THE RISK-BEARING CAPACITY OF INVESTORS AND BOND MARKETS

In the United-States and several European countries, gross public sector borrowing requirements are expected to remain sizeable and the reduction in the size of central banks' balance sheets -quantitative tightening- complicates matters. The impact on bond yields will depend on the risk-bearing capacity of investors. Their ability and willingness to increase their exposure to duration risk depends on several factors: the existence or absence of strict duration risk limits in portfolios of institutional investors, risk aversion in reaction to recent bond yield volatility, uncertainty about the outlook for official interest rates, the correlation between bonds and equities, the balance sheet capacity of financial intermediaries. Central banks could boost the risk-bearing capacity of investors by lowering uncertainty about the future policy rate path through forward guidance and by making policy less data-dependent. However, this supposes that they are convinced that their inflation target will be reached in a timely way.

An increase in the supply of goods or services causes -everything else remaining the same- a decline in their prices to entice households and firms to increase their demand so that a new equilibrium can be reached. The change in prices depends on the price elasticity of demand. When the latter is high, a small decline in prices triggers a sizeable increase in demand, which accelerates market clearing. When the price elasticity is small, the price decline will need to be large.

It is useful to keep this in mind when assessing the outlook for bond markets against a background of huge gross borrowing requirements in several advanced economies -of which the US- and the simultaneous reduction of the size of central banks' balance sheets. The latter factor implies that the private sector -domestic or foreign- will have to step in the shoes of the central bank -think of the Federal Reserve, the Bank of England, the ECB- that is no longer reinvesting part of its maturing bond holdings.

Rising gross borrowing requirements -taking into account the role played by quantitative tightening- imply an increase in supply that needs to be met by an increase in demand, which requires a price adjustment: bond prices decline and the yield to maturity rises. As stated by Lorie K. Logan, President of the Federal Reserve Bank of Dallas, in a recent speech, *"the expectation of lower Federal Reserve asset holdings over time implies that other investors will need to hold more long-duration securities, which appears to be one factor among the many contributing to higher term premiums."*[1]

To put it differently: whereas QE caused a decline in the duration exposure of investors, the opposite happens under QT. Duration extraction is followed by duration 'injection'[2].

Whether this runs smoothly depends on the risk-bearing capacity of investors. This is influenced by several factors. Firstly, certain investors may have strict duration risk limits, which stops them from (sufficiently) increasing their bond exposure. Secondly, elevated bond market volatility may make investors reluctant to increase their fixed income investments. As illustrated in chart 1, US Treasury yield volatility has been high as of late.

US 2-YEAR TREASURY YIELD VOLATILITY

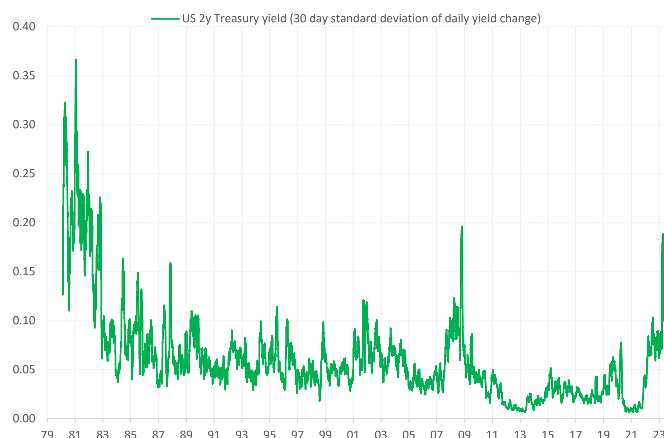

CHART 1 SOURCE: REFINITIV, BNP PARIBAS

Thirdly, uncertainty about the outlook for official interest rates due to an insistence by central banks that, going forward, policy will be data-dependent and/or due to an absence of forward guidance, may also lower the price elasticity of the demand for bonds. This means that a larger increase in yields is necessary to entice investors to increase their bond exposure[3]. Fourthly, a similar phenomenon will occur when the correlation between bond and equity prices is positive[4]. This has been the case recently after a long period of negative correlation. When the correlation is positive, bonds no longer serve as a hedge for equities -the prices of both asset classes move up and down together-, which makes bonds less attractive, which pushes yields upwards.

