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The ECB's Pandemic Emergency Purchase Programme

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as a free financial market, the
epitome of the failure of the Euro
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European Central Bank

Bob Lyddon

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Implications for any
post-Brexit Financial Services Deal

By
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with the assistance of Cavin O'Driscoll
and Gordon Kerr of Cobden Partners

Published in 2021 by

The Bruges Group, 246 Linen Hall, 162-168 Regent Street, London W1B 5TB

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Foreword

The UK has now left the EU but not yet learned the final Divorce Bill, the size of which will have much to do with the risks taken by the various EU and Eurozone financial mechanisms on which The Bruges Group has published detailed analysis before.

The UK's withdrawal deal with the EU does not include financial services, and there is already a perceptible clamour from UK firms that they must have continued, unfettered access to the EU marketplace, to which the EU makes its customary response: yes, maybe, if you follow our rules, and depending upon this and contingent upon that. Once again, by raising the clamour and allowing the EU to express its normal type of reply, those who refuse to accept that the British people decided not to continue with the status quo have succeeded in painting the UK into the same type of corner that was crystallised in Mrs May's Withdrawal Agreement: the position of a supplicant asking for permission to sweep up the crumbs from under the rich man's table.

The reality is quite different, as this paper points out, although there is no cause for complacency in the UK. The Bank of England has indulged in many of the same policies as the ECB, without yet compromising its credit quality standards to quite the same degree, and without orchestrating the kind of "concert party" of financial mechanisms to distort the market in the way that has become accepted in the EU and Eurozone. In addition the UK has a major built-in advantage by being a sovereign country with sovereign powers over its currency. Eurozone countries, and indeed non-Eurozone member states who have either signed the Fiscal Stability Pact or whose currencies are in the Exchange Rate Mechanism, have surrendered these powers to the European authorities. The UK starts from a superior position, but well-placed individuals (some on the Bank of England Monetary Policy Committee) have discussed the need for even more Quantitative Easing and even negative interest rates, following the ECB's direction-of-travel.

The readers of this paper will wonder whether this is an acceptable direction-of-travel when it becomes clear where it has landed the EU and the Eurozone.

The Eurozone has become a controlled financial market, not a free financial market. The assets it produces are de-based, and the credit ratings these assets enjoy are inaccurate.

That begs the question as to what sort of exposure the UK financial market should have to this other market, in order that the UK market does not become polluted and suffer the risks of financial instability and taxpayer/consumer losses.

For example, what quantity of de-based EU/Eurozone assets is owned by the Bank of England or accepted by it as collateral for loans it extends?

What, if any, reciprocal arrangements does the Bank of England have with the ECB or with any of the Eurozone national banks that might result in financial support?

What is the risk to the reputation of the City of London of assisting EU and Eurozone entities to place their bonds with international investors on the back of their offering prospectuses and credit ratings?

There are many difficult questions that need to be asked before the UK commits to a financial services deal with the EU. There has been much talk about "equivalence", but there can be no equivalence between a controlled market and a free market. If the two are connected and porously, the state interference, self-interest and subsidy that underpin the controlled market will infect and undermine the free market.

About the author

Bob Lyddon

Bob Lyddon is an experienced management consultant both privately and with PwC. His speciality is cash and liquidity management in which he recently structured online tuition for a major Asian bank and designed a series of online courses for the accountancy profession.

Bob has had three previous papers published by The Bruges Group and these have proven influential in the Brexit debate:

- “The UK’s risks and exposure to the European Investment Bank and other European financial mechanisms: amounts, safeguards and breaches in the dyke” in 2012
- “The UK’s liabilities to the financial mechanisms of the European Union” in 2016
- “The Euro’s Battle for Survival – Entering the Red Zone” in 2018

These papers brought the well-concealed issue of the UK’s dealings with the European Investment Bank to the fore, and ensured that that UK’s residual liabilities under the Brexit Withdrawal Agreement did not remain buried in the fine print.

Bob co-authored “Managing Euro Risk” with Barnabas Reynolds and Professor David Blake, which was published in February 2020 by Politeia.

Bob authored the Brexit Papers between 2016 and 2017, issued through Global Britain and available at <http://brexitpapers.uk/>. These include:

- Our liabilities to the EU: the biggest risk of all - why leaving the Single Market is the only way to avoid the huge risk from financial gambling by EU institutions
- The Single Market’s Dutch auction: how the EU’s Single Market fosters corporate tax avoidance schemes that costs the UK billions
- The UK’s lost GDP and tax revenues: how Single Market tax dodges cost the UK £10bn a year and make us all the poorer

Recent consulting engagements include running an international banking alliance, advising small payment providers how to access UK payment systems, and advising a major player in global payments as to the opportunities and threats arising from the establishment the UK’s Payment Systems Regulator.

With PwC Bob managed several Euro implementation programmes, including that of the European Investment Bank. Prior to that, he had a diverse 17-year career in international banking, encompassing Transaction Banking, syndicated loans, export finance and derivatives.

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Introduction

The Eurozone financial market has compromised and undermined the fundamental equation of a free financial market: that any instrument admitted for trading in it should offer a transparent blend of Safety, Yield and Liquidity, benchmarked to independent standards.

The Pandemic Emergency Purchase Programme (PEPP) is the epitome of this degradation.

As an introduction let us take the example of one public bond issued in 2020.

On 21 October 2020 the European Commission reported that it had “issued a €17 billion inaugural social bond under the EU SURE instrument to help protect jobs and keep people in work. The issuing consisted of two bonds, with €10 billion due for repayment in October 2030 and €7 billion due for repayment in 2040. There was very strong investor interest in this highly rated instrument, and the bonds were more than 13 times oversubscribed, resulting in favourable pricing terms for both bonds”.¹

The bond issuer – the European Union – is a “recognised supranational issuer” for the purposes of the PEPP. The PEPP’s ceiling was €1.35 trillion at the time, and, unlike the pre-existing Public Sector Purchase Programme (PSPP), the PEPP has no Purchase Limit – it can hold 100% of any bond issued by a recognised supranational. Indeed, this 100% can be held by any of the 19 Eurosystem national central banks (NCBs).²

So what was the source of the bids for this €17 billion EU bond that constituted its being 13 times oversubscribed? That means bids were received for €238 billion or 14 times the issue amount. The Eurosystem NCBs could have put in all of these bids. On the pay-in date they could shuffle the allotments around after agreeing who would end up owning how much of the €17 billion under the PEPP umbrella. The Eurosystem on its own could have arranged for the 13-times oversubscription, without breaching any rules and without needing to find any end-investors: the PEPP ranks as an “investor” and the PEPP’s high ceiling ensures that €17 billion could be taken without a ripple.

In a financial market that is as undermined as the Eurozone financial market, and as convoluted and opaque, anything is possible – even covert market-rigging that does not breach any rules.

The European authorities have numerous funds and mechanisms at their disposal that are not independent of one another. These are the European Union itself (EU), the European Atomic Energy Community (Euratom), the European Financial Stability Facility (EFSF), the European Investment Bank (EIB), the European Investment Fund (EIF), and the European Stability Mechanism (ESM), as well as the European Fund for Strategic Investments (EFSI or now InvestEU), the TARGET2 payment system and the ECB’s Asset Purchase Programmes (APPs): the PEPP, the PSPP (Public Sector Purchase Programme), the Asset-Backed Securities Purchase Programme (ABSPP), the Third Covered Bond Purchase Programme (CBPP3), and the Corporate Sector Purchase Programme (CSPP). The Eurosystem also controls €2.6 trillion of collateral pledged to it.³ On top of that the debtors in the TARGET2 system must place collateral for their loans – another €1.22 trillion – assuming that the gross TARGET2 positions are in the range of the ones reported by the ECB after two rounds of netting and are not significantly larger.⁴

This impenetrable system of mechanisms, owning and being owned by one another and the member state governments and their central banks, are the ideal veil behind which to mount financial operations as a “concert party”: a number of parties who separately invest in a stock with the concealed intention of using their holdings as a single block. The PEPP is one of these parties who, along with the other members, control the Eurozone financial market.

¹ https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1954

² The Eurosystem (aka the ESCB or the European System of Central Banks) is not a legal person but a collective term used to refer to the European Central Bank and the 19 national central banks of the Euro area

³ https://www.ecb.europa.eu/stats/payment_statistics/cross-border_collateral/html/coll1.en.html

⁴ <https://sdw.ecb.europa.eu/reports.do?node=1000004859>

Executive Summary

Broad and liquid capital markets were one of the supposed outcomes of the introduction of the euro. They were supposed to offer a wide range of choices of investment comparable and contrastable in terms of Safety, Liquidity and Yield, both against one another and against robust and independent third-party benchmarks.

This study will show that the ECB's Pandemic Emergency Purchase Programme or PEPP – increased on 10 December 2020 to a ceiling of €1.85 trillion – represents the opposite of that outcome.

Safety is either total or very degraded, depending on how one wishes to see it. The Eurosystem distorts Liquidity by the size of its buying interest in both primary and secondary markets, by holding its purchases until maturity, and by its controlling - as collateral - large but opaque amounts which do not trade as a result. It has eliminated the volatility crucial to Liquidity. The Eurosystem has distorted Yield down to zero.

It is already widely known that the yields on interest-bearing assets are spread in a very tight range around 0%. When the Republic of Portugal required a financial bailout in 2010 the yields on its bonds were around 16%; now they have been brought to near-zero without the credit rating of Portugal having meaningfully improved.

What is less appreciated is that Liquidity has reduced, with the Eurosystem itself being the main buyer of securities and then holding them to maturity: an increasing amount of supply is becoming locked up in the Eurosystem's Asset Purchase Programmes (APPs), to the extent that they are now buying in the primary market and not just in the secondary market. The PEPP is authorised to purchase any of the types of security in the primary market for which there were already APPs pre-pandemic.

As the regards Safety, there are two mutually exclusive pictures.

The first picture is of much less safety in Eurozone investments than their public credit ratings make them appear. The second picture is of ubiquitous safety, almost a total absence of Moral Hazard.

Which picture should the investor choose? Retail investors appear to have made their choice, which is to quit the market. Retail is not going to participate in a market that offers no liquidity or returns. At most retail investors may be involved through collective investment vehicles, but the legendary Belgian dentist – supposed direct buyer of bonds in the pre-euro era – is no longer active. Any liquidity in either the primary market or the secondary market supplied by retail investors has evaporated. Speculative actors – vital to the depth of any financial market – will not be attracted to trade when volatility is non-existent.

This means that the market actors are limited to professional counterparties and the Eurosystem itself. The main market activity is between professionals and the Eurosystem, with the Eurosystem as the ubiquitous liquidity-providing backstop.

A capital market with a single actor as the backstop is a narrow and illiquid capital market, and not the broad and deep capital market that the euro promised.

The PEPP is the manifestation of how dead the Eurozone financial market has become. Every one of the standards of Safety, Liquidity and Yield is compromised, the Safety one most of all.

It also confounds any concept that the Eurosystem is under democratic control from the Eurozone member state level: in May 2020 the German Constitutional Court delivered a judgement about the Eurosystem's existing Public Sector Purchase Programme, and took comfort from its not investing in primary market bonds, and from the existence of several other safeguards. The PEPP strips away the comfort and half of the safeguards, and shows a Eurosystem taking the concept of central bank independence to an extreme. In fact the wording of EU Decision 2020/440 establishing the PEPP is more or less a coup d'état by the ECB against other organs of the EU apparatus and the member states.

What the PEPP is and what it buys

What is the PEPP?

The PEPP is the eighth Eurosystem programme of bond buying, programmes that would collectively be known as Quantitative Easing in the UK and USA (QE), and as Asset Purchase Programmes (APP) in the Eurozone.

The theory is that the central banking system purchases static financial investments held in portfolios for cash, and that cash is then spent and results in economic growth, or else results in an avoidance of a recession or depression. It is a major debate whether QE/APP achieves these results. Its proponents – Modern Monetary Theorists – are currently at the controls at central banks around the world, and its opponents have for the time being been sidelined.⁵

At least QE/APP makes the statistics of Gross Domestic Product (GDP) and Gross National Income (GNI) better than they would otherwise be, and that is important when macroeconomic targets are set in relation to them. For example, the EU's own budget is set in relation to GNI: a fall in GNI would reduce the amount the EU has at its disposal to spend. The targets in the EU Stability and Growth Pact and the Fiscal Stability Pact are set in relation to GDP: if GDP falls and/or debt and deficits rise, it puts member states out of compliance.

The Eurosystem's APP included three programmes that have been discontinued:

1. Securities Markets Programme
2. Covered bond purchase programme
3. Second covered bond purchase programme

The Eurosystem's APP now has four programmes running that pre-dated the establishment of the PEPP:⁶

1. Corporate sector purchase programme (CSPP)
2. Public sector purchase programme (PSPP)
3. Asset-backed securities purchase programme (ABSPP)
4. Third covered bond purchase programme (CBPP3)

These programmes total €2.8 trillion as per figures on the ECB website on 11 December 2020. The PSPP is by far the largest with a portfolio of €2.3trillion, or 82% of the whole.

The PEPP was established through the EU legal instrument DECISION EU 2020/440 ECB of 24 March 2020.⁷ The amount upon establishment was €750 billion. This was raised by €600 billion on 4 June 2020 to €1.35 trillion, and further increased by €500 billion on 10 December 2020 to a ceiling of €1.85 trillion.

What does the PEPP buy?

The PEPP may buy any bonds that are permissible for the four pre-existing APP programmes to buy, noting that non-financial institution commercial paper was added to the APP scope after the four programmes had been established such that the PEPP can buy this as well.

All bonds purchased must be on the ECB list of eligible collateral.⁸

⁵ The ECB and Eurosystem have by no means a monopoly over excessive bond buying; the Bank of England has been equally guilty

⁶ <https://www.ecb.europa.eu/mopo/implement/app/html/index.en.html>

⁷ <https://www.ecb.europa.eu/mopo/implement/pepp/html/index.en.html>

⁸ <https://www.ecb.europa.eu/mopo/assets/html/index.en.html>

The Purchase Limits for public sector securities in the portfolio that were built into the PSPP are absent in the PEPP. These are:

- The PSPP can own no more than 50% of any individual bond issue or of the total of bonds issued by a recognised supranational
- The PSPP can own no more than 33% of any individual bond issue or of the total of bonds issued by any other entity

The PEPP can buy entire issues and the entire outstandings of any issuer, subject only to the guideline explained below connected to ECB Capital Keys.

Bonds of a supranational issuer can be purchased by any Eurosystem member.

Bonds of a non-supranational issuer can only be purchased by the Eurosystem member – the national central bank – of the member state where the issuer is domiciled: only the Bundesbank can buy German government bonds (Bundesanleihe) into the PEPP and only the Banca d'Italia can buy Italian government bonds (BTPs).

This leads on to the limit of the make-up of the PEPP portfolio: it is guided by the Capital Key of each Eurozone national central bank in the European Central Bank, rebased so that the Capital Keys add up to 100%. Non-Eurozone EU member states, including the UK, own 30% of the ECB so these shares need to be reversed out.

In consequence the PEPP's portfolio should not exceed 26% German bonds or 13% Spanish ones, but it is a moot point whether these percentages apply only to the ceiling or to the make-up of the portfolio at any one time. For example, with a current PEPP ceiling of €1.85 trillion, no more than €473 billion should be German bonds. If, however, the current portfolio was €473 billion and it was all invested in German bonds, would that breach the guideline (which is only a guideline anyway and not binding)? That would be a matter of some debate.

The comparison of the terms of the PEPP with those of the PSPP is important. The terms of the PSPP were revised multiple times since its establishment but all those changes were consolidated into DECISION EU 2020/188 ECB of 3 February 2020. These include the limitations by International Securities Identification Number of what percentages of an issue and of an issuer's bonds the PSPP can hold which are absent in the PEPP. The PSPP was the focus of the legal case brought in front of the German Constitutional Court and which gave rise to this court's verdict of May 2020. That verdict was circumscribed and dependent upon certain conditions in the PSPP that are absent in the PEPP, even though the PEPP invests in the same public sector bonds as the PSPP. Indeed, the PEPP holds a greater proportion of public sector securities (93%) to its entire portfolio, than does the PSPP as a percentage of the four pre-existing APPs (82%). Later in the paper we spell out how the PEPP's conditions sweep away the comfort that the German Constitutional Court read into the conditions of the PSPP.

Degradation of Safety, Liquidity and Yield

Safety in the Eurozone financial market

Let us now discuss the issue of Safety within Eurosystem monetary and payment operations. These operations must be collateralised so as to supposedly avoid the Eurosystem – central banks – taking commercial credit risk, which is theoretically the orbit of commercial banks.

The presence of a bond on a list of collateral eligible for central bank operations would traditionally have meant that the credit quality of the bond qualified it as central bank money i.e. risk-free other than due to changes in absolute interest rates. A central bank lends central bank money by definition; the collateral it takes should be another form of central bank money. The wide acceptance by the Eurosystem of corporate bonds and commercial paper, asset-backed securities and covered bonds makes a nonsense of the concept that the Eurosystem does not take commercial credit risk.

It would be valid for the central bank not to lend 100% of the face value of any bond due to the risk that it would decline in value if absolute interest rates rose, even if it was free of credit risk. This “market” risk would be manifested in a published “haircut”: the percentage to be deducted from the bond’s face value to determine how much could be borrowed against it.

The ECB list of eligible collateral states a “haircut” against each of the 25,000 or so bonds on it, but these do not just reflect absolute interest rate risk. They also reflect commercial credit risk. The bonds are divided into Issuer Groups (IGs), with IG1 being central banks, IG2 being central governments and so on.⁹ The IG points to the degree of credit risk: the haircuts increase both with the degree of credit risk and the maturity of the bond (which makes its price more volatile to changes in absolute interest rates).

The recognition of different credit risks demonstrates that the bonds are not all central bank money and free of credit risk. This leads on to the first picture we can have of credit risk within the Eurosystem’s operations.

It is that the public credit ratings of many of the issuers of bonds being bought into the PEPP are barely “Investment Grade”. The ECB even confirmed on 10 December 2020 that bonds and issuers could experience two downgrades below “Investment Grade” before they were excluded from its APPs, being either the PEPP or the four pre-existing programmes. The independence of the four public credit rating agencies has already come into question thanks to their being regulated by the EU.¹⁰ The agencies’ ratings of Eurozone public sector debt is generous, given the inadequacy of the official, Eurostat figures for “general government gross debt”.¹¹ The Eurostat figures fail to capture several lines of public sector indebtedness, in which the EIB and the TARGET2 payment system play a central role.¹² Lastly, public sector risk is rated more highly than it should be as a matter of monetary principles, with ratings failing to recognise the sub-sovereign nature of Eurozone member state governments who have surrendered monetary powers over the currency they use to the European authorities.¹³ In consequence the risk in dealing with Eurozone public sector entities is higher than it appears, as is the risk in dealing with EU supranationals, the creditworthiness of whom is dependent upon the creditworthiness of Eurozone member state governments.¹⁴

The second and alternative picture is of ubiquitous safety, almost a total absence of Moral Hazard: this picture accords with 0% yields – with no risk being taken there should be no reward. Under this picture the ECB has managed to create *de facto* what is certainly not the case *de iure*: all forms of central bank money in euro have become fully fungible with one another, with no price adjustment on

⁹ <https://www.ecb.europa.eu/paym/coll/risk/liquidity/html/index.en.html>

¹⁰ “Managing Euro Risk” by Barnabas Reynolds, Professor David Blake, and Bob Lyddon, published in February 2020 by Politeia, Factor 5 p. 64

¹¹ <https://ec.europa.eu/eurostat/en/web/government-finance-statistics/data/main-tables>

¹² “Managing Euro Risk”, Reynolds et al, Annex 1 pp. 93-104

¹³ “Managing Euro Risk”, Reynolds et al, pp. 22-31

¹⁴ “Managing Euro Risk”, Reynolds et al, pp. 31-5

account either of difference in credit risk or change in interest rates (which are held near to or below zero).

The three forms of central bank money – note&coin, a balance on an account at the central bank, and a holding of the bonds of the sovereign country behind the central bank – should be fully fungible and without price adjustment other than because the bonds were issued when interest rates were higher or lower than they are now.

The euro introduced the component of differential credit risk into dealings with central banks: the risk of having a deposit in the Bundesbank compared to in the Banca d'Italia or of holding a block of Bundesanleihe compared to BTPs is not identical on paper, because Germany has a Moodys public credit rating of Aaa, whilst Italy has one of Baa3. Initially this led to the “Bund spread”: a large difference in price between the two assets, reflecting the risk differential.

The ECB, through its different APPs, has succeeded in erasing this difference by buying up the market. An investor should react to this by always seeking the highest-yielding investments within the types that are on the ECB list of eligible collateral and qualifying for one of the APPs, including the PEPP.

As long as the ECB continues its policy of buying everything and at prices that reflect a 0% yield, there is no Moral Hazard: anything and everything counts as central bank money. One has simply to suspend the disbelief occurring when the Eurosystem treats securities rated BBB- as if they were free of credit risk, and follow the ECB's direction-of-travel if one wishes to trade profitably.

It is scarcely possible to trade profitably in this market by taking up a position against the trend set by the ECB.

The ECB has created a market in a continuous state of a so-called “bear squeeze”, in which one market actor owns enough stock to keep prices high and to punish other actors who have taken an opposite investment view, have positioned themselves for a fall in price, but have reached a pay-date without owning stock they have committed to deliver (either as a sale, as the second leg of a repurchase agreement, or as the reversal of a stock lending). Then, regardless of their view as a “bear” of investment fundamentals, they have to buy in the stock at the high price maintained by market-owning “bull”. In this case the Eurosystem is the “bull”.

