Currency Hedging Can Boost Yields and Reduce Volatility

Interest rate differentials have created some compelling opportunities.

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KEY INSIGHTS

- Foreign currency bonds may appear unattractive to U.S. investors because they offer lower yields or are perceived as carrying too much risk.
- But, by hedging the currencies of some foreign bonds, higher yields are obtainable—in many cases higher than the yields from U.S. Treasuries.
- Hedging the currency of emerging market bonds typically reduces the yield but can help to mitigate volatility.

With some foreign bonds offering low yields and others offering higher yields but greater currency volatility risk, it is not surprising that many U.S. investors display "home bias" by allocating heavily to U.S. Treasuries especially as the U.S. Federal Reserve has continued to hike interest rates. However, many of the perceived drawbacks of investing in foreign bonds can be overcome by currency hedging. In the current environment, hedging lower-yielding global bonds back to the U.S. dollar can bring additional yield—meaning that U.S.-based investors are effectively *paid* to hedge the currency risk of some global bonds. In other circumstances, currency hedging can be used to reduce the volatility from foreign currency in higher-yielding emerging market bonds.

With the Federal Reserve still concerned about inflation and actively shrinking their balance sheet of Treasuries through Quantitative Tightening, bond portfolios with heavy allocations to U.S. Treasuries likely carry considerable U.S. rate risk. Therefore, adding exposure to hedged foreign currency bonds offers significant diversification benefits as well as potentially boosting yields and mitigating currency volatility.

How Currency Hedging Works

Currency hedging is a well-established method of reducing the foreign exchange risk associated with investing in overseas assets. When investors hedge bonds, they typically enter a currency forward—a binding contract between two parties to exchange a certain amount of a currency for another currency at a fixed exchange rate on a specific future date. The use of the currency forward enables both parties to effectively "lock in" the exchange rate on a future transaction.

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For example, a U.S. investor buying French bonds might enter a 12-month forward contract to sell euros and buy U.S. dollars equivalent to the amount of their exposure in order to hedge the French bond's euro currency exposure back to the U.S. dollar. This is referred to as going "short" euros and "long" U.S. dollars. Often, these forward contracts are then "rolled" during the bond-holding period—at or before expiration, the investor will compare the forward to the spot rate, settle up, and enter into another 12-month forward contract. The investor's total return comprises the bond's coupon (which is different from yield), any capital appreciation or depreciation on the price of the bond, and the net return from the currency forward position (often referred to as the "carry" from the hedge).

The interest rate embedded in the forward foreign exchange rate is usually the difference between the short-term wholesale interbank deposit rates of the two currencies being swapped. In the previous example, the euro deposit rate would be subtracted from the U.S. dollar deposit rate. As short-term interest rates in the U.S. are currently higher than those of most other developed markets, there is a positive interest rate differential between the U.S. and most other developed countries.

Hedging to Boost Yield

To continue with our example, consider a U.S. investor buying and hedging French bonds. On December 31, 2022, French 10-year bonds yielded 3.1055% at a price of 90.697. To purchase 100,000 French bonds, an investor would have required EUR 90,697 at the spot rate at the time of 1.0705, or USD 97,091. As the investor would have been selling a foreign currency at lower rate and receiving a higher yield on the

French 10-Year Bonds

(Fig. 1) Hedging turns a lower yield into a higher one

Par value (EUR)	100,000
Yield	3.1055%
Coupon	2.00%
Price	90.697
EUR/USD (Spot Rate)	1.0705
Total cost (USD)	97,091
EUR/USD 12-month forward rate (on December 31)	1.0922
After 12 months (assuming unchanged yields)	
Price	91.513
Proceeds from sale of bond (EUR)	93,513
Convert to USD at the forward rate	102,132
Profit (USD)	5,041
Profit (%)	5.19%
10-year U.S. Treasury yield (for comparison)	3.87%
For informational purposes only	
USD 12-month SOFR	4.87%
Implied EUR forward yield	2.89%

As of December 31, 2022.
SOFR = Secured Overnight Financing Rate.
For illustrative purposes only, does not represent an actual investment nor does it consider transaction costs or other fees.
Source: Bloomberg Finance L.P. Analysis by T. Rowe Price.

local U.S. rate through the 12-month forward contract, they would receive "positive carry". This is roughly equal to the USD SOFR of 4.87% less the implied euro forward yield of 2.89%, or 1.98%. This would be added to the 3.1055% yield of the French bond for a total yield of 5.09%, which compares favorably to the 10-year U.S. Treasury yield of 3.87%.[1]

Hedging to Reduce Volatility

Now consider an investor looking at an emerging market local currency bond with a much higher yield—and greater volatility—than U.S. Treasuries. In this case, to hedge the volatility from currency risk would reduce the yield rather than boosting it as in the example of the French bond. Thus, an investor seeking to buy 100,000 South African bonds maturing on March 31, 2032, yielding 10.79% at a price of 85.35, would need ZAR 85,346 or USD 5,009. Assuming the investor wants to hedge all the bond exposure back to U.S. dollars, they will be able to sell the South African rand forward 12 months at an implied yield of 7.83% and effectively receive USD SOFR of 4.87% for a net cost of hedging of 2.96%. Given the yield the investor receives from owning the bond is 10.79%, the effective hedged yield is 7.83% (10.79% less 2.96%). Equivalent U.S. Treasury bonds maturing in December 2032 were yielding 3.87% on December 31, 2022. In this case, the hedged bond yields less than the unhedged bond but has much less volatility and is still greater than the U.S. Treasury bond.[2]

