

EUROFI

Regulatory Update

SEPTEMBER 2023



Inside

- Macro-economic and monetary challenges
- Banking fragmentation in the EU
- Retail Investment Package
- Open finance proposal
- EU sustainability policies

euromi

VISIT OUR WEBSITE

WWW.EUROFI.NET

for our latest publications
on EU economic challenges,
actions for relaunching growth
and on-going trends
and policy developments
in the financial sector

EUROFI POLICY NOTES

PUBLIC AND PRIVATE SECTOR VIEWS

Content

1. MACRO-ECONOMIC AND MONETARY CHALLENGES

Monetary policy and inflation prospects in June 2023.....	5
TARGET2 imbalances in the Eurozone.....	8

2. BANKING FRAGMENTATION IN THE EU

Banking fragmentation issues in the EU.....	13
---	----

3. RETAIL INVESTMENT PACKAGE

Retail Investment Package: objectives and key proposals.....	47
--	----

4. OPEN FINANCE PROPOSAL

Open Finance: objectives of the Financial Data Access (FiDA) proposal.....	53
--	----

5. EU SUSTAINABILITY POLICIES

The implementation of the Green Deal legislative programme.....	61
Evolutions and trends of carbon pricing mechanisms.....	67
Antitrust Policy and ESG Cooperation in the Financial Sector.....	74
The ambition and uncertainties of the aviation net-zero transition plan challenge the financial sector.....	79
Financial sector's climate transition requires public policy support.....	95

The notes in the following pages were drafted by the authors mentioned, as a background to the discussions of the Eurofi Santiago Financial Forum and do not engage in any way the Spanish authorities or the speakers and participants taking part in this event. Reproduction in whole or in part of this Regulatory Update is permitted, provided that full attribution is made to Eurofi, the authors and the source(s) quoted, and provided that such elements, whether in whole or in part, are not sold unless they are incorporated in other works.

Macro-Economic and Monetary Challenges 1

■ Monetary policy and inflation prospects in June 2023	5
■ TARGET2 imbalances in the Eurozone	8

Monetary policy and inflation prospects in June 2023

Note¹ written by Jacques de Larosière

We will focus on three themes:

- The scale of the shocks suffered by advanced economies and, in particular Europe, over the past 3 years.
- Their significance for monetary policy.
- Recommendations for overcoming the crisis and the danger of stagflation.

Let's look at these three themes in turn.

1. The scale of the shocks affecting European economies

1.1 The energy price shock

In the summer of 2021, Europe – the hardest-hit region energy wise – had to replenish its gas stocks for the post-pandemic winter. The war in Ukraine (March 2022) only amplified this phenomenon².

1.2 The exchange rate shock

The euro (whose monetary policy was more hesitant than that of the Fed) depreciated sharply against the dollar between January and September 2022 (-13,3%).

This depreciation only added to “imported inflation” in Europe.

1.3 The terms-of-trade shock

Commodity price rises contributed to a sharp deterioration in the terms of trade in 2022. It is estimated that the loss of income in the eurozone due to international price rises is equivalent to 2% of GDP in 2022.

1.4 The European current account shock

The rise in European import prices (relative to export prices) combined with a highly accommodating fiscal and monetary policy explains the disappearance of the Eurozone's customary current account surplus.

While this surplus had reached 400 billion euros in 2018, it had fallen to -100 billion in 2022.

1.5 The shock of goods and services price inflation

The following factors have contributed to the surge in CPI (consume price inflation):

- Rising energy prices;
- Rising demand suppressed during the pandemic;
- Disruption of international production chains;
- Insufficient productive investment over the past 20 years, which explains in large part the inelasticity of supply;
- Wage increases to compensate for the loss of purchasing power due to inflation, which had already begun to appear before the war in Ukraine³.

The seriousness of this inflation was initially denied by central banks (the ECB even predicted that it would fall back to 2% by the end of 2022, and that it would therefore be “transitory”).

Even though nominal consumer price inflation has been declining since Q4-2022 in the Eurozone, it remains high (around 6-7%) and continues to grow at worrying levels in terms of core inflation (5.8% in Germany in March 2023 and 4.5% in France).

2. What do these shocks mean in terms of monetary policy?

2.1 Can we say that the inflation that started in 2022 has nothing to do with monetary policy?

Observation shows otherwise.

- Unprecedented credit growth – made possible by the accommodative monetary policy – has been a powerful driver of inflation.
- The ratio of global debt to GDP rose by 54 percentage points between 2008 and 2022 (BIS).

1. Speech delivered on the occasion of the Global Official Institutions Conference (GOIC) organized by BNP Paribas.

2. From 10 euros per megawatt-hour at the start of 2020, the price of natural gas imported into Europe jumped to 80 euros in February 2022, reaching 240 in August 2022 before stabilizing at around 50 euros since the start of 2023.

3. OECD inflation had reached 7.9% by February 2022, before the invasion of Ukraine.

This is mysterious: how is it that the major central banks have allowed credit to increase so massively without reacting? Historically, the explosion of credit (to governments and companies) has been considered a leading indicator of inflation to be watched very closely. Yet the credit boom of the past 20 years seems to have aroused no concern on the part of central banks.

However, the prolonged rise in low-rate credit favors:

- financial valuations to the detriment of growth;
- the proliferation of assets bubbles;
- the development of “zombie” companies (those that survive only thanks to the subsidy provided by low-interest loans);
- the onset of a financial crisis when debtors begin to experience repayment difficulties.

All in all, we arrive at the following conclusion:

- Easy money encourages indebtedness and therefore increases the vulnerability of financial market players.
- Easy money always explains the inflationary surges that are normally observed after a sufficiently long period of easy money.

2.2 How did inflation enter the international arena?

Inflation is an often a belated revenge of reality.

For twenty years, the world’s major central banks lived – and made us live – in a state of illusion. They claimed that monetary growth could be accelerated without any danger of inflation, as long as the sacrosanct inflation target was respected. (“slightly below 2%”).

But this belief was unfounded: the 2% figure was arbitrary and should have been a maximum limit on inflation. But it was, mistakenly considered has an objective to be reached by money creation. It could in no way be considered THE warning signal of the coming crisis. Asset bubbles (the inevitable harbingers of inflation) were already proliferating, and nobody worried, the reason being that price inflation was still under 2%.

The market’s slowness and reluctance to realize that zero interest rates were not eternal was due, among other things to:

- the influence of the belief held by central bankers that 2% was the “norm”, and therefore bound to influence the market’s inflation expectations;
- the excess of financialization: the longer interest rates remain close to zero, the higher valuations

become, and the more difficult it will be to manage the consequences of a fall in asset prices following an eventual rise in interest rates, leading then central banks to intervene by buying securities at the cost of moral hazard.

In fact, in the spring of 2023, as central banks raised interest rates to curb inflation, bond portfolios saw their book value plummet.

This is what happened to Silicon Valley Bank, which saw the value of its heavily concentrated securities portfolio fall, prompting depositors to withdraw their deposits en masse.

3. How to steer monetary policy?

There are practical recommendations, and others that have more to do with the state of mind.

3.1 Practical aspects

3.1.1 *We need to put an end to recipes that have not worked, such as:*

- The belief that interest rates can remain at zero indefinitely.

This is absurd for two fundamental reasons:

- Money is used to measure the value of any product or service.

If it is itself worthless, *i.e.*, if it can be produced at no cost and with no remuneration, the economy cannot function properly. Thus, the gauging of risks and the allocation of resources is flawed.

- Long-term savings tend to dwindle (yet 95% of productive investments are normally financed by household savings). Expropriating or overtaxing savers can only have deleterious effects on long-term savings and the growth of productive capital (which has actually fallen for the first time during the last 20 years).

The bureaucratic and arbitrary setting of long-term low interest rates by central banks must be replaced by the free play of the market: the supply and demand of capital must determine the value of money.

3.1.2 *Fighting inflation*

We are told that central banks are determined to fight inflation. But as long as real rates remain negative in the EU: (3.5% key rates -5% inflation, resulting in a real rate of -1.5%), we can doubt this determination.

What's more, the current rise in stock market values and the restraint of long rates show that the market believes that the present policy – where negative rates in real terms continue to push people into more debt –, is not going to succeed fighting against inflation.

3.1.3 Quantitative tightening (QT) hasn't really happened yet

I sometimes hear it said that this is not a bad thing. QE created a lot of liquidity. Much of this has ended up in reserves held by commercial banks with central banks. Insofar as these reserves are not transformed into loans, the inflationary effect of money creation would be nil.

It is argued that abundant reserves and liquidity enable banks to strengthen their resistance in the event of a shock.

But this reasoning fails to take into account the fact that unless the mass of liquidity created by QE is significantly reduced (central bank balance sheets have reached astronomical figures, at around $\frac{3}{4}$ of eurozone GDP), we will maintain a degree of ease in financing the economy that seems hardly compatible with the fight against inflation.

The question is an important one. How do we purge the system of 15 years of monetary accommodation?

The majority of specialists believe that we need to proceed on two lines:

- First, higher interest rates for a while (at least until mid-2024);
- accompanied gradually by a reduction of the stock of liquidity created, without going as far as restoring pre-QE between balance sheet amounts.

The reason why these experts wish to moderate the QT is essentially the fear of a liquidity crisis.

But there remains a fundamental and unresolved question: can we fight inflation while maintaining a monumental stock of liquidity?

I do not have a precise answer to this question, and I agree that we need to proceed with caution. But I note that the subject is relatively little studied, whereas in periods of high inflation, it should be absolutely essential to be concerned about the relationship between price trends on the one hand, and balance sheet inflation on the other. So, we must call for more studies and transparency on this fundamental issue.

3.2 The mindset

Far from having succeeded in controlling inflation, which was their mission, central banks have allowed

it to re-emerge. A little humility would therefore be in order:

Those in charge of monetary policy need to accept:

- That they do not know everything, and they should know which are the things they don't know;
- Not to try to "indoctrinate" (or "guide") the markets on the indefinite sustainability of a low interest rate policy combined with monetary stability;
- That the world has entered a zone of higher rates for long,
- That more and more money chasing too little goods eventually leads to inflation,
- That QT must be studied carefully but implemented firmly and intelligently,
- That any victory against inflation comes at a cost (less growth and fewer jobs) for a time,
- That the persistence of lax fiscal policies is not compatible with the fight against inflation, unless monetary policy were to be tightened even further.

In short, as the head of Blackrock recently put it: "We let the system deteriorate for decades. And now we are paying the price".

If we don't accept to pay the price, it is likely that the specter of stagflation will reappear.

TARGET2 imbalances in the Eurozone¹

Note written by Didier Cahen & Elias Krief

The Trans-European Automated Real-time Gross Settlement Express Transfer System, or TARGET2, allows financial transactions to be settled between commercial banks located in different euro-area countries via a settlement system between national central banks (NCBs) and the European Central Bank (ECB). Transactions accumulate in net terms, resulting in a balance which is recorded on the balance sheet of each NCB².

TARGET2 balances are therefore an accounting representation of the cross-border economic and financial relationships that the free movement of capital in the Euro area entails. In addition to trade in goods and services and portfolio investments, these balances reflect a variety of different types of flows of funds: flows between subsidiaries or branches of the same banking group that participate in TARGET2 via different NCBs, flows resulting from non-standard monetary policy measures, and “technical” flows associated with the location of accounts for the settlement operations of securities.

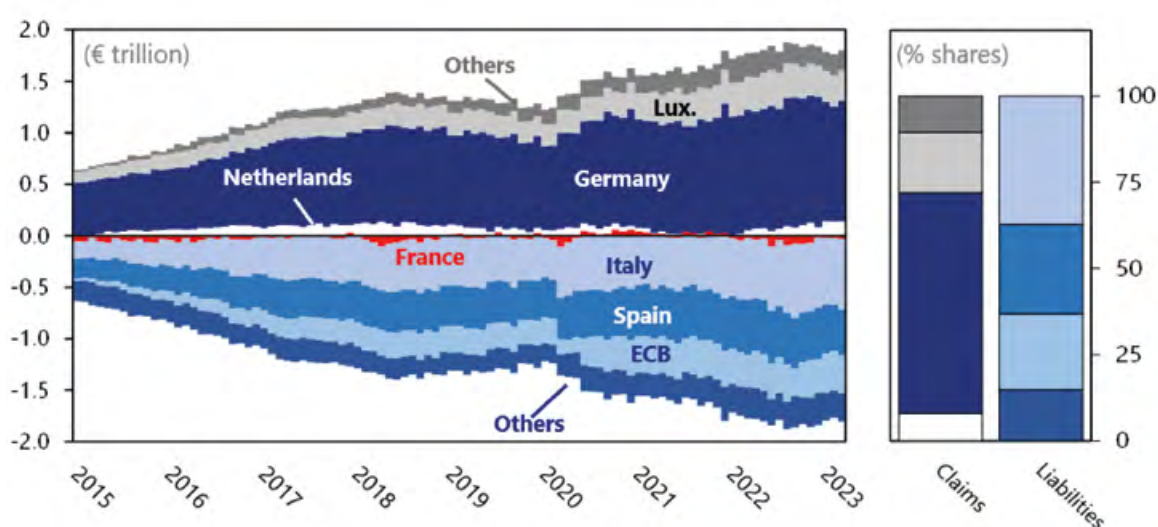
Why is a positive net TARGET2 balance referred to as a claim and a negative balance as a liability?

This has to do with accounting and balance sheets, so to understand this, we must first keep in mind two facts:

- The Euro area has one currency, but because it is made up of multiple countries, there is not one central bank with one balance sheet for the euro. Instead, each central bank in each country has its own balance sheet. TARGET2 has separate central bank components to reflect this.
- When a central bank issues money for the first time, it is recorded on its balance sheet. The money is recorded on the liability side of the balance sheet (as a deposit), while the assets (or claims) corresponding to the money created are recorded on the asset side (for example as a loan).

Back to TARGET2: when money moves between Euro area countries via TARGET2, the central bank of the country receiving the money registers this on its balance sheet as an additional liability. But only the liability moves: the asset stays on the original balance sheet.

CHART 1.
Eurosystem's TARGET2 Net Claims, 2015-23



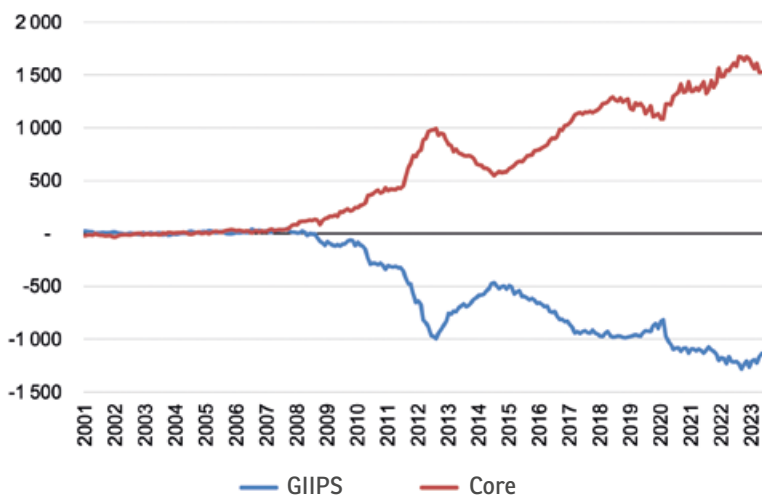
Source: ECB and IMF staff calculations

1. This section takes up the conclusions of the note: C. Deubever & Nicolas Toulemond, target 2 imbalances in the euro area, Tresor Eco, May 2021.

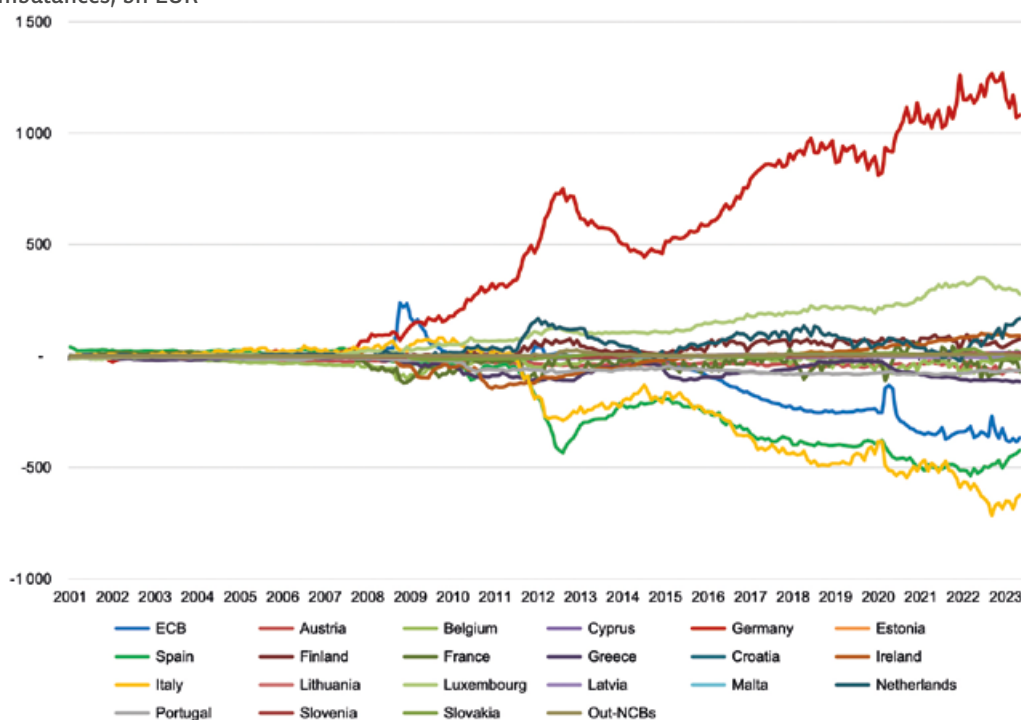
2. TARGET2 ("Trans-European Automated Real-time Gross settlement Express Transfer system 2") is a system that moves money from one bank to another, both within countries and across borders. Central banks and commercial banks use it to process payments in euro and move money safely and easily between them. This is essential for the economy to function. Both central banks and commercial banks have accounts in TARGET2.

CHART 2.

GIIPS's liabilities versus Core's claims,
EUR bn

**CHART 3.**

Target II imbalances, bn EUR

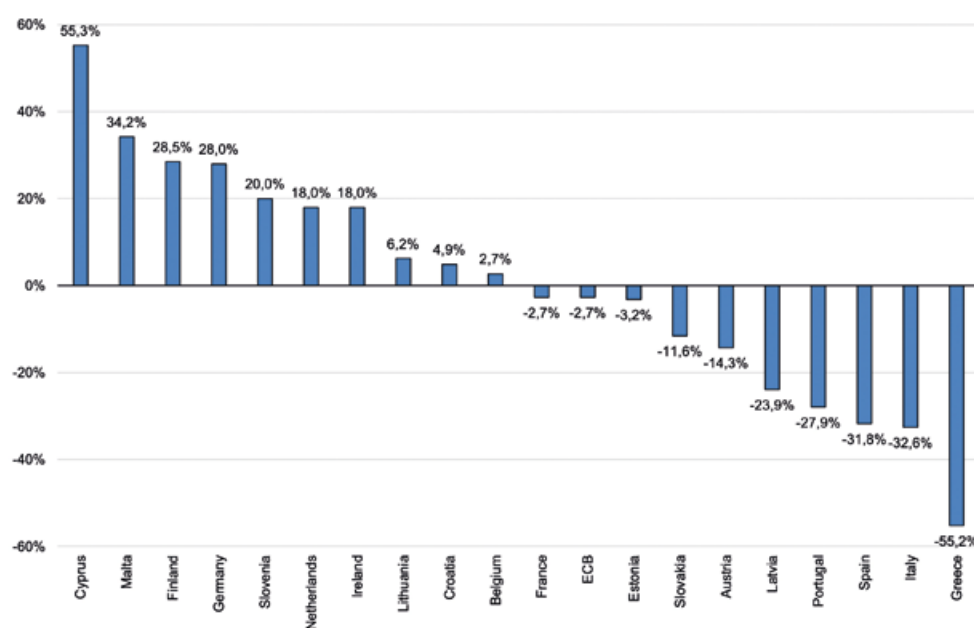


For example, if euros that were originally issued in Italy end up in Germany, from an accounting perspective, the German central bank has an additional liability (the money), while the asset stays with the Italian central bank. This means the balance sheets no longer balance: the German central bank needs to add a balancing item to reflect that there are now more euros on its balance sheet than it originally created, while the Italian central bank needs to add a balancing item to reflect that it has fewer euros on its balance sheet than it originally created. This balancing item – which is called the net TARGET2 balance – is a claim (or asset) for the Bundesbank and a liability for the Banca d'Italia.

Since the euro was created, TARGET2 balances have gone through several distinct phases. Prior to 2008, balances were practically zero: current account imbalances between Euro area countries were settled by means of interbank liquidity transfers.

After the 2008 financial crisis and the 2012 sovereign debt crisis, TARGET2 balances rose dramatically due to tensions on the interbank market and a flight of deposits from “peripheral” countries (Italy, Greece, Spain, Portugal, Ireland) toward “core” countries (Germany, Netherlands, Luxembourg), before gradually going back down. Total TARGET2 national surpluses stood at € 900 bn in mid-2012 and then

CHART 4.
Target II imbalances
as of May 2023, % of GDP



Source : Euro Crisis monitor

gradually declined to stabilise at around € 600 bn by the end of 2014.

Since 2015, balances have been picking up again as a result of the ECB's asset purchase programmes. Since the mid-2010s, the main TARGET2-liability countries (in € bn) have been Greece, Ireland, Portugal, Spain and Italy, and the biggest surplus countries have been Germany, the Netherlands, Finland and Luxembourg.

The net TARGET2 liabilities of the Bank of Italy and the Bank of Spain are quite high, standing at respectively € 623 bn and € 422 bn in May 2023 (which represents roughly 32% GDP for the two countries). Conversely, the Bundesbank had a net TARGET2 credit of around € 1.082 bn in May 2023 (roughly 28 -% of Germany's GDP)

Today, balances reflect the legacy of QE bond portfolios and will fall steadily as the ECB reduces its balance sheet.

In January 2017, in a letter to members of the European Parliament, Mario Draghi wrote³: "If a country were to leave the Eurosystem, its national central bank's claims on or liabilities to the ECB would need to be settled in full".

According to B. Drut⁴, "At least three problems would arise in the event of the exit from the Euro area of countries with significant net TARGET2 liabilities:

1. For several countries (Spain, Italy, Portugal), the TARGET2 liabilities are very large when taken as % of GDP, which implies that the amounts needed to settle the commitments would be colossal,

2. In the event of the exit of the Euro area from a relatively weaker country from an economic point of view, its new currency would probably be weaker, which would further increase the settlement to be made,

Would a country leaving the Eurozone necessarily want to settle all its commitments? We have seen in the case of Brexit that some British politicians were totally opposed to the divorce bill".

In the end, the TARGET2 imbalances (and the potential losses in case of departure from the Eurozone and the non-settlement of the TARGET2 balances) might strengthen the bargaining power of debtor countries in the case of harsh negotiations with core countries.

TARGET2 imbalances should fall as the ECB reduces its asset purchase programs and, more generally, if progress is made on the Banking Union and Capital Markets Union to the extent that cross-border flows will be more north-south than south-north.

3. Letter from Mario Draghi to the members of the European Parliament Marco Valli and Marco Zanni, January 2017.

4. B. Drut, "TARGET2 imbalances, again at the center of attention", CPR, 2018.

Jacques de Larosière's latest book

« No one alive today combines Jacques de Larosière's experience with an acuity about global finance. His sharp and cogent expression of alarm in this timely volume deserves and even demands the attention of the global financial community. »

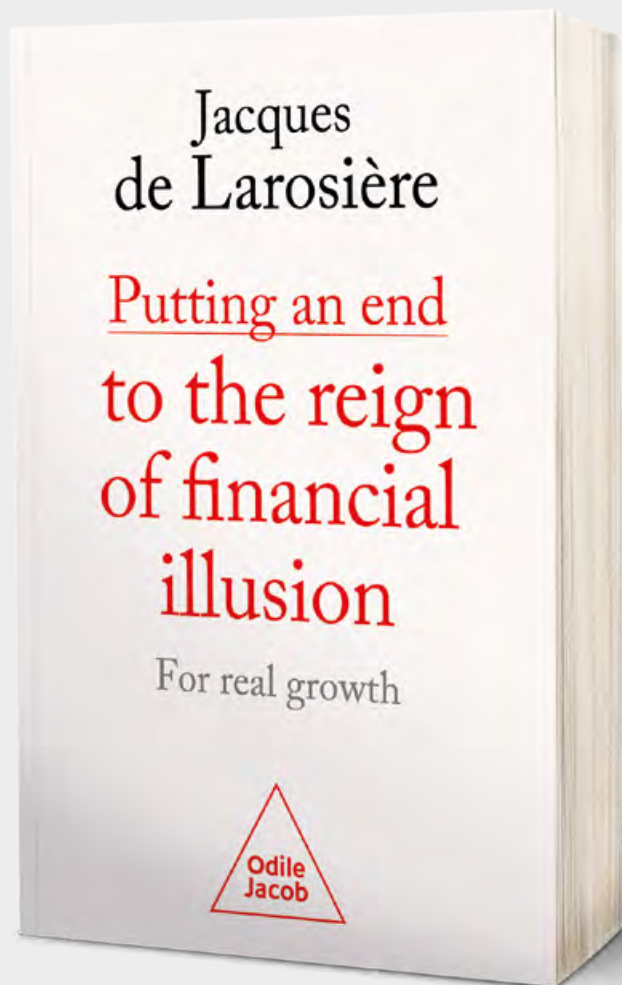
Lawrence Summers,
Former Secretary of the United States Treasury and President Emeritus of Harvard

« This is a must-read for those who want to understand the 'economic illusions' hiding in plain sight. And for those who are prepared to step-up to the benefit of a new generation. »

Kevin Warsh,
member of the Federal Reserve Board (2006-2018), and professor at Stanford

« The book is a harsh criticism of the fairy tales that have guided monetary theory and the actions of central bankers in recent decades. »

Vito Tanzi,
Honorary President of the International Institute of Public Finance



ÉDITIONS ODILE JACOB - odilejacob.fr

This title was released on September 7, 2022 - 22 €

ISBN 978-2-4150-0378-4



Banking Fragmentation in the EU

2

Banking fragmentation issues in the EU

Note written by Didier Cahen with the support of Alicia Valroff

Introduction

A paradox lay at the heart of the Treaty of Maastricht: while a single monetary policy was implemented on 4 January 1999, the responsibility for financial supervision remained national. It is strange that until 2014 *i.e.*, during 15 years following the creation of the euro, nobody has seemed to be concerned by banking union issues.

In the wake of the EU sovereign debt crisis (2011-2012), Member States of the EU found a consensus to respond to such a paradox.

While we have come a long way since the establishment of the Single Supervisory Mechanism (SSM), the banking union is far from complete. An efficient banking union would break the sovereign-bank vicious circle, foster a more effective allocation of resources across the Eurozone (*e.g.*, companies would be able to tap wider and cheaper sources of funding in all parts of the euro area), and help to achieve a better diversification of risks thus contributing to private risk sharing within the Union.

Despite the challenges faced in recent years, many European countries' banking systems remain overcrowded. Bank profitability continues to be hampered in Europe by overcapacity in several Member States and a highly competitive environment, with revenues under pressure not just from their peers but also from new entrants from outside the sector, such as fintech companies. In addition, international or cross-border consolidation

processes have been few and far between, and this pattern has not changed since the launch of banking union. The limited strength of private risk-sharing channels in the euro area reflects both the underdevelopment of capital markets and a highly segmented banking system at the national level. There is little progress in cross-border lending, especially in the retail markets, or in other words, in lending to households and non-financial companies. Expanding this cross-border activity would be important for the sound working of the euro area.

Bank consolidation through mergers and acquisitions is one way of tackling structural problems, by helping to unlock economies of scale and diversify revenues. Little progress has been made on this front over the past few years within the EU, with only a small number of – mainly domestic – deals taking place. However, digitalization has started to create an upswing in consolidation: banks need to aggregate or enter partnership agreements with fintech start-ups, technology giants or smaller financial intermediaries in order to get the scale, expertise and resources needed, and stay competitive.

This paper shows how the banking union is failing to provide banking integration within the EU. Then it describes the resulting lack of profitability and competitiveness of EU banks compared to international peers. Finally, it assesses the possible solutions to move towards greater European banking consolidation.

1. The banking union is failing to provide the expected degree of financial integration

Despite the recent crises – namely the Covid-19 pandemic, the war in Ukraine and the turmoil caused by the failure of SVB and Credit Suisse – the European banking sector has shown remarkable resilience. This sheds light on the effectiveness of the enhanced regulatory and supervisory reforms conducted over the past 10 years. Yet, the EU should not be complacent about this resilience because a lot still has to be done in order to reduce banking fragmentation. Indeed, the banking union remains segmented along national lines because of ring-fencing practices implemented by Member States, the distrust among Member States that is enhanced by their divergent economic situations and the absence of fully integrated single market (e.g., diversity of retail products and levels of consumer protection...), and this results in the continuation of the sovereign-bank loop and the Central Bank-sovereign nexus.

1.1 Ring-fencing practices continue to fragment the EU banking sector along national lines

The creation of the Single Supervisory Mechanism (SSM) and the Single Resolution Board (SRB) have not entirely had the expected impact on the banking integration in Europe. Domestic ring-fencing, and heterogeneities of the national retail markets due to the absence of harmonized legal, fiscal and consumer protection rules explain this fragmentation.

1.1.1 A low level of cross-border deposits and loans for a banking union

The cross-border integration of the sector has progressed at a snail's pace in recent years, including after the establishment of the single European banking supervision in 2014. Indeed, the share of cross-border loans to households and cross-border deposits from households in the euro area remain negligible, a little above 1%. Direct cross-border loans to non-financial firms reached 10% in May 2023, but this figure has evolved extremely slowly since the creation of the banking union (see *Chart 1*).

During the Eurofi Seminar of 2021, Andrea Enria¹ highlighted two additional indicators to illustrate the lack of integration: the total EU cross-border assets (branches and subsidiaries) in the euro area and the

domestic and non-domestic claims in the euro area (see *Charts 2 and 3*).