The Eurosystem compels market actors to take the Eurosystem's view of Safety, namely that almost any financial asset directly qualifies – or can be structured into a security so as to qualify - to be on the ECB eligible list, and thereby become akin to central bank money. A market operating under the compulsion of one market-dominating actor cannot be a free market.

Liquidity in the Eurozone financial market

AFME Finance issues a quarterly review of Europe Government Bond Data. Its report for Q3 2020 shows, on p.3 and p. 31 a 3.8% year-on-year and 13.0% quarter-on-quarter reductions in bond trading volumes.¹⁵ This was in spite of the higher amounts of securities in issuance shown on p. 5, the rising average auction sizes on p.6, and the increased gross new issuance on p. 10. All the indicators of market size should point to greater liquidity, not less.

The secondary market trading volumes on pp. 26-30 point to static and reducing volumes, in certain cases significantly reducing. The most striking one is in chart 5.4 on p. 26 for Germany – Bundesanleihe. Being the benchmark for the Eurozone in terms of high credit quality and large issuance, the Bundesanleihe should be as active as Treasury bonds in US\$. Instead Bundesanleihe turnover is about 40% of what it was in 2005. This chart alone indicates that an increasing proportion of Bundesanleihe are not trading.

Volumes in the futures market are indicative of liquidity, volatility and the degree of market participation by professional/speculative investors. As regards 2018, Eurex state that their “German 10-year Euro Bund futures contract (Barchart.com symbol GG) traded mostly sideways during

¹⁵ Government Bond Data Report Q3 2020 European Market Update

2018".¹⁶ Eurex's factsheet up to January 2019 shows a two-year downward trend in volumes for its contracts on long-term German government instruments.¹⁷ The introduction to the factsheet underpins the contention of how the German government bonds are the market's bedrock: "Eurex Exchange's German fixed income futures and options are the benchmark for the European yield curve and serve as the standard reference when comparing, evaluating, and hedging interest rates in Europe."

The AFME report and the Eurex data support the interpretation of the market that liquidity is reducing, without stating where the bonds are being held. This paper infers that 50% or more of the bonds on the ECB eligible collateral list are owned or controlled by the Eurosystem.

Where there is one very large buyer, a market will tend towards being a monopsony or, put another way, in the buyer's pocket. In this case the buyer is a "concert party" of EU mechanisms. The Eurosystem's acting through several mechanisms may cause other market actors to delude themselves that the liquidity in the market and prices are not dependent upon a single buyer, who backstops the market and always as the buyer.

There was no such delusion in the case of the Bank of England up to and including the Black Wednesday crisis on 16 September 1992 when the British government was forced to withdraw the pound sterling from the European Exchange Rate Mechanism (ERM). Other market actors were completely aware of what the Bank of England was attempting to do, and which side of the market it was on: buying GBP, trying and failing to keep it above the lower currency exchange limit mandated by the ERM. Other market actors could trade GBP/DEM in the certain knowledge that the Bank of England would buy GBP at the ERM floor rate.

Market actors in Euro can trade in the certain knowledge that the Eurosystem will buy virtually any class of asset in Euro, in big size and so as to yield near zero. However, market actors may so much have internalised the positioning of the Eurosystem as to not be consciously aware of it. They trade blissfully on a wave of certainty that the Eurosystem will not dump its stock, cause yields to rise and prices to fall, in any meaningful quantity: the Eurosystem has a one-way interest only.

That makes it a very easy market to trade in as long as one shares the Eurosystem's positive view of the fundamentals, but a very difficult one to trade in if one disagrees and feels that stock is overvalued. If a free market is made by willing sellers selling at a price at which willing buyers will buy, the Eurozone financial market fails this vital test. Instead it is a market upon which the Eurosystem is imposing its view by buying in such huge size at high prices, making the "bear" view impossible to trade profitably on.

A free market has deep and genuine investor interest from both retail and professional counterparties, and has prices deriving from several conflicting views of fundamentals and market direction. A free market shows volatility. Instead this is more or less a rigged market that is in one buyer's pocket, because of the huge and self-serving "bull" position that the authorities have built up through their various financial mechanisms.

A free market requires speculators, to attract whom there must be volatility. In the Eurozone lexicon "speculative" is a synonym for Anglo-Saxon market practices that supposedly gave rise to the global financial crisis of 2007/8. The Eurozone's antidote to "speculation" is control, and this is indeed what has been imposed. Without volatility there will be no speculative interest, and without speculative interest the market will lack depth, tend towards atrophy, and be easier to manipulate.

Market participants might like to consider a rule-of-thumb used at Chemical Bank in the early 1990s about the relationship in a financial market between professional/speculative trading and the interest of end-investors to buy or sell securities, currency or whatever it is. Professional/speculative trading was the source of liquidity: without it there was no market into which to place the trades that a genuine end-investor wanted to transact. For there to be a ready and deep market, professional/speculative trading needed to be ten times as large as end-investor interest. The Eurosystem's enormous "bull" interest has eliminated professional/speculative trading, because

¹⁶ https://www.barchart.com/futures/quotes/GG*0/profile accessed on 6 January 2021

¹⁷ factsheet_eurex_benchmark_fixed_income_derivatives downloadable from Eurex website

professional/speculative trading depends on the possibility of profit from both a “bull” and a “bear” view. The Eurosystem has eliminated the possibility of profit from the “bear” view. As professional trading in the Eurozone financial market is conducted either directly with a Eurosystem member, or in the knowledge of the existence and direction of the Eurosystem’s interest in the background, it is not speculative. Speculators have been forced out of the market, damaging liquidity. Genuine end-investor interest – if it is 10% of the professional/speculative trading - has become miniscule. Retail investors have quit the market individually, and participate at most through a collective investment vehicle.

One could dispute how much of the trading not conducted directly with the Eurosystem is free of its influence. The Eurosystem itself would deny that it was. Market participants might believe that certain dealings are free of this influence, but they might also like to consider the parallel with the market in Russian bonds leading up to the default in August 1998. Thirty or forty banks considered themselves to be a market-maker in Russian securities, meaning, under market etiquette, that they would make a two-way price to another professional counterparty in the market lot size in normal trading conditions during normal business hours. As trading conditions deteriorated, non-professional counterparties started to liquidate their holdings, and then wanted just to dump them. To start with these thirty or forty supposed market-makers would buy from those non-professionals and try to lay off their position with one another. Belatedly they discovered that the centre of the market consisted not of their cohort of thirty or forty banks but of just two: Credit Suisse First Boston in Moscow and Chase Manhattan in London. These two banks had been backstopping the entire market without the other self-styled “professionals” realising it. These two banks firstly claimed that trading conditions were not normal and they would not make a two-way price, and secondly phoned back the same banks to see if they would make a two-way price in the other direction and they wouldn’t. CSFB and Chase thereby established that the market etiquette did not apply, as they were the only two participants who would abide by it and quote two-way prices to one another. CSFB’s and Chase’s prices went to Offer-only i.e. they would only sell and not buy, and the price was the same at both banks and very high. When CSFB and Chase deemed that the other players were absolutely desperate to sell, they switched to Bid-only i.e. they would only buy, and at a very low price. Having sold high and bought low and in big size, they cleaned up, because they had a grip on the market that the other supposed market-makers had not appreciated.

The prices that the thirty or forty supposed market-makers were posting in the normal course of business before the crisis to non-professional counterparties were wholly dependent upon their being able to offload their positions to CSFB or Chase. The combination of CSFB and Chase backstopped the entire market, in the same way as the “concert party” of EU mechanisms is doing for the Eurozone now. The supposed market-makers in Russian securities were deluding themselves about the nature of market, just as market actors in the Eurozone financial market are deluding themselves now. There is no retail or professional/speculative interest in owning Eurozone financial securities at current yields. Only the Eurosystem and these other mechanisms have an interest, and if that interest stops, there will be no-one else to sell to.

Yield in the Eurozone financial market

It is not necessary to provide extensive evidence for the yield factor in the Safety-Liquidity-Yield equation. ECB interest rates are below zero, in fact well below them in its TLTRO programme.¹⁸

Spreads between returns on Aaa bonds and Baa3 bonds in the same maturity are negligible: German 10-year government bonds currently yield -0.557% whereas Italy’s pay 0.537%. That is a pick-up of only 1.094% per annum for 9 credit rating notches.¹⁹ That is 12.15 basis points per notch. The compression is even greater the lower down the credit spectrum one goes: the 10-year bonds of the Republic of Greece have a yield of only 0.620% when the issuer’s Standard & Poor’s rating is BB- and of “Speculative Grade”. That is a pick-up over the yield on Italy’s bonds of just 0.083% for 3 credit rating notches, which is 2.76 basis points per notch.

¹⁸ https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr201210_1~e8e95af01c.en.html

¹⁹ <http://www.worldgovernmentbonds.com/> Accessed on 6 January 2020

There is next-to-no difference between the return on a 1-month investment and a 10-year one: the yield curve is almost flat. A 3-month German government treasury bill yields -0.646%, while the 10-year bond yields -0.557%, a pick-up of 8.9 basis points for going to the longer maturity. The 25-year German bond yields -0.224%, a pick-up of 33.3 basis points for investing until 2045.

The Eurosystem treats securities of a wide variety of credit quality (according to their public ratings) as indistinguishable, and has destroyed the “time value of money”.

The PEPP programme viewed against this background

When viewed through the prism of Safety-Liquidity-Yield, the PEPP resembles the kind of “Eurozone Bad Bank” concept that has been mooted as a resolution to the problem of bad loans in the Eurozone banking system, known also as Non-Performing Loans (NPLs) and Non-Performing Exposures (NPEs).

The yields on the bonds bought by the PEPP are near to zero so it will not receive significant interest income.

The bonds bought by the PEPP are mainly longer-term so it will not receive significant repayments of principal.

The liquidity of the assets bought by the PEPP is degraded by so much of the classes of asset already being owned by the Eurosystem or controlled as collateral: the Eurosystem has been the sole buyer so if they ever want to sell, there is no-one else out there to sell to. Huge blocks of stock are not trading: by our calculations the Eurosystem may own or control over 50% of the stock. Retail buying interest is non-existent, and professional interest will only exist as a buyer taking a “long position” and then only to the extent that it is known that the Eurosystem is there as a backstop to take the position off them.

Safety is the major variable, meaning one believes either that the Eurosystem has eliminated Moral Hazard and that assets will not go bad, or that the PEPP portfolio is already of “Speculative Grade” quality (because the rating agencies over-rate Eurozone public debt en bloc and have been prevailed upon not to demote any Eurozone sovereign bar Greece and Cyprus to below “Investment Grade”, however poor their economic indicators) and liable to slip into the lower rungs of “Speculative Grade” because of the Eurosystem’s weakening of its own criteria.

Our view is the latter one. There is now almost no class of asset whose price is not being propped up by the Eurosystem’s intervention. The Eurosystem has created an entirely false market and the public credit rating agencies have been prevailed upon to endorse it.

The PEPP's legitimacy and portfolio

High-level legitimacy

The rationale and legitimacy behind the PEPP is the ECB's opinion that COVID-19 threatens its ability to fulfil its mandate to deliver "price stability". The threat is that COVID-19 could cause price inflation to fall well below the ECB's target of 2%.²⁰ There seems to have been inadequate challenge to the ECB's interpretation of its "price stability" mandate. The setting of the 2% level is its own interpretation of that mandate, as is the concept that this is a fixed target and that the ECB is automatically justified in intervening if inflation falls below this "target". This dialogue – the one upon which the creation of the PEPP rests - is an invention by the ECB and is not grounded in the treaties signed at the time the mandate was granted by the member states prior to the launch of the Euro.²¹ Instead we would contend that it was understood as one to keep inflation at no more than 2%. Before the introduction of the euro most of the member states initially adopting it had experienced much higher levels of inflation than 2%. One of the benefits of the euro was meant to be "price stability", i.e. inflation of not more than 2%. The ECB's mandate would be to keep inflation at or below that level. No automatic mandate was understood as being granted to the ECB to intervene if inflation fell below 2% of its own accord; any such intervention should have been subject to the granting of a new mandate from the member states. The concept of central bank intervening to make inflation rise would be contrary to the situation in many member states before the euro's introduction, and indeed contrary to commonly-held perceptions of a main role of central banks – to use increases in interest rates to dampen inflation down, and not to use decreases in interest rates to stoke it up.

The intentions of the PEPP are clear and they have little to do with inflation: that is being used as a pretext. The intentions are to keep Eurozone member state bond prices high and yields low, to enable member state public sector entities to borrow whatever they need even in the absence of genuine investors, to ensure that these same public sector entities enjoy a very low current cost of debt and thereby to ensure that COVID-19 does not cause disastrous budget deficits. That may be a laudable intention but it is outside the ECB's mandate.

The PEPP terms permit the Eurosystem to widen the scope of its purchases to the very short end of the maturity spectrum, whereas previously APP could not invest in securities with less than a year to run. Instead the PEPP is allowed to buy securities with as little as 70 days' residual life: buying paper of such short term cannot be held out as a measure that can affect a macroeconomic indicator like inflation.

The PEPP is allowed to buy corporate bonds and commercial paper, and "credit claims" (i.e. bank loans with transferability built in to their documentation): this turns the Eurosystem into a primary market commercial lender, in direct competition with commercial banks, and taking commercial credit risk. This should not be within a central bank's mandate albeit that a rationale is given out which will be familiar to those who have studied the establishment of European Fund for Strategic Investments (the EFSI and now called InvestEU).²² In that case it was the "missing private investor" who was supposedly unwilling to inject equity and subordinated debt into otherwise promising projects. In the case of COVID-19 it is that the ECB does not believe that the private credit market is functioning properly and is not transmitting the amount of credit it should. It is always possible to conjure up a rationale for intervention; it is never acceptable to allow market forces to decide. In consequence the Eurosystem's mandate has been widened to take a direct role in commercial banking.

Even if one were to accept at face value the ECB's contention that the PEPP is meant to cause inflation to rise, the validity of APP (be it the PEPP or the ECB's other programmes) as a method of achieving that has been subject to inadequate scrutiny. Have the ECB's APPs achieved their objective so far? If not, why is it considered appropriate to continue with an approach which has failed

²⁰ <https://www.ecb.europa.eu/mopo/strategy/pricestab/html/index.en.html>

²¹ Professor Kevin Dowd, 'The Misguided Drive Towards European Monetary Union', in Kevin Dowd and Richard H. Timberlake, Jr (ed.), *Money and the Nation State: The Financial Revolution, Government and the World Monetary System*, 2nd edn., (Abingdon, Routledge, 2017), pp. 358-9

²² The "investment gap explained in "Managing Euro Risk", Reynolds et al, p. 111

to achieve its stated aim? At what programme size will it be considered that APP has failed, if macroeconomic indicators do not move in line with APP's stated aims? These questions are not being asked or answered, because the ECB is in charge both of policy formulation, implementation, monitoring, reporting and assessment.

Has APP had other negative side-effects? APP has been part-and-parcel of very low interest rates, which tend to result in asset price inflation (i.e. price instability but in assets that are conveniently not within the scope of a central bank's measure of inflation) and in instability in the financial sector caused by banks and investors taking on excess credit risk in order to obtain yield.

This is the scenario where a central bank ought to raise its Countercyclical Buffer in order to cause banks to better capitalise their lending and make credit more expensive. It is a scenario where the banking sector regulator – in this case the European Banking Authority or EBA – ought to ensure that banks' Internal Ratings-Based methodologies for calculating the Value at Risk on both on- and off-balance sheet business were robust and were being made still more robust. Instead the European authorities loosened the controls: on 17 September banks were permitted to build up on-balance sheet assets so that they exceed 20 times the bank's capital. The banks extend more credit to customers and become overlent and less stable, and less able to absorb credit losses.²³

The European authorities are both attempting by several means to make banks lend more and allowing these same dubious Internal Ratings-Based methodologies to act as a passport for assets to be registered onto the ECB list of eligible collateral, through which the Eurosystem itself becomes a direct commercial lender.

Central banking and commercial banking converge so that they become indistinguishable.

This is at a time when the banking sectors of several member states already have high levels of acknowledged Non-Performing Loans and latent unacknowledged ones: the latter would be all of the assets sold off into questionable securitisations (e.g. Unicredit's Project Fino²⁴), loans massaged back from Non-Performing to performing status by use of "restructuring"²⁵ and "forbearance"²⁶, and loans to borrowers who are able to afford the interest on their loans as long as rates remain near zero but who would quickly default if they were normalised ("zombie borrowers").²⁷

These levels of loans, which have defaulted into Non-Performing Loans or have become "zombies", were granted originally because the lending bank's Internal Ratings-Based methodology gave the loans the green light. Now the Eurosystem will be buying assets that have been originated through these same flawed methodologies.

²³ <https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200917~f3f03398d2.en.html>

²⁴ Moodys Rating Action report of 23 November 2017: "Moody's assigns definitive ratings to Italian ABS notes backed by Unicredit NPLs issued by Fino 1 Securitisation S.r.l."

²⁵ E.g. at Monte dei Paschi di Siena - BMPS interim-report-on-operations_30092020 p. 82 paragraph

4

²⁶ "Forborne classification" in BMPS interim report p. 15

²⁷ <https://www.bloomberg.com/news/articles/2020-03-06/europe-s-zombie-borrowers-besieged-by-spread-of-coronavirus>

Net purchases into the PEPP portfolio

From March to May the PEPP programme ceiling was €750 billion; from June to November it was €1.35 trillion.

The ECB publishes the net purchases into the PEPP portfolio retrospectively and for periods of two months. Here are the figures published at the end of November 2020:

| ECB Data on public sector securities held in the PEPP | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|
| Breakdown of Public Sector Securities under the PEPP | | | | | |
| Net purchases | Mar-May 2020 | Jun-Jul 2020 | Aug-Sept 2020 | Oct-Nov 2020 | Cumulative |
| Austria | 4,914 | 5,142 | 3,558 | 3,953 | 17,567 |
| Belgium | 6,461 | 6,392 | 4,426 | 4,918 | 22,197 |
| Cyprus | 481 | 455 | 257 | 290 | 1,484 |
| Germany | 46,749 | 46,266 | 32,033 | 35,571 | 160,619 |
| Estonia | 0 | 163 | 29 | 14 | 207 |
| Spain | 22,392 | 23,719 | 14,918 | 16,099 | 77,128 |
| Finland | 3,232 | 3,225 | 2,232 | 2,480 | 11,169 |
| France | 23,575 | 35,845 | 24,817 | 27,573 | 111,810 |
| Greece | 4,690 | 5,256 | 3,020 | 3,341 | 16,307 |
| Ireland | 3,000 | 2,972 | 2,057 | 2,288 | 10,317 |
| Italy | 37,365 | 36,067 | 21,811 | 22,927 | 118,169 |
| Lithuania | 1,051 | 543 | 395 | 92 | 2,080 |
| Luxembourg | 459 | 348 | 187 | 250 | 1,244 |
| Latvia | 396 | 391 | 50 | 70 | 907 |
| Malta | 123 | 0 | 114 | 23 | 261 |
| Netherlands | 10,389 | 10,285 | 7,121 | 7,911 | 35,705 |
| Portugal | 4,150 | 4,655 | 2,844 | 3,159 | 14,809 |
| Slovenia | 938 | 958 | 585 | 650 | 3,131 |
| Slovakia | 2,303 | 1,487 | 547 | 369 | 4,707 |
| Suprationals | 13,935 | 14,045 | 5,831 | 8,180 | 41,991 |
| Total | 186,603 | 198,214 | 126,832 | 140,160 | 651,810 |
| End-of-period book value in EUR millions. | | | | | |
| Figures may not add up due to rounding. | | | | | |

Ceilings on holdings of member state public sector debt by ECB Capital Key

A member state central bank's Capital Key in the ECB – re-based so that Eurozone central banks' shares in the ECB add up to 100% of the whole – act as a guideline for how the PEPP portfolio should be made up. A country's Capital Key multiplied by the programme ceiling delivers the guidelines for how much can be invested in securities issued by entities of that country. Since 93% of the portfolio is going into public sector bonds, the guideline effectively defines how much of each member state's public debt the PEPP can buy.

