In Europe, the peripheral countries can't afford stimulus and Germany doesn't want it. Absent such action, Mr Buiter says, debt restructuring looms for several peripheral countries, including Italy, and a euro break-up can't be ruled out. "Politically, it would be a failed economic area."

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