CAMBRIDGE ASSOCIATES LLC

INVESTMENT PUBLICATIONS HIGHLIGHTS

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"Deflation: Will America and Europe Ever Follow Japan?" by Robert Feldman, Morgan Stanley, September 6, 2010

The question of whether Europe or the United States will follow Japan into deflation has recently grown in popularity. While there are similarities in the circumstances faced by these countries, an examination of the factors that eventually tipped Japan toward deflation suggests that the answer is no, though at the margin the risks are higher in Europe than in the United States.

Europe and the United States are exiting deep recessions triggered by the bursting of financial bubbles and are faced with higher debt burdens and fiscal deficits that will stretch far into the future. Given the similarities between their current situation and that of Japan after its asset bubble burst in the late 1980s, investors are asking whether deflation might be a looming concern. Japan fell into deflation not so much because of a financial crisis and ensuing recession, but because of a combination of drivers that included central bank ineffectiveness, demographics, and a current account surplus. An examination of these dynamics in Europe and the United States suggests that deflation is a less likely outcome for these regions.

The ability of the Japanese government to use the Bank of Japan (BOJ) in its fight against deflation was limited by both the lack of clear policy guidelines on targeting price stability and the independence of the central bank. It was only in 2006 that the BOJ presented a definition of price stability, and only in 2009 that the Democratic Party of Japan identified an implicit inflation target. Even with these more explicit policy directives, the extended term of the BOJ's governor and the opaque selection process of its officers make them harder to enforce. This situation differs from that of the U.S. Federal Reserve Bank (Fed), which has a clear mandate to maintain both price stability and job growth. Investors understand that the Fed's implicit inflation target is roughly 2% and officials use a range for core inflation to measure their success. While the Fed is independent, its members can be brought before Congress, and the process for appointing its members is more transparent. The position of the European Central Bank (ECB) lies somewhere between the Fed and the BOJ. Clearly identified by the Maastricht Treaty, policy goals for the ECB include price stability, high employment, and real growth. However, the ECB is less accountable to any given European country than the Fed is to the United States. During the recent financial crisis, however, the ECB did demonstrate its responsiveness to political pressures during times of markets stresses.

Demographic pressures in Japan, including a rapidly aging population, also have created more deflationary pressure than is likely to be seen in Europe or the United States. The working-age population in Japan peaked in 1995 and, as of 2009, over 20% of the Japanese population is over 65. As the population aged and became reliant on fixed incomes, they began to *favor* deflation, which actually increased the real value of their incomes. The United States, in contrast, currently has the *highest* birthrate and *lowest* death rate among industrial countries, weakening its bias toward deflation. Europe's demographic

position is, again, between those of the United States and Japan.

Demographics in Japan exert deflationary pressures a second way, as older voters are more politically active and thus overrepresented in the Diet. This introduces political pressure to choose policies that discourage inflation that would weaken the value of assets held by the elderly and their incomes. In the United States, in contrast, the gap between voter turnout among the young and old is smaller. It is also harder to argue that the old are overrepresented in the United States, given the structure of Congress. California, a state with one of the youngest populations, has the same number of senators as Florida, which has one of the oldest populations. In Europe, the diversity of political systems makes it too complex to form a certain conclusion. While it is reasonable to assume that there is a higher voter turnout among the elderly, the turnout does not distort representation as much as in Japan.

Finally, the deflationary pressure of Japan's current account surplus must be examined. In Japan, a current account surplus created a cushion to finance large fiscal deficits, as excessive savings meant returns offered on capital could be lower and addressing the problem of nonperforming loans held by banks could be delayed. Large government deficits then reinforced the incentives to go further into deflation, as lower nominal bond yields made deficits easier to finance. The United States faces an entirely different situation, as it runs a current account deficit and must offer a sufficient return to foreign savings in order to finance its deficits. The United States was also much faster in cleaning up its banks, which should facilitate the flow of credit. The pressure on the United States is reduced somewhat by the dollar's status as the world's reserve currency, meaning there will always be a natural appetite for U.S. debts. The current account balance is not an issue for Europe as a whole, though individual countries may have large imbalances, which are likely to be felt inside the region as capital flows have to adjust to fiscal and financial sector pressures. Only if policy responses are inadequate will such local pressures translate into Europe-wide deflationary pressures.