Chart 2 highlights that “foreign” assets in the banks of the euro area have hardly changed since the creation of the banking union, suggesting that the integration of the banking sector in the area is still an “elusive target”. In fact, the measures adopted by national governments in response to the Great Financial Crisis (GFC) led to the repatriation of many assets that were previously held in subsidiaries of cross-border groups located outside their home countries. The launch of the SSM has not reversed this trend. Overall, subsidiaries currently account for around two thirds of EU foreign assets in the euro area, while branches make up the remaining third. The total amount remains well below the early 2011 level.

Furthermore, no significant change in trend is to be noticed regarding the split between foreign assets and domestic assets held by euro area banks since the establishment of the European banking supervision (see *Chart 3*).

1.1.2 Subsidiaries of cross-border groups operating in the banking union are mainly governed by national rules

Ring-fencing is when host authorities take regulatory and supervisory action in order to secure resources within their own jurisdictions. There are no host supervisors anymore in the banking union, but the distinction between home and host authorities and the “national bias” still exist for banks operating across borders in the banking union under the remit of the SSM.

Indeed, national regulators still fear that capital and liquidity could be trapped in individual Member States or inadequately allocated from their own viewpoint if a pan-European banking group fails. This perception is particularly acute in countries that are strongly dependent on banks part of groups headquartered in other countries for the financing of their economies.

Ring-fencing policies are applied to capital, liquidity and MREL liabilities

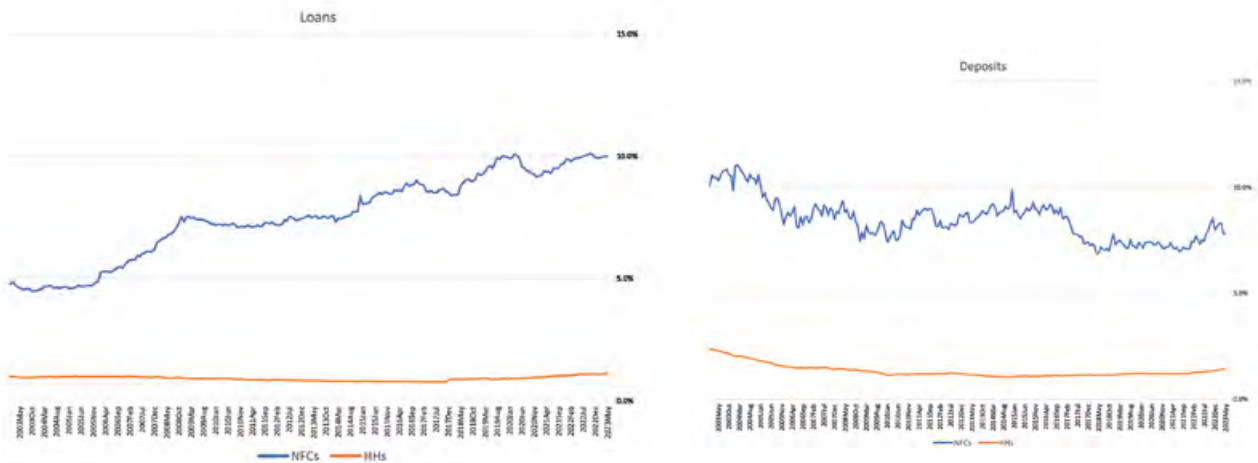
The obstacles to the integrated management of bank capital and liquidity within cross-border groups operating in the banking union remain persistent and fragment banking markets. While recognized in 2013 by the fourth Capital Requirements Directive (CRD4), capital and liquidity waivers² remain at the discretion of the national supervisors, which are most often reluctant to use them. Consequently,

1. A. Enria, “How can we make the most of an incomplete banking union?”, Ljubljana Eurofi seminar, September 2021.

2. The legislative framework does allow cross-border waivers of individual liquidity requirements, creating cross-border liquidity sub-groups. But some Member States, exercising an option that will remain in the legislation until 2028, have imposed limits on intragroup exemptions from the large exposure requirements which cannot be waived, cross-border, at the solo level. This restricts banks' freedom to move liquidity within their groups.

CHART 1.

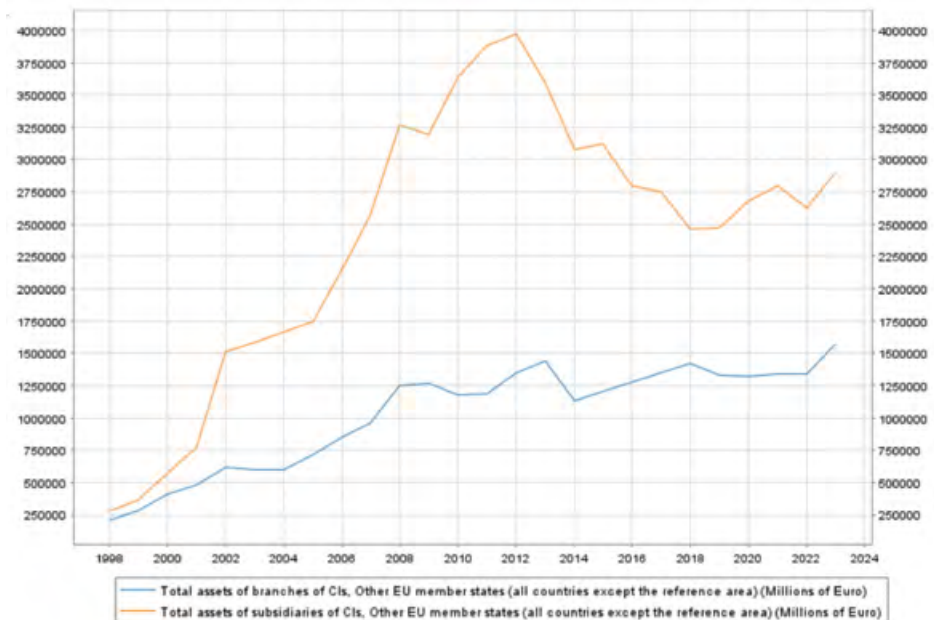
Share of cross-border loans and deposits in the euro area for non-financial corporations (NFCs) and households (HHs)



Source: ECB BSI statistics

CHART 2.

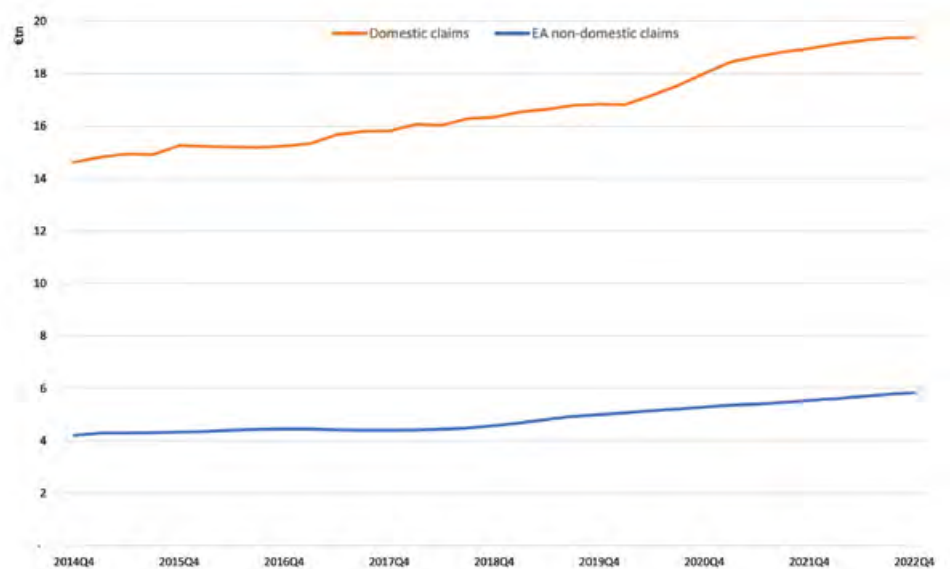
Total EU cross-border assets in the euro area



Source: ECB's Statistical Data Warehouse

CHART 3.

Domestic and non-domestic claims in the euro area



Source: Consolidated Banking Statistics and ECB calculations

despite the progress made in terms of harmonization of banking law since the inception of the banking union in 2014, cross-border banking groups are often unable to manage their capital and liquidity on a consolidated basis. In practice, all capital and liquidity ratios are applied at both solo and (sub-) consolidated levels, notwithstanding the possibility of waivers allowed by the legislation.

Calculations by the ECB Banking Supervision show that, in the absence of cross-border liquidity waivers – as it is currently the case – the combination of the European and national provisions prevents around EUR 250 bn of High-Quality Liquid Assets from moving freely within the banking union³.

One typical example in this respect is the application of the Output Floor (OF)⁴, a central element in the Basel 3.1 standards, which remains at the discretion of national supervisors. The output floor has been designed by the Basel Committee on Banking Supervision (BCBS) to set a floor in capital requirements calculated under internal models at 72.5% of those required under standardized approaches for calculating capital requirements for all Pillar 1 risks.

This measure has been introduced to prevent Risk Weighted Assets (RWA) falling below what BCBS considers, rightfully or not, an inappropriately low level. Yet, the output floor is decided by national governments and is supposed to be calculated entity by entity. When national supervisors impose OF at sub-consolidated level, they impose that groups preposition sometimes very significant means at the level of local entities that do not specifically need them, encompassing all the sub-group including non-regulated activities. Those means often remains stuck in those entities and cannot easily be re-deployed within the rest of the group where they could be necessary⁵.

Internal MREL and Daisy Chain

The “Daisy Chain” proposal has been adopted and imposes the deduction of own funds held by intermediate entities in their subsidiaries subject to internal MREL requirements instead of risk weighting them as it is currently done. This will lead to an increase of the level of internal MREL, and potentially also of own funds, required for these intermediate entities. As a result, and oddly enough, for intermediate entities, it will be less onerous to hold a participation in a foreign bank outside the EU for instance.

In addition, internal MREL will now be required for

all institutions (*i.e.*, credit institutions and investment firms) and financial holding companies with a balance sheet exceeding EUR 5 bn, irrespectively to the size of the group.

All in all, ever more funds have to be pre-positioned at subsidiaries and thus are not available for re-allocation within groups if and when necessary. This could even get worse as the Commission proposal on Daisy Chain issued mid-April 2023 with the CMDI review package would allow resolution authorities to impose internal MREL on a sub-consolidated basis for intermediate entities. In some cases, this could very significantly increase the level of locally pre-positioned means that cannot re-deployed within groups.

Several host authorities tend to submit any dividend distribution to their approval

Several Member States tend to submit dividend distribution from subsidiaries to parent entities within cross-border banking groups to their approval, even if these distributions are organized at group level and thus should be supervised by the group supervisor in line with the different macroprudential measures taken, as well as with views to make the group more resilient and agile at the consolidated level.

Increased Pillar 2 Requirements (P2R) for subsidiaries of European transnational banking groups

P2R is a legally binding bank-specific capital requirement which applies in addition to the minimum capital requirement (known as Pillar 1) where where the latter underestimates or does not cover certain risks. The numerous instances where different P2R are applied by host supervisors to the same European banking group also illustrate the fragmentation of the EU banking union and the lack of harmonization within it. Indeed, even if the SSM is officially in charge of determining the level of P2R, including management buffers and Pillar 2 Guidance for subsidiaries, host countries can – most of the time successfully – submit their proposals to the SSM to increase such levels in order to protect their economy.

The same trend can also be observed on the resolution side in the SRM with internal MREL requirements.

1.1.3 The root causes of ring-fencing practices

The persistence of domestic ring-fencing practices in the Eurozone, despite a common supervision, mainly

3. Op. Cit. A. Enria.

4. The Output Floor, one of the central elements of the Basel III reform, sets a lower limit (“floor”) on the capital requirements (“output”) that banks calculate when using their internal models. The main aim is to address model risk, in particular the risk that a bank’s internal model incorrectly estimates the bank’s capital requirements.

5. The controversies initiated in July 2023 by a group of host countries around the final trilogue of the Basel III-package regarding the possibility to calculate the OF at the consolidated level in 2028 showed the fragility of the dead-locked discussion around capital waivers.

results from the solo approach of the EU banking regulatory framework and the existence of options and national discretions within the single rulebook.

1. EU legislative framework does not recognize transnational banking groups at the consolidated level but only as a sum of separate subsidiaries and thereby maintain the “solo approach”

Transnational banking groups of the euro area are not considered as unique entities from an operational, regulatory and supervisory point of view, but rather as a sum of separate subsidiaries. Subsequently, each subsidiary has to meet the liquidity, capital, MREL and output floor requirements on their own, leading the sum of the requirements of each subsidiary to be higher than what it would have been at the consolidated level.

This is called the “solo approach” and enables national authorities to contain the activity of their banking sector on their territory, with the idea that local resources are meant to finance locally booked business and to ensure national financial stability, and not flee elsewhere.

2. Excessive flexibility in the EU macroprudential framework encourages ring fencing measures

The legal framework for macroprudential tools grant flexibility to national designated authorities. The ECB can only intervene in the case of EU harmonized measures but many national macroprudential power are explicitly or *de facto* left at national level. Macroprudential decisions such as the level of certain capital buffers are still decided by national authorities. For instance, the level of countercyclical buffer, which is designed to counter procyclicality in the financial system, is as of July 2023 below 1% in France, Germany, the Netherlands, Italy, Spain whereas it is above 2% in Sweden, Denmark, Iceland, Czech Republic and Norway⁶.

Similarly, the systemic risk buffer, which aims to address systemic risks that are not covered by the Capital Requirements Regulation or by the countercyclical buffer, can be at the discretion of the Member States, sectoral or general and varies from 0% in countries like France, Spain and Italy, to 3% for all exposures in Sweden and domestic exposure in Iceland, to 9% in retail exposures secured by residential property in Belgium as of May 2023⁷. This leads to discrepancies in the macroprudential requirements from one Member State to another, without necessarily having an adequate macroeconomic context to justify such differences.

3. Host countries concerns are often dismissed, leading them to ring-fence in order to protect themselves

Despite the implementation of the SSM and the SRM, national regulators still fear that capital and liquidity remain trapped in individual Member States or allocated in an unequitable way if a pan-European banking group fails. This is particularly the case for smaller members whose banking sector is mainly in the hands of foreign groups and would suffer dramatic consequences if a group failed and closed its subsidiary on their territory.

During several Eurofi sessions⁸, experts and officials have lamented that the governance of the banking union does not sufficiently take into account the concerns of host countries regarding burden-sharing issues and the way cross-border banking groups' resolution may be handled in the EU. Host countries can indeed be particularly vulnerable to the current functioning of the resolution framework: when their banking system is mainly in the hands of groups, the possible failure of such groups or their local subsidiary could have a tremendous impact on their depositors and their economies, hence their tendency to ring fence.

Such concerns also shed light on the prominent role of the home authority in case of a resolution and on the absence of a single European authority entrusted with full powers to deal with pan-European banking groups. Moreover, this issue highlights the lack of trust between Member States and in the European authorities. This is one of the most damaging legacies of the GFC and the EU sovereign debt crisis. In an effective banking union, there should no longer be any distinction between home and host supervisors for banks operating across borders.

1.2 The lack of economic convergence at the EU level fosters distrust among Member States and hurdles the further integration of the EU banking market

1.2.1 The economic disparities between EU Member States partly explain the lack of progress towards a genuine banking union

The Eurofi Macroeconomic Scoreboard demonstrates that the Covid-19 pandemic and the war in Ukraine have exacerbated existing fiscal heterogeneities across EU Member States.

The intensity of fiscal and economic divergences between EU countries makes it more difficult to define in Europe a common interest, encourages a

6. ESRB, https://www.esrb.europa.eu/national_policy/ccb/html/index.en.html

7. ESRB, https://www.esrb.europa.eu/national_policy/systemic/html/index.en.html

8. Eurofi Seminar, Sessions from III. Banking and insurance policy priorities, p37-63, Paris, February 2022.

TABLE 1.

Public expenditure, current account balance, budgetary deficit/surplus and government debt, as % of GDP, 2019-2022

	2019			
	Public expenditure	Current Account Balance	Budgetary deficit/surplus	Government debt
Germany	46,9%	7,6%	1,5%	59,6%
The Netherlands	42,1%	6,9%	1,8%	48,6%
Italy	48,5%	3,3%	-1,5%	134,2%
France	55,4%	0,5%	-3,1%	97,4%
Belgium	51,9%	0,1%	-2,0%	97,6%
Spain	42,1%	2,1%	-3,1%	98,2%
Euro area	47,0%	2,2%	-0,6%	85,8%
	2022			
	Public expenditure	Current Account Balance	Budgetary deficit/surplus	Government debt
Germany	49,7%	4,2%	-2,6%	66,3%
The Netherlands	44,5%	4,4%	0,0%	54,3%
Italy	56,7%	-1,3%	-8,0%	144,4%
France	58,1%	-2,1%	-4,7%	111,6%
Belgium	53,5%	0,6%	-3,9%	105,1%
Spain	47,8%	-3,6%	-4,8%	113,2%
Euro area	50,8%	-0,7%	-3,6%	93,1%

Source: EU Commission
spring forecast, May 2023

policy of “every man for himself”, creates a climate of mistrust between Member States which hinders any progress in terms of public and private risk sharing and weakens the Eurozone. Additionally, these economic divergences give EU policy makers a hard time agreeing on a European safe asset as well on mutualized European Deposit Insurance Scheme (EDIS) and thus complete the banking union.

Various indicators shed light on the economic disparities that exist within the union: public expenditure, current account balance, budgetary deficit or surplus and government debt.

Table 1 shows that between 2019 and 2022, all countries have increased their public expenditure level to face the Covid-19 pandemic. France already had the highest level of public spending in the EU before the crisis, with 55,40% of its GDP in 2019. It remained in 2022 at the top of the Eurozone and the EU, with public spending equal to 58,1% of GDP, more than 7 pp above the Eurozone average of 50,8% of GDP. On the contrary, Germany, the Netherlands and Spain managed to keep their public expenditure below the Eurozone average in 2022. These divergent levels of public expenditure imply different tax pressures on firms, which explains their diverging level of competitiveness.

Additionally, Member States have different current account balance situations. Heterogeneities were already visible in 2019, with Germany and the Netherlands having current account balances culminating respectively at 7,6% and 6,9% of their GDP, while Italy, France⁹, Belgium and Spain had more modest balances with respectively 3,3%, 0,5%, 0,1% and 2,3%. In 2022, the gap has been widened insofar as Germany and the Netherlands still had positive balances with respectively 4,2% and

4,4% of their GDP, while Italy, France and Spain had negative balances with respectively -1,3%, -2,1% and -3,6% of their GDP¹⁰. Belgium had a modest but still positive balance amounting at 0,6% of its GDP.

In theory, cyclical imbalances in a union are not in themselves a source of concern. But, as it is the case today, these figures are of a durable and structural nature

Since 2008, Member States with excess savings, such as Germany and the Netherlands, no longer finance investment projects in countries that have low GDP per capita, namely Spain, Italy, Portugal and Greece. This is notably due to the interest rate difference between the US and the EU. These limited cross-border capital flows in the euro area also reflect the persistent doubts of Northern investors towards other countries' companies and states solvency, as well as the lack of a complete banking union and integrated financial market.

Member States also display divergent behaviors regarding euro convergence criteria exposed in the Treaty of Maastricht and the Stability and Growth Pack (SGP), namely public deficit and government debt.

First, there are discrepancies regarding the budgetary discipline amongst Member States. In 2019, France and Spain already did not respect the 3% limit on budgetary deficit relative to GDP as both countries displayed a budgetary deficit amounting to 3,1% of their GDP, well above the 0,6% of the Eurozone. In the meantime, Germany and the Netherlands had budgetary surplus amounting respectively to 1,5% and 1,8% of their GDP. In 2022, only the Netherlands and Germany among the main Eurozone Member States have managed to keep

9. It should be underlined that the situation of France in 2019 is not representative as 2019 and 2021 are the only year since 2007 where France had a current account surplus. Between 2014 and 2019, France had an average deficit of 0.5% of its GDP per year while all its European neighbors had surplus. The deficit of the French current account balance reflects a competitiveness issue which is rooted in a tax level too high compared to neighboring countries.

10. It should be underlined that 2022 was a year of energy crisis where euro area Member States (Italy, Spain) experienced negative current account balances due to the rising prices of energy, contrasting with non-crisis times.

their budgetary deficit below 3% of their GDP, with respectively 0% and 2,60%. In contrast, Italy, Spain, France and Belgium did not respect the Maastricht criterion with respectively 8%, 4,8%, 4,7% and 3,9% of budgetary deficit relative to their GDP.

There are also significant discrepancies in terms of government debt, about which the Stability and Growth Pack (SGP) implemented a limit of 60% of the GDP. In 2019, while Germany and the Netherlands managed to respect such a limit with respectively 59,6% and 48,6%, Italy, France, Belgium and Spain were all well above with respectively 134,2%, 97,4%, 97,6% and 98,2%. In the wake of the Covid-19 crisis, the trend is still the same, but the gap is even wider: while Germany and the Netherlands have government debt of respectively 66,3% and 54,3% of their GDP, Italy has exceeded double the limit with a government deficit amounting to 144,4% of its GDP, followed closely by Spain, France and Belgium with respectively 111,6%, 113,2% and 105,1%.

1.2.2 The lack of uniformity of standards at the European level is another barrier to an integrated European banking market

The single market is not yet a complete reality although banking regulation has become more uniform in the EU with the single rulebook and the ECB's clarification of the supervisory approach to consolidation¹¹. Indeed, a number of traditional factors such as legal systems, languages and traditions remain and fragment banking markets. The EU Commission adds that "differences in taxation, borrower protection, or anti money laundering provisions at Member State level result in bank-specific entry and adjustment costs that discourage cross-border banking". For example, there is no single EU-wide loan registry, as it is the case in the US.

The European banking sector is therefore still characterized by the prevalence of national legislations, regulations, or enforcement practices. In addition, Member States understandably seek to ensure that national objectives are met in terms of, for instance, consumer protection, public health, and the environment. In doing so, they do not necessarily take due account of the impact of their actions on the EU banking sector.

1.2.3 The absence of a single market for banking and financial services is synonym of fragmentation

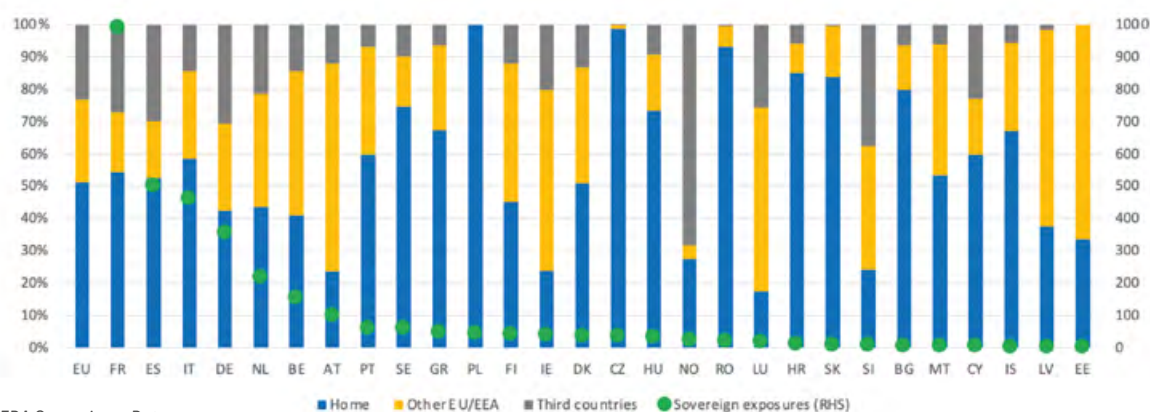
Besides the supervisory fragmentation in the euro area (1.1.2), there is an important diversity in terms of banking products, especially regarding retail products leading to the fragmentation of the EU banking landscape.

For instance, households of some countries such as Spain, Italy, Germany are directly affected by the ECB's rising interest rates. A vivid example is real estate financing. European markets vary in consumers' preferences for mortgage types (fixed v. floating, amortizing v. bullet), legal requirements concerning consumer protection and collateral enforcement, national credit reference schemes (e.g., Crédit Logement in France) and creditor selection criteria (LTV v. monthly incomes).

These cultural differences influence product design, distribution strategies and back-office operations in the EU. Moreover, they prevent banks from sharing processes and systems across European countries. Large banks consequently miss scale advantage when moving into new European markets. Since these domestic variations are greater in some lines of business than others – namely in retail more than in wholesale, the potential for Europeanisation also varies according to lines of business.

CHART 4.

Sovereign exposures [EUR bn] and country distribution by domicile (%) – December 2022

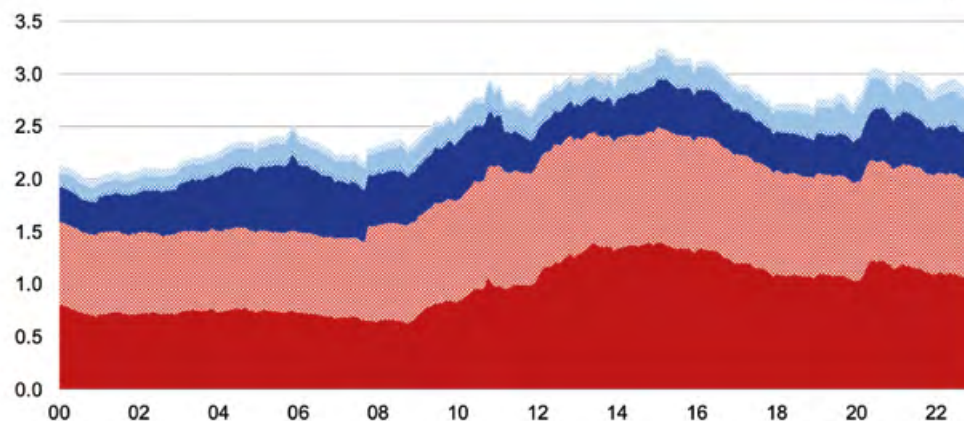


Source: EBA Supervisory Data

11. ECB Banking Supervision, Guide on the supervisory approach to consolidation in the banking sector, January 2021. This guide clarifies particularly three key prudential issues that are often discussed in this context: how the ECB sets Pillar 2 capital requirements for newly formed entities; how it treats badwill from a prudential perspective; and how it treats and assesses internal models.

CHART 5.

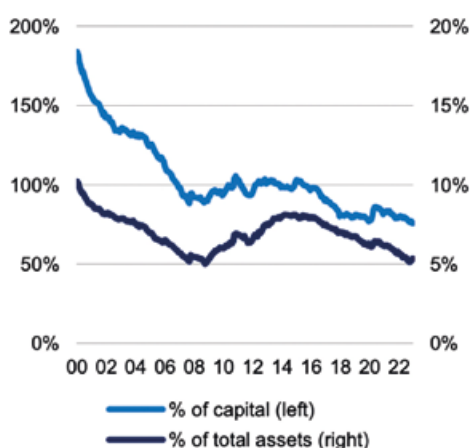
Exposure of euro area banks to general governments in EUR tr, until December 2022



Source: ECB, Deutsche Bank Research

CHART 6.

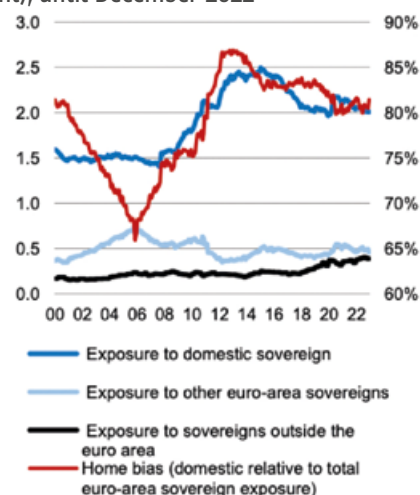
Euro area banks' exposure to respective domestic government, until December 2022



Source: ECB, Deutsche Bank Research

CHART 7.

Euro area banks' exposure in EUR tn (left), home bias in % (right), until December 2022



Source: ECB, Deutsche Bank Research

1.3 Additionally, the sovereign-bank nexus and the Central Bank-sovereign nexus remain significant

The situation of European banks is certainly different from the one that prevailed between 2010 and 2012. European have indeed higher capital and liquidity ratios than at the time the banking union was created¹². The European banking sector has shown remarkable resilience during the banking turmoil earlier this year. This highlights the effectiveness of the enhanced regulatory and supervisory reforms implemented in the last ten years.

Unfortunately, even if breaking the sovereign-bank doom loop was among the objectives of the banking union, it must be noted that this link remains an important issue, especially for financial stability.

According to EBA statistics, the domestic sovereign

exposure of EU/EEA banks in December 2022 stood at 5.7% relative to their total assets, and at 101% compared to their capital, which means that the risk is still looming despite the downward trend. For instance, these figures are 9.9% and 160% for Italy, and 18.2% and 239.7% for Poland.

The total sovereign exposure of EU/EEA banks compared to total assets in December 2022 stood at 11.6%. Roughly 50% of banks' total sovereign exposures is to their home sovereign¹³ (see Chart 4).

1.3.1 The evolution of sovereign exposure varies significantly among Member States

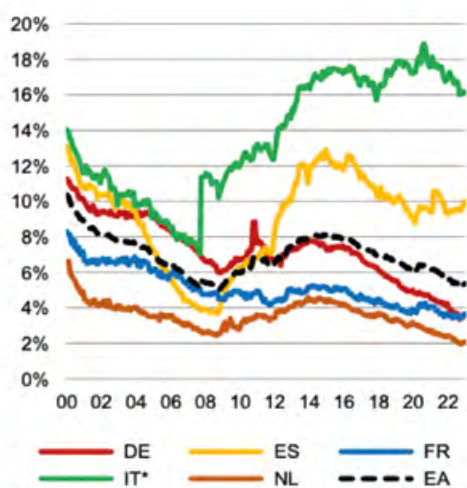
Though the levels of sovereign exposures, be they total or domestic, seem to be declining (see Chart 5), one must be careful with comparisons and implications, as the risk remains high.

12. For instance, banks' Common Equity Tier 1 ratio stood above 15.5% in the first quarter of 2023, see A. Enria, Hearing of the Committee on Economic and Monetary Affairs of the European Parliament, June 2023.

13. Data from the EBA's Risk Dashboard.

CHART 8.

