INVESTMENT BRIEF

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Strategic Investment Group®

Interest Rates Through the Looking Glass

In *Alice in Wonderland*, when Alice told the insane Queen of Hearts that "one can't believe impossible things," she might well have been speaking of negative interest rates. Yet rates in key markets have gone negative in nominal terms, ushering in a looking-glass world of reversed incentives. The prevalence of negative interest rates raises profound questions about global economic prospects and the operation of financial markets.

The phenomenon of negative interest rates is quite pervasive. Central banks that set monetary policy for one quarter of the global economy — including the ECB and the central banks of Denmark, Hungary, Japan, Sweden, and Switzerland — are targeting negative nominal interest rates, violating the zero lower bound previously considered the limit to policy ease.

Negative rates are not limited to the short-term policy rates set by central banks. Sovereign bond yields are negative well out the maturity spectrum: to 50 years in the case of Switzerland, 30 years in Japan, 15 years in Germany, and nine years in France. The stock of bonds with negative yields is approaching $13 trillion, encompassing over half of government debt in 10 countries. Globally, about 35% of the World Government Bond Index, a widely used benchmark of investment grade sovereign debt, is trading with negative yields.

Part of the decline into negativity has been driven by secular forces, including slowing labor force growth, falling productivity growth, and higher savings rates among demographic cohorts and some emerging market countries. Since the Great Financial Crisis, cyclical forces, including expectations for slower global growth, reduced demand for investment, and an increase in desired savings, have compounded these secular forces to push yields to unusually low and even negative levels.

As a result, inflation across the developed world remains low and economic growth subpar. Much of Europe and Japan is fighting strong disinflationary forces and experiencing price declines. Even where inflation rates are positive, they remain below the 2% targeted by most developed economy central banks. As long as these conditions continue, there is a risk that negative yields will extend their reach even further.

Looking-Glass Finance

Negative interest rates lead to a lot of other impossible things. They disrupt banking relationships, undermine the fundamental business model of central banks, reverse the flows between creditors and lenders, challenge the structure of familiar financial instruments, and upend the normal incentives to make and demand payment on obligations. So far, many of the perverse effects of negative yields have been avoided by limiting their impact on the retail sector. The effects are nevertheless apparent in some countries.

The option of holding cash is the main reason why zero has always been assumed to represent the lower bound on interest rates. At a certain threshold of negativity, the mattress will appear preferable to bank accounts, despite the inconvenience and the storage, safekeeping, and transportation costs of holding cash. Innovations to circumvent negative deposit rates may also be encouraged. If negative rates are significant and perceived as likely to endure, vaults could be built by trusted counterparties to hold cash and facilitate transactions through the exchange of vault receipts, an age-old form of banking. In Switzerland and Japan, there are already signs of increased interest in safes.

Negative nominal interest rates also undermine the fundamental business model of central banks. Normally, central banks are profitable, earning seigniorage by generating a positive return on assets, while having no cost of carry on liabilities, which consist mainly of currency in circulation. Seigniorage does not function when central bank assets — government bills and bonds — have negative yields.

Typical loan contracts and bond conventions assume that borrowers pay and lenders receive interest. Negative rates reverse these flows and create troubling outcomes in the case of many familiar financial vehicles. In a looking-glass world, money market mutual funds would be continuously "breaking the buck." Managing bond flows would also be problematic and stand convention on its head. Zero coupon or discount bonds would be issued at a premium to face value. Negative coupons put issuers in the awkward position of collecting payments from widely dispersed bondholders. Floating rate notes pose special difficulties, as they may be issued with positive rates which turn negative if the reference rate falls far enough. In Denmark, for example, some borrowers with floating rate mortgages are in the happy position of receiving monthly interest payments from their bank.

Negative rates also change incentives on the timing of receiving and making payments. In a looking-glass world, it really is better to give than to receive. When rates are positive, sellers are quick to invoice their customers and penalize late payments, while buyers are keen to defer payments for as long as possible to enjoy the float. When rates are negative, these ncentives are reversed, as being owed a constant amount by a creditworthy counterparty is preferable to receiving funds in an account bearing negative interest. With these incentives, consumers are induced to prepay credit card bills with idle funds otherwise being eroded by negative rates.

The prevalence of negative yields is a symptom of the strong disinflationary forces following in the wake of the Great Financial Crisis. There are limits to the use of negative policy interest rates to induce spending and lending, as eventually the disruptive impact of their perverse consequences will overwhelm the benefits. Negative rates are nevertheless likely to remain a feature of the financial landscape as long as the tenacious secular and cyclical forces that gave rise to them persist. Meanwhile, the impact of negative rates across one quarter of the global economy will spill over to other regions, depressing bond yields even in countries that have not fallen down the rabbit hole into the looking-glass world.

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