

Quantitative & Strategy

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A POSSIBLE SECULAR BOTTOM FOR INFLATION

Highlights

There is a distinct possibility that investors are witnessing a demographically driven multi-decade bottom in global inflation and inflation expectations. Fixed income assets are likely to perform poorly under such a scenario, and while equities will provide inflation protection, their prices could suffer because of rising bond yields. Stock market leadership would be seen in hard asset sectors, such as energy and mining.

GSCI/S&P500 ratio: equities expensive, commodities cheap?



Source: Dr. Torsten Dennin, Incrementum AG

That said, investors who want to position themselves for such a change in macroeconomic environment need to distinguish between the cyclical and secular trend. The U.S. economy is in the late stages of an expansion, which is characterized by rising inflationary expectation. Recognize that the Federal Reserve is likely to raise rates in order to choke off inflation and growth, and such actions are likely to resolve themselves in a recession.

In other words, inflation hedges are just a trade for now. Wait for the next downturn before making a serious commitment to the demographically driven reflation thesis.

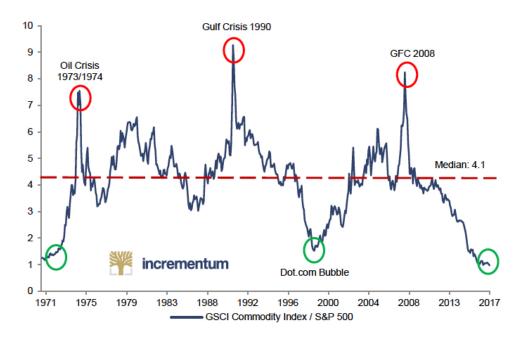


A Possible Secular Bottom for Inflation

We find this chart from Incrementum interesting from the viewpoint of a chartist, but the stretched relationship between stocks and commodities is difficult to reconcile when seen through macro and fundamental lenses. Rising commodity prices require a sustained recovery in inflation, or a collapse in the value of financial assets. How is that possible in this era of inflation undershoot and pedal-to-the-metal central bank QE?

Exhibit 1: Are Equities Expensive, Or Commodities Cheap?

GSCI/S&P500 ratio: equities expensive, commodities cheap?



Source: Torsten Dennin, Incrementum

The answer may be a signal of an inflection point in inflation, interest rates and asset return patterns.

Demographics = Destiny

The Bank for International Settlement (BIS) recently published an important working paper by Charles Goodhart and Manoj Pradhan entitled <u>Demographics Will Reverse Three Multi-Decade Trends</u> which explained how inflation is about to return because of global population demographics. Here is the abstract:

Between the 1980s and the 2000s, the largest ever positive labour supply shock occurred, resulting from demographic trends and from the inclusion of China and Eastern Europe into the World Trade Organization. This led to a shift in manufacturing to Asia, especially China; a stagnation in real wages; a collapse in the power of private sector trade unions; increasing inequality within countries, but less inequality between countries; deflationary pressures; and falling interest rates. This shock is now reversing.



As the world ages, real interest rates will rise, inflation and wage growth will pick up and inequality will fall. What is the biggest challenge to our thesis? The hardest prior trend to reverse will be that of low interest rates, which have resulted in a huge and persistent debt overhang, apart from some deleveraging in advanced economy banks. Future problems may now intensify as the demographic structure worsens, growth slows, and there is little stomach for major inflation. Are we in a trap where the debt overhang enforces continuing low interest rates, and those low interest rates encourage yet more debt finance? There is no silver bullet, but we recommend policy measures to switch from debt to equity finance.

The approach taken by Goodhart and Pradhan is philosophically similar to the approach used by Branko Milanovic in his study of global versus local inequality in formulating his well-known elephant graph. While local (within country) income inequality has risen between 1998 and 2008, global inequality has fallen because of the effects of globalization.

