Meketa Investment Group Global Macroeconomic Research Series

June 2016 *Issue Eighteen*

Negative Rates: Monetary Policy 2.0?

Global Macroeconomic Investment Committee

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After seven years of Quantitative Easing (QE) and Zero Interest Rate Policy (ZIRP) have failed to deliver "escape velocity" economic growth, central banks are now turning to Negative Interest Rate Policy (NIRP) as the next extension of monetary stimulus. While QE and ZIRP were extreme measures of a rather common monetary policy playbook, the basic concept of negative interest rates is somewhat difficult to comprehend. Why would anyone pay to lend someone else money? Furthermore, what are central banks trying to accomplish and why would negative interest rates be any more effective than prior rounds of QE and years of ZIRP? The economic and capital markets implications are many, and myriad unintended consequences loom with this untested monetary experiment. In this newsletter, we will explore the reasons negative interest rates are being considered and implemented, what negative interest rates mean in theory and in practice, and the potential risks they present to the overall economy and investment portfolios.

Background

In the aftermath of the Global Financial Crisis, central banks around the world have attempted to stimulate borrowing and spending - and therefore economic growth - through increasingly aggressive rounds of monetary stimulus. Central banks began by pulling the traditional monetary stimulus lever of lowering interest rates until they hit the dreaded "zero bound," yet had still not engineered the desired economic recovery. Given that the belief at the time was that they couldn't go any lower than zero, central banks resorted to Quantitative Easing (as detailed in our September 2013 issue titled "Quantitative Easing"). In effect, QE equated to central banks "printing" new money to buy existing bonds in an effort to force long-term interest rates even lower. While interest rates have indeed collapsed to all-time lows in much of the world, this has failed to reignite the "animal spirits" of borrowing, spending, and economic growth that existed prior to 2008.

As markets are beginning to realize that QE does not stimulate the real economy as much as hoped, and some central banks are running out of bonds to buy (e.g., Japanese Government Bonds), central banks have looked to a new phase in monetary policy to stimulate a global economy. The Danish Central Bank (DNB) was the first to move to negative rates in July 2012. But, given the size of the Danish economy, this move barely registered to global investors.

However, in a far more momentous decision, the European Central Bank (ECB) pushed their policy rate below zero in June 2014, and followed that up with an additional cut three months later. In December 2014, Switzerland's central bank (Riksbank) moved to negative interest rates one month before abandoning the Swiss franc's cap against the euro. Lastly, earlier this year the Bank of Japan (BoJ) became the latest major central bank to take their policy rate negative, which shocked global markets and occurred merely one week after BoJ Governor Haruhiko Kuroda testified before Japanese parliament that he was planning no such thing.

Many of these aggressive monetary actions contributed to one of the strongest rallies in the U.S. dollar (as detailed in our January 2016 issue titled "The Dollar Rally"), which now has forced the U.S. Federal Reserve to weigh in on NIRP. Recently, Chair Janet Yellen's semiannual report to Congress included some confusing remarks about the Fed's own intentions and ability to take the Fed Funds rates negative. While initially stating on day one of her testimony that

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"Fed authority for negative rates is still a question," implying at least some doubt of the legality of negative rates in the US, on day two of that same testimony Chair Yellen stated that "we wouldn't take those [negative rates] off the table." Of course all of this is happening while the Fed's own forecasts show US policy rates increasing multiple times in 2016 from their current 50 basis points.

It's unclear that negative interest rates would provide any meaningful benefit to the global economy, yet it is clear that negative interest rates present considerable risks. More than that, however, the move to negative interest rates smacks of desperation. It appears that central banks are running out of monetary stimulus ammunition at a time when fiscal authorities remain unable or unwilling to take action. In theory, negative interest rates are merely an extension of rate cuts that have been ongoing now for over seven years. But in practice, moving from zero to negative rates is far more impactful, and potentially disruptive, than a traditional interest rate cut.

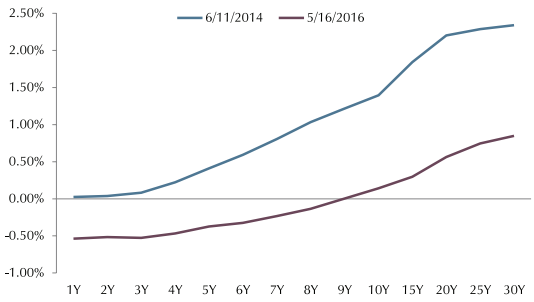
A Potentially Dangerous Experiment

A central bank moving its policy rate into negative territory means that they are now charging commercial banks interest for depositing excess reserves at the central bank. In other words, lowering the interest paid on excess bank capital apparently wasn't enough to stimulate sufficient lending, so central banks have now resorted to charging banks a penalty. There are a number of potentially serious issues with this approach.