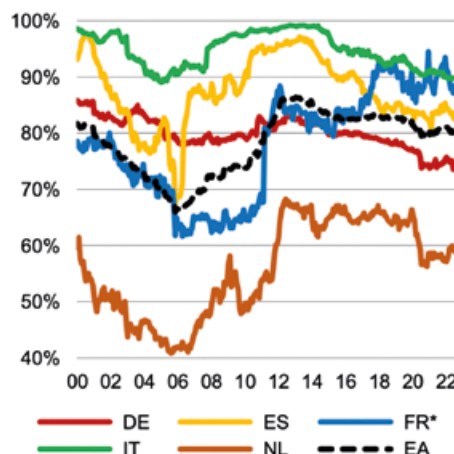
Domestic sovereign exposure in % of total assets, until December 2022



Source: ECB, Deutsche Bank Research

CHART 9.

Domestic relative to total euro area sovereign exposure, until December 2022



Source: ECB, Deutsche Bank Research

* Surge in 2011 due to a statistical reclassification of other euro area bonds

The home bias remains important and the total sovereign exposure still presents risks for the banking union.

1. The domestic sovereign exposure

According to EBA statistics, in December 2022, the domestic sovereign exposure of EU/EEA banks relative to their total assets was 5,7%, and this ratio is down to 5% for euro area banks.

As shown in Chart 6, the level of home sovereign bonds and loans compared to total assets and capital have fallen to pre-crisis ratios of 2008. It is good news in terms of financial stability, but exposure remains considerable and a risk on bank balance sheets with 5% of total assets and 76% of capital for the euro area banks according to Deutsche Bank's research.

Yet, one must be careful when operating such comparisons over time, because differences in balance sheets and divergent national parameters prevent them from being entirely coherent.

Indeed, Chart 7 shows that the exposure to domestic sovereign in the euro area stood a little bit below EUR 1.5 tn in 2008, but above EUR 2 tn in 2022. The exposure has thus increased; if the ratio is the same, it means that banks have also increased their total assets, but that does not necessarily decrease the incurred risk.

And while euro area banking sector as a whole has reduced its domestic sovereign portfolio, there are considerable differences between countries. For instance, in December 2022, the domestic sovereign exposure equals 16% of Italian banks' balance sheet, while it is only 2% for Dutch banks. Additionally,

some falling ratios are due to asset growth, as it is namely the case in France and Germany, where the domestic sovereign exposure compared to total assets is 4% (see Chart 8).

Another indicator of the disparities observable in the EU banking landscape is the domestic sovereign exposure compared to banks' capital. As one can see on Chart 9, Italian and Spanish banks have not joined the general downward trend: their holdings exceed capital which has declined over the past few years, while it has increased for banks in the other major markets¹⁴.

As shown by Chart 9, the home bias remains significantly high, especially in countries with a high level of debts, such as France, Spain and Italy. On the contrary, countries with healthy fiscal situations tend to be below average; it is namely the case for Germany and the Netherlands. This home bias can find several explanations.

The first reason is that, as heavily indebted countries have higher risk profiles, their bonds are riskier and therefore not bought by countries with a safer risk profile. For instance, German banks will favor German bonds over Italian ones, because they know their home country's bonds to be less risky than Italian ones.

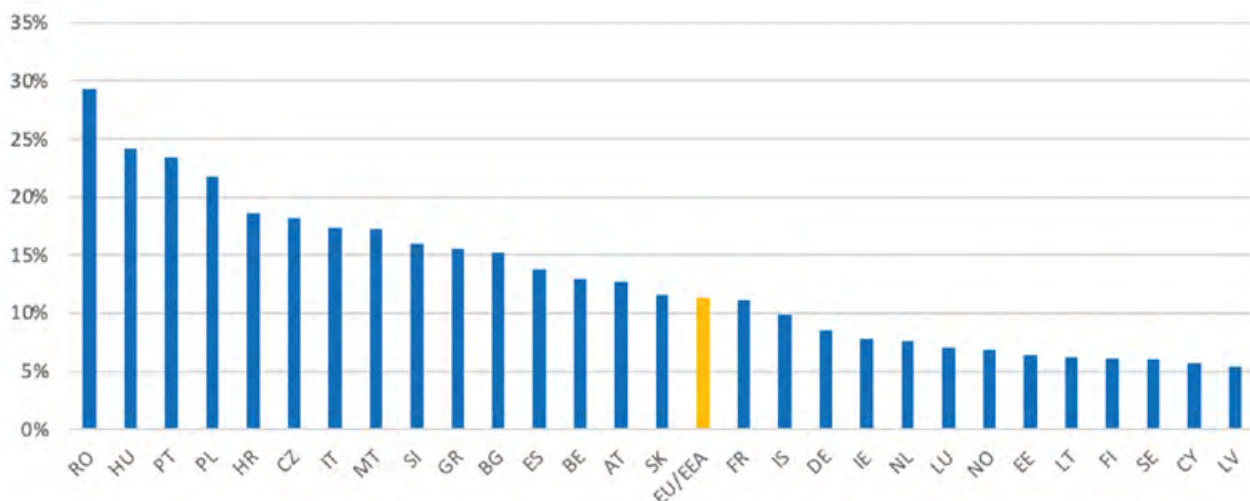
Moreover, loans are probably partly responsible for the home bias because bank loans account for almost 50% of domestic exposure, are mainly used by local and state authorities and granted by banks with a local presence.

Analysts also suggest that moral suasion and closer connections between the public and the financial sphere could foster this home bias.

14. Deutsche Bank Research, Sovereign exposures of European banks – revisited, May 12, 2023.

CHART 10.

Sovereign exposures as a percentage of total assets by country, December 2022



Source: EBA Supervisory Data

Note: the sample of banks has been adjusted to include only those entities that reported both domestic sovereign exposures and total assets

2. The total sovereign exposure

On top of being exposed to their home country's bonds and debts, EU banks are also exposed to governments located outside their territory, though in a less significant proportion (see Chart 5).

In the wake of the sovereign debt crisis, the total sovereign exposures of EU banks reached EUR 3.0 tn in December 2013 and increased to EUR 3.3 tn in 2015 according to EBA statistics.

Exposures to general governments have then slightly declined since June 2016, mainly due to the Quantitative Easing policies conducted by the ECB (see 1.3.3). Then, between 2016 and 2020, the sovereign exposures maintained a stabilized level in spite of the QE policies. Indeed, in the EU, unlike in the US, it is the banks that are the main sellers of sovereign bonds to the ECB; this phenomenon has been simultaneously accompanied by an increase in the balance sheets of central banks and an increase in the excess reserves of banks. Total sovereign exposure of the EU banking sector stood at EUR 2.7 trillion as of June 2018. As of June 2019, the total exposure to sovereign entities of EU banks stood at EUR 2.8 trillion, slightly up from June 2018.

European banks' ownership of sovereign debt has further increased in the course of the year 2020. Indeed, following the Covid-19 crisis, public debt across EU Member States exploded. Despite the unconventional monetary policy and the massive ECB's purchasing programs (Pandemic Emergency Purchase Program (PEPP), Asset Purchase Programs (APP)), the sovereign-bank loop rose again until the end of 2020 and in 2021, to decline somewhat towards the end of 2021, but remaining above pre-pandemic levels until now.

According to EBA's Risk Assessment, as of June 2022, EU banks reported around EUR 3.3 tn of total exposure towards sovereign counterparties. This is a volume increase of almost 5.4% from December 2021 (EUR 3.1 tn)¹⁵. In relative terms, the total sovereign exposure as a percentage of total assets in December 2022 stood at 11.6% in the EU/EEA. Yet again, significant disparities are observed: the ratio in Italy, Spain and Belgium remains significantly higher than in Germany and the Netherlands with respectively 17%, 14% and 13% against 8% and 6% (see Chart 10).

All in all, the sovereign-bank nexus is still an issue to the completion of the banking union. Even if the ratios of domestic exposures to total assets are back to pre-crisis levels, it must not be forgotten that part of the decrease is due to the asset growth fostered by Basel II, III and IV.

Furthermore, the divergent intensity of the sovereign-bank link prevents the creation of a European safe asset that would go along with the completion of the banking union. Indeed, from a political point of view, no country that is reasonably risky, fiscally disciplined and that has a relatively low sovereign-bank nexus will agree to buy a European asset that contains securities from countries that have a risky profile with a high sovereign exposure.

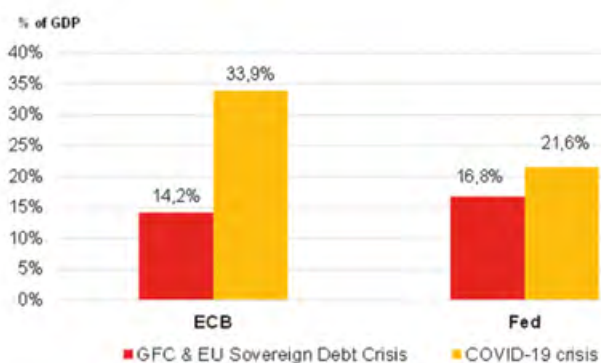
1.3.2 The sovereign-bank loop is fostered by the high level of public deficits and debts in some EU Member States, as well as by the prudential regulatory framework

Banks have responded to the issuance of bonds by the state: they have been encouraged to do so from a regulatory point of view for two reasons. One is to meet their regulatory short-term Liquidity Coverage

15. EBA, Risk assessment of the European banking system, December 2022.

CHART 11.

Expansion of Central Banks' balance sheet during the Global Financial Crisis and the Covid-19 crisis



Source: Federal Reserve

Notes: the period associated to the ECB's Balance sheets extended from 2008 to 2013; and from 2015 for the Fed; the Covid-19 period extends March 2020 to March 2022; data are calculated on the basis of the 2019 nominal GDP

Ratio¹⁶ (LCR) and the second is the regulatory treatment of sovereign exposures.

Sovereign securities are considered liquid assets that help comply with the Basel LCR for banks.

The numerator of the LCR must be composed at least of 60% of Tier 1 assets (cash, Central Bank reserves, domestic sovereign debts or other 0% weighted assets). As L. Quignon explains¹⁷, “the LCR creates an artificial demand for government bonds and incidentally tends to reinforce the link between banks and the government... The corollary of the improvement in bank liquidity is therefore the decrease in the credit multiplier for the fraction of High-Quality Liquid Assets constituted of government

debt securities, a distortion of credit to the economy to the detriment of private sector financing”.

In addition, global and EU banking regulations treat sovereign debt as a risk-free investment for banks, allowing them to allocate no capital for such assets. These regulatory measures also contribute to the growing of the sovereign-bank loop in Europe.

The very high level of public debt in some Member States and the consequent financing requirements mainly explain the development of this sovereign-bank loop and the difference in intensity of such nexus across Member States. (cf Table 1)

As long as the rules of the Stability and Growth Pact (SGP) are not applied across Europe, the sovereign-bank link cannot be reduced. An EU agreement on EDIS would not help to break this link.

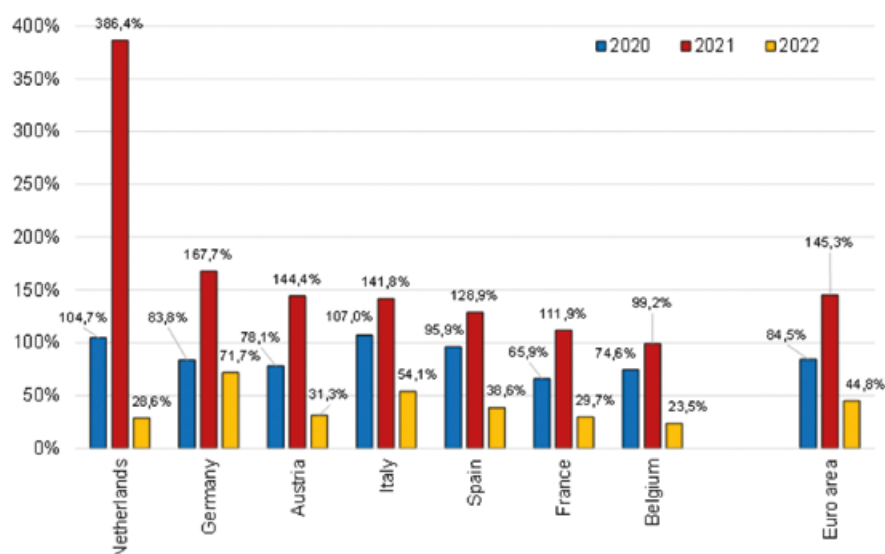
In the meantime, some observers also point out that many Eurozone banks are controlled or influenced by national or local governments and or politics, which reinforces the bank-sovereign nexus.

1.3.3 The Central Bank-sovereign nexus rose significantly from 2015 to 2022 because of Quantitative Easing (QE) policies

The 2% inflation target pursued by central banks have pushed them to maintain very accommodative financing conditions, and asymmetric monetary policies over the past 20 years. Central Banks and the ECB in particular have not tightened monetary conditions when the crisis was over, between 2015 and 2022. The massive increase in central banks' total assets and the expansion of the monetary base in non-crisis times illustrates this asymmetry.

CHART 12.

Share of public debt purchased by the Eurosystem



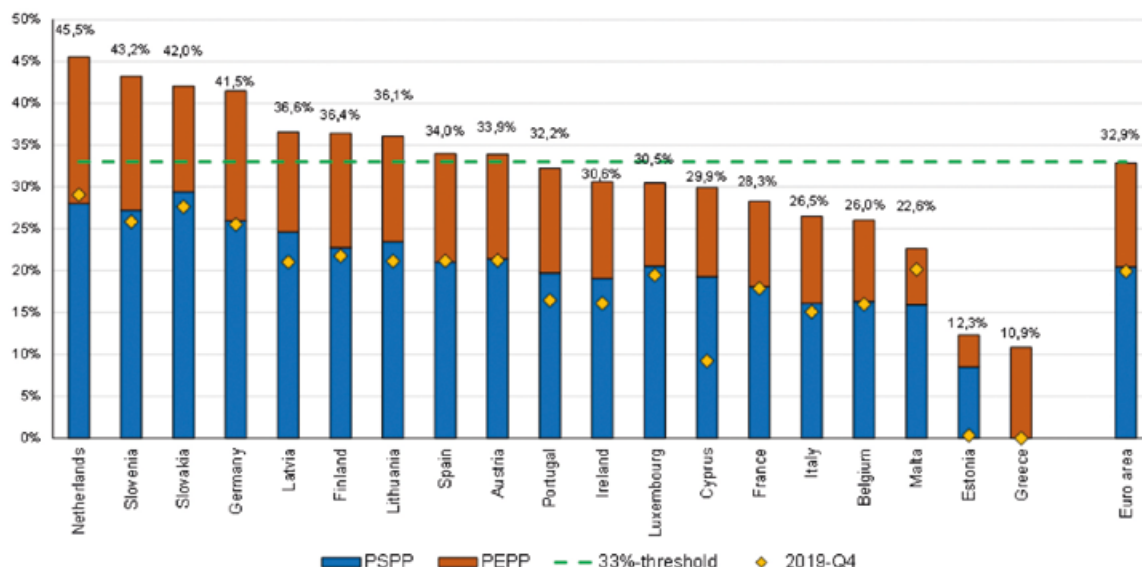
Source: ECB, Eurostat, Eurofi calculations

16. The LCR is a ratio that calculates the minimum amount of High-Quality Liquid Assets (HQLA) that financial institutions are required to hold to ensure their ongoing ability to meet short-term obligations.

17. L. Quignon, “The LCR goes against the need to reduce the bank-sovereign link”, Revue Banque, October 2013.

CHART 13.

Share of government debt held by the Eurosystem as of December 2022, %



Source: ECB, Eurostat, Eurofi calculations

We saw previously that the sovereign-bank nexus decreased between 2015 and 2019. The counterpart of such decrease has been an increase of the Eurosystem balance sheet due to the QE policy of the ECB. Thus, there is a stronger central bank-sovereign nexus.

From January 2015 to early March 2020, a total of EUR 2.66 tn of public and private securities were purchased by the Eurosystem, corresponding to nearly 20% of the 2019 Eurozone's GDP. This brought the value of the ECB's balance sheet to EUR 4.7 tn, i.e., 39.1% of the 2019 GDP.

Between 2014 and mid-2022, the ECB's balance sheet increased from 21.2% of the Eurozone's GDP to 73.8% (see Chart 15). That is a EUR 6.8 tn rise towards the record of EUR 8.83 tn as of end-May 2022.

When the pandemic struck in March 2020, the key financing rate of the ECB could not be lowered further, leaving little room for maneuver. Substantial monetary policy accommodation was emphasized over the course of 2020 and 2021 to counter the negative impact of the pandemic on the inflation outlook. Thus, as one can see on Chart 11, the size of the Eurosystem's balance sheet as a share of the Eurozone's GDP more than doubled compared to its size after the GFC and the EU sovereign debt crisis.

Considering the ECB's action, the Governing Council decided in March 2020 to launch the Pandemic Emergency Purchase Program (PEPP) of up to EUR 750 bn until the end of 2020, on top of the EUR 120 bn in extra purchases as part of the already existing APP.

Following the end of the net purchase under the PEPP in March 2022, the Eurosystem continued

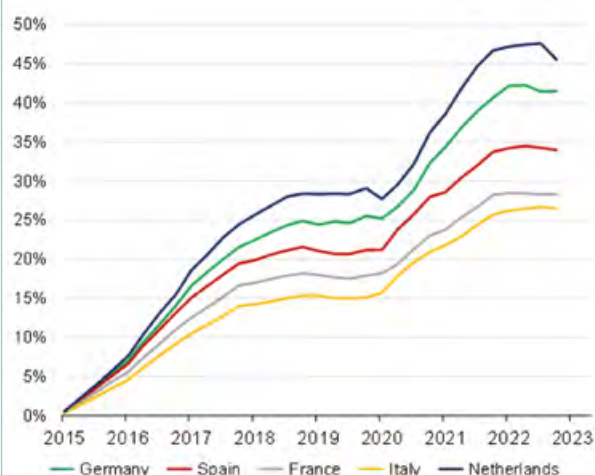
buying securities as part of the APP. The ECB started to slow down the pace of asset purchases in March 2022. Indeed, net purchases under the APP ceased on 1 July 2022.

The Eurosystem has then had a leading role in public debt monetization during the Covid-19 crisis, as its government securities purchases amounted to most of government debt issuance (see Chart 12).

Charts 13 and 14 show the growing share of government debt held by National Central Banks (NCBs). The latter has been increasing continuously since 2015, when the ECB started its APP. Between January 2015 and December 2019, the share of public debt held by the Eurosystem grew from 4.4% to 19.5%.

CHART 14.

Share of public debt held by the Eurosystem

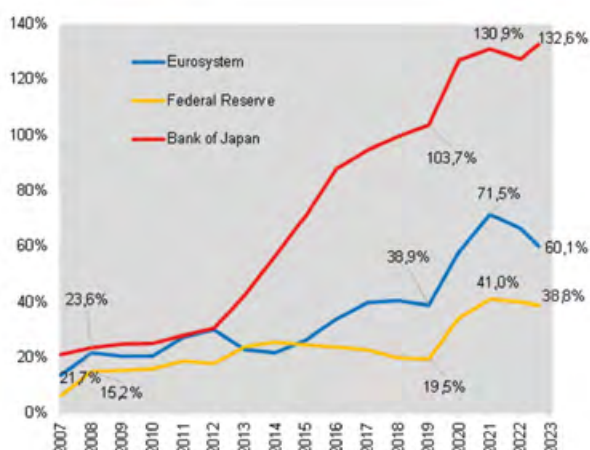


Source: ECB, Eurostat, Eurofi calculations

Note: Last observation 2022-Q4

CHART 15.

Central Banks' total assets relative to GDP



Source: Federal Reserve, Bank of Japan, ECB

Note: last data are from 30 June 2023; the ratio is calculated on the basis of the 2019 nominal GDP for all the data since 2019

The purchase of sovereign bonds since 2015 has led the Eurosystem to hold more than a third of the euro area's public debt outstanding in 2022.

These charts evidence the Central Bank-sovereign loop: in December 2022, the Eurosystem held 45.5% of the Dutch public debt, 41.5% of the German public debt, 34% of the Spanish public debt; all these figures are above the 33% threshold, initially set under the APP but suspended under the PEPP.

Most importantly, it highlights that the linkages between governments and banks are now extended to central banks. This sheds a special light on the independence of central banks, as NCBs own a growing and significant share of the national government debts and have *de facto* become the agents of fiscal policies.

1.3.4 A genuine implementation of Quantitative Tightening (QT) by the ECB will mechanically reduce the central bank-sovereign nexus but should increase the sovereign-bank nexus, especially in highly indebted countries

As of December 2022, the Eurosystem's balance sheet stood at EUR 7.9 tn, or 66.5% of the GDP of 2019.

The ECB started Quantitative Tightening (QT) on 1 March 2023. The decline in total assets since October 2022 as observed on Chart 15 is mainly due to the repayment by banks of Targeted Long-Term Refinancing Operation (TLTRO 3) launched in 2019 corresponding to EUR 1.5 tn of the EUR 2.2 tn program.

Another QT tool has been the non-reinvestment of all of the principal payments from maturing securities purchased under its APP averaging to € 15 bn per month between March and June 2023, and € 25 bn since July, has had a limited impact on the stock of securities and therefore on bank reserves so far¹⁸. Between March and June 2023, Eurosystem's securities holding dropped by € 42 bn to reach € 5.45 trn in June, from € 5.9 trn in March.

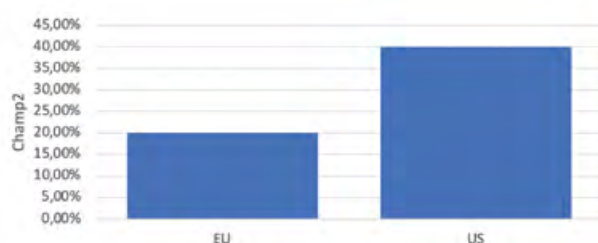
However, even if the ECB has started to reduce the size of its bonds holding, it continues to flexibly reinvest securities held under the PEPP, which could potentially reinforce the sovereign-central bank loop insofar as through such flexible reinvestments, the Eurosystem has been replacing maturing Dutch and German bonds with Italian or Spanish debt securities.

If the sovereign-bank loop has slightly decreased between 2015 and 2022, it is because it has been compensated by the central bank-sovereign nexus. With an effective normalization of monetary policy in Europe and the firm implementation of QT policies, one can fear that the sovereign-bank nexus be reinforced in the Member States which have high public deficit (above or equal to 3% of GDP), or high government debt (superior to 100% of GDP).

In this regard, the IMF stated in July 2023 that "euro area governments and bond markets will face lower ECB support in rolling-over maturing debt. The question arises as to which economic actors would step in and which spread levels would be required to attract demand. euro area banks seem to be the natural candidate given their historical appetite for sovereign bonds with current holdings standing below historical highs in most countries¹⁹".

CHART 16.

Market shares of top 5 EU and US banks, January 2023



Source: Oliver Wyman, "The EU banking regulatory framework and its impact on banks and the economy", January 2023

18. By way of comparison, it should be remembered that the public sector purchase program (PSPP) started with purchases of €60 billion per month (from March 2015 to March 2016). After the Covid-19 crisis purchases rapidly increased throughout 2021 and continued at close to an average of €90 billion per month (PSPP and PEPP together) at a time where inflation was already clearly above the target.

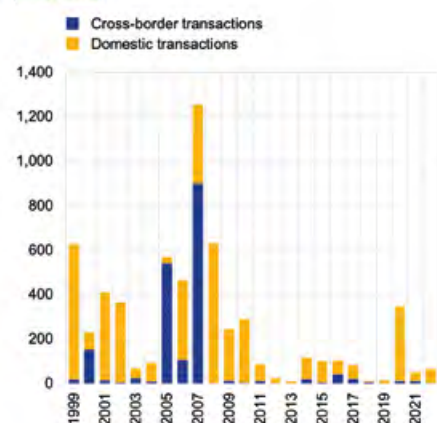
19. IMF, euro area Policies, Selected Issues, July 2023.

CHART 17.

Total assets of target banks and number of M&A deals in the euro area

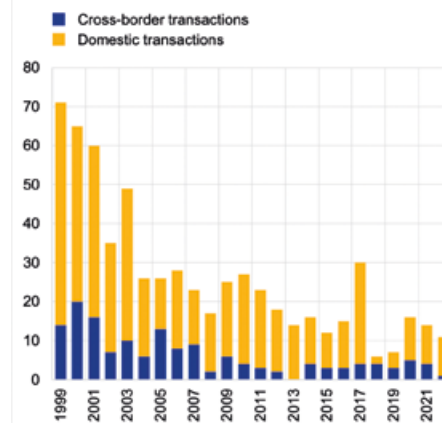
17a. Total assets of target banks

(EUR billions)



17b. Number of M&As

(number of transactions)



Source: ECB calculations based on Dealogic and Orbis BankFocus

Notes: The sample includes M&A transactions involving Sis and LSIs in the euro area, excluding some private transactions and transactions between small banks not reported in Dealogic. Transactions associated with the resolution of banks or distressed mergers were removed from the sample. Transactions are reported on the basis of the year in which they were announced

As long as all EU Member States do not comply with budgetary rules, the sovereign-bank loop is doomed to remain. Eradicating such a link requires that every Member States achieve fiscal consolidation. It is not the completion of the banking union that will resolve this issue, but sound budgetary policies.

2. As a result, the EU banking sector is overcrowded, and EU banks are less competitive than international peers, especially US banks

The EU banking sector struggles with excess capacity, with too many undersized banks and a costly physical banking infrastructure. Too many banks still compete for the same customers.

Banks in Europe thus face a much more competitive environment than in the US and therefore much stronger pressure on their margins since the EU banking sector is not concentrated enough compared to the American one.

Other missing mechanisms such as private risk sharing hurt the competitiveness of European banks and further hampers their profitability.

This section focuses on the overcapacity of the EU banking sector. It also aims at exposing and explaining the lagging profitability of EU banks compared to US ones. Finally, it outlines the differences that exist regarding private risk sharing mechanisms between the euro area and the US.

2.1 The lack of consolidation results in an overcapacity of the EU banking system

As shown by Chart 16, the market shares of the five US banks within the United States reached about 40% as of January 2023, while EU banks' market shares within the Eurozone were only 20%²⁰. This indicates that the EU banking sector is much more crowded than the US one.

US banks that have a strong market share in their large domestic market have therefore an extraordinary competitive advantage and a greater capacity to develop internationally.

2.1.1 The downward trend in cross-border mergers since 2000 negatively impacts the level of concentration of the EU banking sector

Mergers and Acquisitions (M&A) are failing to accelerate the restructuring of the banking sector in Europe. Indeed, M&A represent an option for banks to streamline their operating structures to embark on consolidation. "Bank consolidation via M&A is frequently mentioned as a means of reducing overcapacities in banking as domestic-oriented M&A could allow the institutions involved to eliminate duplication in their branch networks and to release resources to speed up their restructuring. Domestic M&A deals can also help banks exploit potential cost synergies and economies of scale. M&A impact then the competitive landscape in the banking industry and can lead to higher market concentration²¹".

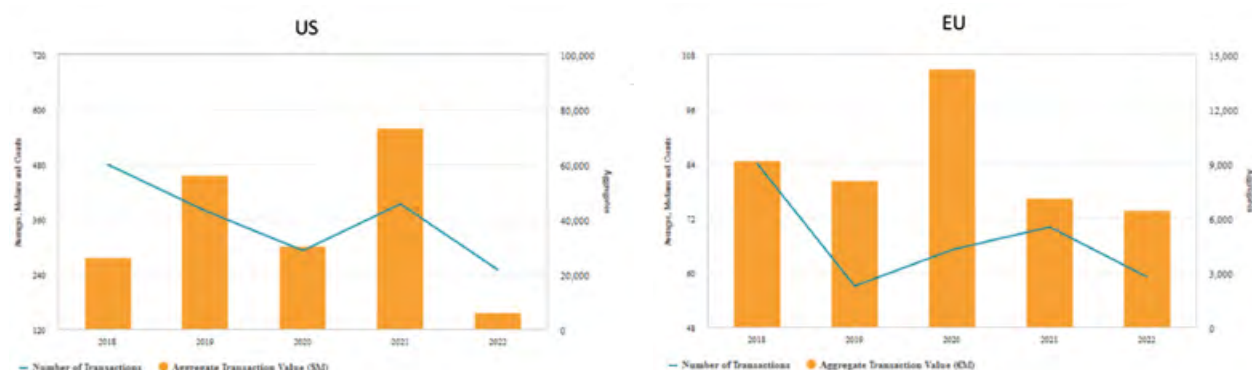
Yet, cross-border merger and acquisition activities among banks within Europe have drastically

20. Oliver Wyman, "The EU banking regulatory framework and its impact on banks and the economy" – January 2023.

21. Claudio Borio and Kostas Tsatsaronis (1999), Andrea R. Dombret (2018).

CHART 18.

Number of M&A transactions (left) and transaction values (right) for the EU and US banking sectors, 2018-2022



Source: EBA, S&P Market Intelligence Data

diminished since 2000 (see Chart 17), dropping from 70 major deals in 2000 to less than 10 in 2019 and 15 in 2021. This is notably due to the still predominant national bias, leading countries to use ring-fencing practices. As for remaining M&A deals, they are mainly domestic: on average, only one fifth of the number of transactions are cross-border M&A. This lack of M&A deals within Europe does not help improve the profitability of banks in Member States.

M&A deals, both in number and in valuation, are more important in the US than in the EU

Chart 18 shows that, even if the trends regarding M&A transactions are similar in the EU and in the US, the scales, on the other hand, are totally different.

While 2022 appears as a kind of exception, the M&A trend over the past 5 years clearly demonstrates the higher concentration of the US market.

In 2018, 479 M&A transactions took place in the US for a transaction value exceeding USD 25 bn (which equals a value over EUR 22.6 bn). In contrast, only 84 M&A deals were sealed in the EU during this same year, and the transaction value only amounted to EUR 9 bn. Such a difference in value can be explained by some of the deals that happened in 2018 in the EU for paltry sums, such as the Banco Popular-Santander takeover in Spain for a symbolic EUR 1 in June, or the Intesa Sanpaolo's acquisition of two failed domestic rivals in the Italian region of Veneto, also for a token price.