Winners and losers Change in real income, at purchasing power parity, between 1988 and 2008 (%) Winners The middle classes in The very rich. About half are the top 12% emerging economies. 80 particularly China and India of US citizens, also 70 the richest 3-6% from the UK. Japan. 60 France and Germany, and the top 1% from 50 Losers Brazil, Russia and 40 South Africa The very poor, in Citizens of rich sub-Saharan Africa 30 countries with and elsewhere, where stagnating incomes, 20 plus much of the incomes remain population of former almost unchanged 10 over this period communist countries 0 -10 10 20 30 40 50 60 70 90 100 Richest Percentiles of global income distribution Poorest Source: Branko Milanovio

Exhibit 2: Winners and Losers of Globalization

Source: Branko Milanovic

The authors of the BIS paper have taken the same approach to global demographics:

We approach the critical role of demographics differently from previous studies in three specific ways. First, we attach a great deal of importance to the role of China, both in the past and future. Second, we argue that the political economy of the social safety net in AEs will play a critical role in driving our results. Third, in an extension of our first point, we take what we think is a truly global approach to the discussion of demographics, looking collectively at the global labour supply and the global prices of labour and capital. By contrast, much of the literature that looks at demographics in an international context examines local demographic dynamics of two (or more) economies and then discusses spillovers to and from neighbouring economies.

Here is their key argument, and somewhat controversial conclusion:

We argue that ageing will lower both desired savings and desired investment, but desired savings will fall by more. The resulting imbalance will require the real interest rate to rise for the market to clear. Just as the real interest rate has fallen since the 1980s thanks to a decline in desired investment borne out of the demographic sweet spot we described above, real interest rates will reverse course along with demographic trends and the resulting changes in savings and investment dynamics.



This is clearly our most controversial proposition, and much of the pushback we receive is based on the argument that demographics will lower potential output growth, and hence real interest rates. We agree wholeheartedly with the first argument regarding output growth. But we disagree that it will also lower real interest rates. Indeed, there is much less reason to believe the two are connected than many believe. We discuss first the path to determining the equilibrium real interest rate and then delve into some of the dynamics that will drive savings lower but keep investment from falling by as much or more.

As the world ages, both the savings and investment rate will fall, but Goodhart and Pradhan believe the investment rate will fall more slowly, which raises the cost of capital and therefore drives up real interest rates:

Our view is that the corporate sector is likely to respond by raising the capital/labour ratio, ie by adding capital to compensate for labour, which is the factor of production that is getting scarcer and more expensive.

There will be a rising cost of labour and a falling cost of capital. We cannot think of any other time in history when the prices of the two main factors of production were moving as clearly in opposite directions. Even before demographics start pushing wage growth up, the price of capital goods has already collapsed. As wages begin to rise, compensating for more expensive labour will be easier thanks to a lower cost of capital goods. The resulting increase in productivity will somewhat temper the increase in wages and inflation. The savings and investment lens gives us another way to view this response. Given significantly cheaper capital goods, the cost of accumulating a given stock of capital uses up a smaller amount of the economy's stock of savings. To some extent, this can counter the savings deficit created by ageing demographics and somewhat temper the rise in both the interest rate and wages.

They acknowledge that there are three key risks to their thesis:

- 1. Withdrawal of the social safety net in advanced economies: A more fragile social safety net will raise the savings rate, which would change the savings and investment relationship toward a lower cost of capital.
- 2. Higher participation rates and the rise of India and Africa: Much of the favourable demographic pattern in the last two or three decades is attributable to the enormous rise in labour supply from China. Now that China is aging, that demographic sweet spot is turning sour. However, should Africa and India step up and assume the role that China did in the last few decades or if the participation rate rises substantially in advanced economies, the capital/labour ratio equilibrium changes, which puts downward pressure on inflation.
- 3. **High debt levels delay the inevitable**: If U.S. real interest rates rise or threaten to rise quickly, debt servicing will become more difficult, in turn putting downward pressure on spending and real interest rates.

