



ALLIANZ RESEARCH

# LOWER FOR LONGER:

## COVID-19 TO WEIGH ON INTEREST RATES

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# EXECUTIVE SUMMARY



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- In the wake of Covid-19, developed markets' long-term yields have fallen significantly. However, market participants seem uncertain how to integrate the ensuing massive fiscal and monetary easing in their medium-term rates expectations.
- Our proprietary long-term sovereign yields model points to a persistently low interest rate environment over the next few years; the massive, prolonged intervention of central banks on global government bonds will remain a major factor.
- However, the additional flows of risk-averse private financial savings will also exert a remarkable downside pressure on long-term yields. In the Eurozone, the cumulative flow of private financial savings has so far exceeded the volume of QE. We expect the rapidly growing amount of fresh financial savings not to be matched by a proportional increase in the free float of safe assets.
- As to metrics of public debt, our research suggests that they do not have explanatory power on yield levels in developed markets in the medium term.
- We believe there are only two possible scenarios in which long-term yields could possibly see a significant rise: an **inflationary shock** or a **monetary policy error**. But even in these cases the increase would be limited. For the 10y German Bund the yield would rise to around 0%; for 10y U.S. Treasuries the yield would increase to 1.8 to 2.0%.
- As for Euro sovereign spreads, they have also become much more sensitive to the interventions of the central banks and private sector savings than to any debt-related factor.

# MID-TERM RATES OUTLOOK

In the current environment, forming expectations about long-term interest rates on a medium-term horizon is a challenging task. Market participants do not yet seem unanimous on how to represent the massive fiscal and monetary easing in their valuation models.

We have identified a series of factors that have proven highly significant for the mid-term development of U.S. and Eurozone yields over the last 60 years. These factors are (see Table 1):

- **Nominal trend GDP** (long term inflation expectation + potential real growth)
- **Central bank Quantitative Easing** (volumes, length and reinvestment policy) and its effect on government bond supply and duration risk

- **Long-term expectations of neutral rate** (using an adaptive expectations algorithm on policy rates)
- **Short-term expectations of policy rates** as priced by money market forwards
- **Private sector risk aversion and financial savings propensity** (safe asset demand)

Given the relevance of each factor and its sensitivity, it is possible to derive a mid-term outlook for 10y yields in the U.S. and the Eurozone.

Our models suggest that the interplay of these factors will result in a persistently low interest rate environment in the medium term for both the U.S. and the Euro-

zone, especially in the context of central banks exerting substantial buying pressure on government bond markets (see Figure 1).

These results become intuitively understandable if one takes a closer look at certain components of the model. First, the **Covid-19 related growth shock** of 2020 should reduce nominal trend growth. In our model, this will translate immediately into long-term rates as each -1% qoq decrease in nominal growth reduces the long-term interest rate equilibrium by around 10bps (currently at 3% in the Eurozone, see Figure 2).

**Table 1: 10y Bund yield fundamental factors**

Factors for 10y German Bund					
	Relevance	evolution until 2021	exp. impact on yields	evolution until 2023	exp. impact on yields
<b>Real economy</b>					
Nominal trend GDP	***	down	down	up	down
Inflation expectations <sup>1</sup>	***	down	down	up	down
Inflation volatility	*	up	up	flat	flat
<b>International rates</b>					
International LT yields	***	flat	flat	flat	flat
<b>Monetary policy</b>					
Perceived policy rate (LT) <sup>1</sup>	***	flat	flat	flat	flat
Forward guidance (ST)	***	flat	flat	flat	flat
QE	***	up	down	up	down
<b>Supply/demand dynamics</b>					
Term premium	**	down	down	flat	flat
Stock-flow pressure	*	up	flat	flat	flat
<b>Debt sustainability</b>					
Debt/GDP ratio	none	up	none	flat	none
Public deficit	none	up	none	down	none

