REBUILD

Working Paper

Covid-19 & Monetary Union

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Abstract

This chapter analyses the Monetary Union post covid-19. The chapter first focuses on the European Central Bank's (ECB) policies to inject cheap liquidity into the banking sector. This injection was conducted through the Targeted Longer-Term Refinancing Operations (TLTRO) and the Pandemic Emergency Longer-Term Refinancing Operations (PELTRO). This chapter further discusses the ECB's policies to increase liquidity to the public sector. These include the Pandemic Emergency Purchase Programme (PEPP) and the Transmission Protection Instrument (TPI). The legality of both of these programmes have been questioned. This chapter considers, however, that both programmes abide by the Treaties. In addition, two recent challenges are discussed. The first challenge is the high level of inflation. The second challenge is the introduction of the digital euro. This chapter concludes that the Monetary Union has been impacted by the pandemic crisis in several ways. The ECB has introduced new programmes with willingness to act swiftly and significantly. Nevertheless, some weaknesses remain, such as the strict divide between economic and monetary policy remains challenging for the ECB.

Keywords: ECB, COVID19, PEPP, TPI, Digital Euro, Inflation

1. Introduction

This chapter examines the EU's monetary union post pandemic. The monetary union is used to reference the governance, institutions, and legal framework of the common currency, the euro. The primary actor with regard to the governance of the euro is the European Central Bank (ECB). The ECB was designed through the Maastricht Treaty as a highly independent central bank. Its independence is founded in article 130 of the Treaty on the Functioning of the European Union (TFEU). This article states that the ECB cannot take nor seek instructions from other EU institutions or Member States.[2] The independence of the central bank was vested upon the idea that central banks that are independent of the political legislator can better control inflation.[3] One of the tasks of the ECB is to define and implement monetary policy with the primary objective to maintain price stability.[4] Price stability has been defined by the ECB as "*price stability is best maintained by aiming for two per cent*

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[2] Consolidated version of the Treaty on the Functioning of the European Union [2012] OJ C 326/47 (TFEU), Article 130.
[3] See among others: Alek Cukierman, Steven B. Webb and Bilin Neyapti, 'Measuring the Independence of Central Banks and Its Effects on Policy Outcomes' (1992) 6 *The World Bank Economic Review* 353; William D. Nordhaus, 'The Political Cycle' (1975) 42 *The Review of Economic Studies* 169.
[4] TFEU, Article 127(1).

inflation over the medium term".[5] Tuori and Tuori argue that since the financial and euro crisis this mandate has become more focused on financial stability.[6] They consider that the Securities Markets Programme and the Outright Monetary Transaction were country-specific rescue operations.[7] Considering the country-specific aims Tuori and Tuori argue the ECB's primary objectives of price stability has shifted to the focus on financial stability.[8] In addition to the price stability objective the ECB has its economic secondary objectives. These objectives are more socio-economic in nature and are listed in article 3 Treaty on the European Union (TEU). The ECB however has a hierarchical mandate meaning that the price stability mandate overrides the secondary objectives.[9]

Since its creation the ECB has faced three, major challenges. The first challenge was the euro crisis which followed the financial turmoil after the fall of Lehmann Brothers in 2008.[10] The second challenge was countering the economic fallout of the COVID-19 pandemic. The virus resulted into (partial) lockdowns, a decrease in trade and a general pressure upon government finances.[11] The third challenge faced by the ECB was the high levels of inflation following the COVID-19 pandemic and the energy crisis after the Russia's invasion of Ukraine (see Chapter 9 in this volume). This chapter analyses the ECB's response to these challenges in comparison to the euro crisis.[12] These responses include the easing of credit to the financial markets through the Targeted Longer-Term Refinancing Operations & Pandemic Emergency Longer-Term Refinancing Operations (TLTRO & PELTRO). In addition to TLTRO & PELTRO this chapter analyses the Pandemic Emergency Purchase Programme (PEPP) and the Transmission Protection Instrument (TPI). This chapter discusses the response of the ECB to the pandemic in chronological order.

The remainder of the Chapter is structured as follows. Section 2 discusses first the credit easing operations TLTRO & PELTRO these operations were the largest in volume in the history of the ECB but raise no legality questions. Section 3 then continues by discussing the PEPP, this instrument is comparable to the Asset Purchasing Programmes conducted during

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[5] European Central Bank, 'Monetary policy strategy review' <https://www.ecb.europa.eu/home/search/review/html/ecb.strategyreview_monpol_strategy_statement.en.html> accessed 19 January 2024, published 15 July 2021; European Central Bank, 'Two per cent inflation target' <https://www.ecb.europa.eu/mopo/strategy/pricestab/html/index.en.html> accessed 18 January 2024.

[6] Kaarlo Tuori & Kalus Tuori, *The Eurozone Crisis. A constitutional analysis* (Cambridge: Cambridge University Press 2014).

[7] Ibid, p. 186.

[8] Ibid.

[9] Christy A Petit, 'The ECB mandate – a comparative constitutional perspective' in *The New European Central Bank: Taking Stock and Looking Ahead*, ed. T. Beukers, D. Fromage, and G. Monti (Oxford, New York: Oxford University Press, 2022), pp. 361-391

[10] Rosalind Z. Wiggins, Thomas Piontek and Andrew Metrick, 'The Lehman Brothers Bankruptcy A: Overview' (2019) 1 Journal of Financial Crises 39.