On the 2018-2021 period, Chart 18 shows that there are on average 5 times more transactions in the US than in the EU, and the transaction value is higher: it

is twice in the US what it was in the EU in 2020, and ten times in 2021.

Yet, in 2022, even if the trend in the number of transactions is confirmed – 59 in the EU against 249 in the US, the transaction value is higher in the EU: EUR 6.4 bn against USD 6.2 bn (which equals EUR 5.6 bn). The number of transactions in 2022 in the US is the lowest of the period covered, and it is believed to be due to the current economic headwinds, geopolitical uncertainty, and a potential downturn, but not to be a lasting trend²².

Some industry representatives have highlighted that consolidation in Europe exists in CIB, through the acquisition of teams and clients' portfolios because such activities happen on a global scale and are essentially submitted to international rules.

Five major reasons explain the decline in European M&A:

1. The single banking market is not yet a reality although banking regulation has become more uniform in the EU through the single rulebook and the ECB's clarified supervisory approach to consolidation. This fragmentation along national lines puts new cross-border market entrants at a disadvantage. In particular, banks that want to expand and diversify their activities throughout the EU have to create local service units in each Member State, which reduces economies of scale. Finally, improving the profitability of the EU banking sector is only possible on a country-by-country basis, through national mergers. New and innovative players have no choice but to develop a specific business case for each Member

22. McKinsey and Company, "Strategic M&A in US banking: creating value in uncertain times", November 2022.

State. The opportunities promised by the single market of (retail) financial services are thus not materializing.

2. The EU legislative prudential framework does not recognize trans-national groups at the consolidated level but as a sum of separate subsidiaries (“national or solo approach”), notably due to the insufficient trust of Member State with regard – among others – to national supervision. Moreover, ring-fencing policies (capital, liquidity, bail-in instruments, leverage ratios...) applied by host supervisors to subsidiaries of trans-national banking groups located on their territory enforce higher costs and discourage large EU banks to increase the number of their subsidiaries in the EU since scale effects through the centralization of capital and liquidity cannot be achieved.
3. Challenges linked to digitalization are prioritized over bank consolidation. In this case, M&A deals take place so that banks build capabilities accounts through the acquisition of fintech companies and expand their digital services²³.
4. Another obstacle to M&A activities is the structure of the banking industry: only 30% of the significant banks in the Eurozone (*i.e.*, directly supervised by the SSM) are publicly traded companies. Most of the non-listed banks in the Eurozone are (regional) state-owned saving banks, regional banks or cooperative banks.
5. In the current political context, no state would be keen to see the disappearance of one of its banks due to a takeover by a bank in another European country.

Some bankers also point out that the expansion of European banks is also penalized by the European regulation and supervision through:

- The non-recognition of the benefits of geographical diversification,
- The penalization of third country exposures in multiple ways,
- The penalization of the minority interest.

The post-GFC period (after 2008) is characterized by a predominant proportion of ‘domestic’ transactions

Compared with the pre-GFC period, the post-crisis period (after 2008) is characterized by a predominant proportion of ‘domestic’ transactions (around 80% of all transactions). Large transactions have also become scarce, and in recent years more euro area banks were acquired from outside the euro area than from within. Within the EU, cross-border M&A

transactions have been clustered in neighboring countries and follow existing linkages, allowing to conclude on the fact that the single European market remains disjointed.

Indeed, one can observe on Chart 17 that in 2021, there were less than 5 cross-border transactions for a total amount of about EUR 10 bn.

No real progress has been observed since 2018 where two-thirds of European banking consolidation were also from domestic deals.

However, G. Siani²⁴ explains that “we have witnessed an upswing in consolidation mainly pushed by digitalization. Two channels emerge in this new context: aggregations based on traditional channels (M&A), and less traditional ones, seizing the opportunities provided by outsourcing key business functions”.

2.1.2 Can the new rules decided by the global regulators on the calculation of extra-capital buffers with the EU help accelerate M&A deals?

In June 2022, the Basel Committee of Banking Supervision has completed its target to treating cross-border exposures within the European banking union on the methodology of G-SIBs. The Committee has recognized the improvement that has been made in the development of the banking union and this progress in the G-SIB framework through the existing methodology, which enables to make adjustments according to the supervisory judgement.

Under the agreement, a parallel set of G-SIB scores will be calculated for EBU-headquartered G-SIBs and used to adjust their bucket allocations. The parallel scores recognize 66% of the score reduction that would result from treating intra-EBU exposures as domestic exposures under the G-SIB scoring methodology. The Committee’s agreement will not affect the classification of any banks as G-SIBs or the scores or bucket allocations of bank outside of the EBU.

The new rules agreed by the Bank for International Settlements (BIS) affect the calculation of extra-capital buffers for the eight Eurozone-based lenders included in the list of 30 Global Systemically Important Banks that are considered most likely to trigger a financial crisis if they were to go under.

In other words, only two-thirds of their pan-Eurozone exposures will be treated as domestic, instead of foreign – and therefore riskier.

With this, being able to consider their cross-border

23. McKinsey and Company, “Strategic M&A in US banking: creating value in uncertain times”, November 2022.

24. G. Siani, “Bank diversity in Europe: what evolution?”, Eurofi Magazine, September 2023.

exposures within the block more like domestic ones could reduce the amount of extra capital the banks need to cover because of their systemic importance. This reform is helping to remove one of the regulatory disincentives to developing pan-European activities.

According to the AGEFI²⁵, the French bank BNP Paribas, which is mainly implemented in Belgium and Italy, and which has the highest G-SIB buffer, could be the main beneficiary of this reform and see its systemic surcharge avoid an increase of 0.5 solvency ratio points.

This shift is a step in the right direction, towards a more integrated banking sector in Europe, the creation of a truly domestic market and a harmonization of regulations for the Eurozone banking sector. However, there are still too many obstacles to a real acceleration of banking consolidation. In addition to the regulatory burdens, the BCBS has decided, even for this reform, not to treat all, but only two-thirds of pan-European exposures as fully domestic because the banking union is still incomplete.

The lack of M&A deals hampers the profitability of the EU banking sector.

Both domestic and cross-border bank mergers have the potential to address excess capacities and cost inefficiencies, two of the factors behind structurally low profitability in Europe.

Nevertheless, domestic consolidation is growing at snail's pace and cross-border bank consolidation has practically disappeared (in terms of transaction value). It should thus be considered to remove remaining regulatory obstacles²⁶. As pointed out by the ECB, such operations need to be supervised²⁷.

But as explained in the 1.42 subsection, the current EU legislative framework does not recognize transnational groups at the consolidated level (national approach). In addition, Member States have ring-fenced their banking sector. In such an environment, cost reduction through economies of scale becomes difficult, as scale effects of centralization of capital and liquidity cannot be achieved. This fragmentation along national lines means that banks that want to expand and diversify within the EU have to create local units in each Member State instead of focusing on M&A.

At this stage, profitability of the EU banking sector can then only be improved on a country-by-country basis, through national mergers.

Therefore, common EU practices and removing remaining obstacles to cross-border consolidation will allow more cross-border M&A deals and accelerate the restructuring of the EU banking sector into a more consolidated and profitable sector.

2.1.3 Can digitalization and innovation be a game-changer for the future of the banking union?

Many industry representatives highlight the fact that digitalization and innovation are starting to change the banking landscape. Achieving a seamless and quick digital transition would have a significant impact on the competitiveness of the banking union, but such a transition also brings about its share of operational, legal and reputational risks.

As explained by P. Padoan²⁸, “empirical analysis shows that in the longer run the EU banking industry can reduce the gap and improve its performance thanks to innovation and digitalization, provided the appropriate policies are adopted. What makes the current innovation episode unique is that, given the nature of the products of the financial industry, public institutions (central banks) react to innovation shocks. Such a mechanism of increased efficiency thanks to innovation could build momentum for making progress in banking union”.

For instance, innovation such as the use of Artificial Intelligence (AI) in the banking industry can have an impact of business models in terms of data treatment. Other Information and Communication Technologies (ICTs) lead consumers' preferences and expectations to change; it is namely the case of Central Bank Digital Currencies (CBDCs) that are issued by central banks in reaction to private Big Tech companies issuing their own privately conceived payment systems. CBDCs are especially interesting for central banks in terms of strategic autonomy and sovereignty; but they are not without risks, especially in terms of financial stability, as they are substitutes for deposits and significantly increase the speed at which deposits may be withdrawn from banks, encouraging disintermediation.

Nevertheless, innovation alone will not be sufficient to improve the efficiency of the banking union: “innovation in banking has significant impacts on productivity. However, this is not uniform across sectors. Also, there is no strong evidence that digitalization improves the performance of firms that are already on the technological frontier,

25. Franck Joselin, “Le Comité de Bâle lève un obstacle à la consolidation bancaire européenne”, June 2022, AGEFI Quotidien & “La charge des banques systémiques s’allège en zone Euro”, June 2022, AGEFI hebdo.

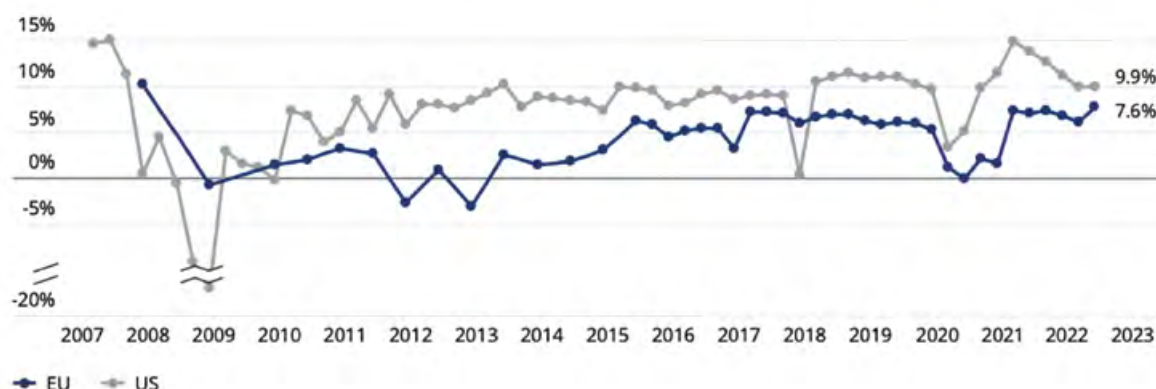
26. ECB – April 2022 – Financial Integration & Structure in the euro area, p15.

27. Gardó, S. and Klaus, B., “Overcapacities in banking: measurements, trends and determinants”, Occasional Paper Series, N°236, ECB, November 2019.

28. P. Padoan, “Could the banking union be revamped by innovation?”, the Eurofi magazine, September 2023.

CHART 19.

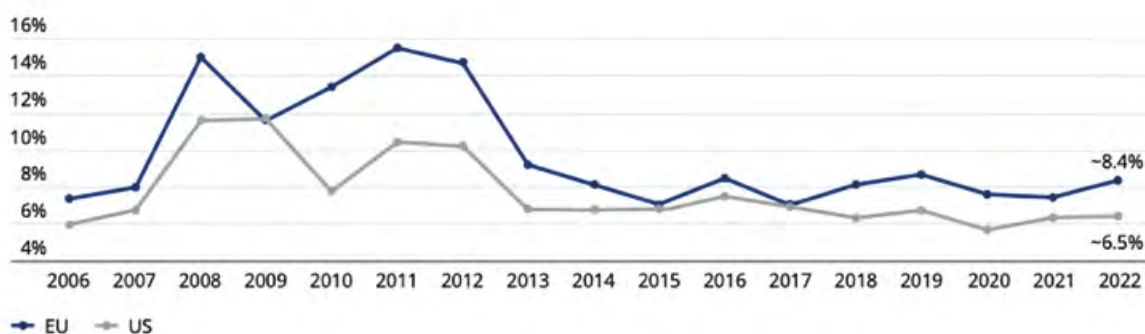
Comparison in return on equity between EU and US banks



Source: Oliver Wyman, "The EU banking regulatory framework and its impact on banks and the economy", January 2023

CHART 20.

Comparison in cost of equity between EU and US banks



Source: Oliver Wyman, "The EU banking regulatory framework and its impact on banks and the economy", January 2023

neither that it affects the capacity of laggard firms to move to the frontier. It also suggests that investment in digital must be complemented by other variables to produce productivity gains. Most notably intangible and human capital, R&D and supportive regulation aimed at increasing competition and efficiency, notably regulation to support venture capital²⁹.

2.2 The profitability of EU banks remains behind international competitors and hampers the effort of the Eurozone towards strategic autonomy

The overall profitability of the EU banks – except during the Covid-19 crisis – has improved, but remains behind the profitability level of US peers.

Banks in the EU plays a crucial role in the funding of the economy as they provide about 70% of corporate borrowing. In contrast, capital markets provide 77% of corporate funding. Thus, the

profitability of banks in the EU is all the more important as it being persistently weak can pose a risk to financial stability and to the EU strategic autonomy.

2.2.1 The structural lack of profitability of European banking sector is largely reflected in the low Return on Equity (RoE) and the balance sheets of EU banks

“Even before the Covid-19 outbreak, the European banking system suffered from a number of known structural weaknesses, such as a low profitability, as reflected in high-cost income ratios implying little capacity to invest in new technologies. This persistently low level of profitability is linked to an overcapacity in the European banking sector³⁰”.

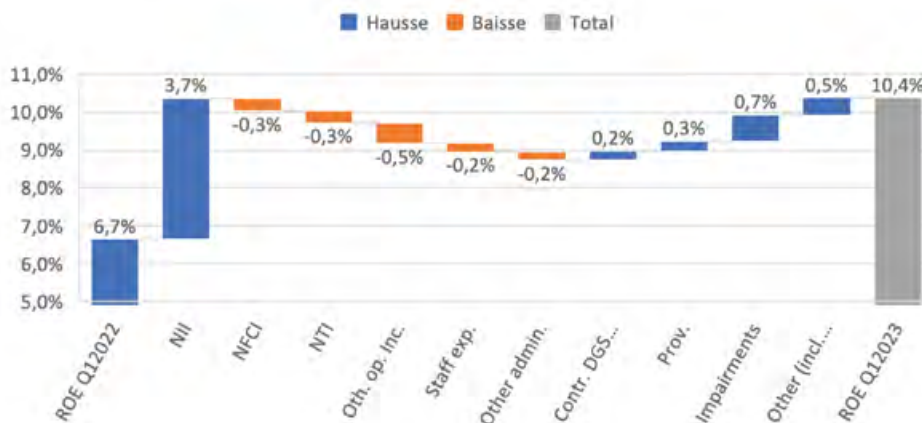
Before the GFC, both the EU and the US banks had similar RoEs, above 10%. However, unlike their US peers, EU banks have failed to recover their pre-GFC profitability margins until 2023.

Chart 19 highlights that US banks continuously

29. Op. Cit. P. Padoan.

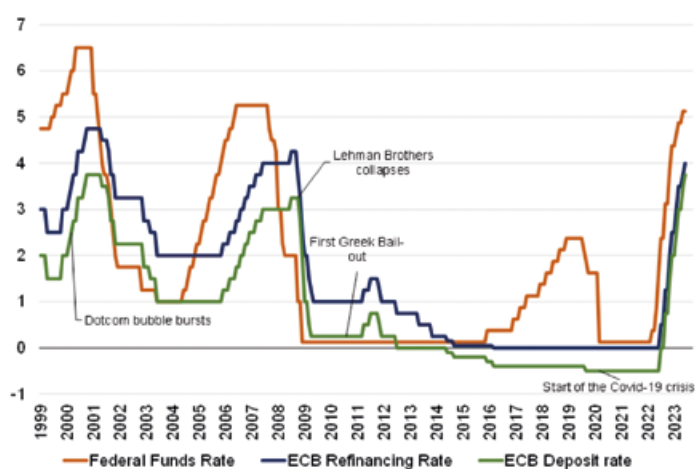
30. E. Fernandez-Bollo, Does the Covid-19 crisis reinforce the case for banking union?, Views, The Eurofi Magazine, September 2022.

CHART 21.
Return on equity –
year on year (2022-2023)



Source: EBA

CHART 22.
Key nominal short-term
interest rates for the US
and the euro area



Source: EBA

Note: latest data from June 2023

exceed EU banks in terms of RoE since the GFC, with for instance a 9.9% RoE in Q2-2022, while the RoE of EU banks lagged behind at 7.6%.

Moreover, Chart 20 shows that EU banks have not only a higher Cost of Equity (CoE) compared to US peers, but also compared to their own RoE. There is no doubt that the Covid-19 shock has further damaged the profitability of the European banking sector, especially that of banks that were already struggling before the pandemic. It must be noted that even if lagging behind, the EU banks have managed to reduce the gap with their American peers between 2021 and 2022.

Nevertheless, the RoE of EU banks was back to pre-pandemic levels in 2021. In spite of a slight drop in Q1 2022 to 6.7%, the Q1 2023 RoE of EU banks was 10.4%. This is mainly due to an increase in Net-Interest Income (3.7%) and to a lesser extent to a decrease in impairments (0.7%). Other non-recurrent items such as profit from negative goodwill or from non-current assets (included under 'Other (incl. tax)' in Chart 21) played a limited

role (0.5%) (see Chart 21).

Although they reached pre-GFC level of profitability in 2023, European banks' RoE remains below their CoE, which approximates 17% on average in 2023. If profitability is higher than the cost of capital, then value is created. Otherwise, value is destroyed. And this has been the case for European banks since 2008 as evidenced by Charts 19 and 20 when comparing their levels of CoE and RoE.

Low profitability implies a double risk. Firstly, since profits are the first line of defense against losses, banks with low operating profits might be in a worse position to withstand a shock. Secondly, should a capital increase be necessary, this would be very expensive in terms of shareholder dilution for banks with poor market valuations.

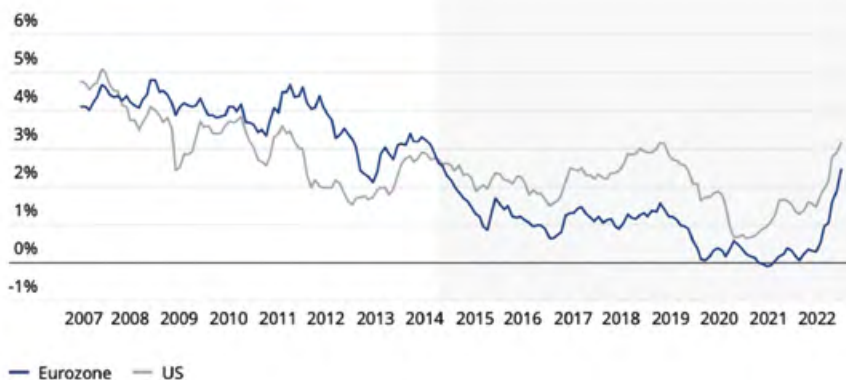
Furthermore, "research suggests the stronger the return profile of a bank, the more likely it will make use of its buffers when allowed and encouraged to do so by supervisors, making policy tools more effective³¹".

31. Oliver Wyman – "The EU banking regulatory framework and its impact on banks and the economy" – January 2023, p. 8.

CHART 23.

Comparison of long-term interest rates in the eurozone versus the US, 2007-June 2022

Source: Oliver Wyman, "The EU banking regulatory framework and its impact on banks and the economy" – January 2023
Note: long-term interest rates refer to government bonds maturing in ten years



2.2.2 Both cyclical and structural reasons explain why profitability of major European banks has lagged behind international peers

As demonstrated above, in the wake of the GFC, despite a significant increase in EU banks' resilience, their profitability has lagged behind international competitors. Both cyclical and structural reasons explain the gap in profitability and valuation between the major European banks and their international peers.

Cyclical reasons

- **The US's more favorable macroeconomic environment**

EU growth has been slower than the US over the past decades: US GDP in volume grew by 61% from the beginning of 1998 to the third quarter of 2022 and by only 36% in the euro area³². Slow growth equalled fewer lending opportunities, lower valuations, less profit for banks, and smaller RoE.

- **The yield curve and interest rate differential between the US and the Eurozone**

The US more favourable economic environment was also reflected in monetary policy since 2015, with the ECB that kept short-term rates down longer than the US Federal Reserve, putting pressures on banks' interest margins (see Chart 22).

Diverging monetary policy stances between the two regions have pushed euro area long-term bond yields to remain well below those of the US since 2014. Lasting low interest rates, as can be seen on Chart 23, have had negative consequences on EU banks profitability: it compresses net interest margins – which penalizes them *vis-à-vis* their American counterparts. Indeed, net interest income represents 50% of EU banks' net operating income, and Profit and Loss (P&L) is made of more than 50% of credit and loan related activities. The interest rate level matters.

CHART 24.

Comparison of ultimate sources of funding in Eurozone versus US



Source: Oliver Wyman, "The EU banking regulatory framework and its impact on banks and the economy", January 2023
Note: 2021 Q4 for EU, 2022 Q2 for US

- **The corporate taxation rate**

In the US in 2018, a reduction of the corporate taxation rate brought it to 21% which is much lower than what the top 10 SSM banks are required to pay.

Structural reasons

1. **The European financial market remains small and most of the financing in Europe is provided by the banking sector as shown by Chart 24.** Almost 90% of households in the EU are funded through bank loans against less than 40% in the US. Regarding corporate funding, a whopping 80% come from capital markets, against less than 40% in the EU (see Chart 24).
2. **There is an absence of a securitization and a single capital market in Europe.** Indeed, there are banks that have large balance sheets in Europe, but unlike those in the US, they are not able to originate and (mainly) distribute as much as they should, due to regulatory constraints. Therefore, a euro of capital is, by definition, not as productive depending on the side of the Atlantic where the bank is located.

32. Eurofi, Macroeconomic Scoreboard, September 2023.

Recent research conducted by Oliver Wyman³³ found that the European securitization market (including the UK) is about 6% the size of its counterpart in the US, representing about 1% of GDP compared to 18% in the US (see Chart 25).

Thanks to active securitization as well as federal agencies, US banks can reduce their balance sheets and have greater capital efficiency.

In contrast, integration in EU capital markets is only at an early stage and the euro area still lacks a common risk-free asset. It is an impediment, in particular in the light of the Basel IV framework, where holding a loan in the balance sheet will be even more expensive than it currently is. Moreover, the fact that the EU does not have public agencies like the American Freddie Mac and Fannie Mae – which act as giant vacuum cleaners of major amounts of mortgage loans that EU banks have to keep on their balance sheets – reinforces the gap between the EU and the US.

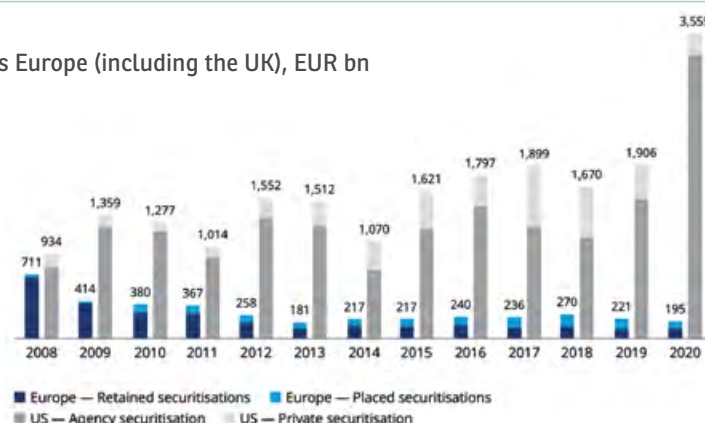
Additionally, “in a hypothetical scenario where EU banks could transfer half of their current mortgage portfolio to non-bank investors, banks’ CET1 ratio would increase by around 0.9 percentage points, and

banks’ lending potential could increase by about EUR 0.9 tn³⁴”.

3. **The underlying risk requirements can be very different depending on the US or the EU market.** For instance, in the French banking system, there is a long historical period of lower and less volatile cost of risk. Such conditions, year after year, reflect a low risk profile on the domestic market, and especially on residential real estate. With lower risk, there are lower interest margins, as there is less risk that needs to be covered. This can partly explain the EU-US difference in terms of profitability.
4. **The competitive structure differs between the euro area and the US banking system because many Eurozone banks are controlled or influenced by national or local governments, leading the euro area banking landscape to remain fragmented.** There is a much more diverse nature to national markets in Europe, and that is due to different attitudes towards credit, to the different legal frameworks, to the different structures and the need to satisfy different types of customers’ needs. The most pertinent goal for euro area banks is to generate healthy levels of

CHART 25.

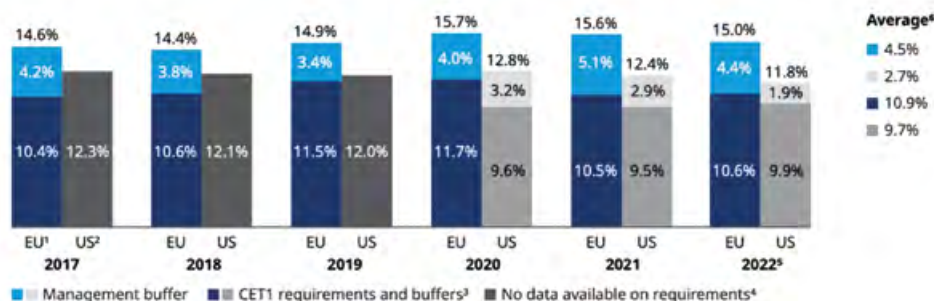
Comparison of securitization volumes, US versus Europe (including the UK), EUR bn



Source: Oliver Wyman, “The EU banking regulatory framework and its impact on banks and the economy”, January 2023

CHART 26.

Evolution of CET1 ratio in the EU and US



Source: Oliver Wyman, “The EU banking regulatory framework and its impact on banks and the economy”, January 2023

1. Based on sample of banks participating in SREP; 2. Based on sample of US large banks participating in Dodd Frank Act Stress Test; 3. EU capital requirements reported as simple average; 4. Capital requirements and buffers only available for the US from 2020 onwards; 5. Latest (2022-Q1); all other data points are respective to the Q4 of that year; 6. Average over the period 2020-2022 where all data points are available for comparison

33. Oliver Wyman – “The EU banking regulatory framework and its impact on banks and the economy” – January 2023.

34. Oliver Wyman, Op. Cit., p. 14.

CHART 27.
Breakdown of CET1
capital requirements
of Europe versus US
in 2022

Source: Oliver Wyman, "The EU banking regulatory framework and its impact on banks and the economy", January 2023

1. Based on sample of 108 banks participating in 2021 SREP determining 2022 capital levels; 2. Based on sample of 34 US large banks participating in 2022 Dodd Frank Act Stress Test; 3. US' entity-specific Stress capital buffer (determined annually based on DFAST results) includes the Capital conservation buffer, Projected Stress Test Losses, and Q4-Q7 Dividend prefunding; 2. Capital requirements and buffers have been re-ordered to facilitate comparability with the US

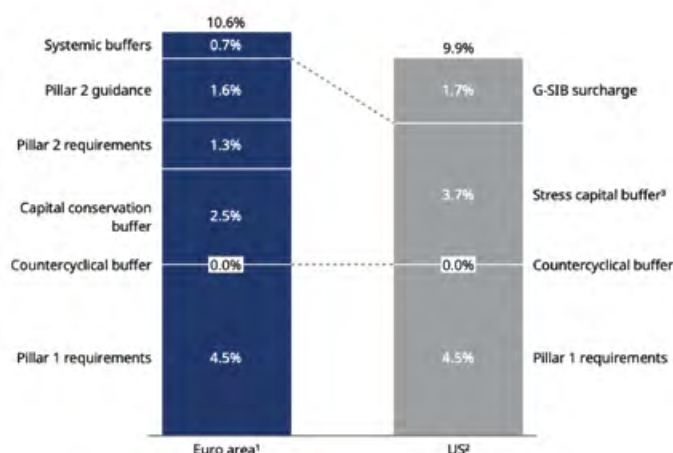
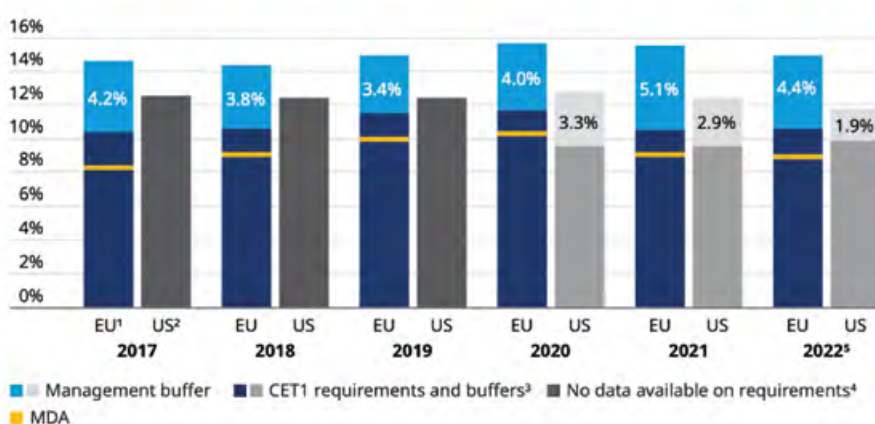


CHART 28.
Evolution of CET1 management buffers held by banks in the EU and the US



Source: Oliver Wyman, "The EU banking regulatory framework and its impact on banks and the economy", January 2023

1. Based on sample of banks participating in SREP; 2. Based on sample of US large banks participating in Dodd Frank Act Stress Test; 3. EU capital requirements reported as simple average; 4. Capital requirements and buffers only available for the US from 2020 onwards; 5. Latest (2022-Q1); all other data points are respective to the Q4 of that year

profitability, which functions as a buffer against losses. The goal is not for EA banks to be compared directly to US banks but to look at how to address the profitability questions. The fragmentation and the different regimes in Europe are then reasons for the cost income ratio of European banks being so high.

5. **Regulatory-induced costs are potentially higher for EU banks than for their US counterparts.** Research conducted by Oliver Wyman³⁵ emphasizes that both risk-based and non-risk-based requirements as well as management buffers are heavier in the EU than in the US.

Regarding capital constraints between 2020 and 2022, EU banks hold on average 3.1 pp more CET 1 capital compared to Risk-Weighted Assets (RWAs) than US banks, as observable on Chart 26. 1.3 pp are explained by the higher requirements and buffers

imposed by the EU regulator, and the remaining 1.8 pp correspond to higher management buffers held by entities due to ring-fencing practices (see 1.1).