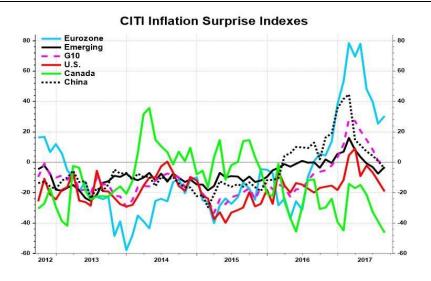
Notwithstanding the risks, this BIS working paper represents a solid argument for the secular revival of inflationary pressures over the next decade.



Intermediate Inflation and Interest Rate Outlook

However important the inflation thesis of the BIS paper, nothing in it tells us anything about the outlook for inflation for the next month, next quarter or even next year. Inflation has been surprising to the downside all around the world, though it may be stabilizing in the eurozone and emerging market economies.

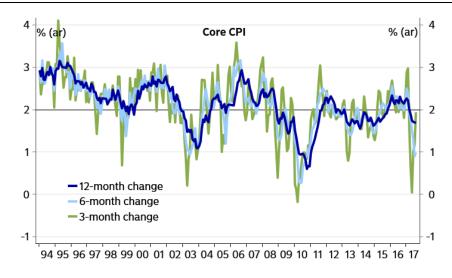
Exhibit 3: Possible Stabilization of Inflation Surprise Indices



Source: Thomson Reuters, Datastream

In the U.S., the markets were surprised last week by the stronger-than-expected CPI readings. However, much of the strength was attributable to a surge in Owners' Equivalent Rent. Nevertheless, core CPI momentum has been picking up in the last few months.

Exhibit 4: Core CPI Momentum Rising

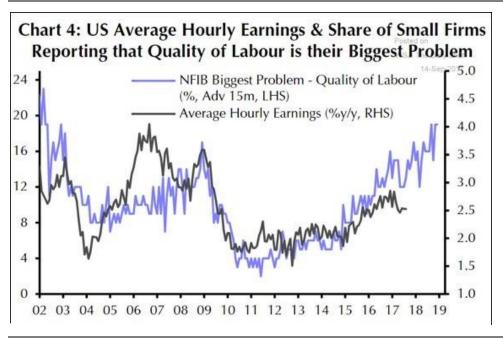


Source: Nordea Markets, Macrobond



Leading indicators of inflation are picking up. Capital Economics pointed out that the NFIB quality of labour index leads average hourly earnings by about 15 months. Wage inflation is likely to rise.

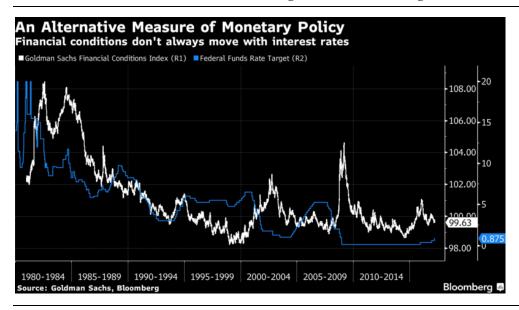
Exhibit 5: NFIB Quality of Labour Leads Wage Growth by 15 Months



Source: Thomson Reuters, OECD, Capital Economics

The combination of these forward indicators, along with New York Fed President Bill Dudley's contention that financial conditions are still easing while Fed Funds are rising, mean that the Fed is likely to stay the course on normalizing monetary policy.

Exhibit 6: Financial Conditions Is Loosening Even as the Fed Tightens



Source: Bloomberg



We pointed out recently that one wildcard of Fed policy is the composition of the Federal Reserve's Board of Governors, as there will be four vacant seats after Stanley Fischer's departure, out of a total of seven seats (see our publication <u>The Fed's perfect storm of 2018</u>). As well, there is the question of whether the Trump Administration will replace Janet Yellen as Fed Chair when her term expires in February. <u>Bloomberg</u> reported that virtually all of the potential candidates for Fed Chair are Republicans who favour rules-based approaches to monetary policy. As most rules-based approaches will see Fed Funds targets that are higher than they are today, this will put upward pressure on interest rates.