Given that none of the above factors is likely to change anytime soon, Japan is most likely to remain mired in deflation. Europe and the United States are less likely to fall victim to Japanification, but that does not leave them free from the need for structural reform. Given this situation, the investment strategy differs among these developed regions.

The investment implication of this analysis is that in countries with deflation such as Japan, nominal assets (e.g., government bonds) will outperform and real assets (e.g., equities, real estate) are likely to underperform. In countries with inflation, real assets will outperform nominal assets. For inflationary countries such as the United States and those of Europe, high-beta stocks linked to growth and nominal gains are more likely to outperform. In deflationary countries, it is best to seek low-beta stocks, particularly if they offer an attractive yield. The debate about whether the world will turn toward inflation or deflation increases the attractiveness of inflation-linked bonds, as they provide protection in both environments. In conclusion, in the risk scenario in which common global factors overcome the regional differences in tilt toward inflation or deflation, inflation is likely to win. In these circumstances, nominal assets in all countries would likely underperform, and real assets outperform.

"Secrets of the Flows" by M. Christopher Garman, Leverage World, September 10, 2010

The recent lack of inflows into equity funds is consistent with the cyclical flow of funds seen over the past 20 years, from money market funds to bond funds to equity funds, as investors increasingly embrace risk. This cycle culminates in a move back to money market funds when risk aversion hits. On a secular basis, however, equity flows have deteriorated considerably since 1993. A persistent withdrawal from stocks would exert massive deflationary pressures on the economy. In this environment, policymakers would almost certainly work to counteract these forces, suggesting that policy-driven inflation is more likely to appear over the medium term than deflation.

Bond funds continue to see strong inflows despite extremely low Treasury yields, while equities are not taking in cash. However, this appears to be part of a very clear cyclical fund-flow pattern seen over the past 20 years. First, investors remove assets from money markets funds. Second, bond funds see strong inflows. Then, equities receive the bulk of the inflows. Finally, the cycle ends with a strong investor preference for cash.

Money market flows are heavily influenced by the real federal funds rate. Indeed, a low (or negative) real rate tends to drive cash out of money markets and vice versa. Interestingly, households were still holding on to cash up until late 2009, despite negative real rates. This year, however, the incentive to exit cash in favor of more risky assets has finally prevailed. At present, investors are removing funds from money markets at the pace that the level of the real federal funds rate would dictate. The rate of withdrawals should slow from here, but suggests new outflows until mid-2011.

Moving to bonds, the slope of the yield curve is a major factor driving fixed income flows, with steep curves associated with heavy bond fund buying, while flat curves see much less enthusiasm. With current short-end rates anchored at low levels, investors are simply shifting out on the curve toward higher-yielding instruments. Another important driver is the trend over the past year of the yield on the ten-year note: as this yield rises, cash exits fixed income, while a rally tends to pull money into bond funds.

Although the current influx of cash into bond funds looks to be a normal feature at this point of the fund-flow cycle given the exodus from money market funds since late 2009, investor interest in equities appears to be more tepid than in previous fund-flow cycles. Indeed, strong equity performance typically draws cash into the equity market—retail investors begin to participate once appreciation starts to ramp up. Equity fund flows over the past year, however, are massively undershooting the level implied by the S&P 500 Index return.

Equity flows can be dissected into two parts—the marginal tendency for cash to enter stocks and the secular trend of equity flows. Since the early 1990s, the beta (i.e., sensitivity) between equity performance and inflows has been remarkably steady at any point in the cycle. This suggests that there is always performance-chasing cash on hand and that these funds follow the momentum of the market with regularity. Although beta has not drastically changed over time, the alpha (the secular tendency to buy) has deteriorated considerably since 1993. Put simply, flows are less robust, regardless of the marginal change in equity performance, as every cyclical up and down performance period has witnessed less aggregate flows.

With inflows lessening on a secular basis, while beta to performance remains steady, sharp drops in equity prices are likely to see larger aggregate

amounts of cash pulled from U.S. equity markets over time. If the trend persists, the tendency to withdraw cash under all market conditions is greater. In fact, the secular trend suggests that households will liquidate equities by roughly 8% of outstanding assets in equity funds annually by 2013. Also, the diminished alpha implies that technology is not to blame, as the trend toward lower flows was established before exchange-traded funds were introduced. Instead, demographics are likely the main cause for this trend: as baby boomers begin to retire, equities will be (and are implicitly) a small share of capital allocation.