Risk-based capital requirements

The current EU framework for capital buffers is complex, while the US have tried to simplify theirs in 2020 by introducing a single Stress Capital Buffer (SCB), leading to differences evidenced by Chart 27. While the US has only four components to their risk-based capital requirements, the euro area has 6, leading the latter to have higher CET1 ratio and putting pressure on its banks' margins.

Non-risk-based capital requirements (Leverage ratio)

Besides the P1R generic 4.5%, both the EU and US apply a minimum Leverage ratio of 3%³⁶. However, given the structure and density of risks of balance sheets and the impact of accounting considerations, the comparison is not fully meaningful.

35. Oliver Wyman, Op. Cit, p. 20.

36. Yet, in 2021, additional own funds requirements for the leverage ratio were introduced in the revised Capital Requirements Directive and Regulation in the EU. It enables competent authorities to impose P2R-LR and P2G-LR limits if the risk of excessive leverage is perceived not to be covered by P1R-LR. The rationale differs in the US: the leverage is said not to be risk-sensitive by design, and thus there are no additional Leverage requirement driven by differences in the risk profile.

Management buffers

In addition to capital requirements, EU banks hold a management buffer which is on average 1.8% higher than in the US (see Chart 28). The higher capital buffer in the EU is mainly explained by the supervisory pressure, which materializes both through formal restrictions and informal requirements. Supervisor discretion and uncertainty regarding capital requirements also prompt EU banks to have high levels of capital. But due to depressed market valuations and limited investor appetite, raising additional capital is expensive and difficult for EU banks, further weighing on their profitability.

Nonetheless, A. Enria argued in an interview for the Eurofi Magazine of September 2023³⁷ that “comparing capital requirements across jurisdictions is never a trivial exercise, as several factors can blur the picture. The European legislator has chosen to apply the Basel standards to all banks, including small and mid-sized banks, whereas in the United States rule apply differently depending on banks’ size. As a result, smaller banks probably face, on average, more stringent prudential framework in the EU”. He also explains that regarding G-SIBs, “the average supervisory add-on is probably a bit more conservative in the EU, while being more diverse in the US, where significantly higher capital charges are applied to specialized investment banks.”

All in all, the comparison operated above is likely to change over the coming months. Indeed, following the US banking turmoil of early 2023, the Vice-Chair for supervision of the Fed Michael S. Barr has initiated a holistic review of capital requirements for large banks with more than USD 100 bn in total assets to better reflect credit, trading and operational risks. In a speech delivered on 10 July 2023³⁸, he declared that “the proposal’s more accurate risk measures as equivalent to requiring the largest banks fold an additional 2 percentage points of capital, or an additional \$2 of capital for every \$100 of RWAs”.

6. Safety net architectures also differ on both side of the Atlantic, and this is visible in the public resolution funds and deposit guarantee schemes as well as in the loss-absorbing capacity requirements.

Firstly, “the target size of bank-funded deposit insurance or resolution structures in the EU stands at approximately 2.4% of covered deposits, compared to 1.35% in the US³⁹”. While US banks are only required to contribute to a single fund (the Financial Deposit Insurance Corporation (FDIC)), EU banks

have to contribute at the EU level to the Single Resolution Fund (SRF), and at the national level to the Deposit Guarantee Schemes (DGS).

Secondly, there are also differences regarding loss-absorbing capacity requirements. While there is a Total Loss Absorbing Capacity (TLAC) requirement of 18% for both EU and US banks, the EU has introduced a Minimum Requirement for own funds and Eligible Liabilities (MREL) to further enhance loss-absorbing capacity, which is wider in scope and represents an additional burden to EU banks. Furthermore, the BIS found that building loss-absorbing capacity is more costly for EU banks, with average senior bail-in bond risk premiums estimated to be twice as high for EU banks than for US ones.

7. New rivals have entered the competition, especially fintech. This new paradigm between banking activities and new actors is a challenge in terms of profitability for banks, which are obliged to invest large amounts to be able to compete with these new actors and properly address consumers’ expectations.

8. The low level of concentration and the higher fragmentation of the EU banking sector is a source of inefficiencies and vulnerabilities. This situation leads to insufficient risk sharing at the EU level, since in case of difficulties, safety nets remain largely national. Fragmentation also entails “overbanking”, which in the end affects banks’ profitability in the system – as shown by the higher cost to income ratio, notably linked to the relatively high number of branches within the EU.

9. There is also the issue of the treatment of Non-Performing Loans (NPLs).

In that regard, in a speech given in June 2023⁴⁰, A. Enria highlighted that the divisive issue of NPLs from the GFC was resolved, because “the volume of NPLs held by significant banks dropped from around EUR 1 tn to under EUR 340 bn by the end of December 2022, the lowest level since supervisory data on the banks under ECB supervision were first published in 2015”. The dropping level of NPLs in the EU is a positive thing, but in case of a new crisis (e.g., in case of stagflation), it will remain a problem as there is no active market for NPLs in Europe.

10. The high share of personnel costs in total costs of European banks compared to US and even more to Asian ones does not also hurt their profitability and denotes a relative inefficiency.

37. A. Enria, “The integration of the EU banking sector and the challenges of global competition”, Views, The Eurofi Magazine, September 2023.

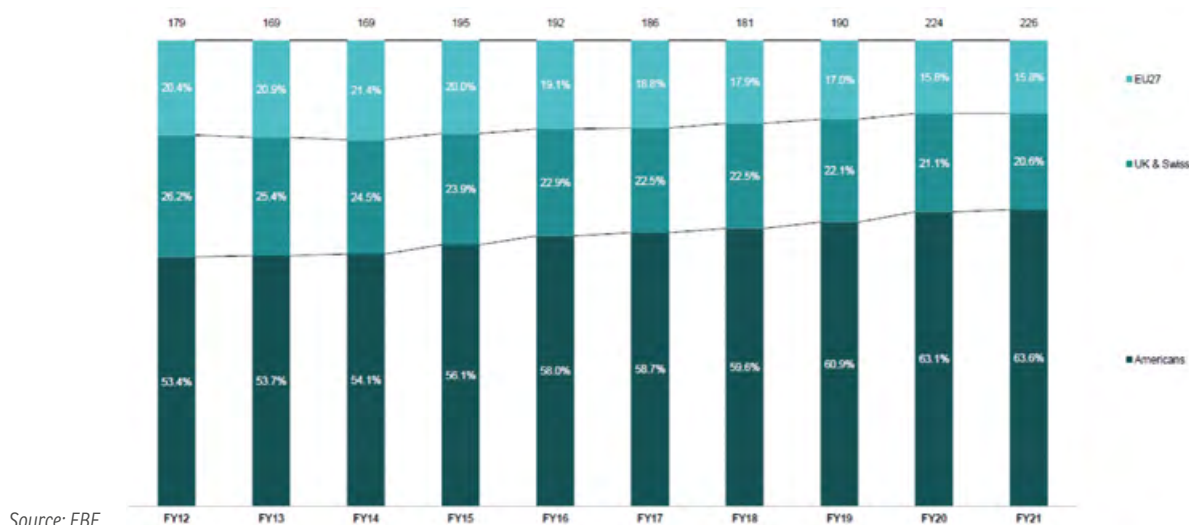
38. M. S. Barr, “Holistic Capital Review”, 10 July 2023.

39. Op. Cit. Oliver Wyman, p. 35.

40. A. Enria – “Well-run banks don’t fail – why governance is an enduring theme in banking crises” – 1 June 2023.

CHART 29.

The market share evolution of EU banks in the global CIB market vs US banks (%)



Source: EBF

The structural lack of profitability in the European banking union is a problem both for the financing of the recovery, the green and digital transition and for financial stability, as it means that European banks would take longer to build the necessary capital levels to meet the financing needs, and to rebuild them if buffers were consumed in a crisis. Achieving higher profitability is therefore important for strengthening resilience, engaging the transformation towards more sustainable business models, and unlocking sufficient investment in digitization and consolidation in order to remain competitive.

2.2.3 Foreign investment banks acquire a rising number of market share in European markets, which contradicts the European will to reach strategic autonomy

Foreign investment banks are increasingly present into European markets, threatening EU financial sovereignty. Moreover, the framework implemented by Basel III still presents many obstacles to banking consolidation.

Non-EU investment banks are gaining market share in Europe, putting pressure on profitability and strategic autonomy of the EU economies.

The EU has long been attractive to banks which are headquartered outside the EU. US banks which have a strong market share in their large domestic market have an extraordinary advantage and a greater capacity to develop internationally (e.g., the US still represent 50% of the global financial market, with the capitalization of a company like Apple being USD 3 trillions – the equivalent of the CAC 40). They are active in Europe and take market shares from local competitors.

At this stage on retail, it may be seen by authorities as a remote issue, but we should not underestimate their competition in the future. They might try to take part in the most attractive part of the retail and wealth management business in Europe.

In addition, European banks have more of a compliance mindset while American ones have a growth mindset. In such a context, looking at the role of Global Systemically Important Institutions (G-SII) in the European Union, American banks are 2.5 times more active than European banks in fixed income; in equities it is 3 times and 4 times in Investment Banking Department. That gap has been growing every year.

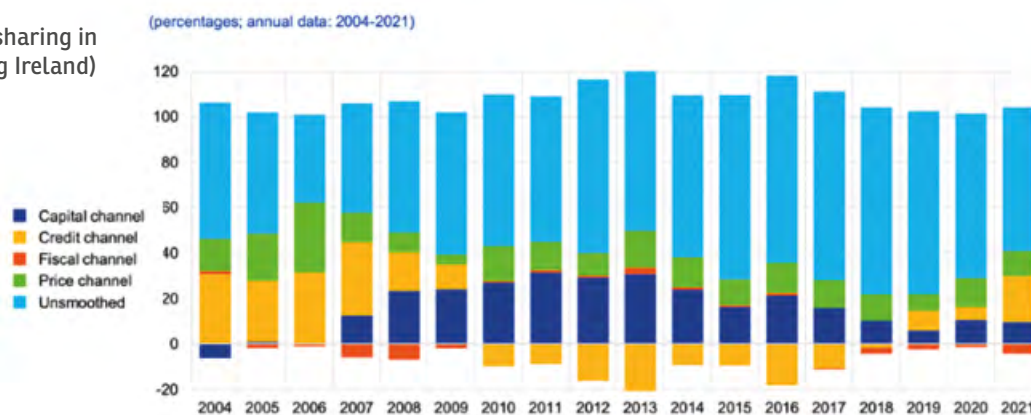
Chart 29 displays historical data on the market share evolution of EU banks in the global CIB market vs. US banks, with a particular focus on the US and European regions. As expected, the main takeaway is that in 10 years, US banks gradually took 10% of market share away from European banks (5% away from EU27 banks, 5% away from UK/Swiss banks) – this is true both in North America and in Europe as regions as well.

Thus, an additional source of concern affecting EU banks' profitability is the overtaking of EU banks by their US counterparts in their own market as the largest US banks have accounted for more than half of total investment banking revenues in the EMEA region since 2016.

This latest development sharply raises the stakes for further financial integration in the EU, as not only is the EU banks' profitability at stake, but also EU sovereignty. Indeed, the increasing market share of non-EU investment banks could expose the EU economy to a risk of investment outflows in times of stress. As such, the coming years will be crucial to

CHART 30.

Consumption risk sharing in the EA12 (excluding Ireland) and its channels



Source: ECB calculations

Notes: the charts displays, by year, the contribution to the smoothing of country-specific shocks to real GDP growth from capital markets (via cross-border ownership of productive assets), credit markets (via cross-border borrowing and lending), fiscal tools (via public cross-border transfers), and relative prices (via changes in the domestic consumer price index relative to the euro area average index). The respective contributions are calculated using a vector-autoregression (VAR) model whose parameters are estimated over an eleven-year rolling window of annual data, applying the Asdrubali and Kim (2004) approach enhanced for relative price adjustments. The bars display the share of a one-standard-deviation shock to domestic GDP growth that is absorbed by each risk sharing channel. The shares are computed on the basis of the cumulative impact of the shock on the variables capturing each risk sharing channel over a five-year horizon. Year-to-year variations in shares reflect changes in the re-estimated model parameters. The remaining portion represents the portion of the shock to country-specific real GDP growth that remains unsmoothed and is fully reflected in country-specific consumption growth. The individual bars may fall below 0% if one or more of the channels involved has a dis-smoothing effect on country-specific consumption growth. All bars together total 100%. Ireland is excluded due to the major change in its GDP reporting in 2015

address any systemic risks stemming from excessive reliance on non-EU entities.

2.3 Private risk sharing differs on both sides of the Atlantic and further widens the gap between EU and US banks

Risk sharing in the euro area is the sum of mechanisms through which a shock – positive or negative – to a country's economy is transmitted in other economies. Risk sharing takes place through two main channels: one is public (or fiscal) and the other is private (credit or market).

Private mechanisms work through the credit channel (cross-border lending and borrowing) and the capital market channel (diversified private investment portfolios across euro area countries). The more risk is shared through banks and markets, the fewer fiscal mechanisms are needed on the public side.

Yet, private risk sharing has been impaired in the EU area, and *a fortiori* in the EU, due to the absence of an efficient banking union and a genuine capital markets union. This should be a concern, as it is through risk sharing channels that the overall system becomes simultaneously more resilient and productive.

As explained by M. Draghi⁴¹, private risk-sharing has a double key role which contributes to stabilizing the local economies.

- The first one happens through integrated capital markets as it allows the de-linkage of consumption and income at the local level. For instance, if during a recession people see their labor income shrunk, they can use the financial returns received on assets located in areas that know growth to smooth their consumption.
- The second one happens through banking integration and allows the de-linkage of the capital of local banks from the volume of local credit supply. In that regard, cross-border banks are able to compensate a loss in a recession-hit region with gains they made in another. Subsequently, there is no, or very little, cut lending and sound borrowers still have access to credit supply.

Once again, 2018 figures about private risk-sharing are unmistakable: in the US, financial markets smooth around 70% of local shocks – 45% absorbed by capital markets and 25% by credit markets, whereas in the EU the total figure was only 25%.

Private risk-sharing in the US is fostered by their single integrated financial market. Since the integration that happened in the early 1990s with the number of multistate banks growing from 100 to more than 700, the volatility of business cycle has been reduced, as well as the link between local capital and local credit supply.

Furthermore, the US benefits from a single and unified legal framework and a resolution authority –

41. M. Draghi, President of the ECB, "Risk-reducing and risk-sharing in our Monetary Union", speech at the European University Institute, Florence, 11 May 2018.

namely the Federal Deposit Insurance Corporation – that is backstopped by the US Treasury, aiming at reassuring the markets in case of deep crises, and at strengthening confidence in the financial institutions.

In the EU, there is a clear lack of confidence between Member States, and thus private risk-sharing mechanisms are difficult to implement: weaker Member States have the potential to become trapped in bad equilibria, and stronger ones refuse to endorse the risk for them. Thus, risk-sharing should go along with risk-reducing and economic convergence: the smaller the risk, the easier it is for Member States to accept to share it.

Moreover, the EU lacks deep financial integration and a pool of cross-border banks and investors. This missing consolidation that we studied previously is also an important hurdle to private risk-sharing insofar as the EU lacks the actors that would enable private risk-sharing.

Additionally, there is no single set of insolvency rules as there should be in a single market. According to an ECB analysis, regions with efficient insolvency and judicial framework have higher risk-sharing through both capital and credit markets. The EU is not quite there yet as can be seen on Chart 30.

As A. Enria already stated in 2018⁴², since 2007 in the euro area, the credit channel has acted more as a shock amplifier than a shock absorber. Indeed, Chart 29 shows the negative contribution to risk-sharing via the credit channel between 2010 and 2018, implying borrowing abroad in economic good times and repayment of the loans in economic bad times. However, The contribution of the fiscal channel was also negative until 2021, but NGEU is expected to stimulate fiscal risk sharing, which has been muted to date, and further boost the credit channel, at least for the duration of the program⁴³. Overall, risk sharing via the capital channel remains rather modest (below 10%) despite an improvement after the GFC⁴⁴.

Overall in 2021, about 60% of local shocks remained unsmoothed, indicating fragmentation in the region. In 2019 and 2020, *i.e.*, during the Covid-19 crisis, this percentage exceeded 70% and there was a clear decline in private risk-sharing since 2016.

The finding suggests that a complete banking union is a fundamental prerequisite to allow the credit channel to contribute positively to private risk sharing (as it is the case in the US).

This fragmentation reduces “the potential for private risk sharing in the European banking market”.

A. Enria explains in the Eurofi Magazine⁴⁵ that this “increases risks to local financial stability rather than reducing them. In fact, the integration of the banking sector plays a significant role in smoothing local shocks”.

3. The EU needs to implement ambitious and effective solutions at a swifter pace

The EU created the banking union in 2012 as a response to the sovereign debt crisis. The goal was to safeguard financial stability (*i.e.*, to reduce financial fragmentation and to break the link between banks and their national sovereigns), to deliver a safer banking sector and protect the taxpayers from the cost of bank failures.

Having a fully integrated and complete banking union would have several benefits and allow to achieve the targets mentioned above, on top of contributing to a strong and better functioning Economic and Monetary Union (EMU):

- A safer and more integrated banking system would better support the currency union by efficiently transmitting the monetary policy.
- A genuine banking union would foster a more effective allocation of resources across the Eurozone (*e.g.*, companies would be able to tap wider and cheaper sources of funding), help to achieve a better diversification of risks and thus contribute to private risk sharing in the union. Depositors would also contribute to the financing of a more diversified pool of assets which would insure them against shocks specific to their home country. Such a risk diversification achieved under the surveillance of the EU would also help to reduce the sovereign-bank nexus.
- An integrated banking system would restore and improve saving allocation mechanisms to address productive investment opportunities more efficiently across Europe and in particular the Eurozone. Indeed, even if Eurozone members share a single currency, there has never been optimal financial flows between them, while the fundamental goal of a currency area is that savings may flow to finance the most productive investments throughout the currency area.
- A fully integrated banking union would enable the emergence of transnational banking groups,

42. A. Enria, Fragmentation in banking markets: crisis legacy and the challenge of Brexit, EBA, 17 September 2018.

43. <https://www.ecb.europa.eu/pub/pdf/fie/ecb.fie202204~4c4f5f572f.en.pdf>

44. Op. Cit. ECB.

45. A. Enria, “the integration...”, the Eurofi Magazine, September 2023.

which would help Eurozone excess savings to circulate across borders to parts of Europe where most attractive investment opportunities exist, and to increase private risk sharing. Genuine transnational banking groups could also help the Eurozone undertake its digital and environmental transitions quicker and more effectively. Lastly, the EU needs transnational EU banking groups to rely on EU sufficient sources of financing and avoid being dependent on international US or Chinese groups.

As enhanced in the two first parts of this paper, several essential building blocks are missing in order to progress towards a fully integrated EU banking system and make effective that corporates and individuals wherever they are located in the EU can be financed by depositors of a given transnational EU banking group.

This section exposes different solutions that tackle the different barriers towards the completion of the EU banking union. Firstly, it is urgent that transnational groups be recognized at the consolidated level and that cross-border banking groups opt for branchification over subsidiarization. Secondly, there is still room for improvement regarding the CMDI framework.

3.1 Recognizing transnational groups at the consolidated level and promoting branchification is the way forward

Creating new rules for cross-border lenders is essential for EU consumers and businesses to reap the benefits of the single market.

3.1.1 The EU prudential and crisis management frameworks should recognize trans-national groups at the consolidated level

It is important to consider capital, liquidity and MREL requirements at the consolidated level rather than fragmenting these assessments and considering each legal entity in a cross-border banking group individually. The EU prudential and crisis management frameworks (CRD, CRR, BRRD) should adopt a consolidated approach for the definition of capital and liquidity requirements (LCR, NSFR, MREL, leverage ratio...).

As suggested by A. Enria⁴⁶, Member States should entrust the authorities of the banking union, the ECB⁴⁷ and the SRB with powers to define adequate levels of capital, liquidity and MREL of transnational banking groups in order to guarantee that the group and each of its subsidiaries with the single prudential

jurisdiction are resilient and capable of supporting their customers, including in distressed situations.

“To this end, EU legislation should directly empower European authorities to require banks to maintain an appropriate level of capital, eligible loss-absorbing liabilities, and liquidity also at the level of each subsidiary and rely on recovery and resolution plans to make sure that losses can be properly distributed across the group and liquidity can flow where needed at times of stress. We, as prudential and resolution authorities for the whole area, will then tailor the requirements to the specific business model of each bank and enable a greater pooling of resources were arrangements for group support in case of stress are more robust and reliable”.

In parallel, it is essential to entrust the authorities of the banking union (ECB and SRB) with effective powers to ensure their prudential supervisory tools are calibrated in the most appropriate way to balance group-wide interests with legitimate concerns at the national level of each legal entity. This approach would be a real step forward compared with a rigid, one-size-fits-all, legislative regime, and could also be implemented in the absence of EDIS.

In an article issued in the Financial Times in July 2020⁴⁸, A. Weber advocates for a “regulatory Big Bang”: a EU single set of rules for cross-border banks would be designed, and the SSM would be fully in charge of supervising EU-wide lenders. In this perspective, there would also be a single license for cross-border groups willing to operate in the union. This would lift existing barriers to economies of scale and would also reduce costs. Indeed, he explains that “Europe needs to have a single European banking license. A pan-European bank needed 27 national licenses in Europe, 27 platforms and 27 management teams. If it could run its entire European business out of Frankfurt or Paris centrally with a single banking license, supervised by a single supervisor, subject to a single resolution regime, subject to a single deposit insurance scheme, it would have been a profitable market”.

“This would allow EU banks to exploit significant economies of scale and operate much more efficiently using a single platform... This pan-European bank would be able to provide a full suite of banking services across all 27 using a single International Bank Account Number (IBAN) code... Only a regulatory Big Bang would provide the nucleus of a proper single European market in financial services, decisive advantage for consumers, banks and the economy as a whole⁴⁹”.

46. A. Enria, “Of temples and trees: on the road to completing the European banking union”, May 2022.

47. The SSM is not a home supervisor. It is both the home and the host supervisor, also responsible for subsidiaries.

48. A. Weber, “European banking needs a Big Bang”, The Financial Times, 28 July 2020 & “European banking union needs a Big Bang”, Eurofi Magazine, April 2023.

49. A. Weber, “European banking union needs a Big Bang”, Eurofi Magazine, April 2023.

3.1.2 Branchification can also be an effective way to have strong cross-border banking groups

Another solution would be for banks to review their cross-border organizational structure more actively and rely more on branches and the free provision of services, rather than subsidiaries, to develop cross-border business within the banking union and the single market.

A. Enria argued in an interview for the Eurofi Magazine⁵⁰ that “branchification”, the process of merging all existing subsidiaries into the parent company and operating through branches of a single, unified legal entity, could enable banks to use the freedom of establishment enshrined in the Treaty to the maximum extent possible. [He] suggested this option in [his] speech at Eurofi in September 2021, taking inspiration from the widespread use of this model by third country banking groups relocating business to the euro area as a consequence of Brexit. So far only a few European cross-border banking groups have explored this avenue and only some groups in Nordic and Baltic countries decided to implement it.

“This is a missed opportunity because it is a solution readily available and completely consistent with the current legislative and regulatory frameworks. If you are a single legal entity structured in this way across different Member States, you no longer have to abide by the capital and liquidity requirements in the various countries where you operate. You can allocate your financial resources however you like. Therefore, there is no issue of trapped capital and liquidity resources and no obstacle concerning the distribution on capital, liquidity and MREL with cross-border banking groups. The constraints to transferring contributions into deposit guarantee schemes (DGSs) across systems could be the only regulatory hurdle standing in the way of such transformation: this is the reason why the ECB advised the co-legislators to slightly amend the framework. But even in the absence of this, legislative change agreements can be found, and have been found, between home and host DGSs to support branchification”.

Banking groups that use branchification reported significant efficiency gains in terms of simplified legal structures and corporate governance, savings related to annual accounts and internal audit and lower overall regulatory requirements, among many others.

However, there are obstacles to branchify subsidiaries with significant retail activities such as legal obstacles and a pressure from host jurisdictions.

For instance, some governments have made clear that business would not be available to banks if they set a branch framework instead of a subsidiary framework. In addition, the differences in retail market practices may lead a branch model to be inappropriate for that type of business.

This is the reason why Eurofi has underlined in different papers⁵¹ that such a solution – to be acceptable for host countries – requires that the national supervisors and Parliaments should receive the necessary information to understand the risks national depositors are exposed to from these branches and the possible impacts on the financing of their economies. This may require developing specific reporting instruments and processes for the local authorities to continue to be able to appropriately supervise local activities and thus contribute to supervisory decisions taken at the SSM level that may impact their jurisdiction.

3.1.3 Credible support provided by parent companies to euro area subsidiaries based on European law and enforced by European authorities is a way forward to solve the home-host dilemma

Authorities in the host Member States may be concerned that, in the event of a crisis, the parent entity might refuse to support local subsidiaries. To address these concerns, European transnational banking groups that wish to operate in an integrated way need to commit to providing credible guarantees to each subsidiary located in the euro area in case of difficulty and before a possible resolution situation (“the outright group support”).

This “outright group support” would consist of mobilizing the own funds of the Group to support any difficulties of a subsidiary located in the euro area. Since the level of own funds and the creation of MRELs have considerably increased the solvency of EU banking groups, they should be able to face up to any difficulty of their subsidiary located in the euro area.

This group support should be based on EU law and enforced by EU authorities. It could be enshrined in groups’ recovery plans and approved by the supervisory authority – the ECB – which would be neutral, pursuing neither a home nor a host agenda. This would also ensure that the parent company has the necessary own funds to face the possible needs of their subsidiaries.

This commitment is the key condition for these banking groups to define prudential requirements at the consolidated level.

The SSM recognized that such a solution already

50. A. Enria, “The integration of the EU banking sector and the challenges of global competition”, The Eurofi Magazine, September 2023.

51. <https://www.eurofi.net/current-topics/banking-union/>

A note from Eurofi written in 2022 has made comments and proposals on these subjects⁵⁴:

According to many representatives of the banking industry, allowing mid-sized banks under the remit of the SSM not to have MREL above minimum capital requirements would raise level playing field issues and hinder wind-ups across the Banking Union. Losses need to be allocated; there is no cost-free solution.

If creditors and depositors of banks with a negative PIA are totally exempted from the constraints stemming from the resolution framework but can still benefit from State aid or “aid-free” mutualized resources at a lower cost than in resolution, this would contradict the principles of BRRD. Taxpayers and the DGS (*i.e.*, essentially healthy and relatively large banks within the sector) might be subsidizing ailing banks that do not issue sufficient MREL. Therefore, it appears mandatory to avoid the moral hazard issue caused by “free-riders” sailing between the two positions, claiming not to have the means to raise MREL, but claiming to be too important locally or nationally to go into insolvency.

Furthermore, it can be argued that such “free-riders”, sometimes smaller banks or banks with one-sided business models attracting depositors with off-market deposit interest rates, affect the profitability of the entire EU banking system: not only can they sell their financial products and services at a lower price because they do not currently have to charge for the cost of MREL, but they can also force other banks to contribute more to the SRF or DGS to pay for their potential failure. These banks must exit the market in an orderly fashion in the event of failure. It is in everybody’s interest.

In such a context, this note proposed that MREL requirements must be specified for medium-sized banks even with a credible sale of business as preferred resolution strategy. Until recently, the MREL market – also due to the low interest rate environment that fuels a search for yield – was wide open for small medium-sized banks. In such a context, this note proposed that:

Access to the Single Resolution Fund would also remain subject to prior bail-in of at least 8% of total liabilities and own funds (TLOF): taxpayers and DGSs should not subsidize banks that do not have sufficient MREL, and the moral hazard issue caused by “free riders” must be avoided.

Small banks – *e.g.*, with a balance sheet of less than 5 billion euros – do not have to go into resolution if they are in difficulty: they must be liquidated and exit the market (they are not by definition of public interest).

proposed in a Eurofi 2018 paper, would, at least foster a more positive attitude from national authorities, creating the conditions for legislative change to happen sooner.

3.2 The EU needs to address the issues raised by bank resolution and liquidation

Having an effective and integrated framework for managing crises is essential for preserving trust in the financial system, fighting against further fragmentation and safeguarding financial stability.

The EU framework has been seriously reinforced over the last decade, in particular for large banks, but there remains room for improvement and harmonization to achieve a crisis management framework effective for all types of banks, including

small and medium-sized ones. The variety of approaches followed by national authorities notably in the management of failing mid-sized banks in recent years generated obvious mistrust between Member States, which is one of the obstacles to completing the banking union.

The recent collapse of regional US banks reminds us that medium-sized banks can be systemic. This banking turmoil as well as the merger of Credit Suisse and UBS have also demonstrated the growing influence of digitalisation (mobile apps) and social media in triggering sudden financial outflows – we have seen bank runs that were unprecedented in volumes and speed – and the need for effective and agile crisis management framework that rapidly reassure depositors and minimize disruption.

52. Eurofi, “Improving the EU bank crisis management framework for small and medium-sized banks and D-SIBs”, February 2022.

On 18 April 2023, the European Commission published its proposal concerning the review of the BRDD, SRMR, DGSD and Daisy Chain Directive.

3.2.1 Should the EU allow Deposit Guarantee Schemes to address the funding gap in resolution for small and medium-sized banks?

The EU is more constrained in its ability to deploy the resources of the Single Resolution Fund (SRF) and Deposit Guarantee Schemes (DGS)⁵³ on a least cost basis than the United States. Funding from the Single Resolution Fund (SRF) can be disbursed only after at least 8% of own funds and liabilities have been bailed in, which for many mid-sized banks, unlike for large cross-border groups, would imply digging deep into the uninsured depositors' base⁵⁴.

National Deposit Guarantee Schemes can not only be used to repay depositors, but also to support sales of business or other crisis management tools, when this implies lower disbursement of resources than compensating depositors in liquidation. However, 15 Member States across the banking union do not make use of this possibility. In the remaining six Member States, where national deposit guarantee schemes could perform a wider range of functions, national discretion on how to carry out the least-cost test has further contributed to a fragmentation of the Single Market.