Interest rate expectations are also rising globally. The chart below depicts the 12-month G7 forward rates, which have reached the highest since 2011.

U.S. overnight cash rate 12 months forward 1.6258 Canada overnight cash rate 12 months forward Japan overnight cash rate 12 months forward -0.0616 U.K. overnight cash rate 12 months forward 2.00 1.50 1.00 2013 2010 2011 2012 2014 2015 2016 2017

Exhibit 7: Interest Rates Are Rising Globally

Source: Bloomberg

We would be not be surprised by a hawkish FOMC statement from its upcoming meeting on Wednesday. Our base-case scenario calls for a Fed decision to begin normalizing its balance sheet at its September meeting, followed by a December rate hike.



Long-Term Monetary Policy Implications

We discovered that the Goodhart and Pradhan paper was not only written in the interest of academic research, but also served as an important backdrop to an important BIS policy recommendation. Nouriel Roubini explained it this way in a <u>Project Syndicate</u> essay when he discussed the puzzle of persistently low inflation around the world:

One possible explanation for the mysterious combination of stronger growth and low inflation is that, in addition to stronger aggregate demand, developed economies have been experiencing positive supply shocks.

Such shocks may come in many forms. Globalization keeps cheap goods and services flowing from China and other emerging markets. Weaker unions and workers reduced bargaining power have flattened out the Phillips curve, with low structural unemployment producing little wage inflation. Oil and commodity prices are low or declining. And technological innovations, starting with a new Internet revolution, are reducing the costs of goods and services.

The question then becomes, how should central banks react to supply shocks?

Standard economic theory suggests that the correct monetary-policy response to such positive supply shocks depends on their persistence. If a shock is temporary, central banks should not react to it; they should normalize monetary policy, because eventually the shock will wear off naturally and, with tighter product and labor markets, inflation will rise. If, however, the shock is permanent, central banks should ease monetary conditions; otherwise, they will never be able to reach their inflation target.

BIS has proposed a more radical solution. The persistence of these supply shocks indicate that it is time to lower the inflation target from 2% to 0%. That way, central banks will avoid the problem of bubble blowing through excessive stimulus:

If policymakers are incorrect in assuming that the positive supply shocks holding down inflation are temporary, policy normalization may be the wrong approach, and unconventional policies should be sustained for longer. But it may also mean the opposite: if the shocks are permanent or more persistent than expected, normalization must be pursued even more quickly, because we have already reached a "new normal" for inflation.

This is the view taken by the Bank for International Settlements, which argues that it is time to lower the inflation target from 2% to 0% — the rate that can now be expected, given permanent supply shocks. Trying to achieve 2% inflation in a context of such shocks, the BIS warns, would lead to excessively easy monetary policies, which would put upward pressure on prices of risk assets, and, ultimately, inflate dangerous bubbles. According to this logic, central banks should normalize policy sooner, and at a faster pace, to prevent another financial crisis.

We would watch for debates at the Fed about the appropriate inflation target level as the Trump nominees assume their positions. Should the Fed lower the inflation target, it would send a chilling signal to the market about the future direction of interest rates.

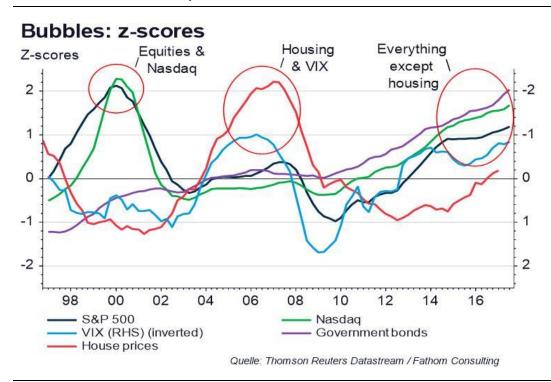


Investment Implications

When analyzing the market implications of rising inflation on asset prices, we have to distinguish between cyclical effects and the secular trend. While a case can be made for a secular bottom of inflation, the cyclical trend is trickier. The U.S. economy is in the late phase of an expansion. Past episodes have historically seen a cyclical inflation surge, followed by the Fed raising rates to cool the economy, and pushes the economy into recession.

