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# How low can you go? The risks, and rewards, of deflation

## Executive Summary

- Despite headline deflation in the Eurozone, there is little risk that the region will repeat the experience of Japan
- European fixed income has already benefited from the ECB's QE initiative; equities are likely to outperform in 2015
- Declines in U.S. Treasury yields have been driven by falling inflation expectations; a stabilization in oil prices or wage growth could prompt a quick reversal

## What is inflation?

The answer to this question is more complicated than you might expect, but it is necessary to understand what inflation is, and the different types of inflation, to ascertain whether the current worries about deflation (falling prices) and disinflation (falling inflation rates) are warranted.

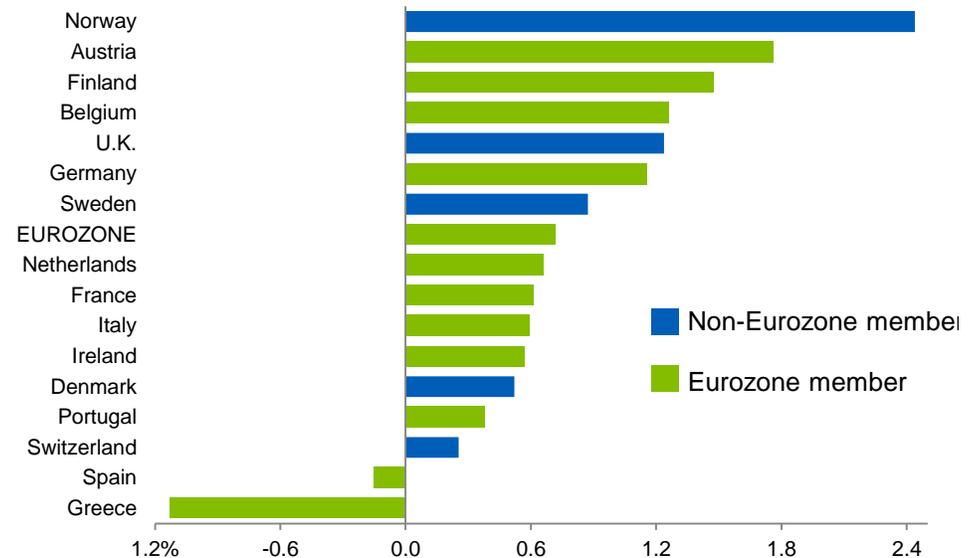
The type of inflation that matters to investors, and to central bankers, is the inflation that manifests itself as a generalized increase in prices. This is in contrast to an increase driven by the disruption in the supply of a product (say, crop failures caused by a drought), or a tax hike. Both of these result in a temporary increase in prices, but do not lead to an expectation that prices will continue to rise at the same rate indefinitely. Food and energy prices are particularly vulnerable to short-term fluctuations, which is why it is core inflation (inflation excluding food and energy) that best measures underlying price pressures in an economy.

## Deflation in Europe

The Eurozone is facing the risk of deflation — a sustained decrease in prices — after its annual inflation rate fell to -0.2% in December. This decline was for headline inflation, however, and is primarily due to the sharp fall in oil prices (down over 40% in euro terms from June 20 through December 31, 2014). Core inflation is low but still positive, 0.7% compared to an average of 1.6% since the launch of the euro in 1999. There are, nonetheless, countries in Europe that are experiencing deflation (see Figure 1). Greece and Spain saw

prices fall on a year-on-year basis for much of 2014, and Switzerland is at risk with the recent appreciation of the Swiss franc.

