



# Finding Positive Expected Returns in a Negative Rate Environment

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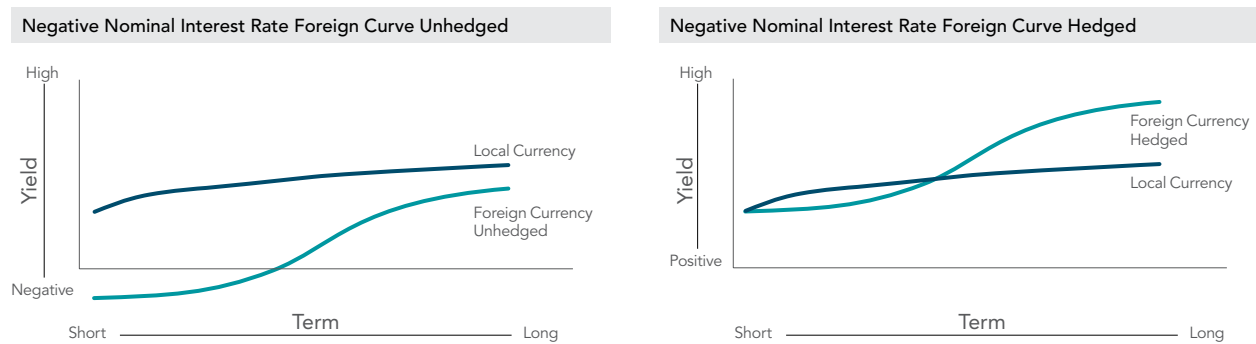
Faced with a challenging macroeconomic environment, several central banks around the world have embarked on unconventional campaigns to provide monetary stimulus by moving their policy rates into negative territory. The policy rate is the rate at which domestic banks can borrow from their respective country's central bank. Although their motivations and implementations may slightly differ, the European Central Bank (ECB), the Bank of Japan, and the central banks of Switzerland, Sweden, and Denmark have implemented a negative interest rate policy (NIRP).

Central banks are not the only players in global bond markets. Governments, banks, and companies all around the world have different needs that may cause them to issue and invest in bonds. Individual investors may also hold fixed income, either with direct bond holdings or through vehicles like mutual funds and ETFs. The collective supply and demand of all these market players determines the yields on investment securities. These market forces have pushed the yields on short-term securities in Japan, Germany, Switzerland, Sweden, and Denmark into negative territory. In fact, the market yields on these short-term bonds were negative before their central banks set their policy rates below zero.

Strategies with the flexibility to consider the shapes of yield curves and effects of currency hedging may have the opportunity to generate positive expected returns in a negative rate environment.

For a US investor, bonds in foreign markets with negative yields may still provide positive expected returns if the currency exposure is hedged back to US dollars. Although typically viewed as a tool for controlling volatility, currency hedging may also transform a negative yield into a positive yield for some bonds, thereby enhancing expected returns. The hypothetical example in **Exhibit 1** shows how by hedging the foreign yield curve to the local yield curve's currency, the foreign yield curve's short-term interest rate shifts to the local yield curve's short-term interest rate.

**Exhibit 1: Currency Hedging Broadens the Investment Opportunity Set**



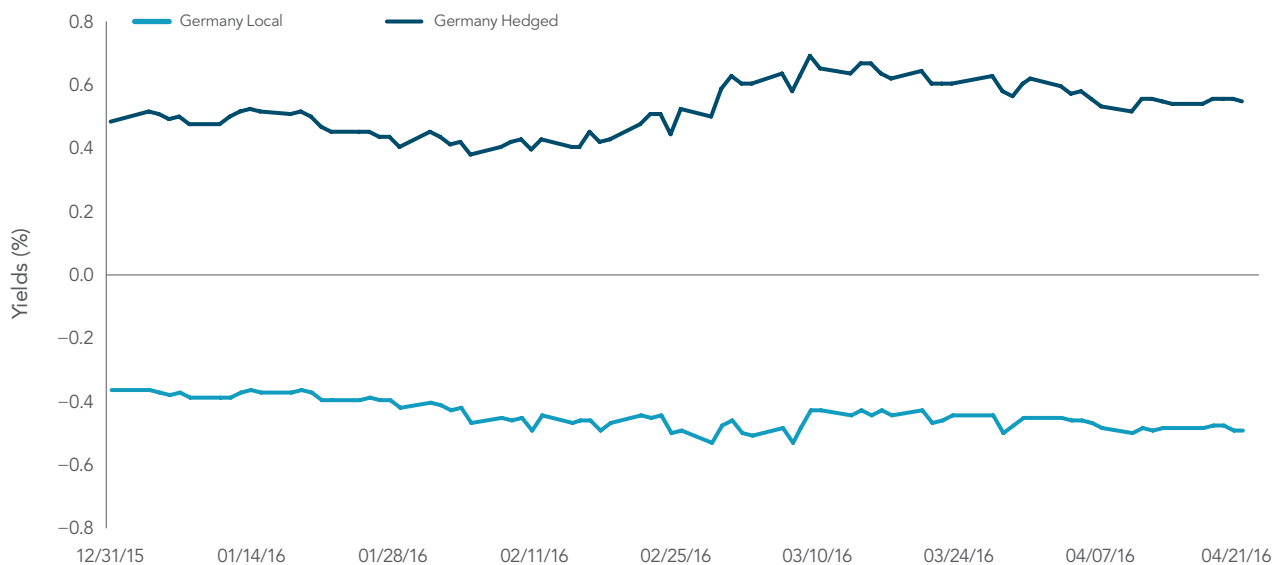
*Hypothetical example for illustrative purposes only.*

For example, if the foreign yield curve’s short-term interest rate was  $-0.25\%$ , and the local yield curve’s short-term interest rate was  $0.25\%$ , the hedged foreign yield curve’s short-term interest rate would become  $0.25\%$ . As a result, the entire foreign yield curve experiences a positive shift while maintaining its original shape.

For instance, consider the yields on one-year German government bonds shown in **Exhibit 2**. Local investors in these bonds have experienced nominal yields of about  $-0.5\%$  since the beginning of the year. In contrast, US investors would have reaped positive yields once the bonds were hedged to the US dollar.

The shape of a yield curve is also important to consider. The expected return of a bond equals the yield, or income, component plus any expected capital gain or loss. The expected capital gain of a bond is higher on steeper segments of the yield curve. The foreign yield curve in Exhibit 1 is relatively steep and offers higher expected return opportunities than the local curve once the currency is hedged. Thus, it is worth considering bonds and yield curves with negative nominal interest rates, since they can still provide positive expected return potential after accounting for the impact of the currency hedge and any expected capital gains due to the shape of the curve.

**Exhibit 2: Yields on One-Year Government Bonds in Local Currency and Hedged to USD**



*Data source: Bank of America Merrill Lynch.  
Past performance is no guarantee of future results.*

**SUMMARY**

Economic conditions and market forces have pushed nominal interest rates on many bonds below zero. This is not a reason for investors to abandon a globally diversified bond portfolio. Yield curves around the world have different shapes and different nominal levels. Investment strategies that have the flexibility to consider the shapes of yield curves and effects of currency hedging may have the opportunity to generate positive expected returns in a negative nominal interest rate environment.

Source: Dimensional Fund Advisors LLC

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