A negative secular alpha between equity performance and fund flows also tilts the scale toward secular inflation. Given that a persistent withdrawal from stocks would reduce investment and employment, putting massive deflationary pressures on the U.S. economy, policymakers would almost certainly work to counteract forces. Therefore, a policy of greater inflation set against continued miniscule short-end rates would punish fixed income holders and provide incentives for investors to move funds to inflation-protected assets, including equities.

It is noteworthy that a similar phenomenon occurred in the late 1970s—equity outflows persisted after the strong returns of the 1960s and early 1970s. One can interpret the high inflation of the late 1970s as an effort to maintain the nominal value of equities against a secular outflow from the asset class. In other words, once investors shunned equities, raw inflation was generated in order to keep nominal values elevated and to avoid asset deflation. Thus, policy-driven inflation is more likely to appear over the medium term than deflation.

"My 'Two Cents' Worth' on a Bond Bubble" by Ned Davis, Ned Davis Research, September 9, 2010

There has been a lot of discussion recently about bonds being in a "bubble." While the secular bull market in bonds since 1981 appears to be ending, the evidence that bonds are in a bubble is mixed at best.

There has recently been a lot of discussion about bonds being in a "bubble." While defining an investment bubble is always difficult, it is especially so in this case, as evidence is mixed and investors stand little chance of seeing a default on some types on bonds, such as U.S. Treasuries.

Recent asset flows into bond funds and out of cash and equities have been cited as evidence of a bond bubble. Over the past three years, U.S. net inflows into bond funds reached $537 billion, similar to the $575 billion net inflows hitting equity funds during the three years before the tech bubble popped in 2000. This is especially remarkable given that interest rates appear low on a historical basis and are well-below average rates of inflation. The Fed pushing short-term interest rates to zero is part of the explanation: investors are being forced to reach for yield. In the past 12 months alone, investors have added a net $327 billion to bond funds while pulling $73 billion from stock funds.

Sentiment indicators confirm that there is extreme optimism in the bond markets, which historically has been a sign of a bubble. Moreover, cash levels in fixed income mutual funds are very low, possibly indicating that conditions are nearing a peak. Large speculators such as hedge funds have finally covered massive short positions in futures markets, but they have not yet gone long. At bubble peaks, it would be expected that nearly all speculative investors (including smaller participants) were very bullish on bonds, which is currently not

the case. In fact, according to the Conference Board's Interest Rate Expectations Survey, more people expect interest rates to rise and bond prices to fall than vice versa.

Investors' recent shift into bonds also needs to be considered from an asset allocation framework. Households currently have almost twice as much invested in stocks (35.2%) as they do in bonds (19.2%), even though bonds have significantly outperformed over the past ten years. Further, institutions (defined as insurance and pension funds) have 40% in bonds compared to a long-term average of 58%; meanwhile, they have 35% in stocks relative to the long-term average of 27%. It is open to interpretation whether this shift in asset allocation is evidence of a bubble or a simple rebalancing toward the mean.

Whether bonds are in a bubble hinges on the question of whether investors face the risk of loss of principal. Here, the outlook for inflation is key. Inflationary pressures in the U.S. economy are weak and will help keep interest rates low. However, the Fed has also made it known that it will not tolerate deflation and retains the option of printing money. In the longer term, inflation may result from these policies. If inflation does return, then bonds purchased at current yields will certainly feel as if they had been in a bubble. If foreigners, who own over 50% of Treasury securities, were to dump some of their holdings as a result of the perceived inflation threat, the pain for bond investors at current levels could also be significant. Putting current yields into a valuation framework and comparing them with yields over the last 35 years shows that bonds do not offer much value. CPI inflation in the United States has averaged 3.4% over the long term, and if you assume inflation will return to that level, the expected real yield on long-term Treasuries is very close to zero.

In conclusion, it is fair to say that the secular bull market that began in bonds in 1981 is fairly mature and bonds do not offer much value. However, the evidence of bonds being in a bubble is pretty mixed. Much of the answer depends on the Fed and its future course of action. If the Fed decides to inflate to ease the burden of the government's massive debt load, investors in bonds will clearly suffer. ■

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