[11] 'International trade during the COVID-19 pandemic: Big shifts and uncertainty' (*OECD*, 10 March 2022) <https://www.oecd.org/coronavirus/policy-responses/international-trade-during-the-covid-19-pandemic-big-shifts-and-uncertainty-d1131663/>, accessed 18 January 2024.

[12] For more on the ECB's response to the euro crisis see: A.M. Mooij, 'The European Central Bank & Crises Measures. The Role of the ECB during the euro-crisis and COVID-19 pandemic: investigating the independence and accountability.' (DPhil thesis, Dublin City University 2021); Michal Pronobis, 'Is Monetary Policy of ECB the Rights Response to the Eurozone Crisis?' (2014) 156 Procedia – Social and Behavioral Sciences 398; Federico Fabbrini and Marco Ventoruzzo (eds), *Research Handbook on EU Economic Law* (Edward Elgar 2019).

These programmes will be compared to the ECB's response to the euro crisis. For more information on the ECB's response to the euro crisis see: A.M. Mooij supra note 9.

the euro crisis. The main difference between the two is the higher level of flexibility for the ECB of the PEPP purchases. The legality of this programme was therefore initially questioned. This contribution, however, finds that the PEPP was within the mandate of the ECB. Section 4 focuses on the TPI, a programme comparable to the Outright Monetary Transactions introduced in response to the euro crisis. The main difference between the two is the lighter form of conditionality attached to the TPI. This chapter considers that the conditionality is proportional to the circumstances under which TPI is intended to be used. The TPI is therefore likely to be within the mandate of the ECB. Section 5 examines the response to the challenging levels of inflation.[13] Section 6 provides a brief outlook upon the design and implementation of the digital euro. Section 7 concludes.

2. Credit easing during the pandemic

In January and February 2020, the first cases of human-to-human infection were confirmed in various European countries. The economic effects of the pandemic were substantial. Global trade has been estimated to have fallen by 5.3% and economic growth declined to -3.2%.[14] Not all countries within the Eurozone were equally affected. The different economic impact made a pan-European approach challenging for the ECB. In addition, the ECB faced another difficulty. To counter the effects of the credit and euro crisis the ECB had lowered its interest rates. When the pandemic reached Europe the interest rates were at an all-time low.[15] Lowering the interest rates to stimulate credit was unlikely to be successful due to the zero lower bound.[16] Meaning that lowering interest rates further, could not have an effect on the real economy with easily accessible lending, and ultimately upon consumer spending. Therefore, to stimulate the credit flow on the markets, the ECB changed the conditions to the TLTRO and introduced the PELTRO in April 2020.[17]

The TLTRO was first introduced in 2014 and consists of favorable borrowing conditions to financial institutions that lend to the real economy.[18] Before the pandemic the TLTRO-I interest rate had been set initially at the rate of refinancing operations plus 10 basis points.[19] In 2016 the interest rate on TLTRO-II was lowered to equal the interest rate upon the deposit facility. At the onset of the pandemic the ECB changed the conditions of the TLTRO-III to 50 basis points below the average interest rate.[20] This rate further decreased to -100 basis points

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[13] These programmes will be compared to the ECB's response to the euro crisis. For more information on the ECB's response to the euro crisis see: A.M. Mooij supra note 9.

[14] James K. Jackson, 'Global Economic Effects of COVID-19' (Congressional Research Service 2021), p 2.

[15] European Central Bank, 'Official interest rates' <https://data.ecb.europa.eu/data/data-categories/ecbeurosystem-policy-and-exchange-rates/official-interest-rates?resetAllFilters=false&filterType=basic&tags_array%5B0%5D=Key+interest+rate&filterSequence=&filtersReset=false&showDatasetModal=false> accessed 18 January 2024.

[16] See also: Pierpalo Benigno, Paolo Canofari, Giovanni Di Bartolomeo, Marcello Messori, 'The ECB's Measures in Support of the COVID-19 Crisis' (Policy Department for Economic, Scientific and Quality of Life Policies 2021), p 13.

[17] Isabel Schnabel, 'Unconventional fiscal and monetary policy at the zero lower bound' (Speech at the Third Annual Conferences by the European Fiscal Board, Frankfurt am Main, 26 February 2021) <https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210226~ff6ad267d4.en.html> accessed 18 January 2024.

[18] European Central Bank, 'Targeted longer-term refinancing operations (TLTROs)' <https://www.ecb.europa.eu/mopo/implement/omo/tltro/html/index.en.html> accessed 18 January 2024.

[19] Decision (EU) 2014/541 of the European Central Bank of 29 July 2014 on measures relating to targeted longer-term refinancing operations (ECB/2014/34) [2014] OJ L258/11, Article 5.