Figure 1: Europe core inflation rates

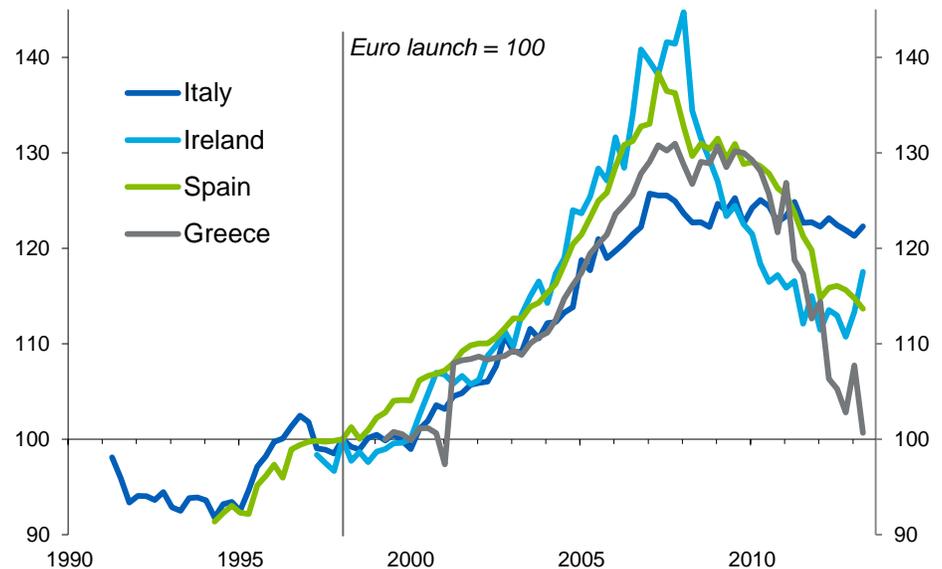


Last data December 2014. Sources: Haver, TIAA-CREF Asset Management.

Once “internal devaluation” runs its course, inflation should rise in Europe.

The peripheral countries that were at the heart of the Eurozone crisis are the ones seeing the greatest price pressures. This is because their economies had the largest increases in labor costs in the years leading up to the global financial crisis, making them uncompetitive relative to other Eurozone countries (see Figure 2). Had they not been members of the Eurozone, they could have regained their competitiveness by devaluing their currencies. Since that option was not available to them, they have had to undergo an “internal devaluation,” with wages and prices needing to fall (at least in relative terms) to bring them back in line with the rest of the region—hence, deflation. Once that adjustment runs its course, inflation should rise, but the process has taken much longer and is arguably more difficult than it would have been if they had retained their own currencies.

Figure 2: Unit labor costs relative to Germany



Last data March 2014. Sources: ECB, TIAA-CREF Asset Management.

The European Central Bank (ECB) has just embarked on a quantitative easing (QE) program to drive interest rates down, spur economic growth, and increase inflation. The plan calls for the ECB to purchase bonds worth €60 billion every month until inflation approaches the bank's target of close to but below 2%. Lower interest rates should improve growth rates and boost demand (and prices) for goods and services. The most immediate benefit is likely to come via a weaker currency, which will increase the cost of imports. The euro has already fallen by nearly 20% versus the dollar since May 2014, and we forecast it could decline a further 4%-5% this year.

### Lessons from Japan

Persistent deflation, with prices falling over many years, is an exceedingly rare phenomenon, at least in the post-World War II era. Japan is the only major developed economy that has seen a sustained decline in prices. From 1998 until 2008, annual core inflation averaged -0.4% and was negative almost continuously over this period.

Could this happen in Europe? There are some similarities in the causes of deflation in Japan and the recent experience in parts of Europe. Like Spain and Ireland, Japan saw a significant property bubble that, when it burst, threw the economy into recession. Like Japan, European banks were slow to write off bad loans, and credit growth has stagnated.

There are several similarities between Japan's post-bubble experience and Europe's.

The ECB has belatedly learned the lessons from Japan and is acting to prevent deflation from setting in. Besides the QE program, last fall the bank examined the books of Eurozone banks and forced them to recognize loans that were unlikely to be repaid. This should eventually lead to higher credit growth, which is currently still falling by more than 1% year-on-year.

The negative effects of deflation may in any event be overstated. Lower prices are clearly a benefit for consumers and companies. And while wages may fall, as long as prices fall more quickly, workers are still better off. One worry about deflation is that consumers will perpetually put off purchases, expecting prices to be lower in the future. It is unclear whether the small price decreases that Japan experienced had such a significant impact on consumer demand.

What matters for an economy is real, inflation-adjusted growth, and deflation does not necessarily prevent it. For example, contrast the real growth rates of Japan and Italy over the last 20 years. Japan's GDP has expanded by 0.8% annually, while Italy's has grown by just 0.6%, even though annual inflation was 2.3% in Italy compared to -0.9% in Japan. Deflation has both negative and positive consequences, but is much more a symptom of economic malaise than a cause, and efforts to avert it might best be directed elsewhere.