From a long-term perspective, the following chart from Fathom Consulting is a useful guide showing the bubble Z-scores of different asset classes over time. While there seems to be asset bubbles everywhere today, the most extended asset class is government bonds, followed closely by NASDAQ stocks. Should interest rates start to rise, first cyclically because of tighter bank policy, and later from a secular basis because of the demographic pressures outlined in the BIS paper, bond investors are likely to suffer substantial losses.

Exhibit 8: Bubbles Are Everywhere



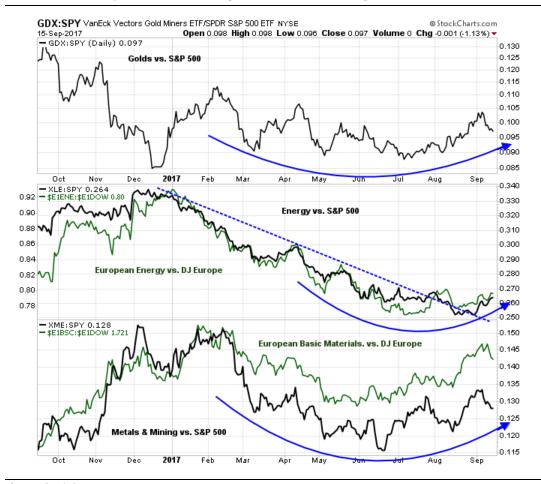
Source: Fathom Consulting

Under such a scenario, the scramble for yield by extending duration is going to come back and haunt investors. As another example of the yield madness today, Austria recently floated a 100-year old bond at 2.1%, which is less than what 10-year Treasuries are paying.

Stocks should outperform bonds in an era of rising inflation and inflationary expectations. Nominal company sales and profits are more linked to inflation than to bond coupons, which are fixed. That said, sector leadership will gradually shift to hard asset-linked inflation hedge sectors. Indeed, these sectors are currently bottoming out on a market relative basis.



Exhibit 9: Late Cycle Inflation Hedge Sectors Are Turning Up



Source: Stockcharts

We would warn, however, that any leadership exhibited by these late-cycle sectors are cyclical in character. Tighter Fed policy to choke off inflation is likely to tank the performance of these sectors. For now, they should only be viewed as trading vehicles.

Still, equity investors are not out of the woods from a long-term perspective. Ned Davis Research also observed that, from a cyclical viewpoint, an extended "wealth effect" as measured by the ratio of Household Financial Assets to GDP has led to poor performance by stocks and corporate profits.

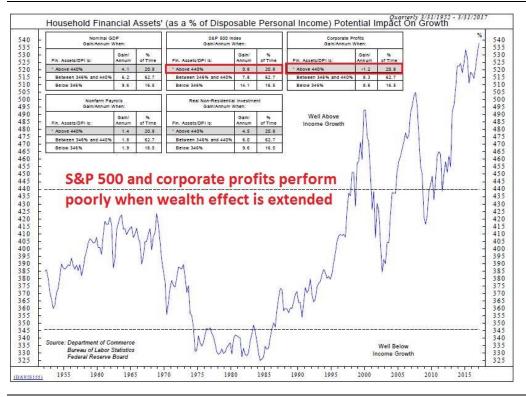


Exhibit 10: Equities & Corporate Profits Underperform When Wealth Effect Extended

Source: Ned Davis Research

Get Ready for the Inflation Surprise

In conclusion, there is a distinct possibility that investors are witnessing a demographically driven multi-decade bottom in global inflation and inflation expectations. Fixed income assets are likely to perform poorly under such a scenario, and while equities will provide inflation protection, their prices could suffer because of rising bond yields. Stock market leadership would be seen in hard asset sectors, such as energy and mining.

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