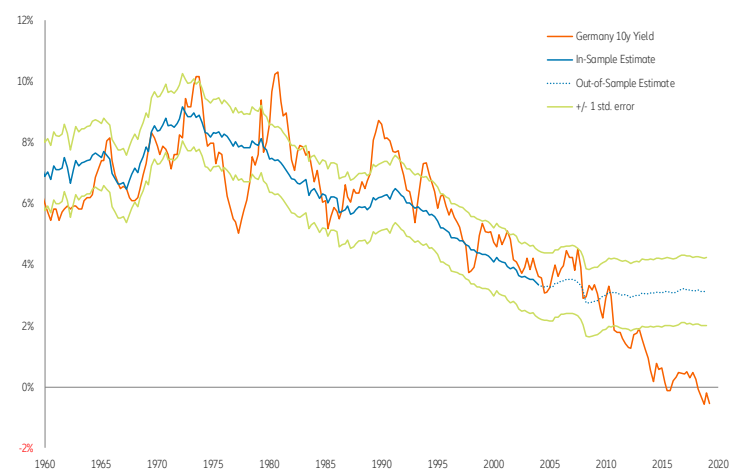
<sup>1</sup> using adaptive expectations algorithm

Figure 1: Medium-term 10y Bund yield model



Sources: Refinitiv, Allianz Research

Figure 2: Long-term 10y Bund yield model



Sources: Refinitiv, Allianz Research

Second, we expect **inflation** to be directed downwards at first (deflationary effect especially through energy prices) before engaging in a moderate upward trend later. Current market-based inflation expectations are close, if not below, our lower estimation range (even after taking into account the latest drop in oil prices, see Figure 3). We therefore consider inflation risk to be moderate in size but skewed to the upside. After all, inflation expectations have never remained outside our estimation range for longer periods of time (maximum six months during the 2008 Global Financial Crisis).

Third, as a major aspect of the Covid-19 crisis, private investors (households and corporations) will increase their financial savings and become at the same time more **risk-averse** (increased hoarding). The policy challenge is to re-inject these precautionary balances into the economy and capital markets by restoring confidence in the future or by destroying the credibility of money as a store of value. This will be a long-term process. In the meantime, we expect the Eurozone especially to generate an increase in private financial savings that could easily exceed the increase in public deficits. The rising EMU trade surplus due to the contraction in imports triggered by contracting domestic demand, and the fall in the oil price, are already pointing into that direction. Failing this complementary assumption, why would the economy fail to recover at a decent pace? We

have been there before, as shown by the large increase in the EMU current account balance since 2011, from 0 to a surplus of more than EUR300bn a year. **Cumulatively since 2014, the flow of fresh private financial savings has indeed exceeded the volume of QE.** It has thus contributed significantly to the decline of interest rates. Unlike public deficits, private financial savings are not making media headlines. Yet, regularly and frequently, they can be estimated, thanks to the following accounting identity:

**Private financial balance + public financial balance + current account balance = 0**

where a sector's financial balance is the difference between its net lending (acquisition of financial assets) and net borrowing (issuance of financial liabilities).

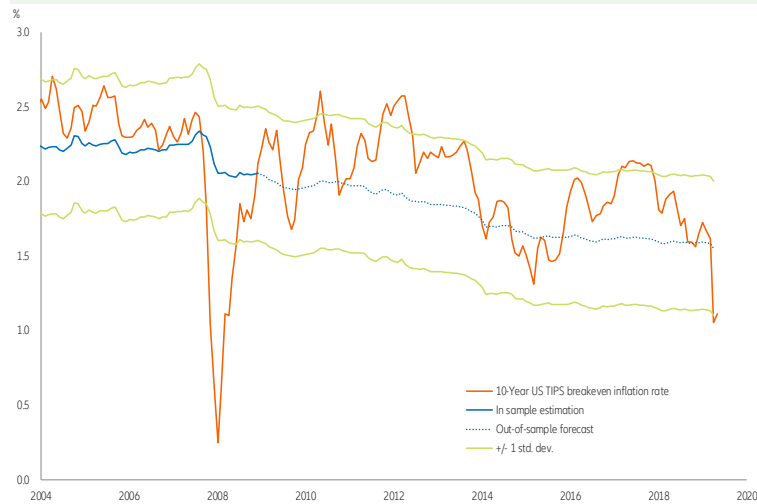
This relationship can also be seen in the correlation of EMU long-term yield with the current account balance (see Figure 4).