The European Commission has proposed in April 2023 to use the Deposit Guarantee Schemes (DGSs) more proactively. To accommodate that more proactive use, the creditor hierarchy must be changed, creating a single tier preference for deposits and the super-priority of DGSs must be removed. This proactive use of DGSs would be governed by a harmonized least-cost test. All the elements in the CMDI proposal are interdependent. If the creditor hierarchy and super-preference of DGSs cannot be changed, the DGSs cannot be used proactively either.

A. Enria believes these reforms would improve the functioning of the EU crisis management framework, even in the absence of a fully-fledged EDIS. By building trust in the functioning of our crisis management tools, this could also allay some Member States' concerns on possible mutualization of bank losses in a crisis scenario, thus helping the transition to a complete banking union.

Yet, many industry experts disagree with such views

and rather advocates for the establishment of safeguards regarding DGS and IPS proactive intervention, as well as for the remaining of creditor hierarchy.

Deposit Guarantee Schemes (DGS)/ institutional Protection Schemes (IPS) funds could support early or alternative intervention but within strict pre-established safeguards in order to limit moral hazard:

- DGS/IPS must be systemically subject to state-aid rules when they are mobilized to carry out preventive and alternative measures, in the same way as Fund Aid through Article 19 SRMR. This is all the more important now that some of these DGS can escape state-aid control (thanks to the Banca Tercas ruling of the ECJ) and therefore disrupt the level playing field between national banking markets.
- DGSs/IPS should have reached the target of 0.8% (or 0.5% in concentrated markets) of covered deposits and that the amount available for use in such circumstances be capped at a certain level (e.g., 0.2% of covered deposits).
- Increasing the capacity of DGS/IPS to fund alternative tools must not come at the cost of deteriorating a DGS's general position. This is why such an approach must strictly respect the 'least-cost-test' principle.
- The statement of the Eurogroup from June with regard to "preserving a functioning framework for institutional protection schemes to implement preventive measures" [Eurogroup Statement dd 16 June 2022] has to be respected.
- This least cost test (LCT) should be harmonised at the EU level to allow for consistent application to banks under the remit of the SRB (or the SSM for early intervention measures) and across the whole banking union.
- Harmonization of LCT implies that it must be approved at EU level, not at national one.
- The LCT should be subject to three conditions that must be fulfilled for the DGS to provide funding for alternative measures:
 1. The gross cost of alternative measures does not exceed the gross cost of pay-out for covered deposits. As for the cash flow analysis, it disregards reimbursements and recoveries and limits the gross amount used for alternative measures.

53. The SRF will amount to an estimated €80 billion (1% of all covered deposits of authorized banks in all the participating Member States) by the end of 2023. The latest available data indicate that at the end of 2020, national deposit guarantee schemes collectively totaled some €37 billion, and should reach 0.8% of covered deposits by the end of 2023. All in all, the amount of total resources is in the same ballpark as in the United States, where the FDIC has an objective of a 2% reserve ratio, but which at the end of 2021 stood at 1.27%, or USD 123 billion.

54. "The SRB recently announced[26] that the SRF will amount to an estimated €80 billion (1% of all covered deposits of authorised banks in all the participating Member States) by the end of 2023. The latest available data[27] indicate that at the end of 2020, national deposit guarantee schemes collectively totalled some € 37 billion, and should reach 0.8% of covered deposits by the end of 2023. All in all, the amount of total resources is in the same ballpark as in the United States, where the FDIC has an objective of a 2% reserve ratio, but which at the end of 2021 stood at 1.27%, or USD 123 billion", quote from A. Enria, "Of temples and trees: on the road to completing the European banking union", Paris, 17 May 2022.

2. The hypothetical loss resulting from the alternative measures (cost of alternative measures, including indirect costs, net of funds that would be subsequently recovered, *i.e.*, reimbursement of loans, reimbursement or sale of an equity stake in a bridge bank) does not exceed the hypothetical ultimate loss borne by the DGS in case of pay-out after deducting funds recovered in the insolvency proceeding and adding indirect costs. As reminder, alternative measures should anyway lead to market exit.
3. The indirect cost assumed in case of a pay-out does not exceed a cap determined in terms of the covered deposits.
4. No alternative or preventive measure should be considered for banks with negative Public Interest Assessment (PIA) as determined at EU level, unless to ensure smooth and swift liquidation.

In addition, any early intervention that aim at preventing failure and at keeping a bank alive should also be subject to SSM (or SRB) approval, which should only be a one-time intervention granted to viable banks with a credible and sustainable business plan and a positive PIA as determined at EU level.

There should be no change in the creditor hierarchy, as it would lead to a wider use of preventive interventions and would cost more, according to several industry leaders.

Change of the creditor hierarchy by establishing a general preference for all deposits (instead of the current super preference for covered deposits and preference limited to retail and small enterprises' deposits over senior creditors that include corporate and institutional deposits today) or a removal of the DGS super preference (as they are substituted to the covered deposits) in insolvency would increase the final net cost for the DGS of compensating creditors and, hence, make the LCT easier to pass. In fact that would facilitate the bail-out of ailing banks by the sound part of the banking sector.

Furthermore, reviewing the deposits or the DGS positioning in creditor hierarchies present additional significant drawbacks: bank liquidity issues, increased volatility of bank deposit financing, potentially weakened depositors' confidence and this would inevitably introduce moral hazard. Indeed, raising all deposits to the same level in creditor hierarchies would *de facto* reduce the bail-in-able instrument base. This would force healthy banks to "bail out", *i.e.*, replenish, DGSs much more often.

Corporate behaviour would change to the detriment of bond liabilities and to the benefit of bank deposits. Such an approach would relieve

corporate treasurers of their risk analysis duties who would seek then the best possible return for their deposits, which is often offered by the weakest banks (which need these deposits).

3.2.2 This change would therefore be ineffective in stabilizing corporate deposits, which would remain less sticky than retail

The EU needs a harmonized bank liquidation regime for small and medium banks that cannot be placed in resolution to make them effectively exit the market.

There is currently a European resolution framework which is matched by 19 different liquidation regimes. Liquidation is still managed at the national level (entity by entity), and this can require public money of the Member State where the distressed bank is located.

National insolvency frameworks should be harmonized, allowing those non-viable small and medium-sized banks that cannot be placed in resolution to be safely and effectively removed from the market. The variety of approaches followed by national authorities for small and mid-sized banks in recent years crystallized a lack of trust amongst Member States. This is one of the obstacles on the road to completing the banking union. The new rules should ensure an equal treatment of creditors of the same rank.

Deciding the Public Interest Assessment at the EU level, including for the small and mid-sized banks, and making it more transparent and predictable could help to increase the trust in the framework, avoid limbo situations and ensure that banks that could not be resolved today without state aid or DGS alternative measures correctly pay ex-ante the cost of their true (locally) systemic nature.

In an interim stage, Eurofi proposed in 2018 one solution that would be to extend to subsidiaries the liquidation approach currently used for branches. This would allow all the subsidiaries of the Group to be treated under the same liquidation regime.

Conclusion

When the more fiscal and structural convergences (such as a reasonable level of public debt in all Eurozone countries...) are achieved, the more positive integration trends will creep into the Union and reduce the incentives for national authorities to “ring fence” transnational banks in terms of capital and liquidity, thus strengthening banks in their capacity to become pan-European players. In other words, a monetary union and all the more so a banking (or capital) union are not workable without economic convergence and fiscal discipline.

Despite remarkable achievements in terms of balance sheets cleaning, regulatory harmonization, and deepening institutional integration within the banking union, where the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM) are up and running, financial integration is lagging. The banking union is failing to provide the degree of financial integration that we would have expected. Rather than smoothing idiosyncratic shocks to individual Member States, the current, fragmented, structure of the EU banking sector entails that it tends to amplify shocks.

If the EU wants to keep up with the US and China economically as well as politically, it must break out this downward spiral and strengthen its banking industry. Only competitive and profitable banks can take on the risks necessary to finance sustainable growth. This is why a financial integration agenda for the banking union should rank high among the priorities of legislators and authorities for the coming semesters. It is essential to give to the markets the message that the path to further integration is still there to ensure that the banking system will be in the future able to finance the necessary transformation of the economy, to address the challenges and opportunities of both digitalization and climate change.

Furthermore, EU legislators should make sure that the implementation of Basel III does not affect the financing capacity of EU banks. There is indeed a serious gap between the impact recently measured by EBA and G20 statement that the reform should not lead to a significant increase of capital requirements.

Finally, this integration movement must preserve the diversity of banking business models in Europe. Such a diversity is a European asset: it increases the resilience and the financing potential of the financial system and satisfies different types of customers and stakeholder needs. Sufficient profitability is essential to all banks, but profitability should not be the sole compass for the supervisors. Proportionality in regulation and supervision is of the essence.

•

Baron Louis, Minister of Finance in France said to his government around 1820:

– “Faites-moi de la bonne politique et je vous ferai de la bonne finance”, which can be translated as “Make good policies, and I will bring you good finance”.

We could say under his tutelage and inspiration:

“Do the structural reforms, eliminate excessive disequilibria, converge our economies symmetrically, show a little more kindness on risk sharing and I will bring you a banking union”.

In other words, it is not only the Union that makes the Force, but also the Force that makes the Union: only strong Member States – which have corrected their fiscal imbalances and are effectively converging economically among themselves – will make Europe stronger.

LATEST EUROFI PUBLICATIONS



Monetary Scoreboard

Update on monetary policies in the EU and OECD countries and their possible impacts on the economy and the financial sector.



Macroeconomic Scoreboard

Review of the economic performance and fiscal policies of the EU and its competitiveness compared to other economies.

AVAILABLE ONLINE ON
WWW.EUROFI.NET

Retail Investment Package

3

■ Retail Investment Package: objectives and key proposals	47
---	----

Retail Investment Package: objectives and key proposals

Note written by Marc Truchet

1. Main objectives and issues to overcome

1.1 Increasing retail participation in capital markets is a key objective of the Capital Markets Union initiative (CMU)

Developing retail participation in capital markets is important both for improving the financial prospects of EU citizens and for supporting the funding of the EU economy, which are two key objectives of the CMU initiative. Particularly at a time of high inflation and with interests served on bank savings accounts remaining relatively low, it is necessary to ensure that consumers can benefit from the investment opportunities offered by capital markets. Long term investments in stock markets in particular have delivered substantial gains in the past and are considered to be the main instruments that allow the provision of sufficient return for long-term projects such as preparing retirement. In addition, retail investment is a key driver of the development of capital markets that are essential for channelling private funding into the real economy and financing the green and digital transitions.

In the EU, the level of retail participation remains relatively low compared to other advanced economies. According to the Commission, in 2021, approximately 17% of EU household assets were held in financial securities, well below the amounts held by US households¹. In addition a large share of EU households' financial wealth (around 40%) is held as bank deposits offering limited return.

Other statistics published in a recent CEPS study² show that during the 2015-2020 period, on average, EU households held 32% of their financial assets in

securities directly or via investment funds compared to 51% in the US³. In addition, while EU household capital market savings grew during the pandemic, they have decreased in 2022, practically going back to pre-pandemic levels according to recent AFME figures⁴, as economic uncertainty has increased.

The situation in terms of retail investment however varies to a large extent across EU member states. In the Nordics and NL, securities and pension fund based assets are the largest categories of financial assets. Currency and deposits in these countries represent around 20% of financial assets, a little over the US proportion of 12 to 15%. Whereas in many Southern European and CEE countries, bank deposits and savings accounts represent between 35 and 50% of household financial assets. The CMU indicators published in August 2023 consequently show significant variations across member states in terms of % of financial assets held by households in securities, investment funds and insurance and pension products compared to total financial assets (18 to 80%)⁵.

1.2 Main issues and obstacles to overcome

A number of demand and supply problems hinder the development of retail investment in the EU. These were identified in the context of the consultations and assessments undertaken by the Commission for preparing the Retail Investment Strategy proposals.

A first issue underlined in the documents published by the Commission accompanying the Retail Investment Package proposal, is the low level of trust of retail investors in capital markets. The risk averseness of EU retail savers and their relatively low level of financial education⁶, limiting their capacity to make the right investment decisions,

1. See European Commission – Q&A on the Retail Investment Package – 24 May 2023.

2. Source CEPS "Time to re-energize the EU's capital markets" Nov 2022.

3. The CMU indicators – European Commission August 2023 – show that in 2021 in the EU27, households held 59.5% of their financial assets in securities (bonds and listed shares), in investment funds and in claims against insurance and pension funds. The average proportion of the 5 previous years is similar.

4. Source AFME CMU Key Performance Indicators 5th edition November 2022.

5. Source: CMU indicators – European Commission August 2023 – Indicator 22: Direct and intermediated investment by households. The same dispersion across member states can be observed in terms of direct investment of households in bonds and listed shares (Indicator 20) ranging from 5 to 42% across the EU27 with an average of 17.2% and intermediated investment by households in investment funds and insurance / pension products (Indicator 21) ranging from 12 to 79% across the EU with an average of 55.7% in 2021.

6. The Financial knowledge indicator of the CMU indicators published by the Commission in August 2023 (Indicator 26) shows that on average in the EU27 only 26% of respondents in a representative panel were able to reply correctly to at least four out of five standard knowledge questions on finance. This score varies from 13% in Romania to 43% in the NL.

are also put forward. The consumer markets scoreboard has generally ranked investment services among the services that consumers trust the least. Specifically on investment advice, according to a recent Eurobarometer survey⁷, only 38% of consumers are confident that the investment advice they receive from financial intermediaries is primarily in their best interest⁸.

A second issue emphasized by the Commission, which is relevant from a supply side perspective, is that retail investors, when they invest, do not always get the best deal in terms of value for money of products and services or are not offered the most appropriate products. The relatively high fees and commissions charged by product providers and distributors in many cases may have a negative impact on the return that retail investors can potentially obtain. For example, in 2021, retail clients were charged on average around 40% more than institutional investors across asset classes⁹. The conflicts of interest, which may arise from the current distribution model in Europe involving the payment of inducements from product manufacturers to distributors, are also pointed out, as they may lead to the sale of more expensive and less performing products, providing investors with insufficient value for money. Further issues identified are the complexity of certain products sold to retail investors and the insufficient availability of independent advice.

The complexity and insufficient comparability of the information that investors are provided with is a third issue. Retail investors have difficulties accessing relevant, comparable and easily understandable investment product information to help them make informed investment choices, according to the Commission's assessments. Retail investors are also exposed to a growing risk of being influenced by misleading product communications on social media and via new marketing channels.

Some obstacles to the access of retail investors to capital markets have also been identified. The more experienced and sophisticated retail investors in particular, may face disproportionate administrative burdens related to retail investor protection measures when accessing the capital markets. The less experienced investors also face limitations in their access to capital markets, some observers suggest, due to the limited availability of simple products such as ETFs or of adequate pension products in certain member states¹⁰.

A further issue is adapting current investment processes to the digital environment, which is both an opportunity and a challenge. Digitalisation presents many opportunities in terms of facilitating order execution, product and information comparability, and access to information e.g. with more user-friendliness and visual layering. Digital channels, in conjunction with AI tools, also offer a cost-effective means to deliver online guidance and advice. However, harnessing these advantages requires an adaptation of disclosures and investment processes to the new digital environment and also amplifies the potential for digital exclusion among certain customer segments.

Lastly, the dispersion of investor protection rules across a range of sector-specific legislative instruments – including the MiFID, UCITS, AIFMD, Solvency II and IDD Directives and the PRIIPs Regulation – leads to potential inconsistencies of requirements across comparable instruments and differences in the way they are implemented across member states. This results in differences in the requirements imposed on financial institutions and may also create confusion for retail clients investing in different types of products.

2. Key measures proposed in the Retail Investment Package (RIP)

The Retail Investment Package (RIP) published by the European Commission on 24 May 2023 aims to empower retail investors to make investment decisions that are aligned with their needs and preferences and to encourage more retail participation in capital markets, while ensuring that investors are treated fairly and are duly protected. This is in line with the objective of the CMU to make the EU an even safer place for people to invest their savings in the long term.

The measures proposed address some key issues that hinder retail investment at present, notably in terms of trust, value-for-money and financial literacy and also aim to adapt the retail investment framework to the digital age. The RIP package includes a wide range of measures in four main areas, covering the entire investment journey of retail investors: (i) product distribution and advice; (ii) product disclosures and information; (iii) investor education and access; and (iv) supervisory cooperation.

7. See Eurobarometer survey monitoring the level of financial literacy in the EU, 2023. The relevant question is Q12: "How confident are you that investment advice you receive from your bank/insurer/financial advisor is primarily in your best interest?"

8. According to this survey, 45% of consumers are not confident that the advice they receive from financial intermediaries is in their best interest.

9. See ESMA, Performance and Costs of EU Retail Investment Products, 2022.

10. See Eurofi Views Magazine September 2023 G. Prache, Better Finance "For an effective retail investor strategy". The difficulty of accessing to bias-free advice is also pointed out in this article as a further obstacle for retail investors.

These new requirements and improvements are included in two texts amending existing legislation:

- An amending Directive, which revises the current rules set out in the MiFID II, IDD, UCITS, AIFMD and Solvency II Directives
- An amending Regulation which revises the PRIIPs Regulation

2.1 Product distribution and advice

The review of **inducement rules** is the area that gave rise to most debate in the preliminary phases of the Retail Investment Strategy initiative.

The possibility of a full ban on inducements was evaluated by the Commission in the impact assessment accompanying the RIP proposal and was considered to be potentially the most effective measure for removing or significantly reducing conflicts of interest and improving investor outcomes¹¹. However, given the possible consequences for existing distribution systems (notably a potential loss of revenues in vertically integrated distribution networks that are predominant in many member states) and the possible negative impacts for investors (risk of fostering closed distribution models focusing on in-house products, possible advice gap for the less wealthy clients), the decision was taken to propose a staged approach allowing operators to adjust their distribution systems progressively and minimize the related costs.

The Commission therefore proposed a prohibition of inducements for execution-only environments, where no advice is provided, as a first step, as well as an improvement of disclosures and explanations given to the client regarding the payment of inducements. The extension of inducement measures to IBIPs (insurance-based investment products) is also proposed with the introduction of the proposed changes regarding inducements in a uniform way in both MiFID and IDD. These measures concerning inducements will be reviewed 3 years after the adoption of the RIP package, with the possibility of making further proposals, including an extension of the inducement ban, if the situation has not sufficiently improved.

In order to improve the **quality of advice**, the Commission has also proposed replacing the current 'quality enhancement' test of MiFID inducement rules – that allows for the payment or receipt of inducements to the extent that they enhance the

quality of the service – with strengthened 'best interest' criteria that would apply to all advice provided with or without the payment of inducements in both MiFID and IDD.

Advisors would be required to (i) base their advice on an assessment of an appropriate range of financial products (e.g. a sufficiently broad range of products); (ii) recommend the most cost-efficient product from the range of suitable financial products; and (iii) offer at least one financial product without additional features which are not necessary to the achievement of the client's investment objectives and that give rise to additional costs, so that retail investors are presented also with alternative and possibly cheaper options to consider.

To encourage the provision of independent and cheaper advice, the proposal moreover introduces the possibility for independent advisors¹² to provide advice limited to a range of diversified, non-complex and cost-efficient financial instruments. For these products, distributors will be able to perform a lighter suitability assessment on the basis of more limited information about the client. Given that the advice is limited to well-diversified and non-complex products, an assessment of the knowledge and experience of clients, together with their portfolio diversification, will not be required.

2.2 Product disclosures and information

Value-for-money and product governance are a second area that was much debated during the preparation of the RIP proposal, following the work conducted in these areas by ESMA and EIOPA. According to the assessments conducted by the Commission and the ESAs, evidence shows that some products on the market provide little if any value-for-money for retail clients, due to high product costs¹³.

Building on existing MiFID / IDD product governance rules and UCITS / AIFMD product pricing rules, the RIP would require that product manufacturers and distributors assess the overall costs incurred by investors when purchasing a product, and its expected return, and only manufacture / distribute products likely to provide sufficient value-for-money for retail investors. This would be objectivized by the provision of regularly updated benchmarks by ESMA and EIOPA in terms of product cost and performance. Products with a value-for-money inferior to the relevant benchmark would not be

11. The impact assessment accompanying the RIP proposal underlines that the ban on inducements implemented in the NL led to an increase in the number of households investing in low-cost index funds (these more than doubled from 8 to 20% between 2016 and 2021) and to a significant fall of mutual fund management fees (-40% on average), leading to improved investment outcomes for retail investors. In addition, a ban is expected to improve market efficiency on the supply side by allowing providers and distributors to compete on the basis of the merits of their investment product offering, rather than on commissions.

12. Advisors that cannot receive inducements and are required to advise on products from different providers.

13. Some surveys, such as a recent Eurobarometer survey, show that these issues are also perceived by a significant proportion of investors, with around 40% of savers declaring that the products they are sold do not provide sufficient value for money. See Eurofi Stockholm Summary – "Retail Investment Strategy: are we tackling the main issues?" April 2023.

allowed to be marketed to retail investors, unless further testing demonstrates the contrary.

This measure would be completed by an ‘undue cost’ rule requiring management companies to evaluate due and undue costs with a standardized pricing process and criteria defining due costs, building on existing UCITS and AIFMD provisions.

The RIP moreover proposes to improve product disclosures with requirements for the provision of more meaningful and standardised information about investment products and services and a better adaptation of disclosure rules to digital channels and to investors’ growing sustainability preferences. Proposals are also made to enhance the comparability of product costs with the use of standardized presentations and terminology to help investors identify the products offering the best value-for-money. In addition the provision to clients of a reporting of portfolio performance would be required at least on an annual basis.

Further measures are proposed in the RIP to improve **marketing communications on investment opportunities** in the context of a development of new online channels. Studies indeed show that when making decisions, investors are often influenced by the first piece of information that they see. The RIP proposal stipulates that marketing communications should be clear, fair and should not mislead investors, regardless of the channels through which they are distributed and whether performed directly or indirectly by the investment firms. Requirements would also be introduced in relation to the content of advertisements, which should present risks and benefits in a balanced way and include key product characteristics.

Finally, the RIP addresses the risks associated with influencers that advertise investment products or services via social media or other digital channels. Investment firms would be liable under the RIP for any marketing performed on their behalf and would be responsible for the content and compliance of marketing communications, regardless of whether other third parties have been paid or simply incentivized to create promotional content. In practical terms this means that firms would need to keep records on all marketing communications and strategies put in place. In addition, the competent authorities would gain new enforcement powers, allowing them to suspend or prohibit misleading marketing communications and possibly order the removal or the restriction of the access to inappropriate online content.

2.3 Investor education and access

Increasing the level of **financial literacy** in the EU is one of the priorities of the Commission under

the 2020 CMU action plan. The objective concerning retail investment is to ensure that citizens feel more empowered to make decisions that may contribute to their financial well-being, particularly those with a long term perspective such as preparing for retirement. They are not expected to become experts in finance themselves, but to understand the benefits and risks involved with investments and the financial advice they may receive. While there is wide support for this objective within the private and public sectors, the challenge is that education is outside the EU’s competences. The RIP therefore focuses on encouraging Member States to introduce national measures aiming to improve the financial education of retail investors. This will complete actions already undertaken by the Commission to help Member States in the implementation of domestic financial education initiatives.

The Commission is also working with the OECD on the development of joint financial competence frameworks that lay out the knowledge, skills and behaviours that individuals need to have to ensure their financial well-being throughout their lives. A first framework for adults was published in January 2022 and a second framework for children and teenagers is expected by the end of 2023. These frameworks however still need to be operationalized.

The RIP also proposes measures aiming to improve the standards of **professional qualification of financial advisors**, given the variable levels of qualifications and skills currently observed across the EU. A strengthening and harmonization of the requirements on knowledge and competence of advisors that are already set out in MiFID II and IDD is proposed in particular.

A further measure proposed is the reduction of administrative burdens for sophisticated investors with more proportionate eligibility criteria for becoming a professional investor. These criteria will take into account in particular the client’s experience and level of education, where relevant, and existing monetary thresholds will be lowered.

2.4 Supervisory cooperation

A final area included in the RIP proposals is supervision, with measures proposed to strengthen **cross-border supervision**. Indeed many mis-selling issues observed in the EU relate to products provided on a cross-border basis through the freedom to provide services provisions. These issues are due to develop with the increasing digitalization of financial product distribution and the progressive implementation of the CMU objectives. Problems related to the cross-border distribution of investment products are challenging to handle at present for host

supervisors, because they have no real power when products are sold remotely with no physical presence in the host country. In addition, home supervisors sometimes lack the proper expertise and resources to sufficiently supervise how their firms comply with consumer protection rules when operating in host jurisdictions and may have limited incentives to act swiftly in case a problem arises, if their home market is not concerned.

The RIP thus proposes to facilitate the cooperation between national competent authorities (NCAs) and the ESAs for tackling cross-border fraud and malpractice issues within the EU and to ensure a proper and coherent application of rules across member states (e.g. with a facilitation of information exchange and stronger supervisory convergence with regard the authorization of investment firms). Reporting obligations will also be introduced for investment firms and insurance distributors on their cross-border activities to enable the NCAs and the ESAs to have a better overview of the scale of cross-border provision of services and products within the EU.

New articles in MiFID and IDD also set requirements for competent authorities to have adequate procedures in place to prevent the offering and marketing of unauthorised investment services or activities, and to establish information channels to notify and warn investors of such services or activities, e.g. through warning lists available on the ESAs' websites. Host member states will moreover be allowed to take precautionary measures in case of harmful behaviour of providers not adequately addressed by the home member state.

3. Next steps and first reactions

The European Commission has requested feedback on the RIP legislative proposal by 28 August 2023. The RIP proposal will then go through the European legislative procedure with the objective to reach a negotiating position in the Parliament and the Council on the Level 1 text before the upcoming European elections (June 2024).

At the time this paper is written, a summarized feedback from the market and from supervisory authorities on the RIP proposal is not yet available, but preliminary statements and reactions show that while the RIP proposal is strongly supported

as an important step in the right direction to further develop retail investment, a certain number of issues remain to be further clarified or fine-tuned.

There is generally support for the wide-ranging and holistic approach to retail investment proposed in the RIP and more specifically for the objectives of improving and streamlining disclosures, adapting investment processes to the digital age and promoting financial literacy.

The preservation of both fee and commission-based distribution models, with the staged approach to inducements, is also welcomed although some stakeholders have suggested that the measures proposed may still have disruptive consequences for the European financial sector and that the conditions under which commissions may continue to be paid remain to be clarified.

The new 'best interest of the client' test in particular raises some concern. Industry stakeholders point out that the criteria proposed mainly focus on costs, which may lead clients to prioritise the cheapest or simplest products, rather than those likely to provide most value. The same would go for the product governance and value for money requirements if the proposed benchmarks focus excessively on costs. Market players indeed emphasize that value is not only a question of costs but also of return for investors and alignment with investment objectives and that an appropriate combination needs to be found between these different criteria in the recommendations made. Moreover the potential complexity of establishing such benchmarks is also underlined, as well as the risk of insufficiently capturing the specificities of the products and services concerned¹⁴.

The timeline of the RIP initiative is a further challenge. A first issue is the timing of the Level 1 adoption with the current political cycle ending in less than one year's time. A second issue is the timing of implementation with the challenge of changing many components of product management and distribution at the same time. Some observers have suggested that tackling the issues related to the digitalisation of financial services and to the on-going implementation of open finance should be given the priority, leaving more time to fine-tune the other measures of the RIP that may have significant implications for product manufacturers and existing distribution channels in the EU if they are not appropriately designed and implemented¹⁵.

14. See for example Eurofi Views Magazine September 2023 – M.A. Barbat-Layani, AMF, mentions in her article that providing relevant benchmarks may face methodological problems and take years to develop. This will notably require the establishment of appropriate and commonly accepted definitions, the availability of robust data – which may necessitate adequate product reporting to be in place – and the proper identification of cost outliers.

15. See for example Eurofi Views Magazine September 2023 – R. Dumora, BNP Paribas.

Open Finance Proposal

4

- Open Finance: objectives of the Financial Data Access (FiDA) proposal

53

Open Finance: objectives of the Financial Data Access (FiDA) proposal

Note written by Marc Truchet

1. Opportunities and challenges associated with open finance

1.1 Objectives and potential benefits of open finance

Open Finance (OF) refers to the sharing of personal and non-personal customer data held by financial sector intermediaries and other data holders with third-party providers, mainly through application programming interfaces (APIs). It is an extension to a broader range of data (credit, savings, investment, insurance, pensions) of the Open Banking (OB) concept which focuses on payments and the sharing of bank account data.

The main objectives of OF are to facilitate the provision of more tailored financial products and services (building on data combination and aggregation in areas such as financial advice, pension preparation and insurance); enhance customer experience (e.g. with a more seamless integration of different financial services and processes) and empower customers (e.g. with services allowing them to make more informed financial decisions). OF services can be developed both for retail and corporate customers. Examples of use cases of OF include: financial dashboards, financial management and wealth management tools consolidating information on different accounts and products; product and supplier comparison tools; more customized insurance policies based on in-vehicle data sharing; optimized handling of insurance claims; financial services embedded in e-commerce platforms¹...

OF may also contribute to increasing choice and competition in the provision of financial services provision: first by stimulating the creation by fintechs of new financial services based on data sharing and aggregation and secondly by allowing traditional financial players to offer new services including third party services or to embed financial services in online sales and information platforms. OF set ups may also help to improve the effectiveness of existing financial processes. For example OF may support

credit-worthiness and insurability assessments by facilitating the access of financial institutions to a wider range of data in a shorter time or onboarding processes and loan, mortgage or insurance applications with a more effective data collection from multiple sources.

OF can also potentially contribute to enhancing supervision, for example with supotech solutions offering supervisors direct access to prudential, product or consumer information from different sources on a real time basis.

1.2 Possible risks and challenges associated with open finance

OF raises new customer protection risks that need tackling. First, the privacy and security risks traditionally associated with customer data use may be amplified by an increasing sharing of personal data with third party providers in the context of OF. Consumer protection issues may also emerge as a result of a higher level of disintermediation in OF ecosystems that connect consumers directly to different suppliers of financial services and financial information. The highly data-driven nature of OF also exposes customers to new risks of bias, discrimination and error, possibly related to the data sets used or to the way they are handled.

The development of OF also creates new operational and implementation challenges for financial firms related to the setting up and running of the OF infrastructure, API use, the quality and standardisation of data and the interoperability between different systems (between legacy and new IT systems, between data holder and third-party systems). OF may also lead to a higher exposure of financial institutions to ICT risks such as cyber-risk.