Here are the ceilings for each member state during three respective periods, in Euro billions:

| ECB Capital Keys | | | | | |
|-------------------------|-------------|----------------|--|--|--|
| in % | | | | | |
| | of | Rebased | Country ceiling with PEPP of €750bn | Country ceiling with PEPP of €1.35trn | Country ceiling with PEPP of €1.85trn |
| | 100% | | | | |
| Belgium | 2.4778 | 3.52 | 26 | 48 | 65 |
| Germany | 17.9973 | 25.5674 | 192 | 345 | 473 |
| Estonia | 0.1928 | 0.2739 | 2 | 4 | 5 |
| Ireland | 1.1607 | 1.6489 | 12 | 22 | 31 |
| Greece | 2.0332 | 2.8884 | 22 | 39 | 53 |
| Spain | 8.8409 | 12.5596 | 94 | 170 | 232 |
| France | 14.1792 | 20.1433 | 151 | 272 | 373 |
| Italy | 12.3108 | 17.489 | 131 | 236 | 324 |
| Cyprus | 0.1513 | 0.2149 | 2 | 3 | 4 |
| Latvia | 0.2821 | 0.4008 | 3 | 5 | 7 |
| Lithuania | 0.4132 | 0.587 | 4 | 8 | 11 |
| Luxembourg | 0.203 | 0.2884 | 2 | 4 | 5 |
| Malta | 0.0648 | 0.0921 | 1 | 1 | 2 |
| Netherlands | 4.0035 | 5.6875 | 43 | 77 | 105 |
| Austria | 1.9631 | 2.7888 | 21 | 38 | 52 |
| Portugal | 1.7434 | 2.4767 | 19 | 33 | 46 |
| Slovenia | 0.3455 | 0.4908 | 4 | 7 | 9 |
| Slovakia | 0.7725 | 1.0974 | 8 | 15 | 20 |
| Finland | 1.2564 | 1.7849 | 13 | 24 | 33 |
| | 70.3915 | 99.9998 | | | |

The PEPP's purchases of primary-market public sector debt

Purchases of Eurozone public sector debt

Reversing out the €42.0 billion of purchases of the debt of supranationals, we can see that Eurosystem members had, within the guise of the PEPP, purchased €609.8 billion of Eurozone public sector debt between 24 March 2020 and the end of November. This is debt either of the central government, or a recognised agency, or a regional or local government.

By way of example, the recognised agencies in Italy are:

Agenzia nazionale per l'attrazione degli investimenti e lo sviluppo d'impresa S.p.A. (Invitalia)

Cassa del Trentino S.p.A.

Cassa Depositi e Prestiti S.p.A. (CDP)

Finlombarda S.p.A.

Similarly, the following Spanish regional and local government entities issued eligible debt in 2020:

Madrid, Comunidad Autonoma de

Vasco, Gobierno

Galicia, Xunta de

Navarra, Comunidad Foral de

Andalucia, Junta de

Asturias, Principado de

The recognised supranationals are the following:

African Development Bank

Asian Development Bank

Asian Infrastructure Investment Bank

Bank for International Settlements

Caribbean Development Bank

Council of Europe Development Bank

European Atomic Energy Community

European Bank for Reconstruction and Development

European Financial Stability Facility

European Investment Bank

European Investment Fund

European Stability Mechanism

European Union

Inter-American Development Bank

International Bank for Reconstruction and Development

International Development Association

International Finance Corporation

International Finance Facility for Immunisation

International Monetary Fund

Islamic Development Bank

Multilateral Investment Guarantee Agency

Nordic Investment Bank

How much primary-market public sector debt the PEPP has bought

The German Constitutional Court made a major presumption in its deliberations about Eurosystem APP (in the form of the PSPP) that led to its May 2020 verdict. It is that APP precluded primary market purchases of member state public sector bonds. Indeed the PSPP did limit itself to secondary market purchases, albeit without going into detail about exactly when an issue stopped being "primary" and started to be "secondary".

This presumption is not given in the PEPP. Indeed the presumption is that the PEPP has bought up large amounts of new issuance of member state public sector bonds. To test this theory, we have concentrated on three of the sizeable and least solvent Eurozone member states, and on supranationals as a category, and analysed their new issuance of bonds in Euro since the PEPP was established up until the most recent date for which we have the PEPP Cumulative Net Purchases.

Then we have compared how much has been issued with how much the PEPP holds per country, in the knowledge that 93% of the PEPP is invested in public sector bonds, and given the ceilings based on ECB Capital Keys acting as a guideline.

In Appendix 1 we have a summary of new bond issues, launched after the date of EU Decision 2020/440 of 24th March 2020 and before 30th November 2020 when the PEPP ceiling was €1.35 trillion, by recognised Italian, Spanish, Portuguese and supranational issuers and which are now on the ECB list of eligible collateral. Issues by supranationals not in Euro were eliminated, as we take it that the PEPP may only invest in securities where Euro is the issue currency.

The summary is reproduced here with the figures in Euro billions:

| Country/category | Sovereign | Agencies | Local/Regional government | Total |
|-----------------------------|-----------|----------|---------------------------|-------|
| Italy ²⁸ | 249 | 2 | 0 | 251 |
| Spain ²⁹ | 114 | 1 | 5 | 120 |
| Portugal ³⁰ | 29 | 0 | 1 | 30 |
| Supranational ³¹ | 102 | N/A | N/A | 102 |
| | | | | 503 |

The full lists of bonds are given in the Appendices as footnoted.

The base source was the ECB list of eligible collateral, filtered first by Issuer Group and then by country (the latter filter being unnecessary in the case of recognised supranationals, who are their own Issuer Group).

The ECB list does not give the amount of any issues. These had to be sourced from Bloomberg's, www.cbonds.com and www.finanzen.net, with two issues in Euro by the EIB falling through the net.

A key point regarding Italy, Spain and Portugal is that the sovereign issuer is by far the largest issuer; agencies and local/regional government entities account for 3-4% of the total in Spain and Portugal, and less than 1% in Italy. If the PEPP has bought in sizeable amounts, the vast majority will consist of central government bonds.

How much of the new issuance by key countries and by supranationals might the PEPP have bought up?

Now we can compare:

- The PEPP's authorisation to buy these bonds in terms of the Country Ceiling per member state based on its ECB Capital Key and a programme size of €1.35trn
- The Cumulative Net Purchases from the PEPP's inception until the end of November
- The new debt issued by recognised issuers over the same period

²⁸ See Appendix 2 for full list

²⁹ See Appendix 3 for full list

³⁰ See Appendix 4 for full list

³¹ See Appendix 5 for full list, bar two issues by the EIB for which no amount could be found (ISINs XS2182818851 and XS2178689985). Issues in Euro only are recorded

| In Euro billions | Country ceiling with PEPP of €1.35trn | PEPP Cumulative Net Purchases | New Bonds Issued by Recognised Issuers | PEPP CNP as percentage of new issuance |
|------------------|---------------------------------------|-------------------------------|--|--|
| Italy | 236 | 118 | 251 | 47% |
| Spain | 170 | 77 | 120 | 64% |
| Portugal | 33 | 15 | 30 | 50% |
| Supranationals | No ceiling | 42 | 102 | 41% |

As we saw above, agencies and local/regional government entities account for 3-4% of the total of bonds issued in Spain and Portugal, and less than 1% in Italy: if the PEPP has bought Italian, Spanish and Portuguese public sector securities, they will be for 95%+ the bonds of the sovereign.

By this token it is perfectly possible that the PEPP has bought the following percentages of these countries' central government bond issues during the period:

| Country | Percentage of new bond issues bought by the PEPP |
|----------|--|
| Spain | 64% |
| Portugal | 50% |
| Italy | 47% |

We can compare the debt needs of these three member states for 2020 using the raised PEPP ceiling of €1.85trn, the base "general government gross debt" for 31/12/19, and making the assumptions that this debt has an 8-year average life, maturities falling in 2020 needed to be refinanced in full, and there is a new need of 10% of the preceding debt'

In consequence we can draw up the following table:

| In Euro billions | Country ceiling with PEPP of €1.85trn | Debt at 31/12/19 | Maturities in 2020 | New debt need in 2020 | Total need to issue bonds in 2020 | PEPP ceiling as percentage of bond issuance |
|------------------|---------------------------------------|------------------|--------------------|-----------------------|-----------------------------------|---|
| Italy | 324 | 2,410 | 301 | 241 | 542 | 60% |
| Spain | 232 | 1,189 | 149 | 119 | 267 | 87% |
| Portugal | 46 | 250 | 31 | 25 | 56 | 82% |

The conclusions are:

- The raised PEPP ceiling allows it to buy up a very high percentage of the total bond issuance for 2020 for these member states, if the assumptions are even approximately accurate
- What could not be bought up in the primary market between March and November due to the ceilings in place can be bought up in December in the secondary market after the raising of the ceiling
- The PEPP could buy 87% of Spain's new bonds, 82% of Portugal's and 60% of Italy's

The key remaining question is whether the PEPP Cumulative Net Purchases really have included any of the new sovereign issues and bought in the primary market.

Put another way, is it credible that the PEPP did not buy into any of the new sovereign issues?

Indeed did the PEPP buy entire issues, without any part of them trading in either the primary or secondary market?

If they did, that would constitute direct monetary financing of member states in the manner that the German Constitutional Court believed was not occurring under the PSPP.

ECB reporting of PEPP's Primary Market buying

Of course the ECB's reporting falls short on supplying definitive evidence one way or the other.

The lack of the carve-out in the PEPP that the Eurosystem will only buy in the secondary market is a controversial point. In recognition of this the ECB only publishes the breakout of Primary and Secondary market purchases into PEPP for the other types of asset the PEPP buys, noting again that the PEPP is permitted to invest in all the asset classes for which there is a pre-existing Purchase Programme (Public Sector, Asset-Backed, Covered Bonds and Corporate Sector) and both long-term and short-term paper. The latter includes commercial paper issued by a non-financial institution entity, and the reporting shows "Corporate Bonds" (with initial maturity above one year) and "Commercial paper" (with initial maturity above one year) separately.

Here is the status as visible on 16 December 2020:

Bimonthly breakdown of private sector securities under the PEPP

| Asset class | Asset-backed securities | | Covered bonds | | Corporate bonds | | Commercial paper | |
|----------------|-------------------------|-----------|---------------|-----------|-----------------|-----------|------------------|-----------|
| | Primary | Secondary | Primary | Secondary | Primary | Secondary | Primary | Secondary |
| Market | | | | | | | | |
| EUR millions * | 0 | 0 | 557 | 2,566 | 8,842 | 11,918 | 20,001 | 4,305 |
| Share * | 0.00% | 0.00% | 17.84% | 82.16% | 42.59% | 57.41% | 82.29% | 17.71% |
| Date | 30-Nov-2020 | | | | | | | |

* End of month, at amortised cost

We can derive from the ECB-supplied data that at the end of November 2020 the PEPP portfolio contained the following, in millions of Euro:

| Issuer type | Amount |
|---|---------|
| Asset-backed securities | 0 |
| Covered bonds | 3,123 |
| Corporate bonds | 20,760 |
| Commercial paper | 24,306 |
| Supranationals (A) | 41,991 |
| Public sector securities of member states (B) | 609,819 |
| Total of public sector securities (A+B) | 651,810 |
| Total PEPP | 699,999 |
| Public sector securities as percentage of total PEPP | 93% |
| Public sector securities of member states as percentage of total PEPP | 87% |

As the ability of the PEPP to buy primary market public sector bonds is controversial, the ECB hides the numbers. Here is the way in which the purchases of public sector securities into the PEPP are presented:

Bimonthly breakdown of public sector securities under the PEPP

| Book value as at end-November 2020 (EUR millions) | Net purchases October-November 2020 | Cumulative net purchases as at end-November 2020* | Current WAM of public sector securities holdings under the PEPP** | WAM of eligible universe of public sector securities under the PEPP as at end-November 2020** |
|---|-------------------------------------|---|---|---|
| Austria | 3,953 | 17,567 | 10.93 | 7.07 |
| Belgium | 4,918 | 22,197 | 6.29 | 9.43 |
| Cyprus | 290 | 1,484 | 10.86 | 8.33 |
| Germany | 35,571 | 160,619 | 4.83 | 6.73 |
| Estonia | 14 | 207 | 9.08 | 7.51 |
| Spain | 16,099 | 77,128 | 8.47 | 7.43 |
| Finland | 2,480 | 11,169 | 7.24 | 6.96 |
| France | 27,573 | 111,810 | 8.61 | 7.25 |
| Greece | 3,341 | 16,307 | 8.38 | 9.36 |
| Ireland | 2,288 | 10,317 | 8.85 | 9.55 |
| Italy | 22,927 | 118,169 | 6.82 | 6.85 |
| Lithuania | 92 | 2,080 | 11.78 | 10.60 |
| Luxembourg | 250 | 1,244 | 7.13 | 6.38 |
| Latvia | 70 | 907 | 9.07 | 10.27 |
| Malta | 23 | 261 | 7.46 | 8.13 |
| Netherlands | 7,911 | 35,705 | 4.08 | 7.25 |
| Portugal | 3,159 | 14,809 | 6.78 | 6.62 |
| Slovenia | 650 | 3,131 | 8.31 | 9.53 |
| Slovakia | 369 | 4,707 | 7.78 | 8.16 |
| Suprationals | 8,180 | 41,991 | 8.90 | 7.58 |
| Total | 140,160 | 651,810 | 6.98 | 7.23 |

* Cumulative net purchase figures represent the difference between the acquisition cost of all purchase operations and the redeemed nominal amounts.

** Remaining weighted average maturity (WAM) in years.

Notes: Figures may not add up due to rounding. Figures are preliminary and may be subject to revision. The purchase volumes are reported on a settlement basis and net of redemptions.

How much of the market the Eurosystem now owns

We now need to move forward and incorporate these figures into a model for how much of the Eurozone bond market is owned by the Eurosystem or controlled by it as collateral.

Status as at 11 December 2020

By 11 December 2020 the PEPP portfolio had increased to €718 billion.

We can build a model for the total ownership and control of the Eurozone bond market being exercised by the Eurosystem, with some allowable mismatch of dates such as that the TARGET2 figures are as of the last business day in October.

The total market size is taken to be the entire nominal value of the securities on the ECB list of eligible collateral. The ECB gives a figure for this of €15.8 trillion, even if the individual issue sizes are not on its list.

The ECB list of eligible collateral includes issues in Euro by non-EU supranationals, issues by EU supranationals not in Euro, and issues by non-EU supranationals which are not in Euro: the two last categories should be backed out of the ECB list if we are looking for the total size of the bond market in Euro, issued by Euro area residents and non-residents.

On the other hand any ineligible bonds issued in Euro by Euro-area residents and non-residents should be added. Our view is that the total of ineligible issues is not large (i) ineligible issues will be of much smaller individual size than those of recognised agencies and local/regional government entities, which in turn are only 3-4% of the volume of issuance by sovereigns; (ii) this view of the relative size of different categories of issue is corroborated by the relative size of the PSPP compared to the CSPP, ABSPP and CBPP3; (iii) the criteria for admission to the eligible list are low: an overwhelming majority of bonds-in-issue are eligible.

Under this reasoning the ECB figure for the total nominal value of Eurosystem eligible collateral can be taken as a reasonable token for the total market size, albeit that the ECB issues it without breakdown.

Likewise the ECB gives a figure for the collateral currently lodged in the Eurosystem but without a breakdown.

We can set out the blocks of money that correlate to bonds owned or controlled as collateral, and draw out cumulative figures:

- What is owned: the APP + the PEPP
- Plus what is held as collateral for loans by the Eurosystem to banks
- Plus what is held as collateral if only the net-net balance in TARGET2 is regarded as a loan requiring to be supported by collateral
- Plus if the TARGET debtors balance is regarded as loans requiring to be supported by collateral as well

At each level the market share owned or controlled by the Eurosystem increases, until it is nearly half:

| | |
|---|------------|
| Total nominal value of Eurosystem eligible collateral | 15,800,000 |
| Collateral lodged in the Eurosystem | 2,600,000 |
| TARGET2 net-net balance (end October) | 323,700 |
| TARGET2 creditors - balance (end October) | 1,546,200 |
| TARGET2 debtors - balance (end October) | 1,222,500 |
| PEPP portfolio | 718,000 |
| APP/CSP | 243,000 |
| APP/PSPP | 2,309,000 |
| APP/ABSPP | 29,000 |
| APP/CBPP3 | 286,000 |
| Total pre-existing APP portfolio | 2,868,000 |
| APP + PEPP | 3,586,000 |

| | |
|---|-----------|
| APP + PEPP + Collateral | 6,186,000 |
| APP + PEPP + Collateral + TARGET net-net balance | 6,509,700 |
| APP + PEPP + Collateral + TARGET debtors balance | 7,732,200 |
| Relationship of indicator to total value of Eurosystem eligible collateral: | |
| APP + PEPP | 23% |
| APP + PEPP + Collateral | 39% |
| APP + PEPP + Collateral + TARGET net-net balance | 41% |
| APP + PEPP + Collateral + TARGET debtors balance | 49% |

This may not be the final word, however, due to the opaqueness of what is happening in TARGET2.

The “Collateral lodged in the Eurosystem” is read as meaning collateral – which must be from the ECB list – that has been pledged by third-parties. That means it is not pledged by Eurosystem members to one another, but has been pledged by the other universe of parties that access the Eurosystem: by banks (called Monetary Financial Institutions or MFIs). The collateral is pledged to secure loans extended by Eurosystem members to them. It is not the collateral pledged by Eurosystem members to secure their loans from one another in TARGET2. Any such collateral – also from the ECB list – would be a further block of bonds tied up in Eurosystem operations.

We base this view on the “Breakdown of Eurosystem aggregated balance sheet December 2019” issued by the ECB.³² Amongst Assets, we have “Loans to euro area residents/MFIs” of €3,045.8 million, i.e. just over €3 trillion. To secure those loans, collateral of in excess of that figure should be lodged, and by that token €2.6 trillion is inadequate to that loan figure, and we must assume that the loans figure has dropped between the start of the year and now such that a collateral amount of €2.6 trillion is adequate to it.

Collateral lodged for the purposes of securing one Eurosystem member’s debt to another in TARGET2 must come on top of the €2.6 trillion. The ECB shows us a net-net TARGET2 balance of €324 billion owed by the ECB, and a statement of €1.22 trillion of debts of NCBs. It is assumed for the purposes of the above table that these are loans that need to be secured with eligible collateral.

There are four problems with reproducing the ECB’s figures for TARGET2 debt, and therefore for the amount of collateral tied up in securing TARGET2 debt. The upshot of these problems is that the gross loans between Eurosystem members on their TARGET2 accounts could be far higher even than the €1.22 trillion “TARGET2 debtors” figure. The ECB reports disclose that there are national central bank (NCBs) borrowing to this figure. If this is not the total figure, the amount of collateral pledged to secure TARGET2 loans could be higher by the same factor.

The first problem is that the ECB’s figures are the product of a questionable netting system to convert the original balances, whatever they are, into what the ECB reports, so they do not state the original, underlying figures.

Secondly the reports are valid at most for one hour and on one business day per month; one has no inkling of what the intraday positions might be or the end-of-day balance on any day of the month but the one reported.

Thirdly, and connected to the original gross size of the balances, the amount of collateral tied up by them is opaque because the borrowing structure is opaque. The construct behind the balances is that every NCB has an account with every other NCB, plus a vostro for and a nostro at the ECB. That adds up to 600 nostro and vostro accounts in all. If a debt from one NCB to another arises, it could be created by a deposit by the one NCB with the other, in which case no collateral needs to be pledged by the borrowing NCB in favour of the depositing NCB. However, if the same amount is owed between the same NCBs but as an overdraft of one NCB with another, the borrowing NCB does have to post collateral in favour of the lending NCB, and from the ECB list. In other words the same debtor/creditor relationship in overall terms does or does not absorb collateral from the market

³² Breakdown of Eurosystem aggregated balance sheet December 2019

depending upon whether the debt is established as a deposit on the creditor NCB's nostro with the debtor NCB, or as an overdraft of the debtor NCB on its vostro with the creditor NCB.

Fourthly there is the related issue of the impact on the figures published by Eurostat for the "general government gross debt" of the debtor NCB's country. If the debt is created via a deposit, the Eurostat figure should increase, as debts of central banks count within a country's "general government gross debt". If the debt is created via an overdraft, the Eurostat figure should not increase if the collateral posted is already within the Eurostat figures for the NCB's country (e.g. if the Banca d'Italia pledges BTPs to the Bundesbank) but the Eurostat figure should increase if the collateral falls outside the Eurostat figures for the NCB's country (e.g. if the Banca d'Italia pledges Italian asset-backed securities to the Bundesbank, or even German asset-backed securities).³³

We can conclude from what we know that the Eurosystem owns or controls as collateral at least 39% of the value of the list of securities that it has itself admitted to eligibility for Eurosystem monetary and payment operations.

The percentage could be as high as 49% based on what we know.

It could be even more than that if the TARGET2 original balances are much higher than the netted version reported by the ECB, and if they are largely formed by overdrafts requiring collateral rather than deposits. Even though the cash positions are netted at the end of the business day, it is highly unlikely that the collateral is released operationally for the brief period of less than an hour for which the netted cash figures are valid before they are reversed so as to begin the following business day.³⁴ The collateral remains tied up, even if for that brief period it is not hypothecated.

Other "concert party" holders of Eurozone public sector debt

The quantification above limited itself to how much of the market is owned or controlled by the Eurosystem.

It is a further question as to what incremental portion is owned or controlled by other members of the "concert party", who can be relied upon as a safe pair of hands, for example to buy a subscription to a primary-market bond issued by a member state government, warehouse it for a period until it qualifies as secondary-market, and sell it on into the PSPP, so as to side-step the PSPP's limitation on acting in the primary market.

The European Union owns member state government debt, not least in the form of the financial bailout loans to Ireland and Portugal. The European Financial Stability Facility (EFSF) and the European Stability Mechanism (ESM) own member state government debt of Greece, Ireland, Spain, Cyprus and Portugal. The European Investment Bank (EIB), the European Investment Fund (EIF), and the European Fund for Strategic Investments (EFSI or now InvestEU) own numerous member state public sector debts. Not all of the debt owned is in the form of bonds; much is loans. As a result only the bonds portion will be on the ECB eligible list. Similarly only a portion – a different portion – will be in the Eurostat figures for a member state's "general government gross debt" because not all public sector borrowers have their debts included.

Whichever way it is, there will be some incremental amount of bonds that are owned or controlled by these other members of the "concert party".