We expect that this rapidly growing amount of financial savings will not be matched by a proportional increase in the free float of safe assets (= supply of government bonds after QE purchases). In the Eurozone, for instance, due to the combined effect of the Public Sector Purchase Programme (PSPP) and the Pandemic Emergency Purchase Pro-

gramme (PEPP), we expect the free float of government bonds to increase only by 1% despite sharply rising deficits (see Figure 5).

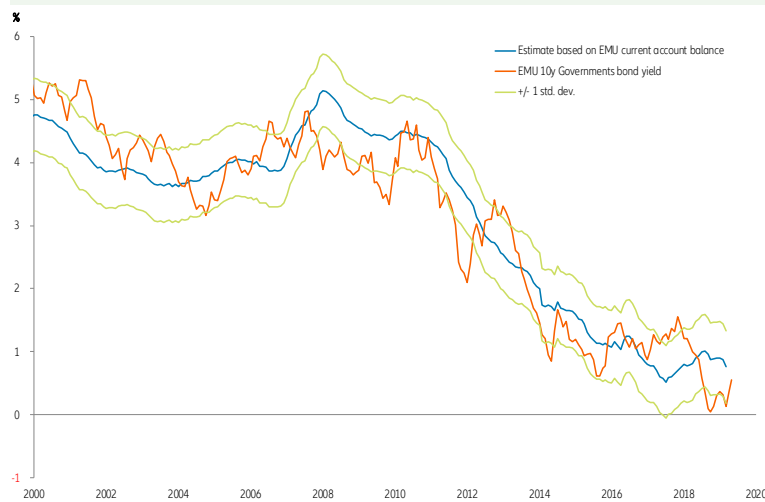
The increased competition for safe assets between risk-averse private savings and price-insensitive central banks will lead to a further decline of the compensation for holding longer-term bonds (**term premium**). This reduces duration risk and exerts downward pressure on yields. In the Eurozone, the dampening effect of QE on 10y yields is currently estimated between -90bps and -160 bps. It could reach up to -200bps if the PEPP program is conducted at full pace (EUR750bn p.a.) and, as we expect, extended until end of 2021 (see Figure 6, left chart). In the U.S., the dampening effect of QE on 10y yields is currently estimated at around -50bps to -80bps. It could double if, as we expect, the expansionary monetary policy is continued in a similar way in the coming years (see Figure 6, right chart). With already negative and declining term premia, an increase in long-term yields could only be possible if either expected short-term interest rates, inflation expectations or uncertainty about future inflation (inflation risk premium) increase substantially. None of this seems very likely in the medium term.

