



# DEFLATION & NEGATIVE YIELDS

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**OVERVIEW:** Deflation is defined as the sustained decline in a country's aggregate price level. Deflation can arise from a number of different factors and deflationary periods can be either good or bad, depending on the factors that caused the deflation as well as how they are handled by governmental authorities. During the 100 years leading up to WWI, the US had several long periods of deflation and inflation during which prices broadly rose and declined about equally<sup>1</sup>. Some of these periods were "good" deflation periods, characterized by productivity booms which lowered costs while helping fuel rising growth rates (*for instance impact of building out the railroads*). However, others were "bad" deflation periods – typically because they were precipitated by either a financial crisis or other exogenous event that resulted in consumers and corporations cutting spending which caused prices, credit and growth to decline. Generally speaking, "good" deflationary periods appear to be characterized by low levels of aggregate deflation and otherwise strong economic conditions, while "bad" deflationary periods appear to exhibit large absolute price declines along with significant disruptions to markets and large declines in economic growth.

The two most often discussed periods of such alternating deflations were the good deflation of the 1921-1929 period (*which was characterized by a modest 2% per year or so decline in prices, but also by sharply rising GDP, strong equity markets, and falling interest rates*), which was followed by the very bad deflation of the Great Depression (*which was characterized by aggressive deflation along with collapsing GDP and equity prices*). The questions for markets today are whether we are at risk of entering a bad deflation, which we should fear and which policy responses may not be adequate, or are we really in a period of good (*modest*) deflation, which we should embrace because it will result in sustained GDP growth and increased productivity that puts more goods, at cheaper prices, in the hands of consumers? Unfortunately, while there are elements of "good" deflation going on, there is a risk that "bad" deflation is making its ugly appearance.

**DISCUSSION:** Central banks typically monitor inflation and deflation levels during the normal business cycle as a key metric for making their policy decisions. When inflation is rising the Fed raises interest rates to slow investment and purchasing, which slows the growth of the economy, helping to put a lid on spending, which slows the advance in prices. This policy is needed since rising food and energy prices will inevitably result in higher wage demands which, if unchecked, can lead to a wage/price spiral that can get out of control – leading to high inflation rates as we saw in the 1970's (*and if completely unchecked, to hyper-inflation*). However, when food and energy prices are falling (*deflation*), the impact is not similar: people do not ask for wage cuts to go along with cheaper gasoline at the pump<sup>2</sup>. Instead, individuals tend to consume more, which tends to boost economic growth – a beneficial deflationary cycle. This is what we saw in the US in

## MAIN POINTS

- Deflation can arise because of good reasons (*increasing productivity*) or bad reasons (*excess leverage*)
- Central governments need to fight deflation because it increases debt burdens
- Deflationary forces have recently pushed yields on high quality sovereign bonds into negative territory
- We feel that central governments will ultimately win the battle against deflation, driving inflation and economic growth higher

the 2<sup>nd</sup> half of 2014 as oil prices flowed through to the broad economy, boosting consumer confidence and driving GDP higher. So under “normal” economic cycles that occur outside of financial crises or debt deleveragings, certain declining prices are definitely good.

However, once we look beyond food and energy prices (*where consumption tends to be highly inelastic*) then central banks have a legitimate worry about deflation. Their base concern is if an expectation sets in that prices will fall, households will tend to defer purchases of major items (*homes, automobiles, appliances, etc*), leading to weaker prices, a fall in GDP (*recessionary forces*), which can spiral downward into a “vicious” deflationary cycle of reduced manufacturing and lower corporate capital expenditures, leading to layoffs and lower aggregate compensation. Such a cycle is hard to break. When interest rates are high, central banks still have the power to cut rates, lowering borrowing costs to stimulate consumption and break this cycle before it becomes entrenched. But as Japan has shown, once short-term borrowing rates reach near zero (*since 1999 in Japan*), it is extremely difficult for policy makers to change entrenched deflationary expectations.

Then there is the dangerous deflation that comes after a financial crisis when asset prices fall or when forced deleveraging occurs. Deflation caused by deleveraging is a major worry for central bankers. When leverage is “excessive” (*as it was in 2008*) economic contraction can lead to a self-reinforcing negative cycle of price declines, monetary contraction, increases in “real” debt service burdens, declining asset quality and eventually bankruptcies. Interrupting this negative cycle was key to arresting the declines in asset prices and economic activity that we saw in 2008 and 2009. Expectations play an important role in arresting this process since if strong deflationary expectations take hold, consumers and businesses will begin to postpone spending, and cut back capital investments, reducing economic activity and leading to further deflationary pressures. The same thing applies to asset prices, where their declines can have a negative effect on economic activity, tending to reinforce negative views on future asset prices, thus supporting further deflation. Avoiding these self-reinforcing negative cycles is at the forefront of central bank policy – and Ben Bernanke understood this, which explains why he was so aggressive in driving rates to zero and instituting quantitative easing.