Impact on liquidity of one organisation – albeit consisting of many parties – controlling 50% or more of the stock

The existence of, in effect, a "concert party" of EU and Eurozone governmental financial mechanisms owning over 50% of the stock, or indeed anywhere close to that figure, has considerable impacts.

It ensures a shortage of stock for genuine investors, pushing prices up.

³³ "Managing Euro Risk", Reynolds et al, pp. 37-9 and pp. 102-4

³⁴ <http://www.lyddonconsulting.com/wp-content/uploads/2020/11/TARGET2-Imbalances-accounting-and-risk-January-2019.pdf>

It reduces the amount of stock being traded, reducing liquidity.

It reduces volatility, because the market direction is always towards the interest of the “concert party”.

It acts as a deterrent to “bears” who believe the stock is overvalued: there is no mechanism for the price to fall, because the “concert party” is in a perfect position to stop the price falling by buying stock with newly-created central bank money.

Would-be “bears” will constantly find themselves in a squeeze.

By holding bond prices up in the secondary market, the Eurosystem enables the issuers whose bonds are on its list to make new issues in the primary market in as big a size as they like, and with low coupons and even negative yields.

Where these issuers are part of the Eurozone public sector, this “concert party” is acting to secure lower debt costs for itself, at the expense of the private sector. In effect, pension funds and collective investment vehicles – normally required by EU law to maintain certain levels of so-called High-Quality Liquid Assets – are having wealth transferred out of them to the “concert party” under laws enacted by the “concert party”.

The controls over the “concert party” and the verdict of the German Constitutional Court

Controls over the “concert party”

There is an absence of effective control, either *de facto* by market forces or *de iure* by public authorities at either the EU or member state level. In fact the legal instrument establishing the PEPP granted the ECB Governing Council sole and unhemmed authority to decide about the PEPP.

Eurozone member state governments are unlikely to challenge the “concert party” because it brings them significant financial benefit in the form of access to funding and at very low prices.

Investment banks are trading in a one-way market in which, currently, they cannot lose. Those involved in underwriting new issues of bonds probably cannot believe their luck: they receive underwriting fees based on the nominal amount of the issue and then sell it in one chunk to the PEPP. There has been no reason for them to challenge what is highly profitable.

Professional traders, for the last ten years, have been on a one-way bet: interest rates have been taken downwards by the Eurosystem and all the way bond prices have increased. That is not speculative trading: it is Christmas every day. However, the rates now cannot go any lower and the potential for price increases is low. Professional traders can be expected to now take a neutral stance, fulfilling orders but not running a position.

The big losers are the retail investors, but they lack market power as they are diffuse and their loss has been on forgone interest income if rates had been higher. Having stepped out of the market individually and invested elsewhere, their claim for financial damages from the Eurosystem is weak. At best there could be a claim through a collective investment vehicle if it was compelled to buy public sector securities in Euro at inflated prices.

The major challenge to the “concert party” came in the form of a court case brought by a group of political activists to the German Constitutional Court (BVG), about which the BVG delivered a finding in May 2020.³⁵ It was not a claim for financial damages but rather that APP, and particularly the PSPP, was outside the ECB’s powers and mandate, and infringed on the prerogatives of the member states in favour of the organs of the EU.

The case focussed on the PSPP, and a key point was whether the PSPP represented monetary finance of member state budgets by buying public sector bonds in the primary market. The BVG asserted its right to hear the case and disputed the contention of Court of Justice of the EU that it was beyond the BVG’s competence to rule. The BVG demanded that the ECB conduct an analysis of the proportionality of the PSPP, but it also concluded that “a manifest circumvention of the prohibition of monetary financing is not ascertainable” because of the existence of certain safeguards, a stance which comes out in the judgement as:

³⁵ <https://www.bundesverfassungsgericht.de/SharedDocs/Pressemitteilungen/EN/2020/bvg20-032.html>

The approach taken by the CJEU may render some of these “safeguards” largely ineffective in practice; this is true, for instance, with regard to the prohibition of prior announcements, the blackout period, the holding of bonds until maturity and the requirement to decide on an exit strategy. Nonetheless, the determination whether a programme like the PSPP manifestly circumvents the prohibition in Art. 123(1) TFEU is not contingent on a single criterion; rather, it requires an overall assessment and appraisal of the relevant circumstances. Ultimately, a manifest circumvention of the prohibition of monetary financing is not ascertainable, especially because:

- the volume of the purchases is limited from the outset;
- only aggregate information on the purchases carried out by the Eurosystem is published;
- the purchase limit of 33% per international securities identification number (ISIN) is observed;
- purchases are carried out according to the ECB's capital key;
- bonds of public authorities may only be purchased if the issuer has a minimum credit quality assessment that provides access to the bond markets; and
- purchases must be restricted or discontinued, and purchased securities sold on the markets, if continuing the intervention on the markets is no longer necessary to achieve the inflation target.

We will see how the PEPP operates with regard to three of these “safeguards”, but it rides roughshod over a precondition of the entire case: the PSPP is explicitly an exercise in the secondary bond market. If it acts only in the secondary market, it can be argued that its main aims are to do with the functioning of the market and the impact on inflation, and that other impacts are subsidiary, such as reducing the interest coupons paid by public sector borrowers.

It is far less easy to argue that these other impacts are subsidiary and unanticipated, and that the programme is not an example of prohibited monetary finance of member state budgets, if the programme invests in primary market public sector securities.

Heading of EU Decisions shows PEPP can invest in primary market public sector bonds whilst PSPP could not

The heading of the instrument establishing the PEPP is: DECISION (EU) 2020/440 OF THE EUROPEAN CENTRAL BANK of 24 March 2020 on a temporary pandemic emergency purchase programme (ECB/2020/17).

This compares to the latest instrument to consolidate various changes made to the PSPP since it was established: 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).

The absence of the words ‘secondary markets’ means the PEPP can invest in primary markets. Only the PSPP is limited to ‘secondary markets’. The other three other Asset Purchase Programmes prior to PEPP could already invest in primary market securities, and this right has been grandfathered to the PEPP.

This sweeps away the BVG's presumption that ECB APP invests only in secondary-market public sector securities.

Recital 3 of 2020/440 shows that the PEPP can invest in all the asset categories permissible under PSPP, CSPP, ABSPP and CBPP3

The PEPP can invest in the same asset classes as all the pre-existing APPs:

“Taking into account the exceptional economic and financial circumstances associated with the spread of coronavirus disease 2019 (COVID-19), on 18 March 2020, the Governing Council decided to launch a new temporary pandemic emergency purchase programme (hereinafter the ‘PEPP’) including all the asset categories eligible under the APP. Purchases under the PEPP will be separate from, and in addition to, purchases carried out under the APP, with an overall additional envelope of EUR 750 billion until the end of 2020. The PEPP is established in response to a specific, extraordinary and acute economic crisis, which could jeopardise the objective of price stability and the proper functioning of the monetary policy transmission mechanism. Due to these exceptional, fast-evolving and uncertain circumstances, the PEPP requires a high degree of flexibility in its design and implementation compared with the APP and its monetary policy objectives are not identical to that of the APP.”

It is notable that the EU is permitted to state merely that the pandemic is an “extraordinary and acute economic crisis”, when actually it is primarily a medical crisis, and then that it “could (our underlining) jeopardise the objective of price stability and the proper functioning of the monetary policy transmission mechanism”. There is apparently no need for solid proof behind these linkages and contentions for the ECB to act on the grand scale, and to arrogate to itself a high degree of flexibility in its design and implementation compared with the pre-existing APP.

In other words, with the passage of this instrument, the ECB is allowed to decide to do what it likes and without its straying outside its reservation – because there isn’t one. This dissolves any democratic control over the ECB, from the other organs of the EU apparatus or from the member state level.

Recital 5 shows that the ECB capital keys of the member state central banks only act as guidance for the make-up of the PEPP portfolio

The capital keys of the Eurozone member state central banks in the ECB acts only as a guideline for the make-up of the PEPP portfolio, and not an absolute limit:

“For purchases under the PEPP of eligible marketable debt securities issued by central, regional or local governments and recognised agencies, the benchmark allocation across jurisdictions of the euro area will be guided by the key for subscription of the ECB’s capital as referred to in Article 29 of the Statute of the ESCB. A flexible approach to the composition of purchases under the PEPP is nonetheless essential to prevent current dislocations in the aggregate euro area sovereign yield curve from being translated into further distortions in the euro area risk-free yield curve, while also ensuring that the overall orientation of the programme covers all jurisdictions of the euro area. To further bolster the flexibility of the PEPP, public sector marketable debt securities with maturities shorter than those purchased under the PSPP will also be purchased under the PEPP.”

This dissolves the BVG’s safeguard that “purchases are carried out in the accordance with the ECB’s capital key”. Taken together with Recital 3, this means that the portfolio make-up need not bear very much resemblance to the ECB Capital Keys.

Recital 6 shows that the purchase limits applicable to PSPP do not apply to PEPP

Under this one the ECB’s Governing Council is granted the right to revise what they call “self-imposed limits”, without the ECB needing a new EU legal instrument. The ECB is granted an unfettered right to amend Decision 2020/440 if they feel that its text might hinder their actions in fulfilling what they might deem to be needed in order to fulfil their mandate:

“On 18 March 2020, the Governing Council also decided that to the extent some self-imposed limits might hamper action that the Eurosystem is required to take in order to fulfil its mandate, the Governing Council will consider revising them to the extent necessary to make its action proportionate to the risks faced. To ensure the effectiveness of this decision, the consolidated holdings under Article

5 of Decision (EU) 2020/188 of the European Central Bank (ECB/2020/9)(1) should not apply to PEPP holdings. The Eurosystem will not tolerate any risks to the smooth transmission of its monetary policy in all jurisdictions of the euro area.”

Article 5 of Decision (EU) 2020/188 contains the purchase limits, which broadly come down to 50% of an issue of a recognised supranational, and 33% of an issue by a member state government. It should also be noted that the APP roles and responsibilities are that a member state’s central bank would be the Eurosystem member purchasing the bonds issued by entities in its own member state, whereas any Eurosystem member can buy the bonds of a recognised supranational, as long as Eurosystem members do not cumulatively own more than 50% within the PSPP programme.

It should further be noted that there is no linkage between the PEPP purchase limits and the analogous limits in the PSPP: in theory the PEPP could own 50% of a supranational’s issue and the PSPP could own the other 50%. Or the PEPP could own 66% of a member state government bond – purchased in the primary or secondary market – and the PSPP could own another 33% but purchased in the secondary market. Indeed the PEPP could buy the entire issue in the primary market and later sell 33% on to the PSPP, by which time the security would be a secondary market one and permissible for the PSPP to invest in.

This dissolves the BVG’s safeguard that “the purchase limit of 33% per International Securities Identification Number (ISIN) is observed”.

In addition the framing of the text shows that it is the ECB’s own Governing Council that now has the right to decide what its mandate is and what is needed to fulfil it. The ECB is no longer under democratic control either from other parts of the EU apparatus or the member states.

Recital 7 states Greek bonds can be purchased

The PEPP can buy Republic of Greece bonds, rated Ba3 by Moodys and “Speculative Grade”, dissolving the BVG-quoted safeguard that the “issuer has a minimum credit quality assessment that provides access to the bond markets”.

Instead that criteria have been weakened to allow Greece to borrow:

“As regards the eligibility, for the purposes of the PEPP, of marketable debt securities issued by the central government of the Hellenic Republic, the Governing Council assessed: (a) the need to alleviate pressures stemming from the unfolding COVID-19 outbreak which have severely affected the Greek financial markets; (b) the commitments undertaken by the Hellenic Republic in the context of the Enhanced Surveillance and the monitoring of the implementation thereof by Union institutions; (c) the fact that medium-term debt measures for the Hellenic Republic delivered via the European Stability Mechanism depend on the continued implementation of these commitments; (d) the direct access to information by the ECB on the economic and financial situation of the Hellenic Republic as a result of the involvement of the ECB in the Enhanced Surveillance framework; and (e) the fact that the Hellenic Republic had regained market access. Based on this assessment, the Governing Council decided that marketable debt securities issued by the central government of the Hellenic Republic will be eligible for purchases under the PEPP.”

Recital 11 allows any commercial paper to be bought into the CSPP or PEPP as long as it meets the modest credit rating criteria

Non-financial institution commercial paper can be bought: “On 18 March 2020, the Governing Council decided to expand the range of eligible assets under the corporate sector purchase programme to non-financial commercial papers, making all commercial papers of sufficient credit quality eligible also for purchases under the PEPP.”

The commercial paper must meet Credit Quality Step 3 (“CQS3”) in the Eurosystem Credit Assessment Framework for Monetary Policy Operations when it is purchased, but it can fall to CQS5 before it needs to be sold. This causes a problem because CQS3 represents the lowest-possible short-term credit ratings (e.g. Moody’s P-3 and Standard and Poor’s A-3). The PEPP can buy the lowest-rated paper as long as it has one rating from any of the four accredited rating agencies (known as ECAs).

This lowers the bar as regards the BVG-quoted safeguard that the “issuer has a minimum credit quality assessment that provides access to the bond markets”.

Article 2 states that investments need have a minimum remaining life of only 70 days (compared to 1 year for the PSPP as per Article 3.3 of 2020/188

The PEPP can invest in the short end of the money market: “In order to be eligible for purchase under the PEPP, marketable debt securities, within the meaning of Article 1 paragraph 2(a), shall have a minimum remaining maturity of 70 days and a maximum remaining maturity of 30 years at the time of their purchase by the relevant Eurosystem central bank. In order to facilitate smooth implementation, marketable debt instruments with a remaining maturity of 30 years and 364 days shall be eligible under the PEPP.”

The PEPP can be an active player in the money market whereas the preceding APPs had to buy securities with at least one year to run. This article dispenses with the pretence that the Eurosystem is acting in the secondary market behind the scenes. It has already bought €20 billion of primary market commercial paper and has thereby become a direct lender to Eurozone non-financial market actors.

Acceptability of credit assessment systems based on “counterparties’ internal rating-based (IRB) systems” due to the applicability to PEPP of Guideline EU 2019/1032 ECB of 10 May 2019 amending Guideline (EU) 2015/510 on the implementation of the Eurosystem monetary policy framework (ECB/2019/11)

Guideline 2019/1032 ECB applies to all Eurosystem monetary policy operations and defines the criteria for the admission of a security onto the ECB eligible list. The change means that the Eurosystem will accept the IRB system of a bank when it has originated and sold a security based on a portfolio of assets it generated itself. The IRB assesses the Value at Risk of each asset in the portfolio and thus of the portfolio as a whole and of the security that draws its debt service from the portfolio. This dispensation will apply principally to the asset-backed securities purchase programme (ABSPP), noting that the PEPP is also permitted to buy asset-backed securities.

This lowers the bar as regards the BVG-quoted safeguard that the “issuer has a minimum credit quality assessment that provides access to the bond markets”.

Article 19 of the Guideline states:

19. in Article 119, paragraphs 1 and 2 are replaced by the following:

‘1. The credit assessment information on which the Eurosystem bases the eligibility assessment of assets eligible as collateral for Eurosystem credit operations shall be provided by credit assessment systems belonging to one of the three following sources: (a) ECAs; (b) NCBs’ in-house credit assessment systems (ICASs); (c) counterparties’ internal rating-based (IRB) systems.

2. Under each credit assessment source listed in paragraph 1 there may be a set of credit assessment systems. Credit assessment systems shall comply with the acceptance criteria laid down in this Title. A list of the accepted credit assessment systems, i.e. the list of accepted ECAs and ICASs, is published on the ECB’s website.’

The types of portfolio backing a security eligible for the ABSPP are set out in the replacement Article 8 of the Guideline:

8. in Article 73, paragraph 1 is replaced by the following: ‘1. In order for ABSs to be eligible, all cash-flow generating assets backing the ABSs shall be homogenous, i.e. it shall be possible to report them according to one of the types of loan-level templates referred to in Annex VIII, which shall relate to one of the following:

- (a) residential mortgages;
- (b) loans to small and medium-sized enterprises (SMEs);
- (c) auto loans;
- (d) consumer finance loans;
- (e) leasing receivables;
- (f) credit card receivables.’

The weak loan underwriting criteria that have led to the weakness of the Eurozone banking system are thus permitted to permeate the Eurosystem.

Summary of the conditions of the PEPP that confound the BVG’s verdict about the PSPP

Here is a summary of the conditions of the PEPP that conflict with the comfort and safeguards that the BVG observed in the PSPP:

| PEPP condition | Which BVG point is countered |
|--|---|
| Absence of limitation to activity to the secondary market | Prohibition of direct monetary financing of member states |
| Tenuous linkage of the PEPP to price stability | Democratic control over the ECB and the PEPP |
| ECB Capital Keys need only act as a guideline for the make-up of the PEPP portfolio | “Purchases are carried out in the accordance with the ECB’s capital key” |
| There are no Purchase Limits in the PEPP | “The purchase limit of 33% per International Securities Identification Number (ISIN) is observed” |
| ECB is granted an unfettered right to amend Decision 2020/440 if they feel that its text might hinder their actions | Democratic control over the ECB and the PEPP |
| The PEPP can buy Republic of Greece bonds | “Issuer has a minimum credit quality assessment that provides access to the bond markets” |
| The PEPP can buy non-financial commercial paper with the lowest short-term public credit ratings | “Issuer has a minimum credit quality assessment that provides access to the bond markets” |
| Credit assessment can be based on banks’ IRB methodologies as an alternative to public credit ratings | “Issuer has a minimum credit quality assessment that provides access to the bond markets” |
| Securities do not have to be sold when their public ratings fall below “Investment Grade” (see following section) | “Issuer has a minimum credit quality assessment that provides access to the bond markets” |
| Debt securities based on “Credit claims” would now be eligible (see following section) | “Issuer has a minimum credit quality assessment that provides access to the bond markets” |
| “Credit claims” can include loans with lower credit quality, loans to types of debtors not accepted in the ECB’s general framework, and foreign-currency loans. COVID-19 emergency loans, guaranteed by a public entity, are also eligible (see following section) | “Issuer has a minimum credit quality assessment that provides access to the bond markets” |

In another sense the Eurosystem have gone better than circumventing one of the tests: they have liquidated its meaning. When the BVG formulated its test of “minimum credit quality” that the issuer could “access the bond markets”, they cannot have conceived how the ECB would design a programme to make itself “the bond market” and determine the access criteria to it at a lower level than “Investment Grade”, thereby disabling both “credit quality” and “access to bond markets” as independent, third-party benchmarks.

The PEPP and the weakening of the Eurosystem's credit criteria

The Eurosystem Credit Assessment Framework for Monetary Policy Operations

The eligibility criteria as regards credit quality for securities to be on the ECB list and therefore investable by the PEPP are defined in the Eurosystem Credit Assessment Framework for Monetary Policy Operations or ECAF.

There are five rungs in it, each called a Credit Quality Step or CQS, and a rung equates to given public credit ratings or approved equivalents, one of the equivalents being an IRB system.

A minimum rating of Credit Quality Step 3 ("CQS3") applies for securities to be eligible for the PEPP to buy them.

Any security only has to have one rating for the purposes of the ECAF; if there are multiple ratings, the best one applies, including where one meets CQS3 and the others fall below.

For securities above one year's maturity the minimum to be classed as "Investment Grade" and to meet CQS3 is:

| | |
|-------------------|------|
| Standard & Poor's | BBB- |
| Moody's | Baa3 |
| Fitch | BBB- |
| DBRS | BBBL |

The minimum short-term ratings for a security to meet CQS3 are:

| | |
|-------------------|-----|
| Standard & Poor's | A-3 |
| Moody's | P-3 |
| Fitch | F-3 |
| DBRS | R-3 |

In the Moody's system, as a guideline, P-3 (or Prime-3) is regarded as a short-term rating equivalent to a long-term one of Baa2 or Baa3, the lowest rung in "Investment Grade".

The lack of any lower ratings for short-term securities is a problem because the ECB has relaxed the standards to permit CSQ4 and CSQ5 securities to continue to be held by the PEPP and other APPs where they have come down into that rung from CSQ3. The long-term ratings in these categories are:

| | CSQ4 | CSQ5 |
|-------------------|------|------|
| Standard & Poor's | BB+ | BB |
| Moody's | Ba1 | Ba2 |
| Fitch | BB+ | BB |
| DBRS | BBH | BB |

These long-term ratings class the security as "Speculative Grade", but there are no public rating levels for short-term securities that are "Speculative Grade". At best we have the Moody's rating that is "NP", meaning "Not Prime", which can equate to any long-term rating from Ba1 at the top of "Speculative Grade" down to C at the bottom end of "Junk Grade" (meaning "In default with little chance of recovery"). "NP" does not appear in the Eurosystem Credit Assessment Framework and nor do equivalents from any of the other three approved rating agencies. In effect the PEPP, if it has bought short-term securities that fall from P-3 to NP under Moody's, or fall from A-3, F-3 or R-3 into the void, will have no option but to hold them until maturity.

A delusion suffuses the PEPP on the issue of ratings downgrades. It is that securities purchased when they met CQS3 do not have to be sold even if they fall to CQS5 (Ba2 using the Moody's scale), but they do have to be sold if they fall below CQS5 to B1 or worse. This overlooks the fact that there will be no-one out there wanting to buy them under that eventuality.