**Figure 3: US 10y Market-based inflation expectations**



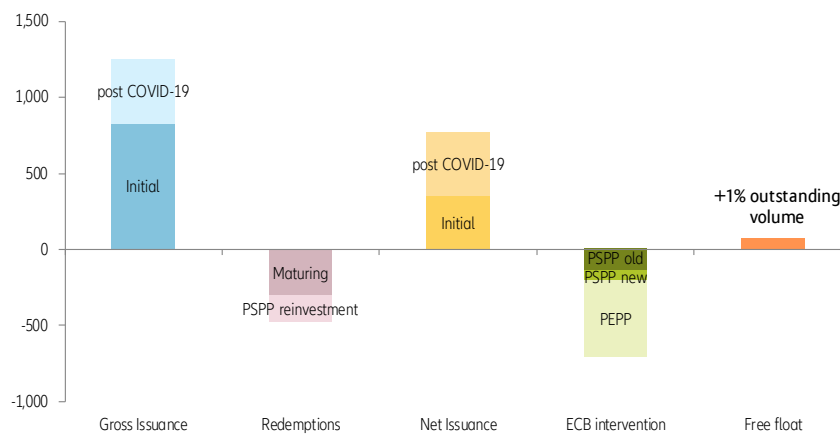
Sources: Refinitiv, Allianz Research

**Figure 4: EMU long-term yields modeled with current account balance**



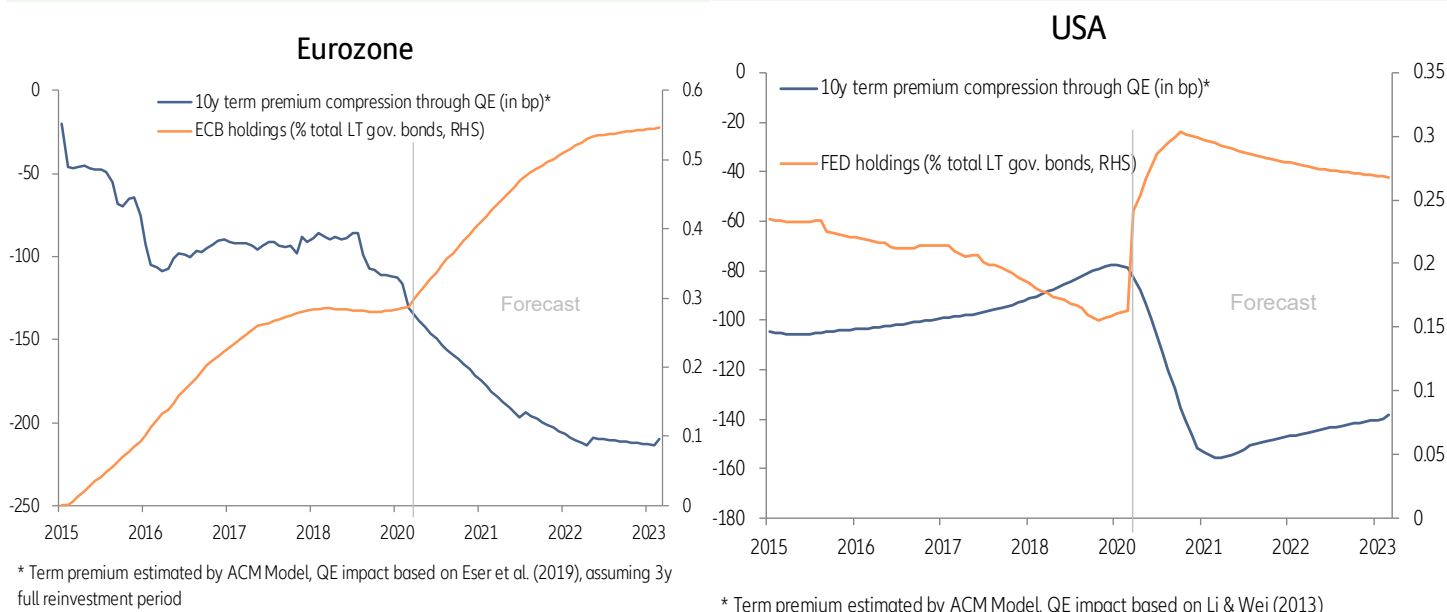
Sources: Refinitiv, Allianz Research.

**Figure 5: EMU 2020 long-term government bond supply and ECB interventions (in EURbn)**



Sources: National governments, National debt agencies, Refinitiv, ECB, Allianz Research

Figure 6: QE exerts structural downward pressure on long-term yields



Sources: Refinitiv, Allianz Research

Some might believe that an increase in yields could also be caused by a supply shock due to a massive rise in government debt. The current widening of the deficits worldwide would thus be a forerunner of higher yield levels. However, our research has shown that debt metrics such as public debt/GDP and public deficits are not relevant for the development of yields in the medium term. It could only be the case in a partial equilibrium perspective if interdependencies between public debt supply, central bank reaction and private financial sav-

ings are neglected. We are not saying that public finances never have any influence on yields. They can exert upward pressure in a particular situation when high financing needs (deficit and interests) and abundant government bond supply meet very price-sensitive buyers investing scarce savings (stock-flow pressure). But this situation does not correspond to the current environment of excessive savings and strong market interventions of price-insensitive central banks.