First, it strikes at the heart of banks' health and profitability. Although modern banking has become increasingly complex, at is core, banking is still the business of borrowing short-term and lending long-term, and pocketing the spread between the two rates. This is known as the Net Interest Margin, or NIM. While lower interest rates help borrowers, they hurt banks by squeezing their profitability. As lending becomes less profitable, banks are incentivized to do less of it, not more, which essentially tightens liquidity conditions. While it's true that bank profitability is more dependent on steepness of the yield curve and, therefore, it's the slope of the yield curve that matters most for banks, one can reasonably expect that negative rates will cause investors to take on continued duration risk, which causes the yield curve to flatten.

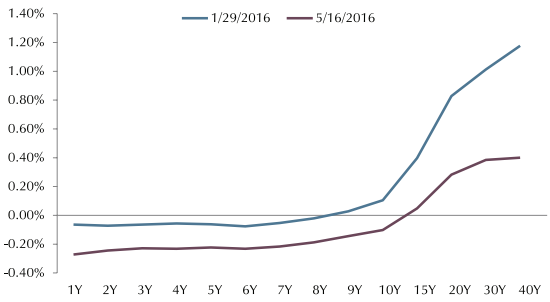
Even if banks do respond to the negative interest rate "penalty" by lending more, this may not be beneficial. On the contrary, it can be argued that negative interest rates tell banks to "go lend money to borrowers that you currently deem too risky or else we will charge you a fee." After all, ill-conceived loans to risky borrowers were at the heart of the last crisis, so it is hard to see how this is productive. Furthermore, negative interest rates assume that structural aversions to levering up are easily solved.

Flatter German Bund Curve Since NIRP



Source: Bloomberg

Flatter JGB Yield Curve Since NIRP



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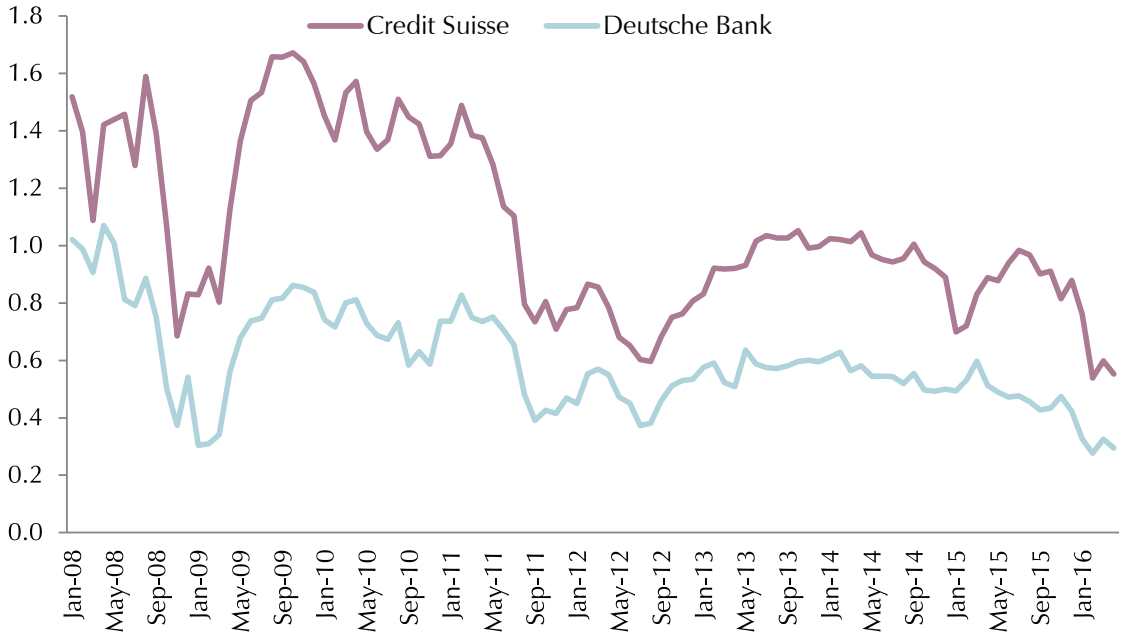
Price-to-Book Ratio (as of 4/30/2015)



Source: Morningstar Direct

Either way, bank profits and stability appear to be under increased pressure from the move to negative interest rates. The move has led to a significant fall in the share prices of several major global banks. Deutsche Bank and Credit Suisse now trade near their levels during the depths of the Global Financial Crisis, on a price-to-book basis. Lower rates have led to lower bank profitability, which has led to a fall in bank stock prices, which leads to renewed fears over bank solvency, which leads to risk-aversion, which leads to less borrowing (not more) and lending, in a vicious feedback loop.

