Inflation, geopolitics & QT (Quantitative Tightening)
Part 2

Since our previous Newsletter, the outlook for inflation has deteriorated and there is no indication that it will fall much from current levels. Rather, inflation is more likely to worsen before it eases. This brings the ECB and Quantitative Tightening to the forefront of the economic agenda for the coming 6-12 months.

The ECB and its bond purchase programs

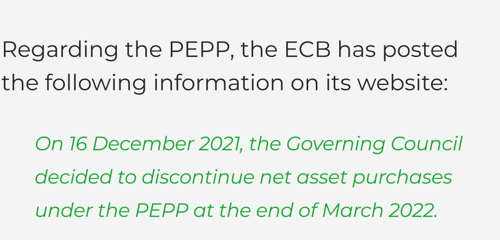
APP, PSPP, CSPP, ABSPP, CBPP3 and PEPP are all ongoing ECB purchase programs that give the ECB a mandate to buy massive amounts of bonds in the market.

APP is the "Asset Purchase Program": the umbrella program for buying Public Sector debt (PSPP), Corporate Sector debt (CSPP), Asset-Backed Securities (ABSPP) and Covered Bonds (CBPP3) in combination with the Pandemic Emergency Purchase Program (PEPP).

In our previous Newsletter, we highlighted an expansion of the ECB's balance sheet of more than EUR 4 trillion. A large part of this expansion is due to these purchase programs.

In total, these programs amount to just below EUR 5,000 billion (see Figure 1, below)

Figure 1 - Bond purchase by ECB under APP and PEPP source ECB



PEPP and APP going forward – Quantitative Tightening?

In recent months, the ECB has slightly adjusted its policy stance by scaling back the purchase programs. However, an actual tightening is not planned.

Regarding the PEPP, the ECB has posted the following information on its website:

> *On 16 December 2021, the Governing Council decided to discontinue net asset purchases under the PEPP at the end of March 2022.*
>
> *The maturing principal payments from securities purchased under the PEPP will be reinvested until at least the end of 2024. In any case, the future roll-off of the PEPP portfolio will be managed to avoid interference with the appropriate monetary stance.*

The ECB has stopped buying bonds under the PEPP program, but will continue to reinvest principal amounts all the way through 2024, meaning that only from the start of 2025 will it begin withdrawing liquidity from the system.

The ECB's approach regarding the APP is slightly more sophisticated, but provides a very good idea about its future game plan.

On 16 December 2021, the same day it decided to end the PEPP, the ECB also announced a gradual reduction in bond purchases under APP to EUR 20 billion per month from October 2022 onwards.

During the full PEPP and ABP, the ECB was buying between EUR 80 billion and EUR 120 billion of eligible bonds per month. Going forward, the ECB will buy less than a quarter of previous amounts.

The ECB offers the following information regarding future investments under the APP:

> *In addition, reinvestments of the principal payments from maturing securities purchased under the APP will continue, in full, for an extended period of time past the date on which the Governing Council begins to raise the key ECB interest rates, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation.*

In other words, the ECB will not start quantitative tightening until after it has begun to raise rates. The ECB might cease buying before it hikes rates, but not implement an actual QT.

Implementing Quantitative Tightening

Its current monetary policy stance and the information given about holdings in the purchase programs enable a general understanding of how a "managed" Quantitative Tightening could be implemented by the ECB.

In our judgement, it is difficult to envisage a scenario in which the ECB will do more than just run down the portfolio of bonds in the various programs.

Combining the information and communications from the ECB, we can set out the following parameters for a QT:

- A total portfolio of EUR 5,000 will have to run down over the next 30 years.
- Weighted average maturity (WAM) of the portfolios is approximately 7.5 years.
- QT under the PEPP program will not start until 2025
- QT under ABP will start after rate-hiking has commenced.

The ECB has not revealed its redemption scheme for periods beyond the next 12 months, during which time we already know that principal amounts will be reinvested. Neither has the ECB disclosed the holdings, except for corporate bonds, currently in its portfolio.