The PEPP's stance on buying and then selling off securities flies in the face of "best practice" for investments.³⁶ This is to buy securities rated no lower than Baa1, and to sell any that fall into Baa2. The investor has then bailed out before the security comes close to falling out of "Investment Grade", Baa3 being the lowest rung of "Investment Grade". This avoids an investor getting caught up in a firesale when a security, falling out of "Investment Grade", ceases to meet the criteria of collective investment vehicles. These vehicles have to sell, and all at the same time, which will drive prices down and precipitate the firesale. The prudent investor gets out early. The Eurosystem, knowing it cannot get out, simply re-writes the rules for itself so that it does not have to sell securities in portfolio when they fall out of "Investment Grade".

This reversal of logic is only possible for a market actor who controls the market and controls the rules upon which the market operates.

Once again this dissolves the BVG-quoted safeguard that the "issuer has a minimum credit quality assessment that provides access to the bond markets".

Weakening of credit criteria caused by ECB Monetary Policy Decisions in April 2020

The press release of ECB Monetary Policy Decisions taken at its meeting on 10 December 2020 includes the following statement:

"Fourth, the Governing Council decided to extend to June 2022 the duration of the set of collateral easing measures adopted by the Governing Council on 7 and 22 April 2020. The extension of these measures will continue to ensure that banks can make full use of the Eurosystem's liquidity operations, most notably the recalibrated TLTROs. The Governing Council will reassess the collateral easing measures before June 2022, ensuring that Eurosystem counterparties' participation in TLTRO III operations is not adversely affected."

These collateral easing measures affect PEPP and all the other APPs.

These measures were announced as temporary on 7 April 2020 but were extended until June 2022 on 10 December 2020.

The announcement of 7 April 2020 is carried in full below as Appendix 7, with the major points highlighted in red.

The announcement of 22 April 2020 is carried in full below as Appendix 8, also with the major points highlighted in red.

The first major weakening is the increase in the Eurosystem loan size against all types of collateral (by reducing "haircuts"). Haircuts are reduced by around 20% across all marketable asset classes, and non-marketable assets: the methodology through which the latter is achieved is expanded upon but the outcome is the same – the Eurosystem has reduced its margin of security by 1/5th across the board.

The second major weakening is the degree to which "credit claims" (i.e. an instrument giving the Eurosystem rights over bank loans) are accepted onto the ECB list. These could come in the form of a debt security like a Collateralised Loan Obligation, in which case it is eligible for the PEPP. If it does not come in the form of a debt security, it is not investable by the PEPP but can still serve as eligible collateral. Whichever type of instrument it is, it is highly likely to have been created by the same bank that originated the loans. The loans would have been an asset of that bank upon disbursement and can now be sold on to the PEPP (and indeed the ABSPP and the CBPP3 as well, but probably not the CSPP as the direct counterparty is not a corporate) or placed with the Eurosystem as collateral.

³⁶ For example, the "Investment" module of the Cash Management course offered by Accountingcpd.net and written by the author

“Credit claims” can now include loans with lower credit quality, loans to types of debtors not accepted in the ECB’s general framework, and foreign-currency loans. COVID-19 emergency loans, guaranteed by a public entity, are also eligible.

The ECB has also eased the acceptance of banks’ own credit assessment models (i.e. Internal Rating-Based methodologies). These will play a particular role in attesting to the quality of “credit claims”. IRB is acceptable as long as the methodology has been “approved by supervisors”, which generally means that it has been installed and audited by one of the Big Four accountancy firms, normally the same one that has audited the bank’s accounts. This endorsement is usually enough to secure the approval of the bank’s supervisor. Loan- level reporting requirements on “credit claims” have also been eased. The minimum size threshold for domestic “credit claims” has been abolished.

The Eurosystem has in effect become a commercial bank, only one without its own credit assessment function. Credit assessment is outsourced to third-parties, including ones – banks – with a very high vested interest in attesting to their expertise in credit assessment, but with an inconsistent track record of success.

Republic of Greece bonds are now on the ECB list: their inclusion in the PEPP on 24 March opened the gates for them to be included on the ECB list in April.

The further measures announced on 22 April 2020 have the intention of temporarily (our underlining) mitigating “the effect on counterparties’ collateral availability from rating downgrades arising from the economic impact of coronavirus, while continuing ensuring collateral adequacy”.

They do not ensure collateral adequacy: on the contrary, they compromise it.

Whilst the haircut reductions apply to all types of asset, the following measures only apply to marketable assets, and they crystallise the ratings – and thus the eligibility – of issuers and issues at their level on 24 March 2020, inoculating issuers and issues from downgrades by rating agencies:

| Clause | Worst-case Implications |
|--|---|
| <p>Marketable assets and issuers of these assets that met the minimum credit quality requirements for collateral eligibility on 7 April 2020 (BBB- for all assets, except asset-backed securities (ABSs)) will continue to be eligible in case of rating downgrades, as long as their rating remains at or above credit quality step 5 (CQS5, equivalent to a rating of BB) on the Eurosystem harmonised rating scale. This ensures that assets and issuers that were investment grade at the time the Governing Council adopted the package of collateral easing measures remain eligible even if their rating falls two notches below the current minimum credit quality requirement of the Eurosystem</p> | <ul style="list-style-type: none"> • Issuers and issues are downgraded to below “Investment Grade” but this does not require them to be sold off as Eurosystem assets or replaced as collateral for Eurosystem-extended loans • A meaningful portion of Eurosystem-owned assets and of the collateral for Eurosystem-extended loans starts to rank as “Speculative Grade” • Eurosystem members have paid out central bank money – supposedly risk-free – in exchange for assets that become “Speculative Grade” (noting that Eurosystem central bank money is not fully-fungible and risk-free in the first place, as was explained earlier) |
| <p>Future issuances from grandfathered issuers will also be eligible provided they fulfil all other collateral eligibility criteria</p> | <ul style="list-style-type: none"> • New issues by issuers that have become “Speculative Grade” can nevertheless be purchased by the Eurosystem and accepted by it as new collateral • Eurosystem members pay out fresh central bank money – supposedly risk-free – in exchange for assets that are only of “Speculative Grade” • “Speculative Grade” assets progressively displace “Investment Grade” assets as |

| | |
|---|---|
| | <p>Eurosystem-owned assets and as the collateral for Eurosystem-extended loans</p> <ul style="list-style-type: none"> • This trend will be accelerated if the largest eligible issuers are also the ones with reduced credit ratings |
| Currently eligible covered bond programmes will also be grandfathered, under the same conditions | <ul style="list-style-type: none"> • The degradation, as described above, of the quality of the Eurosystem’s assets and collateral • It is exacerbated in relation to covered bonds because of the opportunity for the usage of Internal-Ratings Based methodologies instead of public ratings (albeit that the rating agencies and their opinions are already flawed as explained below) • “Credit claims” – if presented as a debt security – can become eligible for purchase on this basis, or are just eligible as collateral if they are not |
| Currently eligible ABSs to which a rating threshold in the general framework of CQS2 applies (equivalent to a rating of A-) will be grandfathered as long as their rating remains at or above CQS4 (equivalent to a rating of BB+). | <ul style="list-style-type: none"> • The degradation, as described above, of the quality of the Eurosystem’s assets and collateral • Exacerbated by usage of IRB methodologies, possibly even more so than for covered bonds • “Credit claims” – if presented as a debt security – can become eligible for purchase on this basis, or just eligible as collateral if they are not |
| Assets that fall below the minimum credit quality requirements will be subject to haircuts based on their actual ratings | <ul style="list-style-type: none"> • Haircuts will increase as ratings fall, but in such a way as not to reflect the deterioration in credit quality, because Eurosystem haircuts were already low and have been further reduced on 7 April 2020 |

These are extraordinary weakenings of the quality of assets owned and held as collateral within Eurosystem operations.

Assets will be treated as “central bank money” and be exchanged for Eurosystem central bank money when they are clearly some way distant from being that.

Degradation of public credit ratings and of the ratings agencies

The measure of quality – a public credit rating – has already been degraded in the Eurozone by two factors.

Firstly, the independence of the rating agencies has been compromised by EU Regulation, leading to Eurozone issuers – and particularly sovereign issuers - continuing to be rated at a level significantly higher than their economic fundamentals merit.

Secondly the rating agencies seem to have not grasped – or have been compelled not to grasp – the intrinsic difference between Eurosystem central bank money (which has no single sovereign behind it which is the sole user of the currency), and central bank money in GBP or USD (where the single sovereign has control of the levers of monetary policy). The proof of this point lies in the fact that Eurosystem central bank money is not *de iure* fully fungible: issuers of it have different credit ratings.

Rating agencies' myopia on this central point about the nature of the euro has led to Eurozone sovereign issuers having public credit ratings that are too high, meaning that all supranational and public sector entities and banks connected to Eurozone sovereigns as part of the Eurozone monetary policy system are also graded too high.³⁷

So, since Eurozone sovereigns, supranational and public sector entities were already systemically over-rated, it follows that the quality of the Eurosystem's assets and collateral was already lower than it appeared on paper.

The key question is by how many notches. If one were to posit that Eurozone sovereign ratings were too high by one notch because of political influence and by a further two notches for the failure to appreciate the flaw in Eurozone central bank money, that would be three notches. The systematic under-reporting of the size of Eurozone public sector debt referred to earlier might add another notch. This might seem very unfair on Germany and the Netherlands but these two countries have huge exposures through the un-reported TARGET2 debts and through other EU financial mechanisms: the balance sheets and contingent liabilities that the rating agencies consider when ascribing AAA ratings to these countries do not capture the full position.

In consequence many assets formally rated as "Investment Grade" are already intrinsically "Speculative Grade" and not necessarily at the top of it. Now that assets formally rated as sitting at the top end of "Speculative Grade" will remain eligible for Eurosystem operations, it follows that the real "minimum credit quality" for Eurosystem operations is at the middle or low end of the range of "Speculative Grade".

For example, Republic of Italy's formal rating of Baa3 (Investment Grade/Moderate Credit Risk) reflects an intrinsic rating of Ba3 (Speculative Grade/Substantial Credit Risk). If Italy's formal rating is allowed to fall to Ba2 (Speculative Grade/Substantial Credit Risk), its intrinsic rating would by then be B2 (Speculative Grade/High Credit Risk).

Where IRB methodologies of the institutions originating a covered bond or ABS are permitted as a proxy for a public credit rating, one has no assurance at all beyond that the methodology has been approved by a financial regulator. These are the same methodologies in wide use in Greece, Cyprus, Spain, Portugal and Italy, under which their user banks can discount their nominal book of business by 60-70% to attest their Risk-Adjusted Assets, against which they have a comfortable cushion of Common Equity (Tier 1). And yet these are the same methodologies that gave rise to such a high proportion of Non-Performing Loans. IRB is examined further below.

Summary of weakening of credit criteria

As stated before, this list of measures represents an extraordinary weakening of the quality of assets owned and held as collateral within Eurosystem operations.

It is a comprehensive degradation of the asset quality in Eurosystem operations. Against this it cannot be claimed that the safeguard exists that the "issuer has a minimum credit quality assessment that provides access to the bond markets".

While none of the securities permissible can have "Junk" ratings as the rating agencies classify them, the portfolio will have increasing elements of "Speculative Grade" in it and even assets that have no formal public credit rating, but are disgorged by a bank's IRB system. These assets can safely be assumed to equate to the lower end of "Speculative Grade" if they had public ratings, and no doubt harbour individual assets, within a batch that ranks as "Speculative Grade" on average, that are "Junk".

Going back to the Safety-Liquidity-Yield equation, if Yield is zero, and Liquidity is tending to zero (because its source is just one market actor), Safety must be near to zero in order to balance the equation.

³⁷ "Managing Euro Risk", Reynolds et al, p. 3, p.30, p.33

It makes sense that, if the Eurosystem fundamentally debases the quality of the assets it buys in exchange for its own money, and of the collateral it accepts in exchange for its own money, its own money also degrades in value by the same token.

This means that the version of Safety that must be chosen is not the one in which there is zero risk and zero Moral Hazard; it is the one where there is high risk.

Internal Ratings-Based systems and how the PEPP and Eurosystem have become a commercial bank

Internal Ratings-Based systems (IRB)

IRB is the methodology for banks to convert the nominal amount of their business into Risk-Weighted Assets (RWAs) for the purposes:

1. Of determining how much capital the bank needs to have in order to comply with globally-agreed standards; and
2. Of pricing its business so that it achieves the profits that are the target return on its capital.

Banks' business is firstly their assets, of which the main one is loans, which contain credit risk. Other assets, such as bonds and bank deposits, do contain credit risk but are held to be lower risk because of who their counterparty generally is. Bonds, when they are fixed-rate, contain market risk – the risk that the bond's value will fall if interest rates rise.

Secondly the bank has its off-balance-sheet business:

- Guarantees and commitments under trade finance operations like Letters of Credit, which contain credit risk
- Foreign exchange contracts and a myriad of types of derivative which contain both credit and market risk

Thirdly there is operational risk – the risk of incurring a penalty or a claim for damages if the bank fails for operational reasons to fulfil its liabilities.

Each of these elements is converted into an RWA. The size of the RWA for a particular piece of business is broadly ascertained from two elements:

- How likely it is that the piece of business will go bad – which correlates to the creditworthiness of the counterparty with whom the business has been contracted
- What the size of the loss could be if the piece of business does go bad

The size of the loss correlates to the type of business it is:

- Credit risk under a loan or guarantee – all of the amount, unless there is tangible and uncorrelated security
- Credit risk under a Letter of Credit if the bank is left with ownership of goods – maybe 40% of the amount because the goods can be re-sold albeit that numerous costs may be incurred (sales commission, warehousing, insurance, transportation)
- Market risk under a bond – 10% of the amount if it is a 10-year bond and the applicable interest rates have been stable for a long historical period
- Operational risk – 3% of the annual throughput of a certain type of operation, such as credit card processing

The RWA is derived from a multiplication of the nominal amount of the piece of business times two factors:

- A percentage defining the likelihood that the piece of business will go bad – the Counterparty Rating
- A percentage defining the amount of the loss in the case that the piece of business does go bad – the Facility Rating

The Facility Rating cannot be more than 100%, but the Counterparty Rating can: it should magnify the risk and the amount of capital to be held if the counterparty is of lower quality. If there is an unsecured loan and it is to a company that has gone into liquidation, the Counterparty Rating should be such that the capital to be held is 100% of the loan. When the loan is written off, as it will be, the capital is written off at the same time.

An RWA determines how much capital the bank needs to hold against a piece of business and in turn it helps to determine the earnings the bank needs to have in order to pay for the capital.

Broadly a bank needs to have about 8% of Common Equity (Tier 1) against its RWAs, and will seek to earn an annual return of 10% on its Common Equity (Tier 1).

For a piece of business where both the Counterparty and Facility Rating are 100% and the nominal amount is US\$100,000, the RWA is US\$100,000 and the bank needs first to allocate US\$8,000 of Common Equity (Tier 1) and then to earn US\$800 per annum in profit on that equity and on the loan. US\$800 on an RWA of US\$100,000 is 0.80% or 80 basis points per annum, which becomes the loan margin over the bank's cost-of-funds.

IRB has been defined by the Bank for International Settlements and we are now on the fourth iteration, the first one dating back to the 1980s.

The principal problem with IRB is the strong incentive on banks to under-weight both the Counterparty and Facility Ratings such that the RWA comes out to be a much smaller percentage of the nominal amount of the piece of business in hand. That ties up less of the bank's capital and it also enables lower pricing to the customer, increasing the bank's competitiveness: the 10% return on the Common Equity (Tier 1) can be achieved with a much lower income paid by the customer.

For a piece of business where both the Counterparty and Facility Rating are 50% and the nominal amount is US\$100,000, the RWA is now only US\$25,000 and the bank need only allocate US\$2,000 of Common Equity (Tier 1). The bank's earnings need only be US\$200 per annum to meet the return-on-equity target. The loan can be priced at 0.20% or 20 basis points per annum over the bank's cost-of-funds.

From the start the Basel system, as it became known, permitted particularly generous treatment of:

- Business with sovereigns and public sector entities
- Business secured with a mortgage on real estate
- Business with banks in OECD countries

In fact the Counterparty Rating for sovereigns was 0%, meaning business could be done with sovereigns with no capital at all.

Before the euro all the Euro-Area sovereigns were genuine sovereigns, with their own currency and the set of monetary controls over it. They ceded these to the ECB but no matching change was made in IRB systems to reflect the now sub-sovereign nature of the Euro-Area member state governments. They continue to enjoy a 0% rating.³⁸

From that anomaly flows a systemic under-weighting of public sector entities, EU supranationals, and EU banks.

It has also become accepted, even after the revelations of the extent of Eurozone banks' bad lending, that the RWAs of a bank are always far below their nominal value. It has become equally accepted that banks do not need to reveal:

- What RWA figure results from their on-balance sheet assets
- The nominal amounts of their off-balance-sheet business
- What RWA figure results from their off-balance sheet business
- What RWA figure for operational risk is derived, where from and how

Instead discount figures of well over 50% are accepted even from banks who have had very public difficulties with bad loans.

³⁸ "Managing Euro Risk", Reynolds et al, pp. 23-5

It has not even become fully accepted that loans classified as “Bad exposures” need to be either:

- written off as assets and written off against capital; or
- matched 1-to-1 with a Loan Loss Provision on the Liabilities side of the bank’s balance sheet, which is built up from charges to the Profit&Loss Account, reducing profits and possibly capital; or
- assigned such a large RWA that the bank has to hold capital 1-to-1 with the loan amount.

All three techniques should achieve the same thing: to stop the bank claiming the existence of an asset at a level that is not realisable.

If the loan was for US\$100,000, the third method would be achieved by applying a Facility Rating to the loan of 100%, and a Counterparty Rating of 1,250%. The RWA equivalent of the loan would then be US\$1,250,000 and the 8% Common Equity (Tier 1) of the RWA would work out to US\$100,000 – the loan amount. The enormous RWA would compel the bank to allocate capital of the exact amount of the loan – because it is certain that the loan will be written off and that capital will be reduced in the same amount.

Eurozone banks persist in applying Counterparty Ratings to bad loans that under-provision for the likely loss, almost always to the extent that the RWAs of the bank are far lower than their nominal value, when they should be higher.

Discount factors in evidence in banks with poor records of credit risk management

The impact of the usage of IRB systems is visible when one considers banks like Unicredit and Monte dei Paschi di Siena (MPS).³⁹ These banks are in merger discussions. On the one hand Unicredit has a market capitalisation of €15.09 billion, compared to its balance sheet capital of €48.6 billion: a market-to-book ratio of 31%.⁴⁰ Its shares trade at €7.48 (compared to €8.09 that investors paid for their rights issue in early 2017 and the €16 level seen shortly afterwards). On that basis it is teetering on insolvency.

Nevertheless, Unicredit claimed a Common Equity (Tier 1) ratio of 14.4% on its €48.6 billion of equity at the end of September 2020, on the basis of its having an IRB system that converted its on-balance sheet assets of about €850 billion plus its off-balance sheet business into RWAs of €350.7 billion.⁴¹ No figure for the nominal amount of off-balance-sheet business was given, and we have had to use the historical figure as at 31/12/19 for total assets. All we know for sure is that the RWA equivalent of a balance sheet of about €850 billion and of a book of off-balance-sheet business of unknown size is €350.7 billion. Shrinkage is all in the RWA game; if Unicredit had no off-balance-sheet business at all, its shrinkage quotient is 500/850 or nearly 60%, reducing nominal assets of €850 billion to risk-weighted assets of €350 billion.

However, if this shrinkage methodology is accepted, it is nowhere near insolvent: it well-capitalised.

MPS’ shrinkage quotient is 62%, shrinking nominal assets of €146 billion to RWAs of €56 billion.⁴² 75.747% of MPS’ shares are “strongly held”, as the saying goes, with only 24.23% traded. That is 36,280,248 shares out of 1,140,290,072. At the share price on 23 November 2020 of €1.25, MPS had a market capitalisation of either €345 million if one just considers the shares that trade, or of €1.4 billion if one considers the “strongly-held” shares as well. The problem with considering the “strongly-held” shares is that, as they do not trade, the price of the minority of shares that do trade is artificially high: one cannot reliably posit that, because 36 million shares trade at €1.25, 1.1 billion would trade at the same price. MPS lost €1.5 billion in the 9 months to September 2020 when its balance-sheet capital was €6.8 billion, down from €8.3 billion at 1 January 2020. MPS had a market-to-book ratio of just 5% if one takes its market capitalisation as €345 million, or of 21% if one takes it as €1.4 billion.

³⁹ <http://www.lyddonconsulting.com/mustier-walks-the-plant-to-enable-unicredit-paschi-merger-over-the-small-matter-of-a-e20-billion-valuation-gap/>

⁴⁰ <https://www.stockopedia.com/share-prices/unicredit-spa-BIT:UCG/> accessed on 22/12/20

⁴¹ Unicredit 3Q20_Results publication

⁴² BMPS interim-report-on-operations_30092020

Like many other figures in Italian and Eurozone accounting, the investor is presented with a choice of values for MPS' market capitalisation, although both indicate insolvency. There are two versions of the truth, and it is up to you which one you accept.

MPS also presents itself as well-capitalised by the same measures as Unicredit uses. MPS bases its Common Equity (Tier 1) ratio on a supposed capital of €7.2 billion - €400 million higher than its balance-sheet capital on the same date. It claims on-balance sheet assets of €146.3 billion, and RWAs of €56.1 billion, without disclosing either the nominal amount of its off-balance-sheet business, or the methodology used to shrink it. Its CET1 ratio thus comes out as 10.9% and comfortably more than its target ratio of 8.82%. With MPS one is spoiled for choice – what its market-to-book ratio is and whether it is insolvent or well-capitalised.