All in all, we expect nominal long-term yields to remain in check in 2020 and for a great part of 2021. 10y Bund yields should remain anchored at -0.5% and 10y U.S. Treasuries at ~1.0% (see Table 2). By the end of 2021 and until the end of 2023, we expect inflation to gradually pick up and exceed pre-crisis levels. Central banks might then start reduce their market impact. As a direct consequence, we expect long-term yields to resume their pre-crisis gradual ascent to moderately higher levels converging to our long-term fair estimate.

Table 2: Long-term yields scenario						
Mid-term rates outlook						
Eurozone	Unit	2020	2021	2022	2023	
<b>Sovereign rates</b>						
10y Germany (Bund)	%	-0.5	-0.3	-0.1	0.1	
10y Swap rate	%	0.0	0.3	0.5	0.7	
20y Swap rate	%	0.3	0.7	0.9	1.1	
10y Italy	%	1.7	1.4	2.2	2.4	
Spread 10y Italy - 10y Germany	bps	220	175	225	230	
<b>United States</b>						
Unit 2020 2021 2022 2023						
<b>Sovereign rates</b>						
10y US Treasury	%	1.0	1.4	1.7	1.8	
Spread 10y US - 10y Germany	bps	150	170	180	170	

Sources: Allianz Research

# SCENARIOS FOR A HIGHER YIELD EQUILIBRIUM

However, given the strong impact of yield changes on the balance sheet of the financial sector, we try to consider scenarios in which yields could experience a sudden upwards shift into a new equilibrium of higher long-term (benchmark) yields.

Based on our models, only two such scenarios seem conceivable:

- **Inflationary shock:** A scenario in which the current fiscal and monetary easing leads to a significant inflation overshoot and a repricing of inflation expectations. After an initial deflationary shock, the demand created by the fiscal and monetary stimulus might indeed create some unexpected “old-fashioned money-chasing-scarce-goods-inflation” when meeting limited supply due to subdued production capacities and fragile international supply chains. In this context we could also expect higher inflation volatility (mainly due to energy prices), which could lead to a higher inflation risk premium putting additional upward pressure on yields. In this scenario, 10y Bund yields could rise up to 0.1% (+60bps from today's values) and 10y U.S.

Treasuries up to 2.0% (+120bps from today's value) (see Table 3).

- **Monetary policy mistake:** A scenario in which central banks mistakenly pull off from markets too early, creating significant economic and financial imbalances (e.g. ECB not extending PEPP until end of 2021). Under this scenario, 10y Bunds could experience an immediate +50bps upwards shift coming from pricing QE and money markets predating their expectations for a first rate hike (see Figure 7). Similarly, a somehow comparable combination of the U.S. Fed policy mistakes could lead yields on 10y U.S. Treasuries to increase by 100bps (see Table 3).

For individual sovereigns, a rise of long-term rates could also be triggered by an increase in the risk premium, i.e. its spread versus the benchmark curve. This mainly concerns Eurozone sovereigns. For Italy for instance, our 10y BTP model allows us to derive two scenarios that would lead to a quick and steady increase of the Italian risk premium (10y vs DE):

- **Massive debt shock:** A supply shock scenario in which an unexpected increase in public debt (+20% from current level, which already includes fiscal crisis measures) creates a strong temporary imbalance of supply and demand. In that scenario, the risk premium would only increase to 283bp in 2023 mainly due to reactive central bank purchases. Debt metrics have lost much explanatory power since the ECB has entered the government bond market as a major price-insensitive buyer (see Table 4 and Figure 8).
- **Monetary policy error:** A demand shock scenario in which the ECB mistakenly pulls off from markets too early, creating significant economic and financial imbalances (e.g. abruptly withdrawing PEPP in 2021). Under this scenario, the risk premium would rise to 335bp in 2023 (see Table 4 and Figure 8).