[20] Decision (EU) 2019/1311 of the European Central Bank of 22 July 2019 on a third series of targeted

over the course of the pandemic.[21] The financial institutions lending to small and medium enterprises could uptake the TLTRO-III according to demand without limits.[22] With an uptake of EUR 2.2 trillion as of July 2021, the TLTRO-III was considered the largest liquidity injection into the banking sector.[23] In addition, the ECB introduced PELTRO, which was announced on the 30th of April 2020 and aimed to increase the liquidity available on the market. The programme included a series of loans to the financial sector with a fixed rate set at 25 below basis points. The contours of the programme start with 16 months and decrease as the PELTRO progresses.[24] The programme increased the 10th of December 2020 with four additional operations.[25]

These two programmes combined injected cheap liquidity into the economy during the pandemic. Thereby reducing uncertainties on the markets.[26] In addition to easing the available credit, the ECB introduced the Pandemic Emergency Purchase Programme.

3. Pandemic Emergency Purchase Programme

This section discusses the Pandemic Emergency Purchase Programme (PEPP). The PEPP was the first ECB response specifically targeting the economic fallout of COVID-19. The programme largely follows the structure of the earlier Asset Purchasing Programmes (APP) that were implemented during the euro crisis.[27] The PEPP entails a pan-EU asset-buying programme of initially EUR 750 billion. This was increased to include another EUR 600 billion on June 4th and increased again with EUR 500 billion on the 10th of December 2020.[28]

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longer-term refinancing operations (ECB/2019/21) [2019] OJ L204/100, Article 5(1)(b).

[21] Decision (EU) 2022/2128 of the European Central Bank of 27 October 2022 amending Decision (EU) 2019/1311 on a third series of targeted longer-term refinancing operations (ECB/2019/21) (ECB/2022/37) [2022] OJ L285/15.

[22] European Central Bank, 'Monetary policy decisions' (*European Central Bank*, 12 March 2020) <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.mp200312~8d3aec3ff2.en.html> accessed 18 January 2024.

[23] Francesca Barbiero, Miguel Boucinha and Lorenzo Burlon, 'TLTRO III and bank lending conditions' [2021] ECB Economic Bulletin <https://www.ecb.europa.eu//pub/economic-bulletin/articles/2021/html/ecb.ebart202106_02~35bf40777b.en.html> accessed 18 January 2024.

[24] European Central Bank, 'ECB announces new pandemic emergency longer-term refinancing operations' (*European Central Bank*, 30 April 2020) <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200430_1~477f400e39.en.html> accessed 18 January 2024.

[25] Christine Lagarde and Luis de Guindos, 'Introductory statement' (Speech at the ECB press conference, Frankfurt am Main, 10 December 2020) <https://www.ecb.europa.eu/press/pressconf/2020/html/ecb.is201210~9b8e5f3cdd.en.html> accessed 18 January 2024.

[26] Dragan Momirović, Zoran Simonović and Aleksander Kostić, 'ECB Monetary Policy during COVID-19' (2021) 67 Ekonomika 13, p 21-22.

[27] For more information on the APP, see: European Central Bank, 'Asset purchase programmes' <https://www.ecb.europa.eu/mopo/implement/app/html/index.en.html> accessed 18 January 2024; Nik de Boer & Jens Van 't Klooster, 'The ECB, the courts and the issue of democratic legitimacy after *Weiss'*, (2020) 57 Common Market Law Review 6, pp. 1689-1724; Klaus Tuori, 'The ECB's quantitative easing programme as a constitutional game changer' (2019) 26 Maastricht Journal of European and Comparative Law 1; Annelieke A. M. Mooij, 'The *Weiss* judgement: The Court's further clarification of the ECB's legal framework: Case C-493/17 *Weiss a.o.,* EU:C:2018:1000' (2019) 26 Maastricht Journal of European and Comparative Law 3.

[28] European Central Bank, 'Monetary policy decisions' (*European Central Bank*, 4 June 2020)

The programme, therefore, reached a total of EUR 1850 billion and lasted until the end of March 2022 with reinvestments of returns until the end of 2024.[29] There are four different types of assets eligible for purchase under the program: marketable debt securities,[30] corporate bonds,[31] covered bonds[32] and asset-backed securities.[33] Eligibility of the assets under APP and PEPP are thereby the same.[34] There were however, some noteworthy differences between the two.

The first difference is the decision to include Greek assets without public credit rating conducted by an external credit assessment institution. These assets were exempted from previous ECB programmes. The Greek assets, however, are only eligible for purchase if they comply with section 3(4) of Decision (EU) 2020/188 (ECB/2020/9). This section states that:

> "[p]*urchases of nominal marketable debt instruments at a negative yield to maturity (or yield to worst) equal to or above the deposit facility rate are permitted. Purchases of nominal marketable debt instruments at a negative yield to maturity (or yield to worst) below the deposit facility rate are permitted to the extent necessary*."[35]

The ECB thereby granted central banks the purchasing power to buy Greek bonds at negative rates. There were, however, no Greek bonds available at a negative rate.[36] At the time of introduction of PEPP, it was unclear whether Greek bonds could be purchased at positive rates. In 2021 the Greek bonds were held under PEPP.[37] The Governing Council based the decision to include Greek bonds upon the necessity to alleviate the financial pressure caused by Covid-19. Additionally, the Governing Council considered the commitments made by the Greek government and the dependence of honoring these commitments for continued European Stability Mechanism (ESM) support (see also chapter 5).