1 Financial conditions and the monetary policy outlook, Speech by President Lorie K. Logan, 9 October 2023, Federal Reserve Bank of Dallas.
2 When an investor sells his bond holdings to a financial intermediary who in turn sells them to the central bank, the investor's exposure to duration risk moves to the central bank's balance sheet (in return, the central bank reserves of the financial intermediary increase, which corresponds to the increase in the deposits of the investor with the intermediary). This process is called duration extraction. The opposite, which could be called duration injection, happens under quantitative tightening. For an analysis of duration extraction, see: The yield curve and monetary policy, speech by Philip R. Lane, Member of the Executive Board of the ECB, Public Lecture for the Centre for Finance and the Department of Economics at University College London, 25 November 2019.
3 Under this view, absence of forward guidance and a data-dependent policy accelerate the monetary transmission of policy rate hikes through a tightening of financial conditions.
4 This empirical relevance of this point is demonstrated in Steve Fei Hou, When is the supply effect large in the government bond market?, Department of Economics, University of Michigan. The paper was quoted in Whispers of a consumer slowdown, Financial Times, 11 October 2023.

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Finally, financial intermediaries can also play an important role. "*Sudden changes in economic conditions can trigger extreme demands by investors to liquidate government securities. The resulting need for dealers to warehouse large positions while finding buyers can potentially overwhelm their balance sheets.*"[5] Concern about market dysfunction could trigger more selling by investors, particularly those who are leveraged and may face margin calls[6].

To conclude, for various reasons one cannot take for granted that an increase in the supply of duration risk -through increased gross issuance and/or quantitative tightening- will easily meet a proportional increase in the demand for duration risk. There is a genuine risk that the risk-bearing capacity of investors is low, implying that the price elasticity of bond demand would be low. This would strengthen the monetary transmission of policy rate hikes through a tightening of financial conditions but it also raises the question to what extent rate hikes and the size of the balance sheet are substitutes. The risk-bearing capacity of investors is also an important consideration for the ECB, in particular when it would start to run down its PEPP holdings. Central banks could boost the risk-bearing capacity of investors by lowering uncertainty about the future policy rate path through forward guidance and by making policy less data-dependent. However, this supposes that they are convinced that their inflation target will be reached in a timely way.

William De Vijlder

US 10-YEAR TREASURY YIELD VOLATILITY

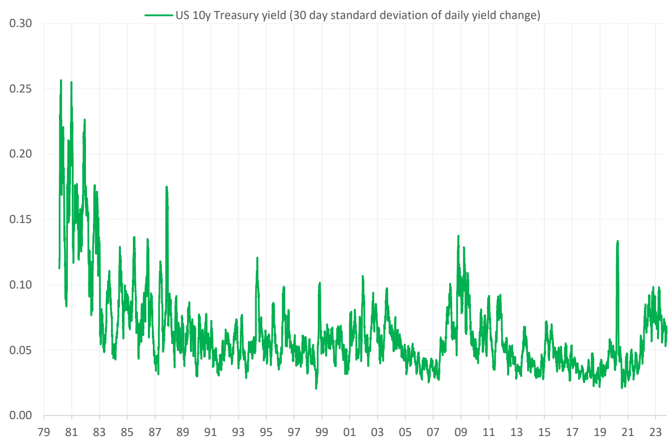

CHART 2 SOURCE: REFINITIV, BNP PARIBAS

US 30-YEAR TREASURY YIELD VOLATILITY

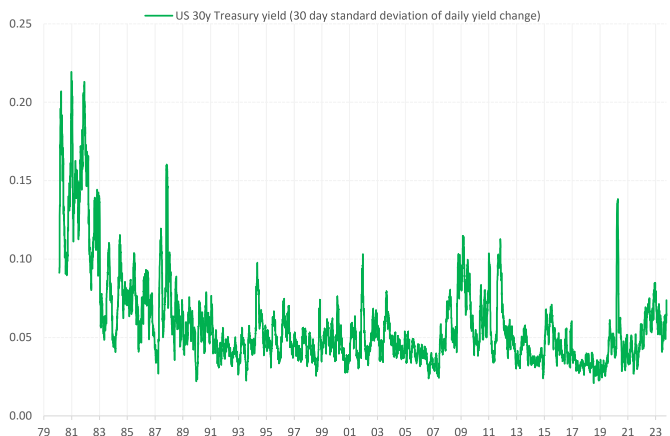

CHART 3 SOURCE: REFINITIV, BNP PARIBAS

5 Source: Darrell Duffie and Frank Keane, Market-Function Asset Purchases, Federal Reserve Bank of New York Staff Reports, no. 1054, February 2023.
6 This is what happened in October 2022 during the 'dash for cash' in the UK gilts market. See UK: the 'dash for cash', leverage and the need for economic policy coordination, BNP Paribas, Ecoweek, 3 October 2022.

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