

# Negative Bond Yields and Interest Rates. Neither A Borrower Nor A Lender Be. And Now We Are Both...

"Neither a borrower nor a lender be; For loan oft loses both itself and friend, and negative yields dulls the edge of policy."

Now many countries are both.

10 year Swiss and German government bonds currently carry a negative yield. When one moves to shorter maturities, such as 2 years, we find that France, Germany, Sweden, Netherlands, Switzerland and Japan all trade at negative yields. This means that investors, if you can call them that, pay to lend to these governments. One species of large investor willing to pay to lend is the central bank.

So far the negative yields have not been a phenomenon of primary issuance, save in a few circumstances such as Japan. This example is interesting because it pays the issuer to issue. The more issued, the more solvent the issuer. All this needs is a sufficiently motivated lender, the central bank.

Imagine a more extreme example of a negative coupon bond. The only investor willing to buy such an instrument would be the issuer, or their central bank. The mathematics of such an issue would require the suspension of disbelief. The issuer would be paid to borrow and the more the borrowing, the more the payment. At last it would be possible to borrow oneself into solvency, surely the Holy Grail of public finance. The buyer would, however, guarantee themselves a loss. Any other institution than a central bank could therefore lend itself into insolvency if the size of such lending was sufficiently

large. Central banks, however, are special. They can meet obligations by creating money. All this is of course a circuitous route for a government seeking to spend and fund its spending with bits of paper.

So far the money creation has not multiplied through the economy to encourage economic growth. Instead the velocity of circulation of money has slowed, nullifying the money base expansion. Why is this? It is hard to tell but one possibility is that the transactional demand for money simply isn't there. Consumers are cautious and businesses are sceptical. Trade is complicated by competitiveness, policy and productivity. Governments could spend. If, however, despite the largess of their central banks, governments, for ideology or other reasons, decide to rein in spending then it is no wonder that output and employment languish. A practical case in point is the ECB's bond buying program. While the scale of the program is large, by requiring Member State's conform to the Maastricht debt criteria, the EU is neutralizing QE. So QE works if it monetizes debt incurred when the government spends on behalf of the private sector and is much less effective if the government does not.

If a country can borrow at negative rates of interest, expand its central bank's balance sheet without bound and target a budget deficit to replace deficient private demand, what is the cost and what are the limits?

Private and external investors may be discouraged from buying bonds. This can impair liquidity and price discovery in the bond market. God forbid anyone should discover the true price of a bond. With negative interest rates, investors will naturally seek alternative stores of value. Central banks inducing negative interest rates may find themselves the sole buyers of their sovereign's bonds. Captive domestic investors may not have the luxury of directing their capital elsewhere. Examples of this are state pension and social security funds. If private investors are discouraged from buying bonds it

means that central banks will have difficult exits and find it painful to reduce the size of their balance sheets. Any reduction of central bank bond buying would lead to higher yields. The US experience today confounds this analysis but here, a stabilizing budget and the changing structure of treasury financing are responsible for keeping yields low. And, yields may still rise for we are still in uncharted territory. The US is in fact further along this path than their brethren. The Fed's balance sheet has only shrunk in the last two weeks having peaked at USD 4.516 trillion on January 14.

The currency might weaken. This can improve the competitiveness of the country's exports but can also import inflation through higher input prices. Yet not everyone can be a net exporter, try though they might. Since 2008 countries have tried to debase their currencies in an effort to improve competitiveness and export their way to recovery. Weakening a currency is a risky strategy since excessive weakness brings its own problems. Hyperinflation is seldom the consequence of bad economics. They are the consequence of a failure of confidence, a failure that is often the consequence of bad economics. A beggar-thy-neighbour strategy requires a steadily declining currency. A volatile and acutely weak currency can lead to capital flight, spiking interest rates and end in capital controls and market failure.

Confidence is one of the most important factors in finance. Loss of confidence can lead to acute acceleration of trends leading to currency crises, credit crises and hyperinflation.

Efficacy. The intent of policy is to revive private demand. Government spending can improve headline output but can also crowd out private demand with little impact on private output and employment. The poor efficacy of multiple rounds of QE in the US is illustrative. While the money base was expanded nominal output languished as the velocity of circulation fell. The private economy has a natural metabolism which cannot

easily be accelerated simply by association. There was simply no multiplier effect to the government's fiscal efforts to boost the economy as liquidity was soaked up by saving.

Artificial depression of interest rates across the term structure are intended to reduce borrowing costs, but if rates were already low, policy may be pushing on a string. Again, the private economy's natural metabolism cannot always be accelerated by the provision of cheap credit. 'Build it and they will come' doesn't translate well into 'offer to lend and they will borrow'.

Nominal output may grow but there is no guarantee that real output will grow. The growth might be entirely in prices, that is inflation. Moreover, nominal output would include all goods and services as well as assets. The growth may manifest more in asset price inflation. Asset price inflation supported mostly by liquidity and a dearth of viable alternatives can easily be deflated in disorderly fashion.

Nobody knows what market prices are. For factor inputs, assets or goods and services. As a result, certain markets will not clear. When central banks buy sovereign bonds they impact prices. In order to avoid acute price distortion bond purchase programs may have limits on how much of an issuer's total debt or how much of a particular issue or issues in a particular maturity range may be bought. This is not effective because apart from the direct impact on pricing central banks' intentions signal to the market future demand leading the market to react accordingly. This may be helpful at the initiation of a bond purchase program as the market aids the central bank in depressing borrowing costs but can be less helpful on the exit. For the central planner the price distortion is a difficult problem. Since the market price absent intervention is unknown, the impact of withdrawing from intervention is unknown. This uncertainty discourages central banks from exiting intervention until it is too late.

Some tidbits:

In a sense, central banks are going back to their roots. The Bank of England was established in 1694 to fund William III's defence spending. The government issued debt of GBP 1.2 million, which was subscribed by the bank in a very modern QE type move, and carried an interest rate of 8%, which would surely have sunk modern United Kingdom. What was different was that the Bank bought a primary issue loan and the government promptly spent it building a navy. Imagine if the government was told to maintain a 3% budget deficit limit.

The world's oldest central bank, the Riksbank, was established in 1668. Its predecessor was Stockholm Banco, whose founder Johan Palmstruch was condemned to death for bankrupting the bank through over issuing bank notes; he was later pardoned and is today unconsciously emulated by most fashionable central bankers. Riksbank was the first bank to use negative interest rates, lowering its deposit rate to -0.25% in July 2009. Its motto is Herefore Strength and Safety.

You may now stop suspending disbelief.