**Today’s World:** This leads us to today, where deflation has been described by such notable publications as *The Economist* as “the world’s biggest economic problem.”<sup>3</sup> Governmental policies that work to mitigate the negative effects of deflation include fiscal stimulus, expansionary central government spending, borrowing money to spend or invest, cutting interest rates and even quantitative easing. The problem facing us today is that we’ve already tried many of these policies and inflation is falling, not rising. Bridgewater estimates that at least 30 of the world’s largest countries are currently seeing inflation rates that are below their central bank targets – including the US, the Eurozone, China, Japan, India, Germany, France, the UK and Brazil<sup>4</sup>. Europe is already experiencing deflation. Not only have we tried these policies, but governments may have already pushed the limits of how hard they can lean on these policies and how long they can keep them in place. In other words, interest rates are already at zero – and in fact are negative for trillions of dollars of bonds; fiscal policies have been curtailed both here and in Europe as central government borrowings have ballooned and governmental debt levels are already at record levels. The US has borrowed \$9 trillion since 2008, doubling its debt level to \$18 trillion but has averaged only about +2.5% annual GDP growth since the recession ended in 2009, and is still seeing well below targeted inflation levels. So if rates can’t go meaningfully lower, debts can’t go meaningfully higher and additional quant easing (*which Europe just announced*) is widely seen as being ineffective because rates are already so low, then central banks may be less effective in combating deflationary forces than would otherwise be the case. Countries have moved to competitive currency devaluations as a last ditch way to stimulate growth, but this is a zero sum game on a global scale and should have no net positive inflationary impact.

Bridgewater and other groups who have studied the economic cycle in depth point out the ironic twist that actual deflation increases the ‘real’ cost of servicing debt. If wages, prices and taxes all fall annually, then debt service payments increase as a percentage of total GDP (*on a real basis by the extent of the drop*). Inflation produces the opposite result – causing the real costs of debt service to drop as the value of the old debt can be paid off with “inflated” dollars. Countries with low debt burdens as a percentage of GDP can withstand this quite easily. However, countries with already high debt to GDP levels

may find it quite difficult to carry (*i.e., pay*) their debts during either sustained periods of low deflation or shorter periods of rapid deflation. This is the dilemma we see with the European model (*led by Germany*) that pursues austerity as a mechanism to reduce debt: such policies can actually backfire. We simply do not have the experience of dealing with such a problem on a global scale where all of the major countries in question already have their highest aggregate debt levels in history (*US, Europe, Japan and China*) and low or slowing growth rates, when the overall goal is to keep the nominal rate of economic growth ABOVE nominal interest rates, thereby helping to LOWER the overall debt load. What has gone on since 2008 is still an experiment in the use of aggressive central bank policies to avoid another Great Depression, the ultimate outcome of which is still in doubt. Hence, the ongoing concern about deflation.

**Negative Interest Rates:** One of the more unusual developments that has followed the deflation fighting, ultra-low interest rate policies of central banks over the past 7-years is the emergence of negative interest rates for a meaningful portion of the developed sovereign bond markets. This simply means buyers of bonds get back less money over the holding period of the bond than they paid out. Negative yielding government bond markets appear to have arisen mostly in Europe. This is a confusing topic – one that at first blush is difficult even for finance professionals to grasp - so I will go into a few of the details of how negative yields work.

The mechanics of this are actually pretty simple; to get a negative yield, you just pay a lot for the bond in question. An example of a discount note that has recently traded with a negative yield is the US Treasury bill maturing 4/23/15<sup>5</sup>. To purchase \$1 million face amount of this bond someone paid \$1,000,022.22 and will get back a million dollars, a loss of \$22.22 on this investment when the note matures in April. A coupon bond that recently traded at a negative yield is the Swiss 1.5% coupon bond due 7/24/25, which traded at a price above 117, producing a yield of negative 12 basis points. The negative yield arises for this purchase since the coupon payments made on the bond (*+1.5% per year*) are not sufficient to offset the 17 point loss that will be realized on the bond (*about -1.7% per year*) over the 10 ½ years until the bond matures – which mathematically produces a negative yield (*i.e., a guaranteed loss*).