### Market implications

If inflation is typically considered the bond market's worst enemy, then deflation should be its best friend. In fact, Japanese government bonds (JGBs) have *outperformed* U.S. Treasuries in real, local currency terms since 1994 (when deflation began in Japan). Over the last 20 years, JGBs have returned 4.2% adjusted for inflation, versus 4.0% for Treasuries (based on J.P. Morgan GBI indexes).

Equities, however, generally benefit from inflation, and this is apparent in each country's respective equity market returns: the Japanese market gained just 2% per year (real, total return) from 1994 to 2014, compared to the 7.9% advance in the U.S. (based on MSCI indexes).

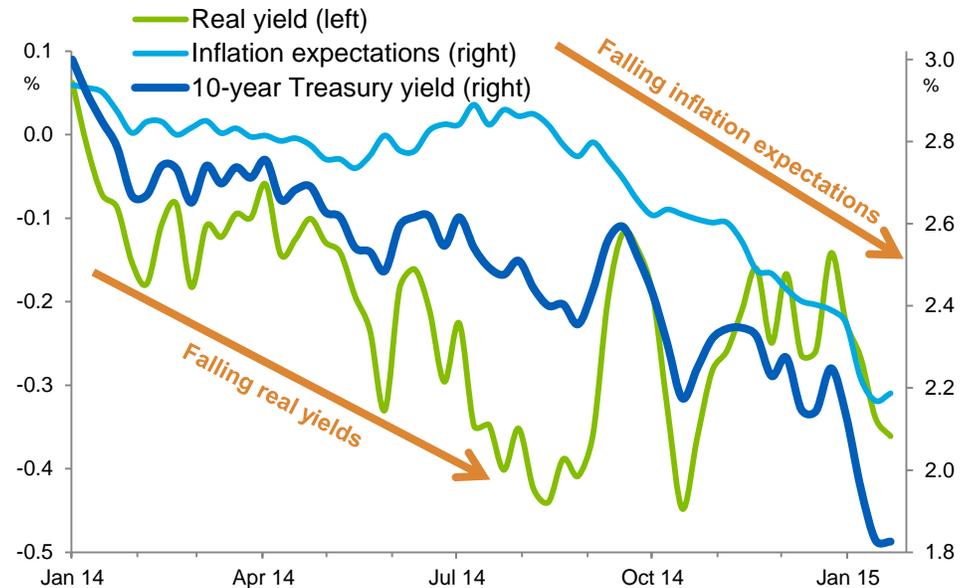
Thanks to the ECB's recently announced measures and the structural adjustments taking place in peripheral countries, we believe Europe will avoid entrenched deflation. Most of the benefit for European fixed income occurred last year, however, when the Barclays Euro Aggregate Index returned 11.1%, versus 5.1% for European equities, as measured by the MSCI EMU Index (total return, local currency terms). Though QE will provide ongoing support for bond prices, potential fixed-income returns in 2015 will likely be lower than last year's, while a modestly improving economic outlook should provide a boost to equities, where valuations remain attractive.

U.S. Treasury yields have continued to fall, partly in sympathy with declining European yields, but mostly due to sinking inflation expectations. This is in sharp

In Europe, equities are likely to outperform bonds in 2015.

contrast to the first half of 2014, when the drop in global growth forecasts led to falling real yields (see Figure 3).

Figure 3: Treasury yields and inflation



Falling inflation expectations are behind the decline in Treasury yields since July.

Last data 22 January 2015. Sources: Bloomberg, TIAA-CREF Asset Management.

The decline in inflation expectations has mirrored that of the price of oil. Until oil recovers, we are unlikely to see a rebound in inflation expectations, and hence a rebound in Treasury yields. It is also possible that falling unemployment will lead to rising wages, or that global growth will accelerate, both of which would boost Treasury yields.

### Conclusion

Inflation is lower in much of the developed world thanks to weak demand, but we do not anticipate anything more than transitory deflation in parts of Europe. As we wait for the benefits of a weaker euro to feed through to stronger exports and economic growth in Europe, fixed income offers the prospect of modestly positive returns, but equities should perform much better. The primary risk remains U.S. Treasuries, which have perhaps overreacted to falling oil prices. Inflation is unlikely to spike, but as the U.S. economy continues to expand, wages should rise and the Fed will finally begin to hike interest rates.



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