A second difference between earlier purchasing programmes and the PEPP is the relative flexibility of purchases. The PEPP does not strictly reference the capital allocation key but rather provides large flexibility with regard to the allocation of purchases.[38] Unlike the APP the ECB has not incorporated purchasing limits, which can have an impact on the composition of asset purchases. Under the APP the percentage of government bonds that could be bought was limited to 33% per International Securities Identification Number

<https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.mp200604~a307d3429c.en.html> accessed 18 January 2024; Lagarde & De Guindos supra note 23.

[29] European Central Bank, 'Pandemic emergency purchase programme (PEPP)' <https://www.ecb.europa.eu/mopo/implement/pepp/html/index.en.html> accessed 21 July 2022.

[30] Decision (EU) 2020/440 of the European Central Bank of 24 March 2020 on a temporary pandemic emergency purchase programme (ECB/2020/17) [2020] OJ L91/1, section 1(2)(a): marketable debt securities are government debt securities.

[31] Ibid, section 1(2)(b), though the public asset purchases outweigh all other assets: see European Central Bank supra note 27.

[32] Ibid, section 1(2)(c).

[33] Ibid, section 1(2)(d).

[34] Supra n. 28.

[35] Decision (EU) 2020/188 of the European Central Bank of 3 February 2020 on a secondary markets public sector asset purchase programme (ECB/2020/9) [2020] OJ L39/12.

[36] Trading Economics, 'Greece Government Bond 10Y | 1998-2020 Data | 2021-2022 Forecast | Quote | Chart' <https://tradingeconomics.com/greece/government-bond-yield> accessed 30 April 2020.

[37] Annika Havlik and Friedrich Heinemann, 'Sliding Down the Slippery Slope? Trends in the Rules and Country Allocations of the Eurosystem's PSPP and PEPP' (2021) 54 Credit and Capital Markets 2, pp. 173-197.

[38] Decision (EU) 2020/440 supra 28, section 5(2).

(ISIN), this restriction was not included within the PEPP.[39] The flexibility has given rise to significant discussion. It was estimated that due to the large volume of the PEPP, approximately 68% of Italian debt would be purchased.[40] Bobić and Dawson therefore argued that in such a case the PEPP would be in violation of article 123 TFEU.[41] Due to the large percentage of debt purchased there would be little uncertainty for the primary market that their Italian bonds would be purchased by the ECB. This was considered as a de facto provision of direct credit,[42] in violation of the Treaties.[43] If the market participants knew with relative certainty that their bonds will be purchased by the ECB, the risk of government default would be reduced. Therefore, in such a reasoning, the markets offer lower interest rates to Member States with unsustainable public finances. Whereas if the ECB would not purchase their debts, the interest rates remained higher. It is however unlikely that the flexibility within the PEPP led to its illegality.

Philip Lane, chief economist at the ECB, stated in a speech on the PEPP that "*flexibility embedded in the PEPP* […] *was essential in enabling the ECB to stabilize financial markets in an efficient and effective manner*".[44] In the *Weiss* case the CJEU considered that a degree of flexibility within the purchases of the PSPP meant uncertainty.[45] The uncertainty prevented market participants from being able to predict whether their bonds would be purchased. This prevented a de facto purchase on the primary market and thereby a violation of article 123 TFEU. The ECB's capital key is based upon the size of the economy and population. A high deviation from the capital key could lead to a de facto purchase of bonds on the primary market of a certain country. The question raises to what extend the purchases deviated from the capital key.

The analysis from the statistical holdings of the PEPP and PSPP until 2022 does not give rise to concern regarding the capital key.[46] There was a substantive deviation from the capital key before the crisis.[47] This deviation however seems corrected. There appears to be a slight deviation from the capital key but not to the extent that it raises concern. The Italian total holdings are slightly above the capital key. On the other hand, the prediction that the central bank of Italy would hold 68% of the total national debt seems not to have been realized.

[39] Ibid, Preamble article 6 jo. Decision (EU) 2020/188 supra note 32, article 5.
[40] Ben Hall, Martin Arnold, and Sam Fleming, 'Coronavirus: Can The ECB'S 'Bazooka' Avert A Eurozone Crisis?' (*Financial Times*, 23 March 2020) <https://www.ft.com/content/a7496c30-6ab7-11ea-800d-da70cff6e4d3> accessed 18 January 2024.
[41] Anna Bobić & Mark Dawson, 'COVID-19 And The European Central Bank: The Legal Foundations Of EMU As The Next Victim?' (*Verfassungsblog*, 27 March 2020) <https://verfassungsblog.de/covid-19-and-the-european-central-bank-the-legal-foundations-of-emu-as-the-next-victim/> accessed 30 March 2020.
[42] Ibid.
[43] See also: Case C-62/14 *Gauweiler and Others v Deutscher Bundestag* [2015] ECLI:EU:C:2015:400, para 104.
[44] Philip R. Lane, 'Monetary policy during the pandemic: the role of the PEPP' (Speech at the International Macroeconomic Chair Banque de France, Paris, 31 March 2022) <https://www.ecb.europa.eu/press/key/date/2022/html/ecb.sp220331~b11d74f249.en.html> accessed 18 January 2024.
[45] Case C-493/17 *Heinrich Weiss and Others* [2018] ECLI:EU:C:2018:1000, para 120.
[46] Andy Hill, 'ECB Asset Purchase Programme (APP) and Pandemic Emergency Purchase Programme (PEPP) Data (The International Capital Market Association, July 2022), p 6.
[47] Annika Havlik and Friedrich Heinemann, 'Sliding Down the Slippery Slope? Trends in the Rules and Country Allocations of the Eurosystem's PSPP and PEPP' (2021) 54 Credit and Capital Markets – Kredit und Kapital 173.