In the cases of both Unicredit and MPS we need to remind ourselves that the shrinkage of its business volume to determine its RWAs is higher, because off-balance-sheet business is included in the RWA figures but excluded from the nominal.

At least the EIB discloses the nominal amount of its off-balance sheet business so that the actual shrinkage through its IRB system can be determined.⁴³ The nominal amount of the EIB's total business was €1.75trn on 31/12/19 (€554bn on-balance sheet, and €1.2trn of financial contracts off it). EIB asserts a "CET1 Ratio" of 32.9%.⁴⁴ This means that the €1.75trn converts to RWAs of €223.7bn, of which its Own Funds of €73.6bn represent 32.9%. Put another way, the nominal value of the EIB's total business can be shrunk by 87% to ascertain its risk-weighted value.

Given the credit losses run up by Unicredit and MPS it is not credible that their RWAs are so far below their nominal amounts. This shrinkage is enabled by the same IRB systems that will now be allowed to determine whether assets are eligible for the PEPP and the other APPs and as Eurosystem collateral.

IRB systems will play a role most of all in the admission of "credit claims". These will be originated by commercial banks in accordance with their IRB systems, and their approval by the IRB system will be taken as an endorsement of the quality of the "credit claim". These are simply loans, that the bank will be able to offload into the PEPP if they can manufacture a debt security out of them, or offer up as Eurosystem collateral if they cannot.

The BVG-quoted safeguard that the "issuer has a minimum credit quality assessment that provides access to the bond markets" falls flat when measured against this reality.

Moreover, where a bank sells off "credit claims" to the Eurosystem and these turn out to be of relatively sound quality, there must be a reduction in the credit rating of the selling bank: the selling bank's average loan portfolio quality will have reduced.

With MPS currently rated at Ba3 (Speculative Grade), it cannot afford that. Unicredit – rated Baa1 and two notches higher than the Republic of Italy – could possibly afford one downgrade. However, that might bring unwelcome attention upon the matter of its Project Fino securitisation of Non-Performing Loans and indeed on its sham recovery from a major overhang of such bad loans. The Fino portfolio is underperforming according to the latest ratings report from DBRS, the only agency to rate the bonds⁴⁵. Bonds were created from the Fino project but did not receive the hoped-for credit ratings and stayed on Unicredit's own balance sheet. Instead of owning 100% of the Fino loan book, Unicredit owned 90% or so of the bonds issued by the special-purpose company that the Fino loan book was sold off to. The Fino loan book was composed of "Bad Exposures", attracting only a Counterparty Weighting of 700-800% in Unicredit's books instead of the 1,250% that they should have. The bonds, however, could be assigned a Counterparty Weighting of 50-60% because they were not in default. In Unicredit's books €1 billion nominal of Fino loans would have produced an RWA of €7.5 billion. For

⁴³ <https://globalvisionuk.com/uks-160-billion-withdrawal-agreement-exposure-is-not-dependent-on-all-of-the-eibs-loans-failing/>

⁴⁴ EIB 2019 Financial Report

⁴⁵ <https://www.dbrsmorningstar.com/research/369899/dbrs-morningstar-confirms-ratings-of-fino-1-securitisation-srl-trend-remains-negative>

every €1 billion of Fino loans that could be securitised, Unicredit would initially release €7.5 billion x 8% of Common Equity (Tier 1), or €600 million. It would then have to allocate €550 million x 8%= €44 million of Common Equity (Tier 1) against every €1 billion of bonds. In other words Unicredit was able to release €556 million net of Common Equity (Tier 1) for every €1 billion of Fino loans. The underlying assets were identical and Unicredit owned 100% of them before the securitisation and 90% afterwards.

This is the kind of nonsense that is enabled by IRB systems as they have been allowed to develop in the Eurozone. The European Banking Authority has claimed that IRB systems have been strengthened since the Eurozone financial crisis of 2012/3 but this is untrue: they have allowed banks to present a sham of adequate capitalisation based on supposedly surplus Common Equity (Tier 1) over globally agreed thresholds for Common Equity (Tier 1) as a percentage of RWAs. At the same time the weakness of the IRB systems has been concealed, which radically shrink the nominal values of on- and off-balance sheet business into unrealistically small RWAs.

The Eurosystem is now accepting the assertions of these IRB systems as warranting the creditworthiness of assets it is accepting as collateral, and which it is buying into the PEPP (and possibly the ABSPP and CBPP3 as well) if they can be presented as a debt security. As a result the Eurosystem is taking on the same credit risks as these banks have taken on, on the same contractual terms and in effect at the same price, without its having its own credit department and without any adjustment for the failures of the Eurozone banks in credit risk assessment and management.

The Eurosystem has become, through PEPP, a major buyer of illiquid securities and at the same time a direct commercial lender

The ECB has revealed that the PEPP is a big buyer of corporate bonds, and an even bigger buyer of primary market commercial paper. On top of that both the PEPP, the ABSPP and the CBPP3 are permitted to buy debt securities based on “credit claims”. These “credit claims” can also be offered as collateral to the Eurosystem, although how exactly that is compatible with banks’ obligations under the terms of other liabilities not to hypothecate their assets is another question. A PEPP can only buy a “credit claim” if it has been converted into a debt security such as, for example, a Collateralised Loan Obligation. For this to occur the underlying loans originated by a bank needed both to be documented in such a way that ownership can be transferred (e.g. by assignment, Transferable Loan Certificates or novation, as a sample of the available techniques) and they do then need to be so transferred into a special-purpose company, which would then issue the debt security. The debt security would count as an asset-backed security rather than as a corporate security, even where all the underlying loans were to corporates, excluding the CSPP as a purchaser.

An intermediary will always be involved. With the “credit claims” it is the originating bank. For corporate bonds it is one of the lead management group. For commercial paper it is a dealer.

The presence in each case of an intermediary enables the Eurosystem to claim that it is not going into direct competition with commercial banks. Readers will take such an apology as they wish. In our view the PEPP is an investment fund for banking assets and for corporate securities of a type that a commercial bank might decide to buy for itself, as an alternative mechanism to establishing a bilateral line of credit for the issuer, making a long-term loan to it, or creating and discounting Promissory Notes or Bills of Exchange. Borrowers may decide as a matter of policy that a commercial paper programme will be the sole mechanism for the creation of debt of below one year, and that a Medium-Term Note programme will be the sole mechanism for the creation of debt of above one year. It would only be possible for a bank to lend to the borrower by the bank’s buying the borrower’s commercial paper or medium-term notes, although the pricing may be decided upon bilaterally.

The PEPP, ABSPP, CBPP3 and CSPP represent the Eurosystem becoming a mainstream commercial lender on a Eurozone-wide basis, to rival the likes of Deutsche Bank, Unicredit, HSBC, Societe Generale, ING, Santander, BBVA and BNPP.

There can be no claim that the Eurosystem is not taking commercial credit risk, a form of risk-taking that ought to be reserved to commercial banks who have a credit department and are supposed to be count commercial credit risk management as a key competency.

In fact the Eurosystem acting in that guise becomes what the Euro was supposed to produce of its own accord: pan-Eurozone banks.

In stepping into this guise the Eurosystem breaks the rules that have been set for commercial banks, rules deriving from the Basel-based Bank for International Settlements (BIS) and enacted in the EU through the European Banking Authority (EBA).

It should have its own Internal-Ratings Based methodology, not rely on those of others. It should have capital – Common Equity (Tier 1) – against which to absorb credit losses. It should publish its RWAs and state its Common Equity (Tier 1) ratio.

It should apply to itself the same liquidity metrics as it compels commercial banks to follow, if it wants to maintain the pretence that securities may be sold prior to their maturity date and indeed will be sold if the credit ratings of securities fall below a given level.

Liquidity metrics are part of the same global financial regulatory framework as IRB methodologies, issued by the Bank for International Settlements in Basel – the BIS.

Corporate securities are notoriously illiquid. It is extremely difficult to believe that an adequate test has been carried out on all the corporate securities on the ECB list that satisfies the criteria for the security to be considered liquid in accordance with BIS rules. The key test is whether it can be presented by a bank as a High Quality Liquid Asset (HQLA) for the purposes of the Basel III Liquidity Coverage Ratio. Appendix 9 gives the criteria from the BIS' BCBS 238 publication, and they include:

- [are] traded in large, deep and active repo or cash markets characterised by a low level of concentration; and
- have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions: i.e. maximum decline of price or increase in haircut over a 30-day period during a relevant period of significant liquidity stress not exceeding 10% for bonds rated Aa3 and above, and not exceeding 20% for bonds rated A1 to Baa3.

Bonds rated Aa3 or above can be classified as Level 2A HQLAs if they meet all of the criteria, and they merit a 15% haircut.

The haircut is 50% for Level 2B HQLAs: bonds rated between A1 and Baa3 that meet all of the criteria. There is a reduced haircut of 25% for residential mortgage-backed securities which otherwise rank Level 2B assets.

Bonds rated outside "Investment Grade" cannot be counted at all; bonds that are well enough rated but which fail the other tests cannot be counted.

We can compare the Liquidity Coverage Ratio haircuts with those for a selection of corporate bonds on the ECB list, all fixed rate bonds issued in 2020 and with a five-year maturity. They are subject to both credit risk and market risk. The full details of each bond are contained in Appendix 6.

We have obtained the public credit rating for each bond, where one exists, from Moody's, Standard & Poor's, Fitch and DBRS. DBRS has only rated one issuer – Daimler AG.

We have taken it that the portfolios of CA Immobilien Anlagen AG and Deutsche Wohnen SE are commercial property and not residential mortgages. This is supported by the Moody's statements of both issuer's Peer Group as being "REITs and Other Commercial Real Estate Firms". Neither issue is well enough rated to rank as a Level 2A HQLA, so they both attract a 50% haircut for LCR, whereas the haircut would have been 25% if either had been a residential mortgage-backed security.

| ISIN | Coupon | | Eurosystem | LCR | LCR | Public Long-term Credit Ratings | | | |
|--------------|--------|--|------------|-----------|-------|---------------------------------|------|-------|------|
| | % | Issuer Name | Haircut % | Haircut % | Level | Moody's | S&P | Fitch | DBRS |
| XS2248827771 | 1 | CA Immobilien Anlagen AG | 13.2 | 50 | 2B | Baa2 | -- | -- | -- |
| DE000A289Q91 | 2.75 | Schaeffler AG | 13.2 | 50 | 2B | Ba1 | BB+ | BBB- | -- |
| XS2232027727 | 1.625 | KION GROUP AG | 13.2 | 50 | 2B | -- | BB+ | BBB- | -- |
| XS2228260043 | 2.875 | Ryanair DAC | 13.2 | 50 | 2B | -- | BBB | BBB | -- |
| XS2197673747 | 3 | MTU Aero Engines AG | 13.2 | 50 | 2B | Baa3 | -- | BBB | -- |
| XS2192431380 | 0.25 | Italgas S.P.A. | 13.2 | 50 | 2B | Baa2 | -- | BBB+ | -- |
| FR0013519048 | 0.625 | CAP GEMINI | 13.2 | 50 | 2B | -- | BBB | -- | -- |
| XS2189592616 | 1.375 | ACS, Act.de Constr.y Serv. SA | 13.2 | 50 | 2B | -- | BBB- | -- | -- |
| FR0013518156 | 0.86 | SOCIETE NATIONALE SNCF | 18 | 15 | 2A | Aa3 | AA- | A+ | -- |
| XS2182067350 | 2.25 | Scania CV AB | 13.2 | 50 | 2B | -- | BBB | -- | -- |
| DE000A289NX4 | 0.625 | Evonik Industries AG | 13.2 | 50 | 2B | Baa1 | BBB+ | -- | -- |
| XS2171759256 | 2.375 | Nokia Oyj | 13.2 | 50 | 2B | Ba2 | BB+ | BBB- | -- |
| DE000A289NE4 | 1 | Deutsche Wohnen SE | 2.4 | 50 | 2B | A3 | A- | -- | -- |
| XS2163320679 | 0.75 | SODEXO SA Red Electrica Corporacion S.A. | 2.4 | 50 | 2B | -- | A- | -- | -- |
| XS2154441120 | 0.875 | Iberdrola Finanzas S.A. | 13.2 | 50 | 2B | -- | BBB+ | BBB+ | -- |
| XS2153405118 | 0.875 | Iberdrola Finanzas S.A. | 2.4 | 50 | 2B | Baa1 | BBB+ | A- | -- |
| FR0013506813 | 2.125 | UNIBAIL RODAMCO SE | 2.4 | 50 | 2B | Baa1 | BBB+ | A- | -- |
| XS2152899584 | 1 | E.ON SE LVMH Moët Henn. L. Vuitton SE | 2.4 | 50 | 2B | Baa2 | BBB | A- | -- |
| FR0013506508 | 0.75 | E.ON SE LVMH Moët Henn. L. Vuitton SE | 2.4 | 50 | 2B | A1 | A+ | -- | -- |
| DE000A289RN6 | 2.625 | Daimler AG | 2.4 | 50 | 2B | A3 | BBB+ | BBB+ | BBB |
| FR0013506524 | 1.125 | Pernod-Ricard S.A. | 13.2 | 50 | 2B | Baa1 | BBB+ | -- | -- |
| XS2147977479 | 1.625 | Heineken N.V. | 13.2 | 50 | 2B | Baa1 | BBB+ | -- | -- |
| XS2149368529 | 1.375 | Koninklijke Philips N.V. | 13.2 | 50 | 2B | Baa1 | BBB+ | -- | -- |
| FR0013505104 | 1 | SANOFI SA | 2.4 | 50 | 2B | A1 | AA | -- | -- |
| FR0013504644 | 1.375 | ENGIE | 2.4 | 50 | 2B | Baa1 | BBB+ | A | -- |
| XS2133390521 | 0.05 | Vattenfall AB National Grid | 2.4 | 50 | 2B | A3 | BBB+ | -- | -- |
| XS2104915033 | 0.19 | Electr.Trans.PLC | 2.4 | 50 | 2B | A3 | A- | A- | -- |

Were a bank to present these securities to their supervisor as High-Quality Liquid Assets, only the SNCF issue would attract a haircut 15%; the haircut for all the others would be 50%.

The Eurosystem haircuts show only three values: 2.4%, 13.2% and 18%.

Ironically the highest haircut of 18% pertains to the bond issued by SNCF, the French railway company. SNCF is the best-rated issuer individually, meriting a 15% haircut for LCR, but the issue itself attracts the highest Eurosystem haircut out of the selection because it is denominated in USD. This is the only example of the Eurosystem haircut being higher than the LCR one.

Eleven issues merit a Eurosystem haircut of 2.4%, when they merit a 50% haircut for LCR. Fifteen issues merit a Eurosystem haircut of 13.2%, when they merit a 50% haircut for LCR

We have placed the rating agencies in the order Moody's, S&P, Fitch and DBRS because of our opinion that Moody's is the toughest examiner and that DBRS is the new entrant and appears to focus most on financial institutions and structured bonds. This is a view, but it is worth noting that neither Schaeffer AG nor KION Group AG would have made it onto the eligible list at all if Fitch had not graded their bonds at BBB-. S&P rated both as BB+, whilst Moody's issued a Ba1 to Schaeffer and had no rating for KION. Schaeffer AG's and KION Group AG's bonds benefit from the dispensations

that an issue need only have one rating of at least Baa3 or equivalent to be eligible and, if the issue is rated by multiple agencies, it is the highest rating that counts.

These haircuts - except for the SNCF bond in USD - are lower than the 15% one applicable to Level 2A HQLAs in the Liquidity Coverage Ratio, whilst the bonds themselves are Level 2B HQLAs. This serves to demonstrate the high level of the commercial credit risk that the Eurosystem is running, as well as to belie the delusion that the Eurosystem will ever try to re-sell these assets if it owns them, or that it expects to have to execute on any collateral it holds. For the Eurosystem to make a loan to a commercial bank of €1 million based on collateral of €1.132 million issued by a Schaeffer AG or a Pernod-Ricard S.A. indicates a high, and probably misplaced, confidence that the loan cannot go bad.

It is noted above that the ECB has broadened its criteria to allow itself to buy commercial paper issued by non-financial institutions.

Commercial paper (CP), being of short maturity, has a notoriously thin secondary market, and is normally a buy-and-hold investment. Financial institutions issue Certificates of Deposit (CDs), and government issue Government Bills (Bills), to raise money for an original maturity below one year in a tradeable form (financial institutions also raise short-term liabilities via fixed deposits and different types of account, but these do not provide the depositor with a tradeable instrument).

The size of the secondary market in Bills, CDs and CP is in a sharply inverse relationship to credit quality. Bills have the deepest secondary market, followed by CDs and then CP a distant third. The Eurosystem is buying illiquid securities in large amounts and at high prices, so there is no-one to sell these securities on to in the secondary market without the Eurosystem making a loss. It has no option but to hold them until maturity.

In this respect also the PEPP comes to resemble a “Bad Bank”: holding illiquid assets for which there is no secondary market, it has bought them at the top of the market, will receive very little Interest Income, and bears a credit risk that it has underpriced.

Summary of Eurosystem’s profile as a commercial bank

Here is a summary of the elements that profile the Eurosystem as a pan-European commercial bank of the type the EU authorities hoped would emerge naturally from the introduction of the Euro:

- Operates in every Eurozone country
- Has uniform powers in every Eurozone country
- Buys corporate bonds
- Buys non-financial commercial paper
- Buys assets backed by residential mortgages and cars
- Buys assets based on loans to small and medium-sized enterprises (SMEs), based on consumer finance loans, based on leasing and based on credit card receivables
- Buys assets without a public credit rating
- Buys assets that are below “Investment Grade” according either to public ratings or their own credit risk analysis
- Relies on Internal Ratings-Based methodologies to determine its risk acceptance
- Accepts whatever it buys also as collateral for cash loans

The justification for the Eurosystem to do this would be that the private market had failed as a transmission mechanism of central bank policy to consumers, SMEs and corporates. Officialdom then has to step in and displace private enterprise: it is not an option to allow market forces to operate.

The Eurosystem might reject this analysis on the basis that it is acting at one step removed – there is always an intermediary between themselves and the ultimate taker of credit behind one of the assets, and the IRB methodologies are those of only a subsection of the intermediaries, diminishing the significance of the Eurosystem not doing its own credit analysis.

We would respond by pointing out that banks make wide usage of external credit information sources like public rating agencies, Experian and others: neo-banks in particular rely more heavily on these external sources than on information they capture and analyse themselves. Under that perspective the Eurosystem is simply behaving like one of the pan-Eurozone neo-banks that they would have liked to see emerge but which haven't.

Similarly there are plenty of types of commercial bank that obtain their assets through an intermediary, such as the lead manager of a syndicated loan, rather than through direct interaction with a borrower. Foreign banks in any particular financial centre are typical of this: they may have a loan book generated directly when the borrower is the local subsidiary of a head office customer, but they will also have a loan book of syndicated loan participations both for indigenous customers and large customers in other jurisdictions, with whom they would have very modest success in building up a direct relationship.

Implications of the Eurosystem's profile as a commercial bank

The Eurosystem now substantially owns and controls the Eurozone financial market.

It began with the secondary market in public sector securities and, with the PEPP, has extended that control to the primary market.

It was already active in both the primary and secondary private sector bond market with the CSPP, ABSPP and CBPP3.

To this was added a presence in the primary and secondary non-financial commercial paper market.

The activity is increased in scale by the size of the PEPP – across all asset classes - and widened in nature by the weakening of the Eurosystem credit criteria.

Allowing “credit claims” and easing the acceptance of IRB systems permit a major expansion of the Eurosystem's market penetration into commercial banking and on a pan-European basis.

Just as the Eurosystem has displaced private activity in the public sector financing market, it is now starting to displace private activity in the private sector financing market.

The Eurosystem's activities have, as we have proven, undermined the Eurozone bond market as a genuinely free market. Now the same ministrations will be applied to the set of financial instruments that constitute the private credit market.

This leads to money – the Euro – being state-controlled, but not in this case by a state body which is itself under democratic control. Decision 2020/440 establishing the PEPP granted the ECB the power to develop the PEPP in the way it saw fit and without needing to seek confirmation in the form of a further EU legal instrument. Decision 2020/440 was a watershed – a form of Enabling Act that puts the ECB beyond democratic control from either the EU apparatus or the member states.

Conclusions

Control of the currency is a sovereign power. By that measure the ECB and the Eurosystem have become a sovereign, taking the concept of central bank independence to an extreme.

We referred earlier to our study of how the EU's 2021-2027 Multiannual Financial Framework and the Coronavirus Recovery Fund (called Next Generation EU) represented a major power grab by the European authorities over the member state.

Decision 2020/440 establishing the PEPP is little short of a coup d'état, setting the ECB outside democratic control from either the EU apparatus or the member states.

The PEPP flouts the comfort and controls that the German Constitutional Court presumed to be in place regarding the PSPP.

The PEPP displaces private economic activity, both by positioning itself and the Eurosystem as a whole as a pan-European commercial bank and by buying up the primary and secondary Eurozone bond market to the degree that it owns or controls half of it, and possibly more.