South African Six-Year Bonds

(Fig. 2) The hedged yield is lower but helps provide stability

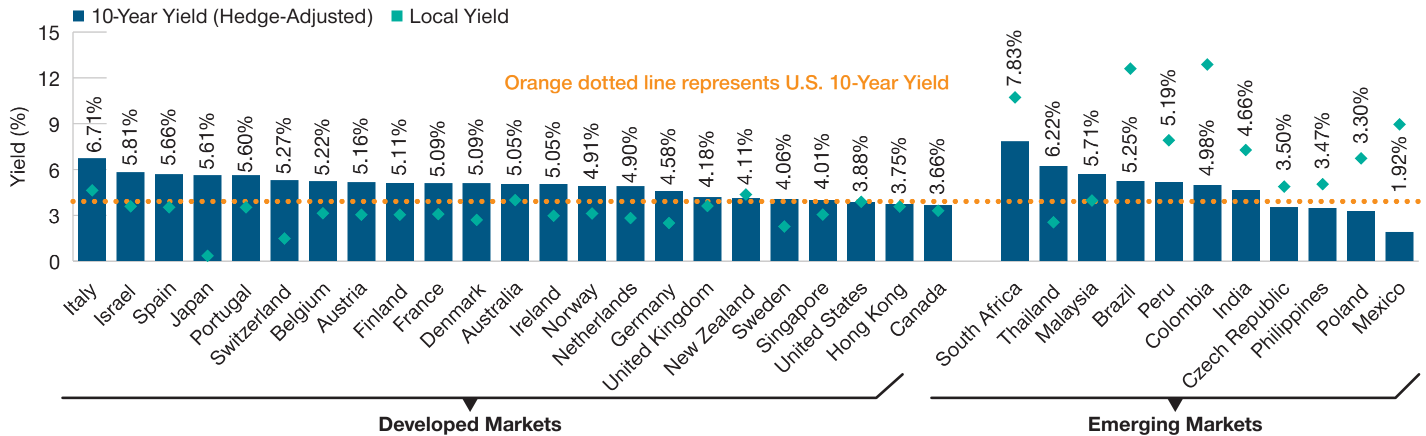
Par value (ZAR)	100,000
Yield	10.79%
Coupon	8.25%
Price	85.34605
USD/ZAR (Spot Rate)	17.0374
Total cost (USD)	5,009
USD/ZAR 12-month forward rate (on December 31, 2022)	17.5407
After 12 months (assuming unchanged yields)	
Price	86.33
Proceeds from sale of bond (ZAR)	94,580
Convert to USD at the forward rate	5,392
Profit (USD)	383
Profit (%)	7.64%
10-year U.S. Treasury yield (for comparison)	3.87%
For informational purposes only	
USD 12-month SOFR	4.87%
Implied ZAR forward yield	7.83%

As of December 31, 2022.
For illustrative purposes only, does not represent an actual investment nor does it consider transaction costs or other fees.
Source: Bloomberg Finance L.P. Analysis by T. Rowe Price.

[1] Note the slight discrepancy between the hedged yield cited in the text and the profit cited in the table. The discrepancy here is due primarily to rounding.
[2] In this example, the effective yield differs from the profit cited in the table due to a number of issues, including the timing of the coupon, bid/ask spreads, and rounding.

Hedged and Unhedged Foreign Bonds Offer Very Different Yields

(Fig. 3) Ten-Year USD-hedged sovereign bond yields



As of December 31, 2022. Data is subject to change.
The local and hedged yields displayed in Figures 1 and 2 may be slightly different than those figures displayed in Figure 3 due to differences in bid-ask spreads and timing issues. Typically, 3 month contracts are used because they offer better liquidity but 12 month contracts were used in the accompanying analysis for simplicity and ease of illustration. The stated numbers are the 10-year yields (hedge-adjusted).
Source: Bloomberg Finance L.P. Analysis by T. Rowe Price.

> "...the yields available to U.S. investors from hedged foreign bonds are substantially different from the unhedged yields....

A Global Opportunity Set

To provide an indication of the global opportunity set, Figure 3 shows the yields of 10-year bonds from various countries when hedged back into U.S. dollars on December 31, 2022. As the chart shows, the yields available to U.S. investors from hedged foreign bonds are substantially different from the unhedged yields (illustrated by the teal diamonds) available from the same bonds. Typically, hedged yields are higher than unhedged yields for developed market bonds, while the reverse is the case for emerging market bonds. However, it should be emphasized that an attractive yield does not by itself provide a reason to purchase a bond—rather, it provides a signal that a bond is worth examining more closely. As yields move and prices fluctuate, fundamental research, combined with active portfolio and risk management, will be necessary to outperform market benchmarks.

Most U.S. investors have the majority, if not all, of their fixed income allocations in U.S. bonds, which means concentrated exposure to U.S. interest rate risk and the U.S. credit cycle. Many investors hear the words "global bonds," and they think of low yields or excessive currency volatility. But astute investors understand the benefits of using currency hedging to cast a wider net and invest in a larger opportunity set, finding higher yields, greater potential returns, and a reduction in portfolio risk.

WHAT WE'RE WATCHING NEXT

We will continue to monitor global bond yields, as well as currency movements, in order to determine where the best currency hedging opportunities lie. U.S.-based investors who are willing to broaden their fixed income portfolios to include foreign bonds with hedged currencies may be able to boost their returns and reduce portfolio risk.

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