Estimates based upon statistic provided by the IMF[48] put the total percentage held in 2022 by the central bank of Italy between 20 and 25% of the total national debt. This percentage of holding is substantial. Nevertheless, it is unlikely to create a de facto certainty of purchase that prevents markets from evaluating risk and charging appropriate interest rates.

The last programme implemented by the ECB to counter the economic fallout of the pandemic was the Transmission Protection Instrument.

4. Transmission Protection Instrument

The Transmission Protection Instrument (TPI) was announced on the 21st of July 2022.[49] The TPI aims to prevent a high bond spread whilst interest rates rose. Through the TPI, primarily public sector purchases can be conducted for countries with high yield bonds. The volume is not restricted but there are four criteria with which a Member State must comply. The first criterion is that the Member State cannot be subject to an excessive deficit procedure.[50] Second the Member State may not have severe macroeconomic imbalances.[51] Third the Member State must comply with the trajectory of fiscal sustainability.[52] Fourth, the Member State must have sound and sustainable macroeconomic policies in place. The TPI is comparable to the Outright Monetary Transactions (OMT)[53] but embeds three differences. The first difference is the absorption mechanism. The OMT purchases are sterilized. The TPI has as criterion that it cannot negatively affect monetary policy.[54] The second difference is that the maturity of the bonds that can be purchased has a wider range under the TPI.[55] These two differences have little impact on the legality. The more interesting difference is that of conditionality.

Similar to the Outright Monetary Transactions (OMT), the TPI has a conditionality clause. The conditionality of the TPI is milder. The subject Member State has to comply with the budgetary rules of the TFEU, meaning that Member States may not be subject to an excessive deficit procedure. The OMT however required Member States to participate in a macroeconomic adjustment programme, such as the ESM.[56] In the *Gauweiler* case the CJEU considered that the inclusion of the conditionality prevented the programme from decreasing the incentive for Member States to follow a sound budgetary policy.[57] Considering the

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[48] International Monetary Fund, 'General government gross debt' <https://www.imf.org/external/datamapper/GGXWDG_NGDP@WEO/ITA?zoom=ITA&highlight=ITA> accessed 18 January 2024.
[49] European Central Bank, 'The Transmission Protection Instrument' (*European Central Bank*, 21 July 2022) <https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220721~973e6e7273.en.html> accessed 26 July 2022.
[50] Ibid.
[51] Ibid.
[52] Ibid.
[53] See: European Central Bank, 'Technical features of Outright Monetary Transactions' (*European Central Bank,* 6 September 2012) < https://www.ecb.europa.eu/press/pr/date/2012/html/pr120906_1.en.html > accessed 01 February 2024.
[54] Matteo Bursi, 'A cross-sectional analysis of the Transmission Protection Instrument: between economical needs and outdated Treaties' (2023) 7 Federalismi, pp. 3-4.
[55] Ibid.
[56] Supra n. 53.
[57] *Gauweiler and Others v. Deutscher Bundestag* supra note 40, para 120.

importance the CJEU gave to conditionality, it raises the question of whether the mild conditionality of the TPI endangers the legality of the programme.

The argument can be made that TPI aims to close bond spreads without strong conditionality.[58] Unlike the OMT, however, the TPI is aimed at Member States without excessive deficits, so in relative good public finance status. The circumstances under which the programme is to be used, are, in this sense, less extreme. The TPI is an additional monetary tool when interest rates are higher than warranted due to the economic conditions of the Member State.[59] The relatively mild conditionality is appropriate considering the economic circumstances under which the programme is to be used. It is therefore unlikely to cause the unlawfulness of the programme.[60]

Despite the likely legality of the TPI, there are two criticisms. The first criticism is the asymmetrical nature of the programme.[61] The TPI focusses on reducing bond spreads when high interest rates are charged without economic cause. There are, however, few possibilities for the ECB to increase interest rates when the markets are underestimating the bond risks.[62] The programme thus focusses on increasing market trust but not when markets overheat. The second criticism has been formulated on the transparency of the criteria “unwarranted” and “disorderly”.[63] Arnold considers that it is difficult to motivate whether the increased interest rates are (not) based on fundamental economics.[64] This creates a large margin of discretion for the ECB.[65] In the *Gauweiler* case the CJEU gave the ECB a large margin of discretion when taking technical decisions.[66] It is therefore unlikely that the CJEU will reexamine decisions taken by the ECB as part of the TPI. There is therefore no secondary review of the (economic) arguments made by the ECB. The lack of review of the ECB’s arguments makes it difficult for a measure to be declared invalid.[67] This creates certainty for the market, however, the ECB should be cautious to prevent its decisions from being viewed as arbitrary. The latter may erode its legitimacy as an institution.