OF moreover raises new challenges at sector-level in terms of business model and supervision. A first issue is ensuring a fair allocation of the costs related to the provision of data access along the value chain, notably between data holders and data users. This allocation should allow new OF service providers to emerge, while providing data holders with sufficient incentives to implement and maintain

1. See Eurofi Regulatory Update April 2023 "Open finance: opportunities, challenges and policy implications" in the for further detail.

effective access to the data and preserving a level playing field in the market. A second issue are the potential supervisory implications of the development of new cross-sectoral and cross-border OF business models that may require an evolution of current approaches. OF may also impact the structure of the market with the emergence of specialised OF providers, leading to more fragmentation, and the possible emergence of new platforms combining a variety of financial services.

2. Review of the open banking provisions of PSD2

In the EU, open finance concepts were first implemented through open banking measures in the Payment Services Directive (PSD2) framework. These measures provided a regulatory framework for the access by account information service providers (AISPs²) and payment initiation service providers (PISPs³) to bank account data upon user request, in order to facilitate the development of new electronic and online payment services and the emergence of value added account information services. PSD2 rules notably include an obligation on banks to facilitate access to payment data for AISPs and PISPs via a secure interface.

2.1 Lessons from the implementation of PSD2 open banking provisions

According to the Commission's impact assessment accompanying the FiDA (Financial Data Access) proposal⁴, the Open Banking (OB) framework under PSD2 has had several positive effects.

First, the OB provisions of PSD2 have enabled a significant number of customers to access new types of financial services offered by banks and fintechs. The development of OB solutions in the EU has indeed been significant with more than 350 AISPs and PISPs authorised⁵ following the implementation of PSD2. Market penetration remained fairly low at the end of 2021, with OB touching around 17 million

users in the EU (less than 5% of EU banking customers)⁶, but it is estimated that the number of OB users will triple by the end of 2024. This positive trend is confirmed, according to the impact assessment, by surveys showing that customers consider that the choice of payment services has increased over the last 5 years. The number of monthly API calls also more than tripled between 2019 and 2021. The OB provisions of PSD2 moreover resulted in APIs being able to provide much richer data sources and facilitated the combination of analytics and machine learning techniques to better understand payment patterns.

In addition, it is considered that PSD2 requirements have brought more safety to financial services based on data sharing, with the establishment of standards for data sharing and API standards, although these standards remain optional in certain aspects and differ across Europe. PSD2 has also brought AISP and PISP providers under supervision, ensuring that they comply with minimum security and internal control standards⁷.

However, the implementation of PSD2 has also brought to light significant limitations within the OB provisions of the framework. As a result, it is widely acknowledged that the impact on innovation has been below the initial expectations. This is due notably to the fact that PSD2 provisions did not create a valid business model for OB or provide data holders (financial institutions) with sufficient incentives to implement data sharing interfaces.

PSD2 leaves standardization to the market, permitting third-party providers (TPPs) to employ various APIs for accessing payment account data. Consequently, several API standards have surfaced⁸, accompanied by disparities in how these standards are adopted among member states and banks. The discretion granted to each bank for implementation has resulted in substantial discrepancies in the quality and capabilities of these APIs. This variation, in turn, imposes supplementary expenses on TPPs seeking to establish connections with multiple Account Servicing Payment Service Providers (ASPPs), such as banks⁹.

2. Account Information Services (AIS) facilitate in particular the collection and storage of information from customers' different bank accounts in a single place, allowing them to have a global view of their financial situation and easily analyse their spending patterns, expenses and financial needs.

3. Payment Initiation Services (PIS) facilitate the use of online banking to make payments online. These services help to initiate a payment from the consumer's account to the merchant's account by creating an interface to bridge both accounts, filling in the information needed for the bank transfer (amount of the transaction, account number, message) and informing the store of the transaction. PSD2 also allows clients to make payments to a third party from a bank's app using any of the client's accounts (whether they belong to this entity or not) – See BBVA Everything you need to know about PSD2 February 2023.

4. Impact assessment report accompanying the FiDA proposal 28 June 2023.

5. See EBA chairperson keynote speech at the Money Live Summit, 8 March 2023.

6. See Com. McGuinness keynote speech at event in European Parliament "From open banking to open finance" 21 March 2023.

7. See Eurofi Views Magazine April 2023 Open Finance G. Goffinet, ACPR.

8. There are at present two main API standards in Europe (Berlin Group and STET API standards) and a number of other more limited ones and the implementation of these standards is left at the discretion of each bank. Progress is being made with the development by the European Payment Council of a scheme for premium APIs that allows the exchange of data outside of payments data – See Eurofi Summary – Stockholm Seminar April 2023 – Open Finance.

9. By way of comparison in the UK a single standard has been enforced for the largest ASPPs, resulting in a higher market penetration of OB services (around 10-11%) – see Eurofi Regulatory Update April 2023 Open finance.

In addition, while financial institutions are required under PSD2 to share their customers' data upon their request and to provide APIs there is no mandatory remuneration for providing this service and no obligation of reciprocity for the TPPs using this data. Consequently, banks have ended up supporting most of the costs related to the setting up and running of the infrastructure needed to share payment data with TPPs and this has eventually resulted in the setting up of interfaces offering only a limited access to the minimum data required by the PSD2 regulation¹⁰. This lack of incentives for data holders to provide appropriate access to TPPs and maintain effective dedicated data interfaces has been a significant obstacle to the wider development of OB solutions so far, according to many market observers.

Difficulties in terms of enforcement and supervision have also been pointed out with a variable implementation of the same OB standards observed across banks at European level and also at the domestic level in some cases. A further observation from the implementation of OB is the need for policy makers to encourage the development of common standards at EU level for APIs in particular. Some observers add that regulation is potentially more effective in supporting the implementation of standards designed by the industry, than in imposing standards, due to the difficulty for regulation of keeping pace with the evolution of technology¹¹.

2.2 PSD3 review of open banking provisions

In the context of the PSD3 proposal published in June 2023, the Commission set out amendments to improve the functioning of OB in Europe.

The proposed measures include new requirements for the implementation by ASPSPs (such as banks) of dedicated data access interfaces and the introduction of a list of prohibited obstacles to data access in order to remove obstacles to the provision of OB services.

PSD3 also proposes requirements to enhance the business continuity of OB providers. If a bank's OB interface is down, causing OB providers potential harmful data access disruption, and if the bank cannot rapidly offer an effective alternative solution to the OB providers, the latter providers would then be able to request from their National Competent Authority (NCA) the authorisation to use another interface (such as the ones that banks use for their customers) until the bank's dedicated interface is restored to normal functioning. In addition, a deadline may be set by the NCA for the restoration of

the dedicated interface by the bank, with the possibility of penalties.

The PSD3 measures also aim to further level the playing field between banks and non-bank OB service providers (PISPs) in terms of access, by allowing the latter providers access to all EU payment systems, with appropriate safeguards and securing those providers' rights to a bank account. Requirements on banks regarding bank account services to non-bank PISPs will be toughened, with a stronger requirement on banks to explain access refusal or the possible withdrawal of service. In addition to commercial banks, central banks will also be allowed to provide account services to non-bank PISPs at their discretion. There will moreover be reinforced rules on the admission of PISPs as participants in payment systems, with an obligation on payment system operators to carry out appropriate risk assessments.

In addition, customers' control over their payment data will be improved with the requirement for banks and other payment account providers to set up a dashboard allowing consumers to easily see which data access rights they have granted and to whom and to be able to withdraw access via this tool.

However, no changes are proposed in the PSD3 proposal in terms of compensation of data holders (ASPSPs) for providing third-parties with access to account information. This will remain based on non-contractual access at no cost in PSD3, unlike the FiDA proposal which proposes the introduction of a fair compensation for data holders (*see below*).

3. The EU Financial Data Access (FiDA) framework proposals

3.1 Current obstacles and challenges to the provision of Open Finance services

At present, data sharing for the provision of OF services beyond the OB services covered by PSD2, is not prohibited and is technically feasible in some cases with APIs or web scraping, but it happens in a way that is not appropriately regulated and without the support of the tools and incentives needed to support its development.

GDPR sets general rules that may facilitate the processing and sharing of personal data with third-parties, giving consumers control rights over their personal data and imposing requirements on

10. PSD2 relied on the assumption that the costs of building interfaces for accessing payment data would be exclusively supported by the ASPSP, in the absence of a dialogue between ASPSP, AIS and PIS. See Eurofi Views Magazine April 2023 Open Finance G. Goffinet, ACPR and J. Beyssade, BPCE.

11. See Eurofi Views Magazine April 2023 Open Finance G. Goffinet, ACPR.

data holders to ensure the protection of personal data and the right to data portability. The EU data strategy rules (EU Data Governance Act, Digital Markets Act, Data Act) also set out key principles for data access and processing in different areas.

However these data frameworks do not provide customers with adequate means or tools to maintain control over their data (e.g. to control how their data is being used or managed and to verify data sharing permissions) and there are no specific requirements for service providers to take adequate security measures regarding this data and how it is shared. Consequently, most customers do not trust that potential risks of sharing data are appropriately addressed in an OF environment at present and thus are reluctant to engage in data sharing, according to the assessments of the European Commission¹². In addition GDPR rules do not apply to the non-personal data of business customers.

Moreover GDPR data portability rules do not provide a full obligation for data holders to make customer data available to data users upon customer request, since they are only applicable 'where technically feasible' and the EU data strategy does not establish enforceable data access rights and obligations in the specific context of OF.

In addition, potential OF service providers currently face the same issues as OB service providers in terms of access to data, since, at present, only a minority of financial data holders (financial institutions) have made data available to TPPs through technical interfaces like APIs, and where interfaces exist, the lack of standardisation of customer data and APIs impedes interoperability and increases the cost of using ported data.

3.2 Overall objectives of FiDA

The Commission published in June 2023 a proposed framework for Financial Data Access (FiDA) aiming to promote the development of OF and more broadly of data-driven finance in Europe, beyond the payment and account information services covered by PSD2. These measures build on the data sharing requirements of GDPR and the EU data strategy framework and also take into account the lessons learned from the PSD2 OB provisions.

The FiDA framework establishes requirements and incentives for data holders to share data in an efficient, standardised and safe way and rules and tools that will allow customers to retain control on

their data and manage data sharing permissions, in order to preserve data privacy and safety.

In terms of scope, FiDA covers all financial customer data except payment data, which is subject to PSD2 (i.e. data related to mortgages, loans, savings, investments, cryptoassets, pensions and non-life insurance products), and excludes sensitive data such as creditworthiness and life and health insurance data. This includes the data that financial institutions typically collect, store and process as part of their normal interaction with customers such as: the personal data supplied by customers, data stemming from interactions between customers and financial institutions and also data related to the terms and conditions of specific products and services.

FiDA adopts a customer-centric approach, allowing customers to control how their data is being shared and also introducing measures to mitigate the risks of financial exclusion of customers with an unfavourable risk profile.

FiDA also has a market-led dimension since major aspects of OF arrangements such as data sharing and technical interface standards, liability rules and compensation principles are due to be established in the context of financial data sharing schemes (FDSS) involving data holders and users. In addition these rules will not be uniform but defined for each category of customer data covered by FiDA.

3.3 Overview of the FiDA requirements

Data holders (e.g. financial institutions) will be required under FiDA to make customer data available to data users (e.g. other financial institutions or fintech firms providing OF solutions) upon their customers' request, by putting in place the necessary technical infrastructure including APIs. Data will need to be provided securely without undue delay, continuously and in real time, in a format based on generally recognised standards.

A framework based on voluntary measures and voluntary data sharing¹³, which had been advocated by some trade associations before the publication of FiDA, was ruled out by the Commission in its impact assessment on the basis that such an approach would be unlikely to result in the implementation of uniform tools and would not provide sufficient incentives for data holders and users to develop common standards.

Data holders will have the right to ask for a reasonable compensation from data users for

12. See Proposal for a regulation on a framework for Financial Data Access – 28 June 2023.

13. Voluntary measures consisting in the Commission encouraging stakeholders to develop standards and schemes, to put in place open finance dashboards and promote the implementation of common interfaces with no mandatory regulatory requirements. See for example EBF "Open finance towards a fit-for-market approach" March 2023.

putting in place high-quality interfaces for data user access, in line with the general principles of business-to-business (B2B) data sharing laid down in the Data Act proposal (and smaller firms using data will only have to pay compensation at cost). This is one of the major differences with PSD2 / PSD3, the aim being to provide incentives for data holders to put in place and maintain appropriate technical interfaces¹⁴.

Data holders will moreover need to provide their customers with a permission dashboard to enable them to monitor and renew permissions for data users easily and potentially remove some of them. They will also be required to make data available directly to their customers free of charge and in real time upon request (mirroring similar provisions in the Data Act).

Data users (providers of OF services) will need to be authorized by a NCA based in the EU, either as a financial institution or as a financial information service provider (FISP). They will only be able to access data with their customers' permission and only for purposes and under the conditions specifically agreed by the customers.

In order to avoid increasing the risk of financial exclusion of customers with unfavourable risk profiles with the development of OF, the ESAs are asked to develop appropriate consumer safeguards outlining how data users can use FiDA data to calculate e.g. credit scores, risk assessments and pricing related to life, health and sickness insurance products. The objective is to mitigate the risks of OF providers focusing for example solely on the most profitable or creditworthy customers, with the use of improved data analysis capacity to determine customer profiles.

In addition, if a data user is part of a larger group, only the entity authorised as a data user will be able to access and use the customer data, in order to contribute to ensuring a level playing field between financial institutions and multi-activity groups¹⁵.

Financial data sharing schemes (FDSS) governing access to customer data will be established for the main categories of customer data covered by the FiDA framework i.e. mortgages / loans; savings / investments; pension rights; non-life-insurance products... These schemes will comprise data holders and users representing a significant proportion of the market of the product or service

concerned, and will be in charge of developing customer data sharing and technical interface standards and a liability regime for data breaches and also implementing dispute resolution mechanisms. The FDSS will also establish the model to determine the maximum compensation that data holders may charge users, as well as the contractual terms for sharing data.

Data holder and data users are required to become members of a FDSS within 18 months from the entry into force of the FiDA regulation and may become members of several FDSS. In the event that no FDSS has been established for one or more categories of customer data within 'a reasonable amount of time', the Commission will be empowered to adopt a delegated act for the category of data concerned, defining the elements mentioned above.

Customers will have the possibility but not the obligation, to share their data with data users in order to obtain new OF services. In all cases, customers will retain full control over who accesses their data and for what purpose, using dedicated permission dashboards due to be put in place by data holders, in order to enhance trust in data sharing. A strengthened protection of customers' personal data will also be put in place in line with the General Data Protection Regulation (GDPR).

As regards to security requirements, FiDA moreover requires data holders and users to comply with the new DORA (Digital Operational Resilience Act) requirements, but unlike PSD2, does not mandate any specific security requirements for the authentication of customers.

3.4. Implementation timeline

In terms of implementation, the FiDA proposal is quite ambitious, according to many market observers, with provisions relating to FDSSs and authorisation requirements for FISPs due to apply 18 months after FiDA enters into force and other requirements starting to apply after 24 months.

The possible date of adoption of FiDA remains uncertain however. While it is possible that a negotiating position could be reached by the Parliament and the Council before the upcoming European elections (June 2024), the final adoption of the legislation following the trilogue process will most likely not be possible until mid-2025.

14. See Deloitte "The new EU Financial Data Access framework: opening up data across financial services" 11 July 2023.

15. See AFME "Open finance and data sharing" September 2022. This paper points out the potential issues and risks associated with data sharing with market participants in other sectors, who may already have a dominant share of both individual and corporate data (e.g. big techs, social media...). This may lead, according to this paper, to monopolies in the exploitation of data, given the network externalities stemming from the combination of services within such multi-activity groups and the ability to leverage widescale data collection and use in different sectors. The paper also cites a document published by the BIS that suggests that proper limits may need to be imposed on the collection and use of data across bigtechs' multiple services to attain public policy objectives, including financial stability ones. The AFME paper moreover points out potential issues associated with the oversight of data sharing, when customer data is transferred from the financial services sector to other sectors subject to less stringent data regulation.

Conclusion

FiDA addresses many issues that have been identified by the expert groups and market stakeholders during the assessments conducted in preparation for the legislative proposal and also some key lessons from the implementation of the OB provisions of PSD2, notably in terms of customer control over data, sharing of costs along the value chain and API standardisation.

At the time this paper is written, detailed feedback from the market and from supervisory authorities is not yet available, but preliminary statements and reactions show that while the FiDA proposal is welcomed as an important step in the right direction to support the development of OF, a certain number of issues remain to be further clarified or fine-tuned.

Some key elements of the proposal remain to be further clarified, in particular how the permission dashboards proposed to ensure the empowerment of consumers over data sharing consent will work in practice, and whether the proposed FDSS schemes will allow an agreement on appropriate compensation and governance principles and on data and interface standards. FDSSs indeed potentially raise different implementation challenges. For example, the possibility for several FDSSs to emerge for a given category of data may hinder standardisation and it is unclear how an agreement on fair and sustainable compensation practices will be found within FDSSs in case the views of the different stakeholders concerned differ significantly. The allocation of responsibilities between data holders and users may also need clarifying, in addition to the definition of liabilities already foreseen in the context of the FDSS.

In addition, whether FiDA will allow the achievement of a sufficiently fair and equitable data sharing process likely to leverage the benefits of data-driven innovation in finance for all market stakeholders needs to be further assessed.

Requests for offering data holders a fair compensation for providing access to data have been taken into account and measures have been proposed in FiDA for levelling the playing field between data holders and TPPs and giving consumers control over their data (with authorisation requirements for data users, requirements limiting data sharing within mixed-activity groups beyond the authorised data user and permission dashboards). Bank

industry representatives however continue to underline the remaining competitive asymmetry between banks and other participants in the data economy, since the latter players will not be subject to equivalent data sharing obligations under FiDA or other data frameworks¹⁶. They moreover emphasize the opportunities of a wider cross-sectoral data sharing that an extension of data sharing requirements to other data spaces (e.g. energy, mobility, telecom...) would allow, building on the horizontal principles of the Data Act. Potential benefits of cross-sectoral data sharing exist for example in the sustainability area with the sharing of data between the energy and financial sector¹⁷.

As regards customers, beyond putting them in control of their data, there is an objective in FiDA of finding an appropriate balance between promoting data-driven innovation and protecting customers, particularly the more vulnerable ones¹⁸. The proposed development by the ESAs of guidelines on how data may be used to assess credit scores and risk assessments fairly should contribute to this objective, but the adequate tools and measures needed to achieve this objective still need specifying. In addition, measures may be needed to ensure that customers fully understand what the sharing of their data with third-parties entails and the risks it may pose¹⁹.

A further question is whether the implementation approach proposed for FiDA covering at once all non-payment financial activities and data is the right way forward or if a more staggered and progressive approach – starting e.g. with the activities where the added value of OF solutions would be highest, based on a cost-benefit analysis, or where consumer needs are the highest – would be preferable to ensure the success of this initiative, given the challenges to overcome and the resources to mobilize to achieve sustainable OF business cases²⁰.

16. See AFME and EBF comments on the FiDA proposal (28 June 2023).

17. See Eurofi Views Magazine September 2023 Open Finance E. Ljungberg.

18. See Eurofi Views Magazine September 2023 Open Finance F.L. Michaud, EBA.

19. See Eurofi Views Magazine September 2023 Open Finance E. Ljungberg.

20. See EACB comments (28 June 2023 and 31 March 2023).

EU Sustainability Policies

5

- The implementation of the Green Deal legislative programme 61
- Evolutions and trends of carbon pricing mechanisms 67
- Antitrust Policy and ESG Cooperation in the Financial Sector 74
- The ambition and uncertainties of the aviation net-zero transition plan challenge the financial sector 79
- Financial sector's climate transition requires public policy support 95

The implementation of the Green Deal legislative programme

Note written by Jean-François Pons, Cyrielle Dubois et Gwenaëlle Varin, Alphalex-Consult

The growth of green finance is not only a question of supply, but also of demand. As such, a growth of the sales of electric cars to households triggers a growth in car loans, which are, given their object, considered as green. The demand for electric cars is largely influenced by the EU legislation which foresees the end of the sales of fossil fuel cars by 2035. This is why it is interesting for the financial sector to look at the state of execution of the Green Deal legislative program, which will have implications for the demand for sustainable finance in the coming years.

A first assessment of implementation of the Green Deal Legislative Programme was published in the Eurofi Regulatory Update of April 2023, for the Eurofi conference in Stockholm. Since April, new texts have been approved by the European political institutions, and others have become legislation.

In this article, we will review the part of the Green Deal designed to reduce the emission of greenhouse gases and protect the environment. This encompasses general regulations – like the Climate law setting the Green Deal and Fit for 55 objectives – and some sector-specific regulations on:

- renewable energies, and related infrastructure.
- Energy efficiency in industrial production, transport, and agriculture; and
- decarbonation of the transport industry, fishing, and industrial production.

In this general context of the Green Deal, the European legislators adopted a first law in 2021. The **Climate Law**¹ sets a legally binding EU-wide and economy-wide common target of net-zero greenhouse gas (GHG) emissions by 2050 and comprises the -55% of GHG emissions by 2030 target, which gave birth to the Fit for 55 legislative package and all the related texts which will be evoked in this paper.

It is noteworthy that a large part of the regulations,

proposed by the European Commission in the Green Deal legislative program have been officially adopted (part I) or approved by the legislators (part II).

1. Green deal legislations officially adopted by the legislators

1.1 Emissions Trading Scheme: new benchmark values for free allocations and integration of CORSIA

One of the major projects which has been adopted is the **reform of the Emissions Trading Scheme (ETS)**. Set up in 2003 as the first market tool of its kind, the EU ETS is now under its fourth trading phase (2021-2030). The legislative framework for phase 4 of the EU ETS was first revised in 2018, but given the EU's new climate targets, the Commission has proposed to strengthen the mechanism even more, with the objective to have a carbon pricing in line with the Fit for 55 objectives. While the Commission Implementing Regulation on benchmarks values for free allocation of emission allowances 2021-2025² was published in March 2021 by the Commission, a revision of aviation rules³ in the EU ETS has been adopted to ensure that Member States notify EU-based airlines of their offsetting obligations for the year 2021 under CORSIA⁴.

In April 2023, the effort further continued, as the directive for the revision of EU ETS as regards aviation was adopted by the co-legislators. Its main proposal is to ensure that the sector contributes to the EU's climate targets through increased auctioning of allowances, with an end to free allowances from 2027, applying the linear reduction of aviation allowances. It also allows to integrate within the revised ETS, the Carbon Offsetting and

1. Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'). Link: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R1119>

2. Commission Implementing Regulation (EU) 2021/447 of 12 March 2021 determining revised benchmark values for free allocation of emission allowances for the period from 2021 to 2025 pursuant to Article 10a (2) of Directive 2003/87/EC of the European Parliament and of the Council (Text with EEA relevance) Link: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32021R0447>

3. Decision (EU) 2023/136 of the European Parliament and of the Council of 18 January 2023 amending Directive 2003/87/EC as regards the notification of offsetting in respect of a global market-based measure for aircraft operators based in the Union (Text with EEA relevance). Link: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023D0136>

4. The Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) of the International Civil Aviation Organisation (ICAO) requires countries to ensure that airlines based in those countries offset CO2 emissions that exceed the relevant baseline (2019 CO2 emissions) by international credits.

Reduction Scheme for International Aviation (CORSA), applying it to international flights departing from or arriving at an airport inside the European Economic Area⁵. The phasing out of free allowances will occur one year earlier than proposed by the Commission, and full auctioning will be reached by 2026. A mandatory reporting, verification, and monitoring (MRV) framework for non-CO₂ emissions from aviation is required to be implemented from 2025 and evaluated in 2027.

1.2 Emission Trading Scheme (ETS) for maritime sector and emissions reduction

Additionally and also part of the ETS, in July, a text was adopted, allowing for the extension of the **Emission Trading Scheme for the maritime sector**. Starting in January 2024, the EU's Emissions Trading System will be extended to cover emissions from all large ships entering EU ports, regardless of the flag they fly under. This will strengthen the EU ETS by extending it to new sectors to match the new ambitious target of the Climate Law. The co-legislators agreed cutting emissions from EU ETS sectors – which will now also encompass the maritime industry – by 63% relative to 2005 levels by 2030. To accomplish this, the proposal⁶ involves increasing the linear emissions reduction factor from 2.2% per year to 4.2%.

Under this, 50% of emissions from voyages starting or ending outside of the EU and 100% of emissions that occur between two EU ports and when ships are within EU ports are considered. In practice, this means that shipping companies will have to purchase and use EU ETS emission allowances for each CO₂ tonne emission reported⁷.

Other texts extending EU ETS to new sectors are close to be voted as well (*cf. infra*).

1.3 ETS II for building and road transport sector

In December 2022, the European Parliament and the Council of the EU agreed to establish a **distinct**

emissions trading system, called ETS II, implemented for emissions from fuel distribution in the road transport and building sectors. In April 2023, this new ETS was adopted. It is set to launch in 2027. The system will help regulate fuel suppliers rather than end-consumers. It will also put an absolute cap on emissions, with a goal to decrease them to reach the EU-set goal of carbon neutrality by 2050. The newly introduced ETS 2 is designed to complement the sectoral scope of the EU ETS, expanding the reach of carbon pricing at the EU level to encompass all major sectors of the economy, excluding agriculture and land-use activities^{8,9}.

1.4 Market Stability Reserve

The allowances system of the ETS is dealt under the **Market Stability Reserve** which has recently been reviewed. To expedite the absorption of the excess allowances and promote market stability, the proposal¹⁰ – which the co-legislators did not change – maintains the current elevated annual allowance intake rate. The decision entered into force on May 15th, 2023, after being published in April¹¹.

1.5 Energy infrastructure: TEN-E regulation

Another important text that was adopted concerns **energy infrastructure in the continent**. The revision of the TEN-E regulation¹² provides a set of instructions for the prompt advancement and interoperability of the priority corridors and areas of energy infrastructure across Europe. The instructions specify the criteria for identifying projects of common interest (PCIs) and mutual interest (PMIs), while also expanding upon the previous guidelines. This updated version has an **extended scope**: it now includes smart electricity grids and electricity storage, hydrogen networks and power-to-gas, as well as projects with third countries; but it excludes natural gas. It also simplifies procedures to grant permits and proposes the creation of a one-stop-shop for off-shore grid development.

5. Aviation's contribution to European Union climate action: Revision of EU ETS as regards aviation | Think Tank | European Parliament. (n.d.). [https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI\(2022\)698882](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2022)698882)

6. Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union, Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and Regulation (EU) 2015/757. Link: [https://ec.europa.eu/transparency/documents-register/detail?ref=COM\(2021\)551&lang=en](https://ec.europa.eu/transparency/documents-register/detail?ref=COM(2021)551&lang=en)

7. Reducing emissions from the shipping sector. (n.d.). Climate Action. https://climate.ec.europa.eu/eu-action/transport-emissions/reducing-emissions-shipping-sector_en

8. EU Emissions Trading System for buildings and road transport ("EU ETS 2"). (n.d.). International Carbon Action Partnership. <https://icapcarbonaction.com/en/ets/eu-emissions-trading-system-buildings-and-road-transport-eu-ets-2>

9. EU adopts landmark ETS reforms and new policies to meet 2030 target. (2023, 3 mai). International Carbon Action Partnership. <https://icapcarbonaction.com/en/news/eu-adopts-landmark-ets-reforms-and-new-policies-meet-2030-target>

10. Proposal for a DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Decision (EU) 2015/1814 as regards the amount of allowances to be placed in the market stability reserve for the Union greenhouse gas emission trading scheme until 2030. Link: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0571>

11. Revision of the market stability reserve for the EU emissions trading system: Fit for 55 package | Think Tank | European Parliament. (n.d.). [https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI\(2022\)698896](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2022)698896)

12. Regulation (EU) 2022/869 of the European Parliament and of the Council of 30 May 2022 on guidelines for trans-European energy infrastructure, amending Regulations (EC) No 715/2009, (EU) 2019/942 and (EU) 2019/943 and Directives 2009/73/EC and (EU) 2019/944, and repealing Regulation (EU) No 347/2013. Link: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022R0869>

1.6 Renewable energy: delegated Acts on RFNBOs (Renewable Fuels of Non-Biological Origin)

The Commission has published three delegated acts, after an initial agreement in interinstitutional dialogue. Two of them are of particular importance, as they complete the **implementation of the Renewable energy directive**¹³. The delegated Act on renewable liquid and gaseous transport fuels of non-biological origin¹⁴ provides a methodology to ensure that the electricity used to produce renewable liquid and gaseous transport fuels of non-biological origin (the so called “RFNBOs”) is indeed of renewable origin, while the delegated Act on GHG emissions savings of recycled carbon fuels¹⁵ sets a minimum threshold and gives a methodology for assessing GHG emissions savings from RFNBOs.

1.7 Delegated Act on chemical hazard classes

The third delegated act published concerns new **chemical hazard classes**¹⁶, and determines the classification, labelling and packaging of substances and mixtures, notably endocrine disruptors. It seeks to ensure an important level of protection of human health and the environment. This comes as a revision of the regulation on the Classification, Labelling and Packaging of Substances and Mixtures (CLP)¹⁷, which entered into force in January 2009.

1.8 Regulation on a Carbon Border Adjustment Mechanism

Another highly debated text creating a **Carbon Border Adjustment Mechanism (CBAM)**¹⁸ was voted, proposed to complement the ETS. Starting in 2026, EU importers will be required to pay a financial adjustment by surrendering CBAM certificates that

align with the emissions integrated into their imports. The objective is to prevent the relocation of carbon-intensive industries outside of the EU (known as “carbon leakage”), which could compromise the EU’s ambitious climate targets. Additionally, this policy aims to incentivize producers in third-party countries that export to the EU to adopt low-carbon technologies, and to ensure that the price of imports more accurately reflects their carbon footprint. The CBAM regulation officially entered into force the day following its publication in the Official Journal of the EU on 16 May 2023¹⁹.

