$17 Trillion or thirty percent of all investment-grade bonds now have zero or negative yields[1]:

Current 10-Year Yield for Major Economies (Local Currency)

US	UK	Germany	France	Japan	Australia
1.72%	0.64%	-0.40%	-0.09%	-0.19%	1.09%

Source: Bloomberg; The information in this table is indicative as of mid-day November 1st 2019 and subject to change, and does not include trading costs, fees or expenses.

Some market prognosticators believe that the negative yields in international bonds will put pressure on US interest rates, as holders of those bonds are incentivized to sell them to buy US government debt. We disagree with this rationale. The economics are far more complicated.

A bond pays periodic coupons along with a principal payment at maturity in the currency in which the bond was issued. As a result, a European investor that buys a US treasury bond would receive a dollar coupon and a dollar principal payment. In order for a European investor to compare a German bond with a US bond, he or she must carefully account for the fact that the cash flows from US and German bonds are in different currencies. In other words, the US bond payments must be converted back to Euros to make an apples to apples comparison between the bonds. To do this the European investor needs to use the current forward exchange rates between dollars and euros and "lock-in" the conversion rate for each of the future coupons as well as the principal payment. These exchange rates are readily available in the foreign exchange (FX) market, and are different than the current or "spot" exchange rate at which today's US dollars can be exchanged into euros.

As an example, using today's currency forwards, we can estimate the yield for a European investor in terms of euros, for bonds he/she can buy in different markets:

Current Estimated 10-Year Yields Equivalent for a European Investor

US	UK	Germany	France	Japan	Australia
-0.12%	-0.39%	-0.40%	-0.09%	0.23%	-0.66%

Source: Bloomberg; The information in this table is indicative as of mid-day November 1st 2019 and subject to change, and does not include trading costs, fees or expenses.

By this measure, US bonds may still have higher yields than German bonds, but the difference is much smaller. Indeed Japan has the highest yields when seen from this perspective where all cash flows are fully "pre-hedged"[2] into euros at current prevailing forward exchange rates.

So, why are the yields for a European investor so different than the yields for a US investor? All of this boils down to what is priced into the foreign exchange market. Short rates in Europe and the US are materially different from each other.

For example[3], with US short rates currently at 1.50-1.75% while European short rates are at -0.4%, if the forward exchange rates were the same as the spot exchange rates, then a European investor could hypothetically:

- borrow money in Europe,
- convert the euros into dollars,
- invest in the US and earn 1.50%-1.75% per annum on the dollars
- enter into a forward contract that guarantees the investor can convert his principal and interest payments from dollars back into euros at the end of a year at the same exchange rate he converted euros into dollars today, and
- pay off the euro loan with an interest of -0.4%

This would represent a risk-free way of making a substantial amount money. But there is no risk free money in efficient markets and currency and bond markets are quite efficient. Market participants actively move prices to negate such an opportunity. Because market participant behavior eliminates the opportunity for risk-free arbitrage, the exchange rate at which we can convert the dollars back into euros in the future is different from the exchange rate today and spot and forward exchange rates are generally not the same. This is the reason why we have different yields for the same bond as seen by a US investor and a European investor. Thus the difference in the yield between two government bonds listed in the local currency is not sufficient information for an investor to decide which bond offers more value. An investor must instead assess whether a foreign bond offers a higher or lower yield than a domestic bond after converting the foreign bond back to the local currency.

[1] https://www.bloomberg.com/graphics/negative-yield-bonds/

[2] *In this context, the word "pre-hedged" means that a European investor hedges all cash flows from the US investment back to Euros at current forward exchange rates. This scenario does not take into consideration trade commissions, fees or expenses. It is for informational purposes only, and intended to illustrate how an investor may evaluate the opportunity discussed, rather than to suggest that the investor would actually undertake the entire hedging activity.*

[3] *This illustrative example assumes that the short rate works both for borrowing and lending and does not take into consideration trade costs, advisory fees or expenses.*

If a European investor chose to not hedge the foreign currency risk, he would either be implicitly betting on the fact that the Euro will appreciate against the Dollar more than the market is pricing, or betting that the interest differential between the bonds would decrease. This might cause an investor to sell the European bond and buy the US bond purely on the basis of the local market yield difference (1.72% vs -0.40%). Such a trade might be a good bet if one were to expect US economic conditions, and therefore interest rates, to quickly converge to European economic conditions and interest rates.

If a sufficient number of European investors hold this view, then the visible local currency US yield (1.72%) and the local currency German yield (-0.40%) will converge. For convergence, however, the trade linkages between the US and Europe need to be large such that conditions in one region quickly carry over to conditions in the other. But this is not the case. Trade is only a fraction of the US economy – roughly 20% of GDP. The transmission mechanism to convey an economic slowdown from Europe to the US is weak, and therefore we do not expect that the conditions in Europe that have caused short rates to be negative there will have a material effect on US growth. Thus in our view it is unlikely that the sophisticated investors that set the prices in global bond markets will ignore the foreign exchange dynamics when assessing relative bond yields.

In summary, we suspect that more European investors will see the yield difference between US and European bonds as -0.12% vs -0.40% than as 1.72% vs -0.40%. And further that the majority of global investors will do similar calculations, comparing local government bonds to foreign government bonds only after taking into account future expected exchange rates. Therefore we believe that low yields in Europe, and more generally abroad, will not drive a substantial amount of capital into US government bonds and thus are not a strong pull lower on US yields. We expect a material differential in yields to persist unless there is fresh evidence that oversees economic weakness is having a material impact on US economic growth.