This situation is complicated further when taxes are taken into account. While each country's tax codes are different (*and without offering tax advice here*), my understanding is that the US Federal government would typically tax the income on a coupon bond of 1.5%, while at the same time disallowing any deduction for the amortized loss of principal on the bond, producing an even lower set of returns. If taxed at the current maximum federal tax rate of 43.4%, the after-tax income on a similar US 10-year Treasury 1.5% coupon bond (*all else being equal*) would drop from negative 12 basis points to negative 71 basis points, which is not an insignificant negative result.

**Reasons For This Market:** As the financial crisis was evolving, we began to see negative yields in the US in Treasury bills. During this time, money was just being “parked” as it fled from significantly larger financial risks - not just stocks, but also deposits in banks that appeared to be at risk of bankruptcy. This demand tended to subside each time financial conditions stabilized. However, as we entered 2015, investors were again nervous in certain countries. A recently published research report from JP Morgan noted that as of the last week in January, approximately \$3.6 trillion<sup>6</sup> globally was invested in government bonds at negative yields – hardly an insubstantial amount of money<sup>7</sup>. There are a number of reasons that help explain why this is happening, the most important one of which appears to be concerns that investors will face significant losses in other asset classes in a future where deflationary forces may persist over the long-term. Investors would rather lose small amounts of money earning a negative yield in a Government bond than risk large potential losses, invested in other assets. If this is a long term phenomenon, these trades all make sense. However, if deflation is only with us for a short period of time, then some of these bond investors are making spectacular mistakes.

There is one last element to negative yields - currency risk. Specifically, concerns about the potential for a dramatic decline in the value of the Euro currency appear to be behind the Swiss bond market's negative yields that extend out to 10-years. Losing 1%+ on a bond but making 14%+/- on the positive market revaluation of the Swiss currency that has taken place since the beginning of 2015 makes complete investment sense.

**INVESTMENT IMPLICATIONS:** History shows that prolonged periods of deflation can be avoided with aggressive enough central governmental policies – 1933 through 1937 being the most representative period. However, inadequate or mistaken central government policies can produce the opposite result – with Japan since the mid-1990’s, along with the mistakes made in the US in 1937, being representative periods for such failures. On balance, we believe that the aggressive monetary policies adopted by the US since 2008, which helped the country emerge from the financial crisis, will keep the US out of deflation. They are also likely to help the international economy improve over the coming year, but it will take continued concerted efforts on the parts of other central governments and more than just monetary policies. Governments will need to employ fiscal stimulus, enact labor market reforms and policies to improve domestic demand. Although deflation as outlined above remains a serious risk, we believe that global policy makers will ultimately prevail in their goals of promoting both growth and inflation; but the path from here remains uncertain and is likely to be more volatile compared to the past several years. We DO expect that we will see the occasional sharp 10%-15% correction in equity prices over the near-term horizon (*which is normal for this phase in the economic cycle*), nevertheless equity prices will ultimately continue on their upward path. Interest rates will likely rise in the US since unemployment is down to 5.7%, job growth is accelerating, wage growth is emerging and capacity utilization is back at pre-crisis levels. In Europe and Japan, interest rates are likely to remain low given still weak economic conditions and increased quant easing. Interest rate and economic differentials should help keep a tailwind behind a strong US dollar, which will help attract capital to the US, but will also serve as a mild headwind for US profits, keeping stock markets in check.

## REFERENCES

<sup>1</sup> Bank for International Settlements, BIS Working Paper No 186 Deflation in a historical perspective by Michael Bordo and Andrew Filardo, Monetary and Economic Department, November 2005

<sup>2</sup> BCA European Investment Strategy, Weekly Report, Good Deflation, November 20, 2014, Pages 4,5

<sup>3</sup> The Economist, The euro zone, The World’s biggest economic problem, Deflation in the euro zone is all too close and extremely dangerous, October 25, 2014

<sup>4</sup> Bridgewater Daily Observations, February 3, 2015, Global Deflationary Pressure

<sup>5</sup> All specific bond information from Bloomberg

<sup>6</sup> Bridgewater’s latest estimate on 2/5/15 conference call was that a full \$7 trillion of debt is now trading at negative yields

<sup>7</sup> J.P. Morgan, Global Asset Allocation, January 30, 2015, Flows & Liquidity, Who buys bonds with negative yields?

## IMPORTANT DISCLOSURES

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