In doing so it has distorted the Safety-Liquidity-Yield equation that would assert itself in a free financial market. It has brought Yield down to around zero in all maturities and for all types of risk. It has created its own version of Safety which denies the presence of risk, in contradiction of the spread of risks denoted by economic fundamentals and public credit ratings. It has become the main provider of Liquidity, and trading other than between itself and professional counterparties has gone into decline.

In becoming a commercial bank it has taken on the guise of the kind of organisation that the Euro was meant to foster but which has failed to emerge: a pan-European commercial bank. In doing that it has begun to take on commercial risk, which should be outside its mandate, and even allowed banks' Internal Ratings-Based methodologies to do service for a credit assessment function of its own.

The ECB and Eurosystem now own and run the Eurozone financial market. The PEPP embodies the most extreme measures to capture and run the market, empowering the Eurosystem to buy up almost every asset class existing. In doing that it is driving out both private activity and liquidity, destroying the time value of money, and bringing each element of the Safety-Liquidity-Yield equation to zero. Yield is zero: that is not in dispute. Liquidity is zero without the Eurosystem as it is the sole source of buying interest at current yields. If Liquidity and Yield are zero, Safety must be zero as well, to balance the equation. Zero Safety is the version that the Eurosystem most strenuously denies by buying up the market and keeping prices high. However, by weakening its own credit quality criteria, it has admitted to the degradation of Safety.

In effect the Eurosystem is disgorging, through the PEPP, central bank money – supposedly money of the highest quality – in exchange for securities of degraded quality and ones that represent commercial bank money. The PEPP, taken together with the measures to weaken the credit quality criteria, represent a gross failure of a central bank to run an orderly market.

Broad and liquid capital markets were one of the supposed outcomes of the introduction of the euro. They were supposed to offer a wide range of choices of investment comparable and contrastable in terms of Safety, Liquidity and Yield, both against one another and against robust and independent third-party benchmarks. The PEPP embodies the Eurosystem's failure to deliver on that promise. However, rather than admit that and make itself accountable, it has engineered a form of Unilateral Declaration of Independence, departed from the oversight of the other elements in the EU apparatus and the member states, and taken the currency with it.

BL/30.12.20

Appendix 1 – summary of new bond issues after the date of EU Decision 2020/440 of 24th March 2020 until 30th November 2020 when the PEPP ceiling was €1.35 trillion by recognised Italian, Spanish, Portuguese and supranational issuers and which are now on the ECB list of eligible collateral

In Euro billions

| Country/category | Sovereign | Agencies | Local/Regional government | Total |
|-------------------------|------------------|-----------------|----------------------------------|--------------|
| Italy | 249 | 2 | 0 | 251 |
| Spain | 114 | 1 | 5 | 120 |
| Portugal | 29 | 0 | 1 | 30 |
| Supranational | 102 | N/A | N/A | 102 |
| | | | | 503 |

Appendix 2 – new bonds issued by recognised Italian issuers 24/3/20 – 30/11/20

Sovereign/Italy

Republic of Italy

| ISIN | CURRENCY | ISSUED | MATURES | COUPON | ISSUER NAME | AMOUNT |
|--------------|----------|------------|------------|--------|--------------------------------------|-----------------|
| IT0005426512 | EUR | 30/11/2020 | 31/05/2021 | 0 | Central government: Italian Republic | 6,000,000,000 |
| IT0005425761 | EUR | 17/11/2020 | 17/11/2028 | 0.35 | Central government: Italian Republic | 5,711,000,000 |
| IT0005426504 | EUR | 13/11/2020 | 12/11/2021 | 0 | Central government: Italian Republic | 5,500,000,000 |
| IT0005423154 | EUR | 30/10/2020 | 30/04/2021 | 0 | Central government: Italian Republic | 6,500,000,000 |
| IT0005425233 | EUR | 29/10/2020 | 01/09/2051 | 1.7 | Central government: Italian Republic | 8,000,000,000 |
| IT0005424251 | EUR | 15/10/2020 | 15/01/2024 | 0 | Central government: Italian Republic | 11,096,000,000 |
| IT0005423147 | EUR | 14/10/2020 | 14/10/2021 | 0 | Central government: Italian Republic | 7,161,000,000 |
| IT0005422891 | EUR | 01/10/2020 | 01/04/2031 | 0.9 | Central government: Italian Republic | 11,626,000,000 |
| IT0005419863 | EUR | 30/09/2020 | 31/03/2021 | 0 | Central government: Italian Republic | 6,500,000,000 |
| IT0005422487 | EUR | 28/09/2020 | 28/09/2022 | 0 | Central government: Italian Republic | 8,327,000,000 |
| IT0005421703 | EUR | 15/09/2020 | 01/03/2041 | 1.8 | Central government: Italian Republic | 10,000,000,000 |
| IT0005419855 | EUR | 14/09/2020 | 14/09/2021 | 0 | Central government: Italian Republic | 7,372,000,000 |
| IT0005419046 | EUR | 31/08/2020 | 26/02/2021 | 0 | Central government: Italian Republic | 7,460,000,000 |
| IT0005419038 | EUR | 14/08/2020 | 13/08/2021 | 0 | Central government: Italian Republic | 7,035,000,000 |
| IT0005419848 | EUR | 01/08/2020 | 01/02/2026 | 0.5 | Central government: Italian Republic | 14,351,000,000 |
| IT0005415952 | EUR | 31/07/2020 | 29/01/2021 | 0 | Central government: Italian Republic | 7,700,000,000 |
| IT0005416570 | EUR | 16/07/2020 | 15/09/2027 | 0.95 | Central government: Italian Republic | 19,300,000,000 |
| IT0005415291 | EUR | 14/07/2020 | 14/07/2030 | 1.15 | Central government: Italian Republic | 6,132,000,000 |
| IT0005415945 | EUR | 14/07/2020 | 14/07/2021 | 0 | Central government: Italian Republic | 7,774,000,000 |
| IT0005412587 | EUR | 30/06/2020 | 31/12/2020 | 0 | Central government: Italian Republic | 7,157,000,000 |
| IT0005415416 | EUR | 29/06/2020 | 15/05/2026 | 0.65 | Central government: Italian Republic | 3,350,000,000 |
| IT0005413684 | EUR | 15/06/2020 | 15/08/2023 | 0.3 | Central government: Italian Republic | 16,743,000,000 |
| IT0005412579 | EUR | 12/06/2020 | 14/06/2021 | 0 | Central government: Italian Republic | 7,431,000,000 |
| IT0005413171 | EUR | 01/06/2020 | 01/12/2030 | 1.65 | Central government: Italian Republic | 23,108,000,000 |
| XS2181364436 | EUR | 29/05/2020 | 09/06/2021 | 0 | Central government: Italian Republic | 2,000,000,000 |
| IT0005412348 | EUR | 28/05/2020 | 30/05/2022 | 0 | Central government: Italian Republic | 16,351,000,000 |
| IT0005410912 | EUR | 26/05/2020 | 26/05/2025 | 1.4 | Central government: Italian Republic | 22,298,000,000 |
| IT0005410920 | EUR | 14/05/2020 | 14/05/2021 | 0 | Central government: Italian Republic | 7,700,000,000 |
| XS2172852324 | EUR | 12/05/2020 | 28/04/2021 | 0 | Central government: Italian Republic | 2,000,000,000 |
| XS2166502398 | EUR | 29/04/2020 | 05/05/2021 | 0 | Central government: Italian Republic | 2,000,000,000 |
| XS2166502125 | EUR | 29/04/2020 | 24/03/2021 | 0 | Central government: Italian Republic | 2,000,000,000 |
| IT0005408502 | EUR | 28/04/2020 | 01/07/2025 | 1.85 | Central government: Italian Republic | 18,565,000,000 |
| | | | | | | 294,248,000,000 |

Recognised agencies/Italy

Agenzia nazionale per l'attrazione degli investimenti e lo sviluppo d'impresa S.p.A. (Invitalia)

Cassa del Trentino S.p.A.

Cassa Depositi e prestiti S.p.A. (CDP)

Finlombarda S.p.A.

| ISIN | CURRENCY | ISSUED | MATURES | COUPON | ISSUER NAME | AMOUNT |
|--------------|----------|------------|------------|--------|--|---------------|
| IT0005422032 | EUR | 21/09/2020 | 21/09/2028 | 1 | CASSA DEPOSITI E PRESTITI SOCIETA' PER AZIONI IN FORMA ABBREVIATA CDP S.P.A. | 750,000,000 |
| IT0005408080 | EUR | 20/04/2020 | 20/04/2023 | 1.5 | CASSA DEPOSITI E PRESTITI SOCIETA' PER AZIONI IN FORMA ABBREVIATA CDP S.P.A. | 500,000,000 |
| IT0005408098 | EUR | 20/04/2020 | 20/04/2027 | 2 | CASSA DEPOSITI E PRESTITI SOCIETA' PER AZIONI IN FORMA ABBREVIATA CDP S.P.A. | 500,000,000 |
| IT0005406274 | EUR | 01/04/2020 | 03/04/2028 | 0.836 | CASSA DEPOSITI E PRESTITI SOCIETA' PER AZIONI IN FORMA ABBREVIATA CDP S.P.A. | 100,000,000 |
| IT0005406233 | EUR | 01/04/2020 | 02/10/2028 | 0.921 | CASSA DEPOSITI E PRESTITI SOCIETA' PER AZIONI IN FORMA ABBREVIATA CDP S.P.A. | 100,000,000 |
| IT0005406282 | EUR | 01/04/2020 | 01/10/2027 | 0.846 | CASSA DEPOSITI E PRESTITI SOCIETA' PER AZIONI IN FORMA ABBREVIATA CDP S.P.A. | 100,000,000 |
| IT0005406365 | EUR | 01/04/2020 | 03/04/2028 | 0.826 | CASSA DEPOSITI E PRESTITI SOCIETA' PER AZIONI IN FORMA ABBREVIATA CDP S.P.A. | 150,000,000 |
| | | | | | | 2,200,000,000 |

Local and regional government entities/Italy

None

Appendix 3 – new bonds issued by recognised Spanish issuers 24/3/20 – 30/11/20

Sovereign/Spain

Kingdom of Spain

| ISIN | CURRENCY | ISSUED | MATURES | COUPON | ISSUER NAME | AMOUNT |
|--------------|----------|------------|------------|--------|--------------------------------------|-----------------|
| ES0L02111125 | EUR | 13/11/2020 | 12/11/2021 | | Central government: Kingdom of Spain | 2,135,000,000 |
| ES0000012G91 | EUR | 20/10/2020 | 31/01/2026 | 0 | Central government: Kingdom of Spain | 3,730,000,000 |
| ES0L02110085 | EUR | 09/10/2020 | 08/10/2021 | | Central government: Kingdom of Spain | 3,341,000,000 |
| ES0L02109103 | EUR | 11/09/2020 | 10/09/2021 | | Central government: Kingdom of Spain | 6,234,000,000 |
| ES0L02108139 | EUR | 14/08/2020 | 13/08/2021 | | Central government: Kingdom of Spain | 6,378,000,000 |
| ES0L02107099 | EUR | 10/07/2020 | 09/07/2021 | | Central government: Kingdom of Spain | 6,774,000,000 |
| ES0000012G42 | EUR | 16/06/2020 | 31/10/2040 | 1.2 | Central government: Kingdom of Spain | 13,356,000,000 |
| ES0L02106117 | EUR | 12/06/2020 | 11/06/2021 | | Central government: Kingdom of Spain | 8,548,000,000 |
| ES0L02105077 | EUR | 08/05/2020 | 07/05/2021 | | Central government: Kingdom of Spain | 11,472,000,000 |
| ES0000012G34 | EUR | 30/04/2020 | 31/10/2030 | 1.25 | Central government: Kingdom of Spain | 25,114,000,000 |
| ES0L02104161 | EUR | 17/04/2020 | 16/04/2021 | | Central government: Kingdom of Spain | 9,171,000,000 |
| ES0000012G26 | EUR | 31/03/2020 | 30/07/2027 | 0.8 | Central government: Kingdom of Spain | 18,205,000,000 |
| | | | | | | 114,458,000,000 |

Recognised agencies/Spain

ADIF-Alta Velocidad

Fondo de Amortización del Déficit Eléctrico, Fondo de Titulización de Activos (FADE)

Instituto de Crédito Oficial (ICO)

Instituto de Finanzas de Cantabria (ICAF)

| ISIN | CURRENCY | ISSUED | MATURES | COUPON | ISSUER NAME | AMOUNT |
|--------------|----------|------------|------------|--------|--------------------------------------|---------------|
| ES0378641353 | EUR | 03/07/2020 | 17/09/2025 | 0.01 | F.T.A. Déficit del Sistema Eléctrico | 1,200,000,000 |
| | | | | | | 1,200,000,000 |

Local and regional government entities/Spain

| ISIN | CURRENCY | ISSUED | MATURES | COUPON | ISSUER NAME | AMOUNT |
|--------------|----------|------------|------------|--------|-------------------------------|-------------|
| ES00001010A9 | EUR | 25/11/2020 | 31/10/2040 | 0.81 | Madrid, Comunidad Autonoma de | 40,000,000 |
| ES0000106692 | EUR | 25/11/2020 | 31/10/2050 | 1 | Vasco, Gobierno | 78,000,000 |
| ES0000101990 | EUR | 24/11/2020 | 22/11/2052 | 1.138 | Madrid, Comunidad Autonoma de | 50,000,000 |
| ES0000106700 | EUR | 24/11/2020 | 31/10/2070 | 1.375 | Vasco, Gobierno | 310,000,000 |
| ES0000101982 | EUR | 23/11/2020 | 31/10/2049 | 1.089 | Madrid, Comunidad Autonoma de | 100,000,000 |
| ES0000106684 | EUR | 19/11/2020 | 30/04/2031 | 0.25 | Vasco, Gobierno | 600,000,000 |
| ES0001352600 | EUR | 27/10/2020 | 31/10/2025 | 0 | Galicia, Xunta de | 150,000,000 |
| ES0001353475 | EUR | 22/10/2020 | 22/10/2035 | 0.55 | Navarra, Comunidad Foral de | 60,000,000 |
| ES0001352592 | EUR | 01/10/2020 | 30/07/2027 | 0.084 | Galicia, Xunta de | 500,000,000 |
| ES0000101974 | EUR | 22/09/2020 | 31/10/2048 | 1.255 | Madrid, Comunidad Autonoma de | 297,000,000 |
| ES05000909K1 | EUR | 28/08/2020 | 25/02/2022 | | Andalucia, Junta de | 7,000,000 |
| ES0500101284 | EUR | 31/07/2020 | 23/12/2020 | | Madrid, Comunidad Autonoma de | 28,000,000 |

| | | | | | | |
|--------------|-----|------------|------------|-------|-------------------------------|---------------|
| ES0500101276 | EUR | 23/07/2020 | 18/12/2020 | | Madrid, Comunidad Autonoma de | 184,400,000 |
| ES0001380155 | EUR | 17/07/2020 | 17/07/2030 | 0.582 | Asturias, Principado de | 131,000,000 |
| ES05000909I5 | EUR | 26/06/2020 | 17/12/2021 | | Andalucia, Junta de | 25,000,000 |
| ES0500101227 | EUR | 12/06/2020 | 01/03/2021 | | Madrid, Comunidad Autonoma de | 10,000,000 |
| ES0500101235 | EUR | 12/06/2020 | 30/04/2021 | | Madrid, Comunidad Autonoma de | 17,000,000 |
| ES0500101219 | EUR | 09/06/2020 | 09/03/2021 | | Madrid, Comunidad Autonoma de | 18,600,000 |
| ES0000101958 | EUR | 29/05/2020 | 29/05/2023 | 0 | Madrid, Comunidad Autonoma de | 52,000,000 |
| ES05000909H7 | EUR | 29/05/2020 | 26/11/2021 | | Andalucia, Junta de | 10,750,000 |
| ES0000101966 | EUR | 08/05/2020 | 30/07/2027 | 0.827 | Madrid, Comunidad Autonoma de | 700,000,000 |
| ES0001353467 | EUR | 08/05/2020 | 08/05/2040 | 1.45 | Navarra, Comunidad Foral de | 75,000,000 |
| ES0000106668 | EUR | 30/04/2020 | 30/04/2035 | 1.3 | Vasco, Gobierno | 105,000,000 |
| ES0000106676 | EUR | 30/04/2020 | 30/04/2059 | 2 | Vasco, Gobierno | 59,000,000 |
| ES05000909G9 | EUR | 24/04/2020 | 29/10/2021 | | Andalucia, Junta de | 20,000,000 |
| ES0000106650 | EUR | 22/04/2020 | 22/04/2050 | 1.75 | Vasco, Gobierno | 81,500,000 |
| ES0000101941 | EUR | 08/04/2020 | 31/10/2050 | 1.655 | Madrid, Comunidad Autonoma de | 265,000,000 |
| ES0000106643 | EUR | 06/04/2020 | 30/04/2030 | 0.85 | Vasco, Gobierno | 500,000,000 |
| ES05000909F1 | EUR | 27/03/2020 | 24/09/2021 | | Andalucia, Junta de | 25,000,000 |
| | | | | | | 4,499,250,000 |

Appendix 4 – new bonds issued by recognised Portuguese issuers 24/3/20 – 30/11/20

Sovereign/Portugal

Republic of Portugal

| ISIN | CURRENCY | ISSUED | MATURES | COUPON | ISSUER NAME | AMOUNT |
|--------------|----------|------------|------------|--------|---|----------------|
| PTPBTAG0056 | EUR | 18/09/2020 | 17/09/2021 | | Central government: Portuguese Republic | 1,359,000,000 |
| PTPBTEGE0045 | EUR | 17/07/2020 | 16/07/2021 | | Central government: Portuguese Republic | 2,303,000,000 |
| PTOTENOE0034 | EUR | 08/07/2020 | 12/10/2035 | 0.9 | Central government: Portuguese Republic | 4,000,000,000 |
| PTPBDTGE0046 | EUR | 22/05/2020 | 21/05/2021 | | Central government: Portuguese Republic | 2,299,000,000 |
| PTOTEMOE0035 | EUR | 08/04/2020 | 15/10/2027 | 0.7 | Central government: Portuguese Republic | 5,537,000,000 |
| PTPBTIGE0033 | EUR | 20/03/2020 | 19/03/2021 | | Central government: Portuguese Republic | 1,835,000,000 |
| PTPBTHGE0034 | EUR | 17/01/2020 | 15/01/2021 | | Central government: Portuguese Republic | 2,922,000,000 |
| PTOTELOE0028 | EUR | 15/01/2020 | 18/10/2030 | 0.475 | Central government: Portuguese Republic | 8,342,000,000 |
| | | | | | | 28,597,000,000 |

Recognised agencies/Portugal

Infraestruturas de Portugal S.A.

PARPÚBLICA - Participações Públicas S.A.