The Swiss Experience

As mentioned earlier, one of the first countries to experiment with negative interest rates was Switzerland. In December 2014, the Swiss central bank lowered policy rates into negative territory in the hopes that longer-term market lending rates (e.g. mortgages) would follow short-term rates lower. Indeed, initially they did, with interest rates on 10-year-fixed-rate mortgages plunging to about 1%. But then, unexpectedly, mortgage rates began to rise.

The reason behind this makes intuitive sense. Negative policy rates charged on excess reserves acted as an added cost to Swiss banks. If banks attempted to pass on this cost to their customers by lowering their deposit rates below zero, their depositors would simply pull their money out of the bank and go to a competitor, or potentially stuff it under the proverbial mattress. Unwilling to take a profitability hit and unable to pass through the added cost via lower deposit rates, Swiss banks decided to raise mortgage rates to make up the difference. Thus, negative policy rates actually caused borrowing costs to increase.

The Spend of Save Quandary

If banks do eventually charge customers to save, will this stimulate spending? Central bank actions seemingly imply that the more you punish people for saving (via lower and eventually negative interest rates), the more likely they are to spend that money on something that generates economic growth.

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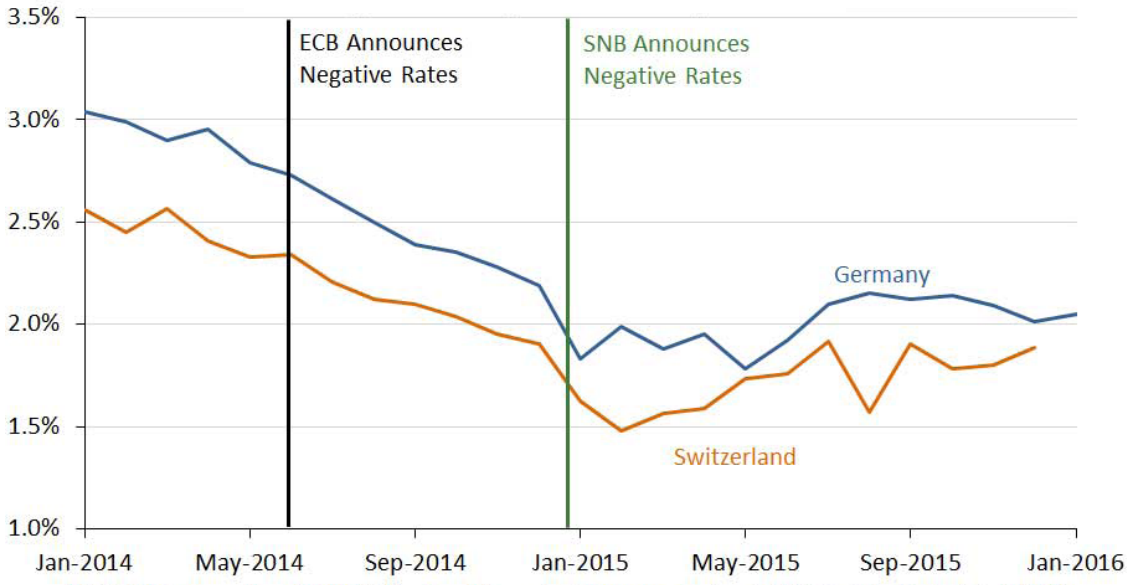
Mortgage rates Now Moderately Rising Against Negative Policy Rates



Notes: The European Central Bank (ECB) announced negative interest rates on June 5, 2014. The Swiss National Bank (SNB) announced negative interest rates on Dec. 18, 2014. German interest rates are for new mortgages greater than 10 years. Swiss interest rates are for new fixed-rate mortgages between 10 and 15 years.

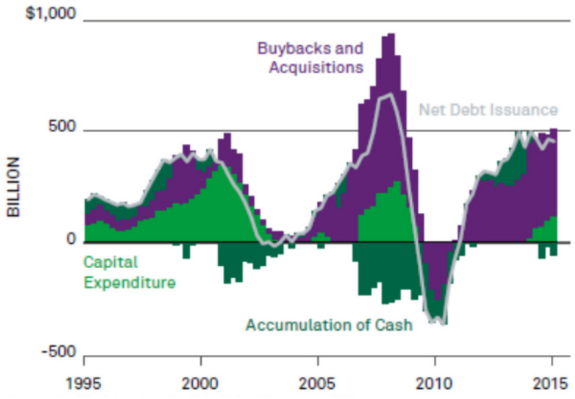
Source: European Central Bank, Haver Analytics and Swiss National Bank.

So far, while ZIRP has led to modest increases in borrowing and spending, much of that has come from corporations borrowing to buy back stock, which has minimal impact on economic activity. In other words, ZIRP has not spurred much in the way of economically productive spending, so why would negative interest rates all of a sudden be a panacea?

Further, it seems that charging people for saving may lead to more saving, not less. For example, take the average American worker who is struggling to save for an eventual retirement. With interest rates already low, many will have little hope of surviving on the interest earning on their nest egg.