In conclusion, the TPI is likely to be considered a lawful programme. It is furthermore a potentially useful addition to the ECB’s monetary toolkit. It can assist when Member States face high premiums without economic circumstances warranting such premiums. Nevertheless, criticisms remain on the TPI’s transparency with regard to the criteria and the focus on correcting markets in times of uncertainty but not when markets are overconfident.

5. Post-pandemic Challenges

[58] Ivo J. M. Arnold, ‘The activation conditions of the Transmission Protection Instrument: Flawed by Design?’ (2023) 58 *Intereconomics* 5, pp. 254-259.
[59] Katrin Assenmacher, ‘The ECB’s Transmission Protection Instrument and Fiscal Stability’ (2023) 20 Econst Voice 1, pp. 89-95.
[60] See also supra n. 54; Alicia Hinarejos, ‘On the ECB’s new Transmission Protection Instrument and the role of courts’ (2022) 47 European Law Review 4, pp. 435-436.
[61] Supra n. 58.
[62] Supra n. 58.
[63] Supra n. 53.
[64] Supra n. 58.
[65] Ibid.
[66] *Gauweiler and Others v. Deutscher Bundestag* supra note 40, para. 68.
[67] Asteris Pliakos and Georgios Anagnostaras, ‘Saving Face? The German Federal Constitutional Court Decides *Gauweiler*’(2019)18 German Law Journal, pp. 218-219.

This section will discuss the two largest challenges post-pandemic. The first is the high levels of inflation. The sustained high levels of inflation have created a challenge for the ECB both in mandate and in keeping the trust of the public.[68] The second challenge that the ECB faces is the introduction of Central Bank Digital Currency (CBDC) and the eurozone-specific; digital euro. This topic will be discussed after the topic of inflation.

In the wake of the pandemic and with the start of the war in Ukraine, inflation reached significantly higher levels than the 2% inflation target on the medium term[69]. The origins of the inflation were both demand-driven through the reopening of the economy and supply driven by high energy prices.[70] To counter high levels of inflation the ECB significantly increased the main interest rates in late July 2022 until March 2023.[71] The total increase over this period was 3,5%.[72] The interest rates steadily increased until late September 2023 and stabilized between 3.75 and 4.75%.[73] There was some discussion about the approach of the ECB towards the high levels of inflation. IMF analysis indicates that interest rates should be the primary monetary tool.[74] The governor of the Dutch central bank considered the interest rates should have been raised earlier.[75] The difficulty with raising interest rates was the potential impact on the more vulnerable economies such as Spain and Italy. A sudden rise in interest levels may have caused economic difficulty and potential fragmentation in the Eurozone[76] The inflation also showcased the difficulty of the strict divide in economic and monetary policy.[77] The inflation could not be tackled through monetary policy alone.[78] Since the euro crisis, steps have been taken for a stronger coordination of economic policy.[79] The

[68] See; Carin van der Cruijsen, Jakob de Haan and Maarten van Rooij, 'The impact of high inflation on trust in national politics and central banks' (De Nederlandsche Bank, January 2023).
[69] The medium term was never defined but is estimated to be between four and five and a half years, see; Paulo R Mota and Abel L.C. Fernandes, 'Is the ECB already following albeit implicitly an average inflation targeting strategy?' (2022) 76 Research in Economics 149.
[70] European Central Bank, 'Combined monetary policy decisions and statement' (European Central Bank, 8 September 2022).
[71] European Central Bank, 'Key ECB interest rates' (*ECB Data Portal*) <https://data.ecb.europa.eu/main-figures/ecb-interest-rates-and-exchange-rates/key-ecb-interest-rates > accessed 18 January 2024.
[72] Ibid.
[73] Ibid.
[74] International Monetary Fund, 'Euro Area Policies: 2023 Article IV Consultation – Press release; Staff report; and Statement by the Executive Director for Euro Area' (International Monetary Fund, July 2023) p 4.
[75] NOS, 'Klaas Knot wil dat ECB in juli rente verhoogt' (*NOS Nieuws*, 17 May 2022). <https://nos.nl/artikel/2429195-klaas-knot-wil-dat-ecb-in-juli-rente-verhoogt> accessed 18 January 2024.
[76] Nuño R. Palacios, 'Philip Lane: "Salir de los tipos negativos es lo apropiado, el camino a la normalización"' (*Cinco Días,* 30 May 2022); Lisa Schallenberg, 'Hoogste inflatie in decennia, maar ECB verhoogt rente vooralsnog niet' (*NOS Nieuws,* 3 February 2022).
[77] TFEU, Article 119.
[78] Ibid, p 5.
[79] For example the European Semester (European Commission, 'The European Semester explained: An explanation of the EU's economic governance' <https://commission.europa.eu/business-economy-euro/economic-and-fiscal-policy-coordination/european-semester/framework/european-semester-explained_en?prefLang=nl> accessed 18 January 2024); the Green Deal Industrial Plan (European Commission, 'The Green Deal Industrial Plan: Putting Europe's net-zero industry in the lead' <https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/green-deal-industrial-plan_en> accessed 18 January 2024); and the REPowerEU (European Commission, 'REPowerEU: Affordable, secure and sustainable energy for Europe' <https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/repowereu-affordable-secure-and-sustainable-energy-europe_en> accessed 18 January 2024).

