While somewhat of a curiosity in the past, the current amount of global debt yielding a negative return, and even being initially issued with a negative return from the onset, has raised a number of questions. There are two primary ones for me. First, what is behind the negative interest rates? In other words, why would anyone knowingly accept a negative return in advance? What could possibly justify such a decision that on its face defies economic logic? Secondly, in a world of negative yields, should we, the United States, aspire for that in our own markets?

There may not be a clear answer to the first question and certainly there are plenty of willing guessers. For me, I went back to economic basics and reviewed what a debt investor is trying to achieve. The price of a debt instrument, producing the yield, theoretically provides for three things. First is the compensation for the time value, the amount required to compensate the investor for the decline in purchasing power of the original investment. You buy a $\$ 1000$ bond today and receive $\$ 1000$ back in ten years, under a $2 \%$ a year decline in value due to inflation, that return of principal will only buy about $\$ 820$ of today's stuff. Since that is not a sound economic trade-off, the debt investor requires compensation in the form of positive interest during the ten years. This calculation assumes repayment with certainty and perfect knowledge of future price changes.

The second factor requiring compensation is the risk that not all of the original investment will be returned, i.e. credit risk. Low perceived credit risk, e.g. US treasuries, require little or no additional compensation, where higher perceived credit risk, e.g. junk bonds or habitually defaulting countries, require more. Finally, the rational debt investor will factor in general economic uncertainty. This factor adds to the required compensation an amount to cover the risk that the judgement of other factors is wrong. In an uncertain economic environment where risks that may drive inflation, repayment, etc., are hard to determine, more return may be required. While this is a simple description of credit pricing, I think it covers the essentials. In a free and open market, the investor willing to take the least compensation for these risks will buy the debt for the highest price.

So now the question is, if yield is intended to cover these positive risks, how could yield ever be negative? After all, just holding cash with no return beats a negative return. The answer must be driven by the perceived future purchasing power of the investment principal. If you expect $\$ 820$ in ten years to buy what costs $\$ 1000$ today, you make that trade. That implies a $2 \%$ per annum deflation rate, which is not produced by a growing economy. We may not like inflation, but in the absence of an exploding money supply, it is the sign of a growing, thriving economy. Deflation is the opposite. Look at the growth rates, demographics and economic outlooks for countries with negative yielding securities. Assuming sovereign credit risk is very low, those negative yields reflect the market's view of little or no growth, or even contraction. Any factoring in of uncertainty should raise rates (you cannot have negative uncertainty), further pointing to a grim economic outlook for these economies.

Should we in the United States want to "enjoy" the benefits of being paid to borrow money? No, no and hell no! Having a growing economy that the world has faith in to continue growing through innovation, productivity and opportunity will bring with it modest inflation through the shear pressure of growth and expectation for it to continue. The rational investor will require just compensation to account for this.

Certainly, there is an element of demand for safety that holds down rates on US treasuries below where they might otherwise trade, but that is just a side effect of being the best performing economy sporting the world's reserve currency. We should be glad we are paying positive interest rates despite the opposing pressures as the alternative is not something that bodes well for an economy's future.

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