When calculating Weighted Average Maturity, a 10-year bond has 10 times the weight of a 1-year bond, and this helps us to understand where the largest part of the notional amount of the portfolio is allocated.

For a portfolio with a WAM of 7.5 years, it is a reasonable guess that up to 60-70% of the portfolio's notional amount will expire in the first 8 years after the ECB begins unwinding its APP and PEPP portfolios.

70% of the current portfolio is equal to EUR 3,500 billion over approximately 7 years, implying a EUR 500 billion drain in liquidity from the financial markets every year.

Implications of EUR 500 billion QT per year on the financial markets

Implementing a QT will not be an easy task for the ECB, especially given that inflation is currently rampant. It is also important to understand that the ECB has been supporting the bond market since 2014 and that the unwinding of the portfolio will take a long time.

Figure 2, below, shows the monthly net purchases under APP and PEPP since 2014 together with an estimate of a possible scenario of the unwinding of the two portfolios starting in 2024, taking into account the information made available by the ECB at this point in time.

While the unwinding may well be quite different from the postulated scenario, the chart nevertheless clearly illustrates how long and deeply liquidity and the financial markets will be affected by QT.

Figure 2 - Net purchases under APP and PEPP with a possible roll-off scenario   source ECB and own calculation

When the ECB eventually starts offloading its bond holdings, it will most likely not sell bonds directly in the market. However, the effect of ECB ending reinvestments will be felt in the bond markets for both governments and corporates.

The following example illustrates the liquidity flow of a maturing government bond.

When a government bond matures, the principal amount of the expiring bond will, of course, be repaid by the government.

Normally, the public sector will replace an old bond with a new bond, which will be issued to cover the repaid principal. In short – money in and money out of the system, leaving overall liquidity in the monetary system unchanged.

At the point when the ECB begins to reduce its portfolio, an average of more than EUR 40 billion will be drained from the system every month. Those EUR 40 billion will not be available for reinvestment, all other things being equal, it will require a higher premium or interest rate to attract investors in order to be able to refinance the matured principal amount.

Since the ECB announced a reduction in its purchase programs on 16 December 2021, the yield on 10-year German government bonds has risen from -0.34% to just over 1% at the beginning of May 2022, an increase also driven by higher inflation.

It is difficult to imagine a scenario in which yields on 10-year German government bonds will return to negative rates in the near future.

Effect on corporate bonds and equity markets

Under the CSPP, the ECB holds a portfolio of European corporate bonds; as it publishes the list of corporate bonds it holds, this can give an indication of what will happen to corporate bond yields further down the line.

The ECB has bought around 1,800 different bonds with an average nominal interest rate of 1.41% and an average maturity of just over 5 years issued by high-rated corporates. The lowest observed nominal interest rate on these bonds is zero.

With EUR 500 billion liquidity drained from the system, an ECB rate hike to bring inflation down will lead to funding costs for all companies to increase significantly over the coming years.

Regarding the valuation of equities, higher funding costs combined with higher discount rates for future cash flow can only be offset by higher earnings, so it is difficult to justify the very high P/E numbers currently seen in the equity markets going forward.

The Joseph effect and ECB

The Joseph Effect is a term coined by the French mathematician Benoit Mandelbrot and postulates that movements over time tend to be part of larger trends and cycles more often than being random.

It is derived from the Old Testament story about the Pharaoh's dream for seven fat cows and seven lean cows as recounted by Joseph. A dream, which led ancient Egyptians to expect a crop famine lasting seven years to be followed by seven years of bountiful harvest.

The ECB has created seven bountiful years from 2014 until 2021 for investors, but will its monetary policy lead to seven years of "famine" when the APP and PEPP portfolios are unwound?

Only time will tell.

Quantrom Limited,
59-60 O'Connell Street
Limerick, Ireland
+353 1 513 6215
client@quantrom.com