Institutional investors, such as defined benefit pension plans, will likely feel the squeeze from negative rates as well. In lieu of spending on productive investment, sponsors of defined benefit plans may need to contribute more capital to these plans to compensate for the lower investment returns resulting from NIRP. If sponsors are unwilling or unable to increase contributions, to compensate for lower rates of return, plans may be forced to take on more risk than they otherwise would at a time when equity market valuations are elevated. By lowering the discount rate on risk assets, easy monetary policy boosts asset prices and compresses risk premia, which makes it harder for long-term investors to achieve investment objectives.

U.S. Corporate Debt Was Not Used Productively.
U.S. Nonfinancial Firms Use of Debt, 1995-2015



Sources: BlackRock Investment Institute, Federal reserve, and IMF.

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Impact on Capital Markets

As negligible as the impact on the real economy has been, ZIRP and other central bank policies since 2009 have had a material effect on global capital markets. At present, the S&P 500 continues to trade near all-time highs with elevated valuations, largely due to bond yields plummeting to all-time lows. At present, thirteen of the world's developed economies have negative interest rates out to the 2-year rate, and in Japan rates are negative out to the 10-year note.

Negative Government Bond Yields (as of May 25, 2016)

Country	2 Year	5 Year	10 Year
Switzerland	-0.95%	-0.79%	-0.33%
Japan	-0.24%	-0.22%	-0.09%
Sweden	-0.61%	-0.18%	
Netherlands	-0.53%	-0.40%	
Germany	-0.52%	-0.37%	
Belgium	-0.49%	-0.33%	
Austria	-0.49%	-0.35%	
Finland	-0.47%	-0.25%	
Denmark	-0.45%	-0.15%	
France	-0.44%	-0.19%	
Ireland	-0.37%		
Spain	-0.13%		
Italy	-0.08%		

Source: Bloomberg

Taking a step back, however, why would anyone ever buy a negative yielding asset? As the yield implies, it makes no economic sense, since it guarantees a loss for investors. It would seem that investors would only buy a negative yielding asset if they 1) had to due to regulation (i.e., insurance companies), 2) were betting on capital appreciation from yields continuing to fall (i.e., speculating), or 3) fear an even greater loss from riskier assets. The latter two reasons would suggest that investors buying negative yielding bonds continue to assume that central banks can and will prevent rates from rising, thereby inflicting capital depreciation on top of the tax born by negative yields.

The underlying faith in central banks has arguably been the single biggest factor behind the global rally in capital markets since March 2009. While it is still too early to draw any hard conclusions, it is possible that a continued move towards negative interest rates – potentially including the U.S. - will serve as a tipping point. As discussed earlier, NIRP may actually do more harm than good, and may damage investors' confidence in central banks generally.

Evidence of the market's struggle to digest this latest development can be seen in Japan. The Nikkei surged over 3% when NIRP was announced (Friday, January 29th), but then proceeded to collapse by 16% over the next nine days - the steepest fall since 2008 - before rallying sharply again soon thereafter. Furthermore, the Japanese yen dramatically strengthened in the aftermath of an announcement that should have driven it lower, as probably intended. Again, while it is still too early to tell, these are potential warning signs of a central bank beginning to lose control.

This is not the first time that central banks have been pushed by markets in recent years. However, every time they have been able to pull another tool from their toolbox to please markets. Explicitly punitive monetary tools, like negative interest rates, do, however, risk pushing it too far. Still, whether or not NIRP represents that critical threshold remains to be seen, but the range of outcomes is anything but certain.

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Conclusion

Negative Interest Rate Policy clearly represents the next phase of global central bank stimulus, which has been ubiquitous since the Great Financial Crisis. Low interest rates have arguably resulted in only small economic gains, and the global economy has not been able to reach "escape velocity" over the last seven years. If zero interest rates have largely been ineffective, it is not clear how negative interest rates will do much better.

In theory, negative rates imposed on savers and excess bank reserves should stimulate increased borrowing and lending and eventually stronger economic growth. However, as we have observed, negative interest rates could have the exact opposite effect. NIRP has hurt bank profitability, which could decrease the supply of loans, and further punishes savers, potentially damaging consumption. In practice, negative interest rates serve as a tax on savers, deposit holders and institutional investors, alike.

Lastly, NIRP has already caused European bank solvency fears to rise again and markets to question the Bank of Japan's credibility. If the belief in central bank omnipotence steadily erodes, as the market gains from central bank actions wane, so too is the "Central Bank Put" lifted. As Meketa Investment Group has referenced for quite some time, markets suddenly losing faith in central banks remains a meaningful systemic risk factor.

Although, NIRP may not represent the tipping point, the pursuit of even more extreme monetary policy reeks of desperation. Needless to say, we are watching closely.

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