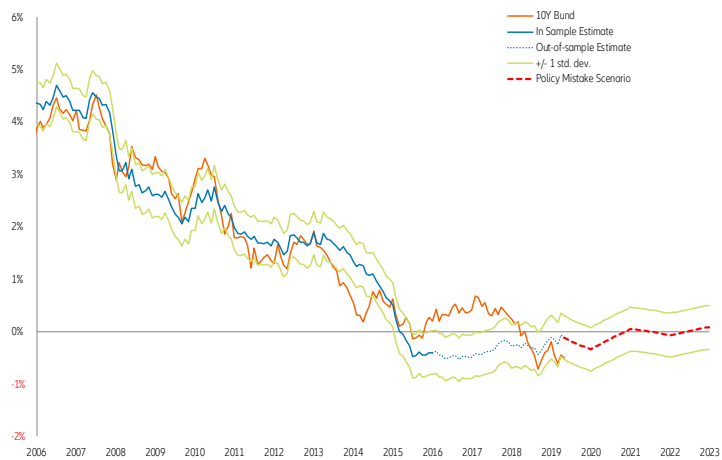
This shows that sovereign risk premia in the Eurozone have become more sensitive to the interventions of the central bank than to debt metrics.

**Table 3: Higher long-term rates shock analysis**

	Shock	Impact on yield level	yield level
<b>10y Bund</b>			
Inflation shock	<i>Inflation exp.+60%</i>	+60bp	0.1%
Monetary policy error	<i>PEPP stopped in 2021</i>	+50bp	0.0%
<b>10y US Treasury</b>			
Inflation shock	<i>Inflation exp.+60%</i>	+120bp	2.0%
Monetary policy error	<i>QE strongly reduced in 2021</i>	+100bp	1.8%

Source: Allianz Research

**Figure 7: ECB policy mistake scenario**



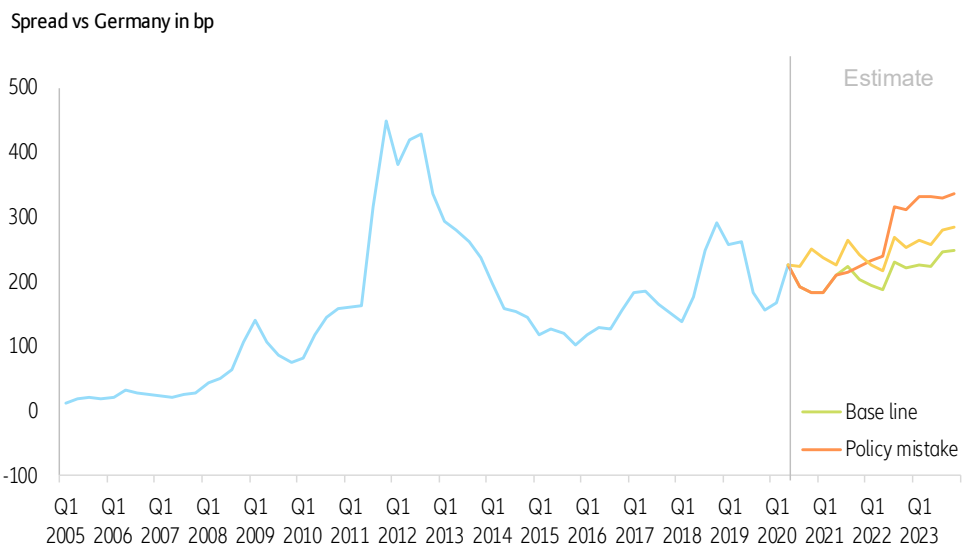
Source: Refinitiv, Allianz Research

**Table 4: 10y Italian sovereign spread scenarios**

	Base line		Monetary policy error		Debt Shock	
	2020	2023	2020	2023	2020	2023
Public debt (in % GDP)	169	156	169	156	189	176
ECB asset purchases (avg. p.a., € bn)	1110	240	1110	0	1110	1140
<b>Model: 10y BTP spread</b>	<b>183</b>	<b>247</b>	<b>183</b>	<b>338</b>	<b>251</b>	<b>283</b>

Source: Allianz Research

**Figure 8: BTP 10y risk premium scenarios (10y vs Germany, in bp)**



Source: Refinitiv, Allianz Research



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