ECB however cannot directly exert its influence upon economic or fiscal policy. In addition to the challenge of inflation, the ECB will be faced with the introduction of the digital euro.

A review of the monetary union would not be complete without discussing the digital euro. Over the past years there has been a steady decline in the use of cash. Cash, both banknotes and coins, within the eurozone is the only form of public money and the only money to carry the status of legal tender.[80] The money on bank accounts is considered private or commercial money. Theoretically this money can be refused as a form of payment. In practice however, commercial bank money is rarely refused. The mandatory acceptance of cash was furthermore limited by the CJEU in the *Dietrich & Häring v. Rundfunk* case.[81] The CJEU considered that states could legally refuse the acceptance of cash. The CJEU considered that cash could be refused if the policy allowing to do so would not alter the status of legal tender. Secondly the policy may not de facto abolish cash and the rule must be introduced and capable of attaining public goals. Lastly there must be an alternative method to pay.[82] The conclusion of this case emphasizes the need for digital alternatives to cash. In addition, with globalization and international consumer purchasing behavior increasing, there is the fear that the euro will largely disappear and be replaced by a private currency. To keep the euro as a monetary anchor the ECB started to research the possibility of introducing a digital euro.[83]

The digital euro is an initiative of the Commission and the ECB. The legislative proposal was initiated by the Commission based upon article 133 TFEU.[84] The digital euro is different from commercial money in that it is a liability on the balance sheet of the central banks rather than commercial banks.[85] The digital euro is a form of 'central bank digital currency' (CBDC). There are many different design options for CBDC. The Commission presented a legislative proposal for the digital euro in 2023.[86] According to the current proposal the access to the digital euro would be designed through a two-tier system.[87] This entails that consumers can obtain a digital euro account through their commercial financial institution. The consumer contacts and manages their account through a commercial financial institution. The digital euro would furthermore largely mimic the functions of cash rather than form an instrument of monetary policy. It will have the status of legal tender and not receive remuneration.[88] The digital euro will be used to complement cash payments. Cash as a method of payment will

[80] TFEU, Article 128.
[81] Joined Cases C-422/19 and C-423/19 *Dietrich and Häring v Hessischer Rundfunk* [2021] ECLI:EU:C:2021:63
[82] *Dietrich and Häring v Hessischer Rundfunk* [2021] ECLI:EU:C:2021:63, para 79.
[83] European Central Bank, 'Report on a digital euro' (European Central Bank, October 2020), p 11-12.
[84] See for further information on legal mandate: Annelieke A.M. Mooij, 'European Central Bank Digital Currency: The Digital Euro. What Design of the Digital Euro Is Possible Within the European Central Bank's Legal Framework?' (2021) Bridge Netwerok Working Paper Series (available via: https://dx.doi.org/10.2139/ssrn.3838729); C. A. Petit, 'Central Bank Digital Currency and the Treaty Mandate of the ECB – Legal foundations of a universal and inclusive digital euro' in *Cen tral Bank Digital Currency – The Birth of the digital euro*, F. Annunziata, C. Hadjiemmanuil, B. Joosen (eds) (Palgrave McMillan, *forthcoming*); Seraina N. Grunewald, Corinne Zellweger-Gutknecht and Benjamin Geva, 'Digital Euro and the ECB Powers' (2021) 58 Common Market Law Review 1029.
[85] Supra n. 80, p 3.
[86] European Commission, Proposal for a Regulation of the European Parliament and of the Council on the establishment of the digital euro COM(2023) 369 final.
[87] Ibid, Article 13.
[88] Ibid, Preamble para 37 and Article 7; for more discussion see: Seraina N. Grunewald, Corinne Zellweger-Gutknecht and Benjamin Geva, 'Digital Euro and the ECB Powers' (2021) 58 Common Market Law Review 1029.

not be abolished through the introduction of the digital euro.[89] Despite the potential advantages of the digital euro there are some critical opinions.

The first question is with regard to privacy. Opening a digital euro account can theoretically enable the ECB to follow consumer payments. The legislative proposal, however, prevents such tracking. The ECB is charged by the legislator to prevent itself from being able to connect accounts to consumers.[90] The independence of the ECB furthermore prevents government and institutions from influencing the ECB to do so. Payment data, sometimes combined with other public data, may provide enough details as to who the individual is.[91] Whilst there is the option to pay anonymously, this option is not fully anonymous. The anonymous payment will be recorded without recording the receiver, similar to taking out cash of an ATM. This option provides more anonymity, but no system can be totally safe. According to the legislative proposal the right to privacy and data protection, however, are applicable to the digital euro.[92] In addition, the European Data Protection Supervisor has been granted the authority to inspect the ECB for compliance with privacy regulations.[93] The ECB furthermore does not need the individual's information as the due diligence in preventing money laundering and the financing of terrorism lies with the commercial institutions in their reporting and compliance duties. The more vulnerable aspect of the digital euro with regard to privacy is the holding limit.