None

Local and regional government entities/Portugal

| ISIN | CURRENCY | ISSUED | MATURES | COUPON | ISSUER NAME | AMOUNT |
|--------------|----------|------------|------------|--------|----------------------------|-------------|
| PTRAAGOM0001 | EUR | 07/10/2020 | 21/07/2026 | 0.603 | Região Autónoma dos Açores | 285,000,000 |
| PTRAMZOM0004 | EUR | 29/05/2020 | 29/05/2032 | 0.943 | REGIÃO AUTONOMA DA MADEIRA | 299,000,000 |
| PTRAAFOM0002 | EUR | 20/05/2020 | 20/05/2030 | 1.55 | Região Autónoma dos Açores | 200,000,000 |
| PTRAAEOM0003 | EUR | 06/05/2020 | 14/04/2027 | 1.448 | Região Autónoma dos Açores | 180,000,000 |
| | | | | | | 964,000,000 |

Appendix 5 – new bonds issued by recognised supranational issuers 24/3/20 – 30/11/20

| ISIN | CURRENCY | ISSUED | MATURES | COUPON | ISSUER NAME | AMOUNT |
|--------------|----------|------------|------------|--------|---|----------------|
| XS2262073252 | EUR | 20/11/2020 | 21/11/2050 | 0.95 | European Bank for Reconstruction and Development | 50,000,000 |
| EU000A2SB968 | EUR | 18/11/2020 | 20/05/2021 | 0 | European Stability Mechanism | 2,000,000,000 |
| EU000A284451 | EUR | 17/11/2020 | 04/11/2025 | 0 | European Union | 8,000,000,000 |
| EU000A284469 | EUR | 17/11/2020 | 04/11/2050 | 0.3 | European Union | 6,000,000,000 |
| EU000A2SB950 | EUR | 11/11/2020 | 11/11/2021 | 0 | European Stability Mechanism | 1,490,000,000 |
| EU000A2SB943 | EUR | 04/11/2020 | 04/02/2021 | 0 | European Stability Mechanism | 1,999,000,000 |
| XS2251371022 | EUR | 03/11/2020 | 28/03/2028 | 0 | European Investment Bank | 3,000,000,000 |
| XS2251330184 | EUR | 03/11/2020 | 03/01/2051 | 0.125 | International Bank for Reconstruction and Development | 2,000,000,000 |
| XS2251762485 | EUR | 29/10/2020 | 29/07/2021 | 0 | European Investment Bank | 50,000,000 |
| EU000A283859 | EUR | 27/10/2020 | 04/10/2030 | 0 | European Union | 10,000,000,000 |
| EU000A283867 | EUR | 27/10/2020 | 04/10/2040 | 0.1 | European Union | 7,000,000,000 |
| EU000A1Z99M6 | EUR | 26/10/2020 | 16/12/2024 | 0 | European Stability Mechanism | 2,000,000,000 |
| EU000A2SB935 | EUR | 21/10/2020 | 22/04/2021 | 0 | European Stability Mechanism | 2,000,000,000 |
| XS2244389404 | EUR | 19/10/2020 | 19/10/2035 | 0.235 | International Bank for Reconstruction and Development | 30,000,000 |
| XS2248308749 | EUR | 19/10/2020 | 21/12/2020 | 0 | European Investment Bank | 400,000,000 |
| XS2245284349 | EUR | 15/10/2020 | 14/10/2021 | 0 | European Investment Bank | 400,000,000 |
| EU000A2SB927 | EUR | 14/10/2020 | 14/10/2021 | 0 | European Stability Mechanism | 1,500,000,000 |
| EU000A1G0EK7 | EUR | 13/10/2020 | 13/10/2027 | 0 | European Financial Stability Facility | 3,000,000,000 |
| EU000A2SB919 | EUR | 07/10/2020 | 07/01/2021 | 0 | European Stability Mechanism | 1,999,999,999 |
| EU000A2SB901 | EUR | 23/09/2020 | 18/03/2021 | 0 | European Stability Mechanism | 2,000,000,000 |
| XS2231588547 | EUR | 17/09/2020 | 17/09/2035 | 0.1 | International Bank for Reconstruction and Development | 1,500,000,000 |
| EU000A2SB9Z7 | EUR | 16/09/2020 | 16/09/2021 | 0 | European Stability Mechanism | 1,499,000,000 |
| XS2227296535 | EUR | 08/09/2020 | 08/09/2035 | 0.3 | International Bank for Reconstruction and Development | 30,500,000 |
| XS2225428809 | EUR | 01/09/2020 | 09/09/2030 | 0 | European Investment Bank | 3,000,000,000 |
| EU000A2SB9X2 | EUR | 19/08/2020 | 18/02/2021 | 0 | European Stability Mechanism | 2,000,000,000 |
| EU000A2SB9W4 | EUR | 12/08/2020 | 12/08/2021 | 0 | European Stability Mechanism | 1,500,000,000 |
| XS2215046157 | EUR | 06/08/2020 | 06/01/2021 | 0 | International Development Association | 250,000,000 |
| XS2212845429 | EUR | 31/07/2020 | 29/01/2021 | 0 | International Development Association | 50,000,000 |
| EU000A280C46 | EUR | 23/07/2020 | 23/07/2030 | 0 | European Atomic Energy Community | 100,000,000 |
| EU000A2SB9U8 | EUR | 22/07/2020 | 21/01/2021 | 0 | European Stability Mechanism | 1,993,000,000 |
| EU000A28Z2F7 | EUR | 16/07/2020 | 16/07/2035 | 0.2 | European Union | 20,000,000 |
| EU000A2SB9T0 | EUR | 15/07/2020 | 15/07/2021 | 0 | European Stability Mechanism | 1,499,000,000 |
| EU000A1G0EJ9 | EUR | 15/07/2020 | 15/10/2025 | 0 | European Financial Stability Facility | 4,000,000,000 |
| XS2197910388 | EUR | 30/06/2020 | 01/07/2041 | 0.13 | International Bank for Reconstruction and Development | 187,000,000 |
| XS2194790262 | EUR | 29/06/2020 | 15/11/2035 | 0.01 | European Investment Bank | 1,800,000,000 |
| EU000A2SB9R4 | EUR | 17/06/2020 | 17/12/2020 | 0 | European Stability Mechanism | 1,999,000,000 |
| XS2189259018 | EUR | 15/06/2020 | 15/06/2040 | 0.25 | European Investment Bank | 1,000,000,000 |
| XS2191239222 | EUR | 15/06/2020 | 14/06/2021 | 0 | European Investment Bank | 200,000,000 |
| EU000A28X702 | EUR | 10/06/2020 | 10/06/2035 | 0.125 | European Union | 1,655,000,000 |
| EU000A2SB9Q6 | EUR | 10/06/2020 | 10/06/2021 | 0 | European Stability Mechanism | 1,499,000,000 |
| XS2182115423 | EUR | 28/05/2020 | 27/05/2021 | 0 | European Investment Bank | 150,000,000 |

| | | | | | | |
|--------------|-----|------------|------------|------|---|-----------------|
| EU000A2SB9M5 | EUR | 13/05/2020 | 13/05/2021 | 0 | European Stability Mechanism | 1,489,000,000 |
| XS2168048564 | EUR | 06/05/2020 | 17/06/2027 | 0 | European Investment Bank | 5,000,000,000 |
| XS2166209176 | EUR | 30/04/2020 | 30/04/2027 | 0 | Nordic Investment Bank | 500,000,000 |
| EU000A1G0EH3 | EUR | 24/04/2020 | 24/04/2023 | 0 | European Financial Stability Facility | 3,000,000,000 |
| XS2160861808 | EUR | 24/04/2020 | 24/04/2028 | 0.01 | International Bank for Reconstruction and Development | 3,000,000,000 |
| EU000A2SB9J1 | EUR | 16/04/2020 | 15/04/2021 | 0 | European Stability Mechanism | 1,000,000,000 |
| XS2154339860 | EUR | 15/04/2020 | 15/05/2028 | 0 | European Investment Bank | 1,250,000,000 |
| XS2154343623 | EUR | 09/04/2020 | 09/04/2027 | 0 | Council of Europe Development Bank | 1,000,000,000 |
| XS2152308644 | EUR | 06/04/2020 | 06/04/2023 | 0 | Nordic Investment Bank | 1,000,000,000 |
| XS2148404994 | EUR | 31/03/2020 | 23/05/2023 | 0 | European Investment Bank | 4,000,000,000 |
| | | | | | | 102,089,499,999 |

Appendix 6: 5-year corporate bond issues on the ECB eligible list that were launched in 2020, with ECB haircuts

| ISIN | CCY | ISSUED | MATURES | COUPON % | ISSUER NAME | HAIRCUT % |
|--------------|-----|------------|------------|----------|-----------------------------------|-----------|
| XS2248827771 | EUR | 27/10/2020 | 27/10/2025 | 1 | CA Immobilien Anlagen AG | 13.2 |
| DE000A289Q91 | EUR | 12/10/2020 | 12/10/2025 | 2.75 | Schaeffler AG | 13.2 |
| XS2232027727 | EUR | 24/09/2020 | 24/09/2025 | 1.625 | KION GROUP AG | 13.2 |
| XS2228260043 | EUR | 15/09/2020 | 15/09/2025 | 2.875 | Ryanair DAC | 13.2 |
| XS2197673747 | EUR | 01/07/2020 | 01/07/2025 | 3 | MTU Aero Engines AG | 13.2 |
| XS2192431380 | EUR | 24/06/2020 | 24/06/2025 | 0.25 | Italgas S.P.A. | 13.2 |
| FR0013519048 | EUR | 23/06/2020 | 23/06/2025 | 0.625 | CAP GEMINI | 13.2 |
| XS2189592616 | EUR | 17/06/2020 | 17/06/2025 | 1.375 | ACS, Act.de Constr.y Serv. SA | 13.2 |
| FR0013518156 | USD | 15/06/2020 | 15/06/2025 | 0.86 | SOCIETE NATIONALE SNCF | 18 |
| XS2182067350 | EUR | 03/06/2020 | 03/06/2025 | 2.25 | Scania CV AB | 13.2 |
| DE000A289NX4 | EUR | 18/05/2020 | 18/09/2025 | 0.625 | Evonik Industries AG | 13.2 |
| XS2171759256 | EUR | 15/05/2020 | 15/05/2025 | 2.375 | Nokia Oyj | 13.2 |
| DE000A289NE4 | EUR | 30/04/2020 | 30/04/2025 | 1 | Deutsche Wohnen SE | 2.4 |
| XS2163320679 | EUR | 27/04/2020 | 27/04/2025 | 0.75 | SODEXO SA | 2.4 |
| XS2154441120 | EUR | 14/04/2020 | 14/04/2025 | 0.875 | Red Electrica Corporacion S.A. | 13.2 |
| XS2153405118 | EUR | 14/04/2020 | 16/06/2025 | 0.875 | Iberdrola Finanzas S.A. | 2.4 |
| FR0013506813 | EUR | 09/04/2020 | 09/04/2025 | 2.125 | UNIBAIL RODAMCO SE | 2.4 |
| XS2152899584 | EUR | 07/04/2020 | 07/10/2025 | 1 | E.ON SE | 2.4 |
| FR0013506508 | EUR | 07/04/2020 | 07/04/2025 | 0.75 | LVMH Moët Henn. L. Vuitton | 2.4 |
| DE000A289RN6 | EUR | 07/04/2020 | 07/04/2025 | 2.625 | Daimler AG | 2.4 |
| FR0013506524 | EUR | 06/04/2020 | 07/04/2025 | 1.125 | Pernod-Ricard S.A. | 13.2 |
| XS2147977479 | EUR | 30/03/2020 | 30/03/2025 | 1.625 | Heineken N.V. | 13.2 |
| XS2149368529 | EUR | 30/03/2020 | 30/03/2025 | 1.375 | Koninklijke Philips N.V. | 13.2 |
| FR0013505104 | EUR | 30/03/2020 | 01/04/2025 | 1 | SANOFI SA | 2.4 |
| FR0013504644 | EUR | 27/03/2020 | 27/03/2025 | 1.375 | ENGIE | 2.4 |
| XS2133390521 | EUR | 12/03/2020 | 15/10/2025 | 0.05 | Vattenfall AB | 2.4 |
| XS2104915033 | EUR | 20/01/2020 | 20/01/2025 | 0.19 | National Grid Electr.Trans.PLC | 2.4 |

Appendix 7: ECB Monetary Policy press release of 22 April 2020 announcing measures to reduce the standards pertaining to their collateral rules

Key points have been highlighted in **red**

<https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200407~2472a8ccda.en.html>

ECB announces package of temporary collateral easing measures

7 April 2020

- ECB adopts an unprecedented set of collateral measures to mitigate the tightening of financial conditions across the euro area
- Temporary increase in the Eurosystem's risk tolerance in order to support credit to the economy
- ECB eases the conditions for the use of credit claims as collateral
- ECB adopts a general reduction of collateral valuation haircuts
- Waiver to accept Greek sovereign debt instruments as collateral in Eurosystem credit operations
- ECB will assess further measures to temporarily mitigate the effect on counterparties' collateral availability from rating downgrades

The Governing Council of the European Central Bank (ECB) today adopted a package of **temporary** collateral easing measures to facilitate the availability of eligible collateral for Eurosystem counterparties to participate in liquidity providing operations, such as the targeted longer-term refinancing operations (TLTRO-III). The package is complementary to other measures recently announced by the ECB, including additional longer-term refinancing operations (LTROs) and the Pandemic Emergency Purchase Programme (PEPP) as a response to the coronavirus emergency. The measures collectively support the provision of bank lending **especially by easing the conditions at which credit claims are accepted as collateral**. At the same time the Eurosystem is increasing its risk tolerance to support the provision of credit via its refinancing operations, particularly by **lowering collateral valuation haircuts for all assets consistently**.

The emergency collateral package contains three main features.

First, the Governing Council decided on a set of collateral measures to facilitate an increase in bank funding against loans to corporates and households. This will be achieved by **expanding the use of credit claims as collateral**, in particular through the potential **expansion of the additional credit claims (ACCs) frameworks**. The ACC framework provides the possibility to National Central Banks to enlarge the scope of eligible credit claims for counterparties in their jurisdictions. This includes the possibility to accept loans with lower credit quality, loans to other types of debtors, not accepted in the ECB's general framework, and foreign-currency loans.

In this respect, the Governing Council decided to temporarily extend the ACC frameworks further by:

- Accommodating the requirements on guarantees to **include government and public sector guaranteed loans to corporates, SMEs and self-employed individuals and households in the ACC frameworks** in order to also provide liquidity against loans benefiting from the new guarantee schemes adopted in euro area Member States as a response to the coronavirus pandemic;

- Enlarging the scope of acceptable credit assessment systems used in the ACC frameworks, for example by **easing the acceptance of banks' own credit assessments from internal rating-based systems that are approved by supervisors**;
- **Reducing the ACC loan level reporting requirements** to allow counterparties to benefit from the ACC frameworks even before the necessary reporting infrastructure is put in place.

Second, the Governing Council further adopted the following temporary measures:

- **A lowering of the level of the non-uniform minimum size threshold for domestic credit claims to EUR 0 from EUR 25,000** previously to facilitate the mobilisation as collateral of loans from small corporate entities;
- **An increase, from 2.5% to 10%, in the maximum share of unsecured debt instruments issued by any single other banking group in a credit institution's collateral pool.** This will enable counterparties to benefit from a larger share of such assets.
- A waiver of the minimum credit quality requirement for marketable debt instruments issued by the **Hellenic Republic** for acceptance as collateral in Eurosystem credit operations.

Third, the Governing Council decided to temporarily increase its risk tolerance level in credit operations through **a general reduction of collateral valuation haircuts by a fixed factor of 20%**. This adjustment aims to contribute to the collateral easing measures while maintaining a consistent degree of protection across collateral asset types, albeit at a temporarily lower level.

These measures are **temporary** for the duration of the pandemic crisis and linked to the duration of the PEPP. They **will be re-assessed before the end of 2020**, also considering whether there is a need to extend some of these measures to ensure that Eurosystem counterparties' participation in its liquidity providing operations is not adversely affected.

In addition, as part of the regular review of its risk control framework, the Governing Council decided to **adjust the haircuts applied to non-marketable assets**, both in the general collateral framework and for ACCs, by fine-tuning some of the haircut parameters. This adjustment, which is not linked to the duration of the PEPP, applies in addition to the temporary haircut reduction and thus further supports the collateral easing measures while maintaining adequate risk protection. This leads on average to a further **haircut reduction of this type of collateral by around 20%**.

Furthermore, the Governing Council has mandated the Eurosystem committees to assess measures to temporarily mitigate the effect on counterparties' collateral availability from rating downgrades arising from the economic impact of coronavirus, while continuing ensuring collateral adequacy.

Appendix 8 – ECB Monetary Policy press release of 22 April 2020 announcing measures to mitigate the impact of downgrades of issuers and issues on the ECB list of eligible collateral to lower than “Investment Grade”

Key points have been highlighted in red

https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200422_1~95e0f62a2b.en.html

ECB takes steps to mitigate impact of possible rating downgrades on collateral availability

22 April 2020

- ECB to grandfather until September 2021 eligibility of marketable assets used as collateral in Eurosystem credit operations falling below current minimum credit quality requirements
- Appropriate haircuts will apply for assets that fall below the Eurosystem minimum credit quality requirements
- Decision reinforces broader package of collateral easing measures adopted by the Governing Council on 7 April 2020, which will also remain in place until September 2021
- ECB may decide further measures, if needed, to continue ensuring the smooth transmission of its monetary policy in all jurisdictions of the euro area

The Governing Council of the European Central Bank (ECB) today adopted temporary measures to mitigate the effect on collateral availability of possible rating downgrades resulting from the economic fallout from the coronavirus (COVID-19) pandemic. The decision complements the broader collateral easing package that was announced on 7 April 2020. Together these measures aim to ensure that banks have sufficient assets that they can mobilise as collateral with the Eurosystem to participate in the liquidity-providing operations and to continue providing funding to the euro area economy.

Specifically, the Governing Council decided to grandfather the eligibility of marketable assets and the issuers of such assets that fulfilled minimum credit quality requirements on 7 April 2020 in the event of a deterioration in credit ratings decided by the [credit rating agencies accepted in the Eurosystem](#) as long as the ratings remain above a certain credit quality level. By doing so, the Governing Council aims to avoid potential procyclical dynamics. This would ensure continued collateral availability, which is crucial for banks to provide funding to firms and households during the current challenging times.

The following decisions have been taken:

- **Marketable assets and issuers of these assets that met the minimum credit quality requirements for collateral eligibility on 7 April 2020 (BBB- for all assets, except asset-backed securities (ABSs)) will continue to be eligible in case of rating downgrades, as long as their rating remains at or above credit quality step 5 (CQS5, equivalent to a rating of BB) on the Eurosystem harmonised rating scale.** This ensures that assets and issuers that were investment grade at the time the Governing Council adopted the package of collateral easing measures **remain eligible even if their rating falls two notches below the current minimum credit quality requirement of the Eurosystem.**
- To be grandfathered, the assets need to continue to fulfil all other existing collateral eligibility criteria.

- Future issuances from grandfathered issuers will also be eligible provided they fulfil all other collateral eligibility criteria.
- Currently eligible covered bond programmes will also be grandfathered, under the same conditions.
- Currently eligible ABSs to which a rating threshold in the general framework of CQS2 applies (equivalent to a rating of A-) will be grandfathered as long as their rating remains at or above CQS4 (equivalent to a rating of BB+).
- Assets that fall below the minimum credit quality requirements will be subject to haircuts based on their actual ratings.

Non-marketable assets are not part of the scope of the temporary grandfathering. All measures will enter into effect as soon as the relevant legal acts enter into force. The measures will apply until September 2021 when the first early repayment of the third series of targeted longer-term refinancing operations (TLTRO-III) takes place. The same end date will also apply to the collateral easing measures announced on 7 April 2020.

The ECB may decide, if and when necessary, to take additional measures to further mitigate the impact of rating downgrades, particularly with a view to ensuring the smooth transmission of its monetary policy in all jurisdictions of the euro area.

Appendix 9: Definition of Level 2 Assets by the Bank for International Settlements' Basel Committee for Banking Supervision document 238 of January 2013 entitled "Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools" paras 51-54 on pp. 19-21

Level 2A with a haircut of 15% includes "Corporate debt securities (including commercial paper) and covered bond" satisfying all of a series of criteria including:

- either (i) have a long-term credit rating from a recognised external credit assessment institution (ECAI) of at least AA- or in the absence of a long term rating, a short-term rating equivalent in quality to the long-term rating; or (ii) do not have a credit assessment by a recognised ECAI but are internally rated as having a probability of default (PD) corresponding to a credit rating of at least AA-;
- traded in large, deep and active repo or cash markets characterised by a low level of concentration; and
- have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions: ie maximum decline of price or increase in haircut over a 30-day period during a relevant period of significant liquidity stress not exceeding 10%.

Level 2B assets include RMBS with a haircut of 25% if they have an ECAI of at least AA.

Level 2B assets with a haircut of 50% include "Corporate debt securities (including commercial paper) and covered bond" satisfying all of a series of criteria which parallel those governing Level 2A corporate debt securities except:

- ECAI or internal rating of between A+ and BBB- (i.e. within Investment Grade)
- a maximum decline of price or increase in haircut over a 30-day period not exceeding 20%

Appendix 10: Eurosystem’s harmonised rating scale valid since 2017 (accessed on 17 December 2020)

<https://www.ecb.europa.eu/paym/coll/risk/ecaf/html/index.en.html>

| ECAI credit assessment | | Credit quality steps | | | | |
|------------------------|-------------------|----------------------|---------------|--------------------------------|-----|-----|
| | | 1 | 2 | 3 | 4 | 5 |
| Short-term | DBRS | | R-1H, R-1M | R-1L, R-2H, R-2M, R2-L, R-3 | | |
| | Morningstar | | | | | |
| | FitchRatings | | F1+ | F1, F2, F3 | | |
| | Moody’s | | P-1 | P-2, P-3 | | |
| | Standard & Poor’s | | A-1+, A-1 | A-2, A-3 | | |
| Long-term | DBRS | AAA/AAH | AH/A/AL | BBBH/BBB/BBBL | BBH | BB |
| | Morningstar | /AA/AAL | | | | |
| | FitchRatings | AAA/AA+ /AA/AA- | A+/A/A- | BBB+/BBB/BBB- | BB+ | BB |
| | Moody’s | Aaa/Aa1 /Aa2/Aa3 | A1/A2/A3 | Baa1/Baa2/Baa3 | Ba1 | Ba2 |
| | Standard & Poor’s | AAA/AA+ /AA/AA- | A+/A/A- | BBB+/BBB/BBB- | BB+ | BB |

- there are no short-term ratings in CQS4 or 5: A-3/P-3 is as low as it goes
- CQS4 long-term is S&P’s BB+ only
- CQS5 is S&P’s BB only
- CQS4 and 5 are in “Speculative Grade”

We should not forget that in 2014 there were no CQS4 or CQS5: those have been added to keep the ship afloat even as credit quality has declined:

THE BRUGES GROUP

The Bruges Group is an independent all-party think tank. Set up in February 1989, its aim was to promote the idea of a less centralised European structure than that emerging in Brussels. Its inspiration was Margaret Thatcher's Bruges speech in September 1988, in which she remarked that "We have not successfully rolled back the frontiers of the state in Britain, only to see them re-imposed at a European level...". The Bruges Group has had a major effect on public opinion and forged links with Members of Parliament as well as with similarly minded groups in other countries. The Bruges Group spearheads the intellectual battle against the notion of "ever-closer Union" in Europe. Through its ground-breaking publications and wide-ranging discussions it will continue its fight against further integration and, above all, against British involvement in a single European state.

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BRUGES GROUP MEETINGS

The Bruges Group holds regular high-profile public meetings, seminars, debates and conferences. These enable influential speakers to contribute to the European debate. Speakers are selected purely by the contribution they can make to enhance the debate.

For further information about the Bruges Group, to attend our meetings, or join and receive our publications, please see the membership form at the end of this paper. Alternatively, you can visit our website www.brugesgroup.com or contact us at info@brugesgroup.com.

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