The digital euro is a liability upon the balance sheet of the ECB. This means that the savings held in digital euros cannot be used by the commercial banks to reinvest into the economy. Central banks are very unlikely to go bankrupt. In times of economic turmoil, the digital euro is a very safe asset. This raised the question of the impact of the introduction of the digital euro on financial stability.[94] To avoid a potential disruptive uptake of digital euros, the legislative proposal allows the ECB to limit the amount of digital euros an individual can hold. The height of limit is not included in the legislative proposals, but the ECB has indicated it will be around EUR 3000-.[95] Individuals, however, can have multiple digital euro accounts with different financial institutions. To avoid abuse, the individual has to indicate to the financial institution whether they have another digital euro account.[96] Without a system of data sharing which accounts are held, the enforcement of the EUR 3000, limit, is unlikely to be effective.

Another criticism is the availability of cash. Cash will not be abolished after the introduction of the digital euro. Nevertheless, the use and availability of cash is in decline and might be accelerated with the digital euro. Groups of people depend on cash for their main method of payment. This will leave countries with low digital skills, such as Italy, vulnerable to

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[89] European Commission supra note 82, Explanatory Memoranda para 1.
[90] Ibid, Article 35(4).
[91] Annelieke A. M. Mooij, *Digital euro's legal framework: The legal framework concerning tender, privacy and inclusion* (European Parliament, 2023).
[92] See European Commission supra note 82, Preamble para 70 and Articles 34-35.
[93] See ibid, Preamble para 70.
[94] Michael Kumhof and Clare Noone, 'Central bank digital currencies – Design principles for financial stability' (2021) 71 Economic Analysis and Policy 553.
[95] Barbara Meller & Oscar Soons, 'Know your (holding) limits: CBDC, financial stability and central bank reliance' [2023] DNB Working Paper no. 771; Martin Arnold & Sam Fleming, 'The digital euro: a solution seeking a problem?' *Financial Times* 16 May 2023.
[96] See European Commission supra note 82, Article 16(6).

economic exclusion.[97] The Commission, however, has proposed a Regulation on the status of cash as legal tender.[98] This Regulation also includes the obligation for Member States to keep cash available.[99]

6. Conclusion

The Monetary Union underwent significant changes during the course and in the wake of the pandemic. The ECB has responded quickly to the unrest on the markets. Due to the low interest rates the ECB had reached the zero lower bound before the pandemic started. The primary response therefore came through the introduction of the TLTRO-III adjustment and the introduction of the PELTRO. These lending facilities had a high uptake. To further ease the financial position of Member States the ECB introduced the PEPP and continued with the PSPP. This programme was introduced in addition to the APP - infant of the euro crisis. The PEPP followed a structure similar to the APP. The primary difference between the two programmes was the flexibility the ECB gave itself in the purchases of bonds eligible under PEPP. The holdings however demonstrate a rather conservative purchasing division. When the pandemic progressed, the ECB introduced the TPI to complement its earlier OMT programme. This programme was introduced to prevent a high spread between bond yields. The primary difference between the TPI and the OMT is that the OMT is aimed at governments with access to the markets that have a sustainable budget. The details of the TPI have not yet been fully released. There are questions concerning the transparency of the implementation of the criteria “unwarranted” and “disorderly”, but it is unlikely that the programme will be considered unlawful. During the pandemic, the ECB showed itself to be willing to act swiftly. It introduced various expansionary policies to counteract the economic fallout of the pandemic. The inflation however was approached with a more conservative stance.

The ECB faced high levels of inflation between mid-2021 and late 2023. The high level of inflation was caused by the war in Ukraine and reopening of the economy, which triggered an energy crisis.[100] In response the ECB has increased interest rates to release the overheat on the economy. The approach to inflation shows that the coordination of monetary and economic policy is not yet perfect. The ECB raised interest rates but had little influence over economic policy, which is outside its sphere of competence. Whilst investment in individual member states has been made possible through programmes such as NextGenerationEU, contractionary economic policy is not coordinated. It will therefore remain a challenge for the ECB if too much pressure is put upon monetary policy. Both the pandemic and the high levels of inflation could not be addressed through monetary policy alone. Economic interference by the ECB however would be a violation of its mandate. It is therefore useful if the Member States have a stronger economic policy coordination. Something that however

[97] European Commission, ‘How many citizens had basic digital skills in 2021?’ (*Eurostat*, 30 March 2022) <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20220330-1> accessed 18 January 2024.
[98] European Commission, Proposal for a Regulation of the European Parliament and of the Council on the legal tender of euro banknotes and coins COM(2023) 364 final.
[99] Ibid, Article 8.
[100] See Chapter 9 by Rosalba Fama in this volume.

has been proven difficult to achieve to date – except in the Covid-19 pandemic context of common EU borrowing that makes emerging an EU Fiscal Capacity.[101]

The reduction in the use of cash, which was accelerated by the pandemic, furthered the cause of a new central bank digital currency for the euro area, the digital euro. The digital euro is aimed at providing a digital alternative to cash. This alternative should compete with other global digital currencies and keep the euro the primary currency within the euro area. There are some remaining questions on the availability of cash after the introduction of the digital euro. The digital euro, however, will complement cash and Member States will have the obligation to keep cash available.

[101] See Chapter 3 by Fabian Amtenbrink and Chapter 22 by Federico Fabbrini in this volume.