1.9 Regulation on emissions from cars and vans

Emissions from Cars and Vans²⁰ were finally agreed after last minute discussions with Germany which was threatening to withdraw from the agreed political agreement. In comparison to the CO₂ emission targets applicable in 2021, the emissions of new passenger cars registered in the EU must be lowered by 55%, while new vans must exhibit a 50% reduction in emissions. By 2035, new passenger cars and vans must exhibit a 100% reduction in CO₂ emissions, meaning all new vehicles must have zero emissions. The incentive for low and zero-emission vehicles will no longer apply from 2030. The compromise finally reached with Germany will allow the sale of internal combustion engines after 2035 if they run on e-fuels. The regulation was adopted in April 2023²¹.

1.10 Regulation on land use and forestry: LULUCF

The **regulation on land use, land use change and forestry (LULUCF)** was revised in 2023 for the period up to 2030²². It aims to reverse the current trend of

13. Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast) (Text with EEA relevance.) Link: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32018L2001>
This Directive is currently under review as well

14. Commission Delegated Regulation (EU) .../... of 10.2.2023 supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council by establishing a Union methodology setting out detailed rules to produce renewable liquid and gaseous transport fuels of non-biological origin. Link: https://energy.ec.europa.eu/system/files/2023-02/C_2023_1087_1_EN_ACT_part1_v8.pdf

15. Commission Delegated Regulation (EU) .../... of 10.2.2023 supplementing Directive (EU) 2018/2001 of the European Parliament and of the Council by establishing a minimum threshold for greenhouse gas emissions savings of recycled carbon fuels and by specifying a methodology for assessing greenhouse gas emissions savings from renewable liquid and gaseous transport fuels of non-biological origin and from recycled carbon fuels. Link: https://energy.ec.europa.eu/system/files/2023-02/C_2023_1086_1_EN_ACT_part1_v5.pdf

16. Commission Delegated Regulation (EU) .../... of 19.12.2022 amending Regulation (EC) No 1272/2008 as regards hazard classes and criteria for the classification, labelling and packaging of substances and mixtures. Link: https://eur-lex.europa.eu/resource.html?uri=cellar:7f8116e9-7fc3-11ed-9887-01aa75ed71a1.0016.02/DOC_1&format=PDF

17. EUR-LEX - 02008R1272-20221217 - EN - EUR-LEX. (s. d.). <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02008R1272-20221217>

18. Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a carbon border adjustment mechanism. Link: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52021PC0564>

19. Carbon Border Adjustment Mechanism. (s. d.). Taxation and Customs Union. https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en

20. Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Regulation (EU) 2019/631 as regards strengthening the CO₂ emission performance standards for new passenger cars and new light commercial vehicles in line with the Union’s increased climate ambition. Link: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52021PC0556>

21. CO₂ emission performance standards for cars and vans. (n.d.). Climate Action. https://climate.ec.europa.eu/eu-action/transport-emissions/road-transport-reducing-co2-emissions-vehicles/co2-emission-performance-standards-cars-and-vans_en

22. Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Regulations (EU) 2018/841 as regards the scope, simplifying the compliance rules, setting out the targets of the Member States for 2030 and committing to the collective achievement of climate neutrality by 2035 in the land use, forestry, and agriculture sector, and (EU) 2018/1999 as regards improvement in monitoring, reporting, tracking of progress and review. Link: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52021PC0554>

declining removals in the land sector, to deliver 310 million tonnes of CO₂ equivalent (MtCO₂e) removals from the LULUCF sector by 2030 and make it neutral by 2035. Starting in 2026, the sector must achieve a net removal of emissions, and each member State will be responsible for a specific number of removals to be accomplished by 2030. The revised regulations include more stringent reporting guidelines, increased transparency, and a review process by 2025 to ensure compliance. Between 2026 and 2029, if reporting indicates insufficient progress towards their national targets, Member States may face an extra penalty of 8% on their 2030 removal target²³.

1.11 Regulation on deforestation-free products

In May 2023, the regulation on **deforestation-free products** was adopted²⁴. The proposal establishes a responsibility of reasonable care on operators who sell certain commodities or products within the EU market or export them outside the EU. The primary catalyst for these procedures is the increase in agricultural territory, which is associated with the manufacturing of goods like soy, beef, palm oil, timber, cocoa, coffee, rubber, and certain items derived from them, including leather, chocolate, tires, and furniture. As a significant economic entity and consumer of these deforestation and forest degradation-associated commodities, the EU shares a portion of the responsibility for this issue and is striving to take a leading role in addressing it. The objective is to ensure that the goods have been manufactured in compliance with the legislation of the country of production and that the land used for production has not undergone deforestation or forest degradation after 31 December 2020²⁵.

1.12 Regulation on batteries and waste batteries

On July 28th, 2023, the EU official journal published the **regulation on batteries and waste batteries**²⁶ which sets compulsory standards for all batteries that are introduced to the EU market. Starting from 2024, there will be a gradual implementation of sustainability requirements, and extended producer responsibility provisions will begin to be enforced in mid-2025. By the end of 2027, the minimum

collection targets for waste portable batteries will be established at 63%, and this figure will increase to 73% by the end of 2030. Additionally, specific collection targets for waste light means of transport batteries will be introduced, with a target of 51% by the end of 2028 and 61% by the end of 2031. Lastly, there will be a material recovery target of 50% for lithium, which will be set by the end of 2027, and this target will increase to 80% by the end of 2031. The objective of the new regulations is to advance a circular economy by overseeing batteries across their complete lifecycle. As a result, the regulations set forth stipulations for the end-of-life phase, encompassing objectives for collection and responsibilities, as well as targets for material recovery and extended accountability for producers²⁷.

2. Green deal legislations approved by the legislators

Other texts are close to passing, having been approved by the Parliament and the Council, with only the official publication lacking, whereas some have for now made the object of a political agreement, which gives hope that a final agreement will be reached and that legislators will approve the content of the political agreement in the near future.

2.1 Regulation on fuels for maritime sector

Debates on **Fuel EU Maritime**²⁸ have ended, as the Council and the Parliament adopted on July 25th, 2023, a new law to decarbonise the maritime sector. Following the Parliament's recommendations, it required a more stringent reduction in the greenhouse gas intensity of energy used on ships than the Commission. These reductions have a first deadline of 2035 with 20% by that year, 38% from 2040, 64% by 2045, and 80% by 2050. The report also proposes a target of 2% for the use of non-biological renewable fuels starting from 2030. Additionally, the establishment of an Ocean Fund is recommended to enhance ships' energy efficiency and support investments that aim to decarbonize maritime transport²⁹.

23. Land use sector. (n.d.). Climate Action. [https://climate.ec.europa.eu/eu-action/land-use-sector_en#:~:text=Environment%20Agency%2C%202022-,EU%20rules%20on%20Land%20use,use%20change%20and%20forestry%20\(LULUCF\)&text=The%20LULUCF%20Regulation%20was%20revised,CO2%20equivalent%20by%202030.](https://climate.ec.europa.eu/eu-action/land-use-sector_en#:~:text=Environment%20Agency%2C%202022-,EU%20rules%20on%20Land%20use,use%20change%20and%20forestry%20(LULUCF)&text=The%20LULUCF%20Regulation%20was%20revised,CO2%20equivalent%20by%202030.)

24. Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the making available on the Union market as well as export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010. Link: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52021PC0706>

25. Regulation on deforestation-free products. (N.d.). Environment. https://environment.ec.europa.eu/topics/forests/deforestation/regulation-deforestation-free-products_en

26. Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning batteries and waste batteries, repealing Directive 2006/66/EC, and amending Regulation (EU) No 2019/1020. Link: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:3A52020PC0798>

27. Council adopts new regulation on batteries and waste batteries. (2023, July 10). European Council. <https://www.consilium.europa.eu/en/press/press-releases/2023/07/10/council-adopts-new-regulation-on-batteries-and-waste-batteries/>

28. Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the use of renewable and low-carbon fuels in maritime transport and amending Directive 2009/16/EC. Link: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=COM:2021:562:FIN>

29. Fuel EU maritime initiative: Council adopts new law to decarbonize the maritime sector. (2023, July 25). European Council. <https://www.consilium.europa.eu/en/press/press-releases/2023/07/25/fuel-eu-maritime-initiative-council-adopts-new-law-to-decarbonise-the-maritime-sector/>

2.2 ReFuelEU aviation initiative

Also, regarding transportation, the Council and the European Parliament reached a provisional political agreement in April 2023 on a proposal designed to reduce carbon emissions in the aviation sector and to create a level playing field for a sustainable air transport in April 2023. This proposal's objective is to enhance the demand for and availability of sustainable aviation fuels (SAF), while concurrently ensuring uniform conditions within the EU air transport market. Its aim is also to align air travel with the EU's climate objectives for 2030 and 2050. It intends to address the existing challenges that have impeded SAF development, including limited supply and considerably higher costs in comparison to traditional fossil fuels³⁰.

2.3 Common Fisheries Policy (CFP)

A preliminary accord has also been reached concerning updated regulations aimed at preventing overfishing. The revision of the fisheries control system modernizes the approach to monitoring fishing activities, ensuring that both EU vessels and those operating within EU waters adhere to the guidelines laid out in the Common Fisheries Policy (CFP). The principal amendments to existing regulations governing fishing vessel control are the revision of the sanctioning system, an enhanced traceability along the supply chains, and the obligation of reporting of their catches for individuals engaging in recreational fishing for specific species³¹.

2.4 Alternative Fuel Infrastructure

In March of 2023, a political agreement was reached between the European Parliament and the Council on an ambitious alternative fuel's infrastructure law. The new regulation would enforce targets for electric recharging and hydrogen refuelling infrastructure in road, maritime ports, inland waterway ports, and stationary aircraft across the EU. This move addresses consumer worries about vehicle recharging/refuelling accessibility and aims to create a user-friendly experience with transparent pricing, consistent payment options, and unified customer information throughout the EU. It includes provisions such as for every registered battery-electric car in each member state, a power output of 1.3kW must be provided by publicly accessible recharging infrastructure³².

2.5 Renewable Energy Directive (RED3)

In March 2023, the legislators reached a political agreement on the Renewable Energy Directive, agreeing to increase the share of renewable energy in the EU's overall energy consumption to 42.5% by 2030, with an additional 2.5% indicative top up to reach 45%. All member states are expected to contribute to this shared objective. Furthermore, the legislators have concurred on more ambitious targets specific to various sectors, including transport, industry, buildings, and district heating and cooling. The aim is to accelerate the incorporation of renewable energy sources in sectors where the progress has been comparatively slower. Specific dispositions include an indicative target of at least 49% of renewable energy share in buildings by 2030, and a target of 5.5% of use for advanced biofuels in the transport industry by 2030. The text should be voted soon in the Council and in the Parliament³³.

30. Council and Parliament agree to decarbonize the aviation sector. (2023, April 25). European Council. <https://www.consilium.europa.eu/en/press/press-releases/2023/04/25/council-and-parliament-agree-to-decarbonise-the-aviation-sector/>

31. Council strikes deal on new rules to combat overfishing. (2023, May 31). European Council. <https://www.consilium.europa.eu/en/press/press-releases/2023/05/31/council-strikes-deal-on-new-rules-to-combat-overfishing/>

32. Press corner. (s. d.-d). European Commission - European Commission. https://ec.europa.eu/commission/presscorner/detail/en/IP_23_1867

33. Council and Parliament reach provisional deal on renewable energy directive. (2023, 30 mars). European Council. <https://www.consilium.europa.eu/en/press/press-releases/2023/03/30/council-and-parliament-reach-provisional-deal-on-renewable-energy-directive/>

Conclusion

The Green deal programme has been launched in the beginning of 2020. Most of the significant texts of the European Commission's legislative package, which are linked to the reduction of emission of greenhouse gas, have now been adopted or are remarkably close to being adopted. Certain texts remain in discussion – those for which a political agreement has not yet been reached between the co-legislators – notably a proposal on a reduction in CO₂ emissions for heavy duty vehicles³⁴, a proposal on energy efficiency³⁵, and a proposal about the energy efficiency of buildings³⁶. It is important to note that the progress of the negotiation of the two are affected by the RePower EU Plan³⁷ discussions.

Most of the adopted and almost approved texts are going to trigger investments in the sectors concerned: renewable energy, energy infrastructure, industry, road transport, maritime transport, aviation, land use, reforestation... Consequently, the development of investment projects in these sectors is anticipated to generate a significant increase in the demand for finance.

Despite this good news, a portion of the European political class is growing weary of the green deal. Last month, the nature restoration law, highly scrutinized because of its contentiousness, was voted in the European Parliament by a narrow majority.

The Energy Taxation Directive (ETD)³⁸ has also been the object of resistance from EU countries, and its adoption would require unanimity among the 27. Under this revision, fuels would be taxed according to their energy content and environmental performance and no more based on their energy content per volume, which largely supported subventions to fossil fuels over electricity. As of August, the text still has not made considerable progress.

The future will say whether the satisfactory results that the Green Deal has yielded until now, are set to continue in the future, or if we have reached the limits of what European legislators are ready to accept.

34. Reducing CO₂ emissions from heavy-duty vehicles. (s. d.). Climate Action. https://climate.ec.europa.eu/eu-action/transport-emissions/road-transport-reducing-co2-emissions-vehicles/reducing-co2-emissions-heavy-duty-vehicles_en

35. Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on energy efficiency (recast). Link: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0558>

36. Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the energy performance of buildings (recast). Link: <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52021PC0559>

37. Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources, Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency. Link: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2022:222:FIN>

38. Packroff, J., Kurmayer, N. J., & Kurmayer, N. J. (2023b, mai 22). Energy Taxation Directive: Europe's key climate law stuck in a quagmire. [www.euractiv.com. https://www.euractiv.com/section/energy-environment/news/energy-taxation-directive-europes-key-climate-law-stuck-in-a-quagmire/](https://www.euractiv.com/section/energy-environment/news/energy-taxation-directive-europes-key-climate-law-stuck-in-a-quagmire/)

Evolutions and trends of carbon pricing mechanisms

Note written by Jean-Marie Andres & Louise Le Borgne

The transition we are embarking upon today necessitates a complete overhaul of our production methods to significantly curtail our CO₂ emissions to an absolute minimum. These emissions are partly culpable for climate change and for surpassing the other five planetary thresholds.

To accomplish this, the economic and financial tools employed for explicit or implicit carbon pricing convey clear messages about the societal advantages of emitting reduced carbon. However, while carbon pricing stands as one of the most potent mechanisms for channeling spending and investment away from polluting sources towards eco-friendly alternatives, numerous countries exhibit reluctance in harnessing this lever, apprehensive of jeopardizing international competitiveness.

In 2023, according to the World Bank, 73 Carbon Pricing initiatives are implemented. These initiatives would cover 11.66 GtCO₂e*, representing 23% of global GHG emissions.

1. Policy tools

Regardless of their stage of development, the global landscape of carbon pricing mechanisms reveals that governments encounter significant technical, political, and legal challenges when striving to establish a credible and impactful price signal. The outcome manifests as a patchwork of carbon prices spanning the globe, offering valuable insights for both policymakers and businesses.

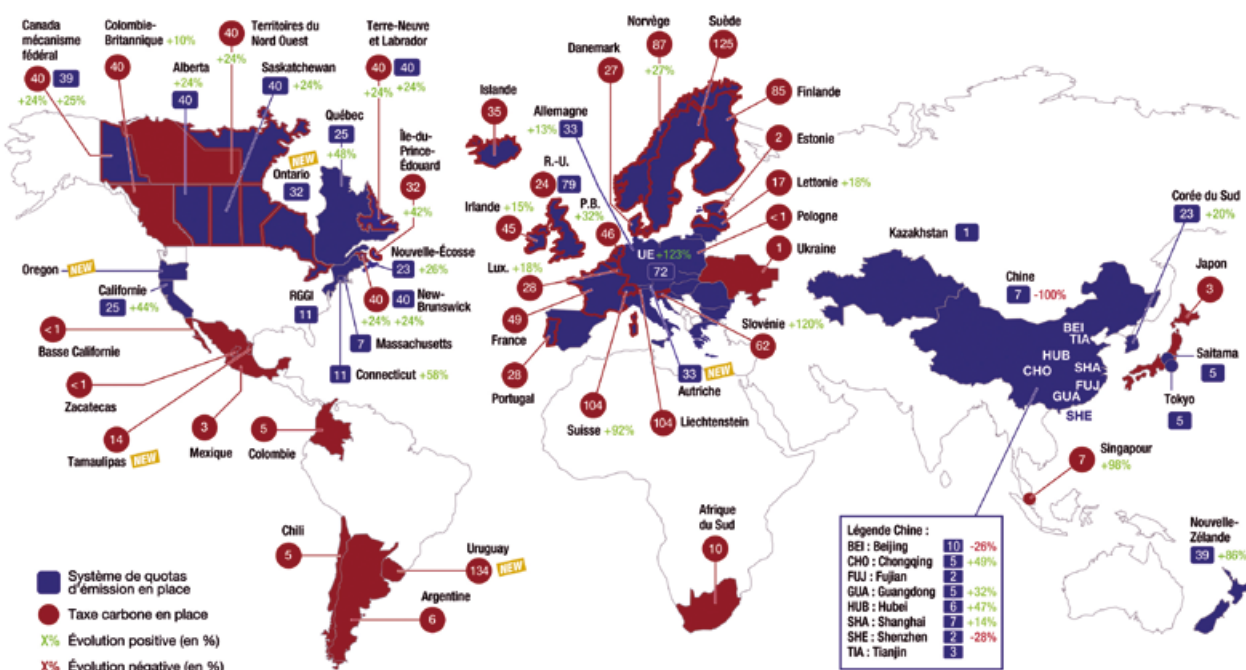
• Direct pricing OF CO₂

In theory, the simplest way to minimize the cost of the low-carbon transition is to apply the “polluter pays”:

- via a **tax system**, the proceeds of which can be reused to reduce taxation elsewhere. France’s carbon tax concerns fossil fuels. It began at € 7/ton of CO₂ in 2014. It has currently been frozen at € 44.60/ton of CO₂ since 2018. The aim is still to reach € 100/ton by 2030.

CARBON PRICING TOOLS

Global Panorama of Carbon Prices as off August 2022 (US \$/t CO₂ eq)



* World Bank - Carbon Pricing Dashboard: <https://carbonpricingdashboard.worldbank.org>
<https://www.i4ce.org/wp-content/uploads/2022/09/220915-18h13-i4ce3632-ComptesMondiaux2022-VA-10p.pdf>

As of May 1, 2020, 31 carbon taxes were in operation worldwide. They brought in \$ 26 billion, 65% of which from EU member countries. As of March 31, 2023, the number of carbon taxes in operation had increased to 37.

Some examples of prices in US \$/ton of carbon worldwide nowadays:

- Sweden: 123
- Norway: 58
- Canada: 23
- South Africa: 8
- Mexico: 3
- via an **emission allowance market**, a 'cap' is generally set, representing the maximum allowable emissions to adhere to the Paris Agreement and prevent missing the target. Carbon 'credits' are then allocated to relevant companies through various methods (such as national auctions or free allocations for the most vulnerable). Subsequently, facilities that exceed their allocated CO₂ emission allowances are obligated to purchase allowances on the market, leading to financial penalties for their excess emissions. Conversely, facilities that reduce their emissions can sell their unused allowances on the market and generate income.

This system enables the achievement of decarbonization goals by directly aligning with decarbonization technologies and the associated emissions reduction costs of various sectors or companies. Companies must strike a balance between the required quantity of allowances and the potential investment needed to lower their emissions, based on their cost functions.

Carbon markets are being established in an increasing number of regions and are expanding

in terms of the volume of emissions they cover. Presently, there are 36 'compliance' carbon markets operating globally. Collectively, these markets encompass nearly a fifth of the world's greenhouse gas emissions.

In Europe, the EU-ETS (European Union Emissions Trading System) was established in 2005. In practical terms, the European carbon market comprises over 10,000 entities responsible for 40% of the total EU emissions, including power generation, district heating, the steel industry, and commercial aviation, among others.

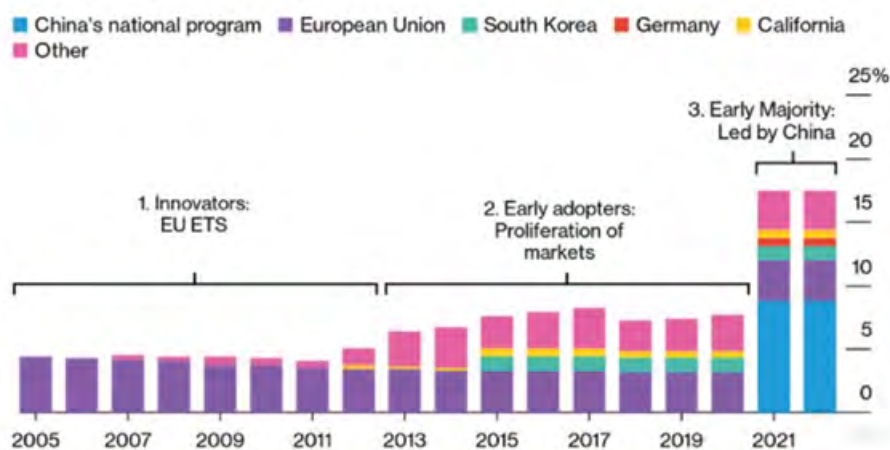
The EU-ETS has long been criticized for its inefficiency, largely due to the allocation of free quotas to heavy industries to mitigate the risk of relocation and carbon leakage to countries with less stringent regulations. This strategy has resulted in a decline in the price of carbon credits and a reduced incentive effect on companies. The EU altered its free allocation policy in subsequent phases (post-2014), leading to a significant increase in allowance prices.

What factors influence the price of allowances? Numerous studies have delved into the subject (Alkathery and Chaudhuri 2021; Boersen and Scholtens 2014; Carnero et al. 2018), concluding that energy-related factors serve as long-term influencers, while macroeconomic factors act as short-term influencers.

Given that the power sector accounts for nearly 39% of European CO₂ emissions and is a major sector under the EU ETS, energy prices play a pivotal role in determining allowance prices (which themselves are heavily influenced by supply and demand). Key factors encompass oil prices, stock market indices, the switching price between gas and coal (the CO₂

EXPANDED REACH

Almost a fifth of global emissions are now covered by a carbon market

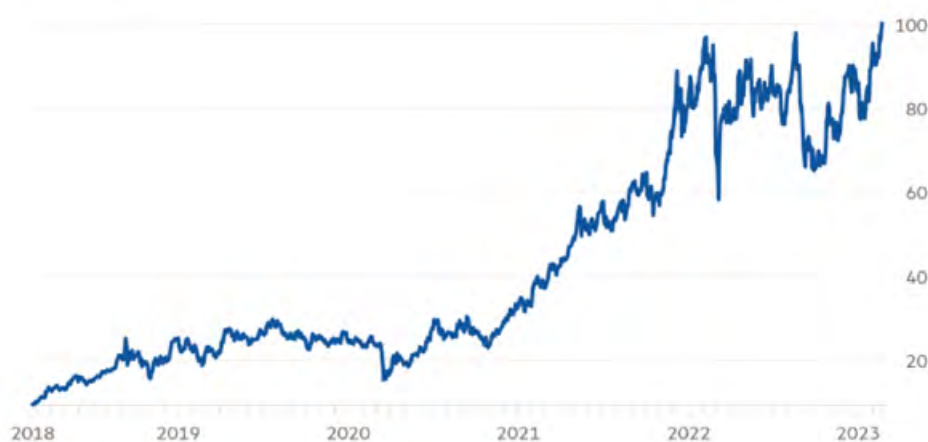


Source: World Bank, BloombergNEF

Note: 'EU ETS' refers to the EU Emissions Trading System

EUROPEAN CARBON REACHES € 100 A TONNE

Price (€/tonne)



Source: Refinitiv, © FT

price at which it becomes attractive in the short term for a power producer to switch from coal to gas, or vice versa), and electricity prices (mainly over the recent period).

Regarding macroeconomic factors, exchange rates and stock market fluctuations significantly impact the oil market during periods of high volatility. It's also noteworthy that uncertainty in the system's early phases (up to 2010), regarding precise rules governing permit market operations up to 2020, led to an under-determination of the carbon price, which should be avoided today.

Concerning the evolution of the EU-ETS, in June 2022, European Parliament approved the following (439 votes to 157):

- The expansion of the carbon market to maritime transport.
- Citizens will remain excluded from the carbon market until 2029.
- The establishment of a separate market, EU-ETS II, for buildings, road transport (heavy goods vehicles), fuels, and space heating from 2027.
- A more rapid reduction in the cap, achieved through releasing a smaller quantity of allowances into the market (-4.3% per year for the 2024-2027 period and -4.4% per year for 2028-2030, corresponding to the reduction of 117 million allowances over two years).
- The gradual phasing out of free quotas allocated to certain sectors, such as the air industry. The reduction will commence from 2027, eventually culminating in their complete removal by 2032.

Finally, concerning this tool, it is expected that carbon prices across various emissions trading systems worldwide will increase between 2026 and 2030, compared to the period between 2022 and 2026. The average EU ETS carbon price is projected

to be around 85.45 € per metric ton of CO₂ during the 2022-2025 period but is anticipated to rise to nearly 100 euros per metric ton of CO₂ from 2026 to 2030, based on a survey of International Emissions Trading Association members.

• Subsidizing avoided CO₂ emissions

Other instruments include those that reward avoided emissions through subsidies for low-carbon investments. These subsidies take the form of support mechanisms for renewable energies and tax credits to promote energy efficiency. For instance, the US launched the 45Q tax credit in 2008, which incentivizes carbon capture by providing a credit for CO₂ storage. The 2022 changes to 45Q offer up to USD 85 per tonne of CO₂ permanently stored and USD 60 per tonne of CO₂ used for enhanced oil recovery (EOR) or other industrial uses of CO₂, contingent on clear demonstrations of emissions reductions. The credit amounts rise for direct air capture projects, reaching USD 180 per tonne of CO₂ permanently stored and USD 130 per tonne for used CO₂.

• Regulating carbon price evolution

In sectors where there is no explicit price, such as agriculture, transport, or waste, setting a price significantly exceeding € 100/ton would be challenging to accept as an incentive for behavior change or to encourage significant fuel consumption reductions by car manufacturers. Hence, regulation becomes valuable to expedite the process and foster technological breakthroughs.

• A carbon reference value

To guide its infrastructure investment decisions, the French government integrates a "carbon reference

value” or price corridor into the socio-economic analysis of projects. In France, this value was estimated at € 30 in 2018 and is projected to be € 100 in 2030. It represents the estimated carbon price required to achieve the national objective of reducing GHG emissions by fourfold by 2050.

• The EU border tax (MACF)

The EU has reached an agreement on a European border carbon adjustment mechanism set to take effect from October 1, 2023, marking a global first for climate policy. This mechanism will extend the regulations of the European carbon market to imports of polluting products, necessitating European manufacturers to procure carbon dioxide (CO₂) emission allowances. The scope encompasses iron and steel, cement, aluminium, fertilizers, electricity, hydrogen, and specific end products like screws and bolts.

The intention is not to establish a market for certificates for imported goods. Instead, it's a system dedicated to materials imported from the value chain of goods produced within the EU. The number of certificates isn't limited, nor is it intended to diminish over time. These certificates will be sold to declarants by competent national authorities without any quantitative limitation. Their price will align with the average closing price of ETS allowances on the common auction platform for each calendar week.

Declarants will also have the option to obtain a reduction in the number of MACF certificates to be surrendered by demonstrating that their goods originating countries have been subjected to carbon pricing.

This mechanism is designed to curb the relocation of EU manufacturing production to countries with less stringent standards. However, it doesn't entirely eliminate the potential for increased offshoring”.

2. Private sector instruments

Carbon pricing is no longer a taboo subject for companies, and many of them are prepared to embrace a carbon price.

• An internal carbon price

Some companies are already incorporating a carbon price into their business models, foregoing the wait for it to be imposed by public authorities. This price can be determined based on carbon market prices, the state's reference value of carbon, or the company's own criteria.

Carbon emissions are thus considered as costs, creating an advantage for projects with relatively lower emissions. This allows climate risk to be factored into decisions by translating the risk into the future carbon cost of the activity, enabling anticipation of regulatory changes that could impact the future profitability of unprepared companies.

• Divestment from the fossil fuel sector

The financial sector is also growing more cognizant of the risks that climate change might pose to its stability. The increasing movement towards divestment from coal and the broader fossil fuel sectors demonstrates the recognition that their long-term profitability is under threat.

• Voluntary offset markets

Certain companies are taking a proactive approach by implementing a form of internal taxation on their carbon-related activities. The revenue generated from this internal tax is then reinvested into internal energy efficiency projects or directed towards carbon offset projects within voluntary carbon markets.

• Carbon offsetting system:

These systems don't directly dictate the price of carbon. Carbon offsetting operates within a voluntary, non-mandatory market accessible to any entity desiring to diminish its environmental footprint (distinct from carbon emission quota systems), and thus avoid emissions costs. Presently, this market is valued at approximately 2 billion dollars, with forecasts indicating growth. Carbon offset prices currently average between \$ 3 and \$ 10 per metric tonne of CO₂, indicating a well-supplied market. However, prices are starting to rise within regulated and voluntary carbon markets due to the influence of other demand drivers, including commitments under the Paris Agreement and market mechanisms. There's a notable surge in demand for credits from the private sector as companies strive for carbon neutrality and ESG objectives, necessitating the acquisition of offset credits.

3. Current carbon pricing globally

Today, there exists a mosaic of instruments explicitly or implicitly pricing carbon at national, regional, or sectoral scales. To date, none of these instruments have been applied on a global scale, as carbon taxes primarily function as national or sub-national measures.

• A universal carbon price?

A survey conducted by the World Business Organisation revealed growing concern among businesses about the increasing fragmentation of these systems. They emphasize the necessity for greater international policy harmonization to attract the private investments required to achieve zero net emissions by 2050. The organization urged COP26 to yield tangible outcomes in promoting the harmonization of existing carbon pricing mechanisms, including robust regulations for emissions trading and offsets under Article 6 of the Paris Agreement; however, no concrete progress was made concerning global carbon pricing.

More than 100 countries have expressed interest in employing carbon pricing to meet their Nationally Determined Contributions (NDCs) under the Paris Agreement.

Within the private sector, a group of investors managing assets exceeding € 5 trillion, under the United Nations' oversight, has called for coordinated global carbon pricing. The global variation in prices and tools distorts competition and obstructs the realization of desired objectives at the lowest attainable cost. However, an international consensus on a uniform global carbon tax remains unlikely, primarily due to the principle of common but

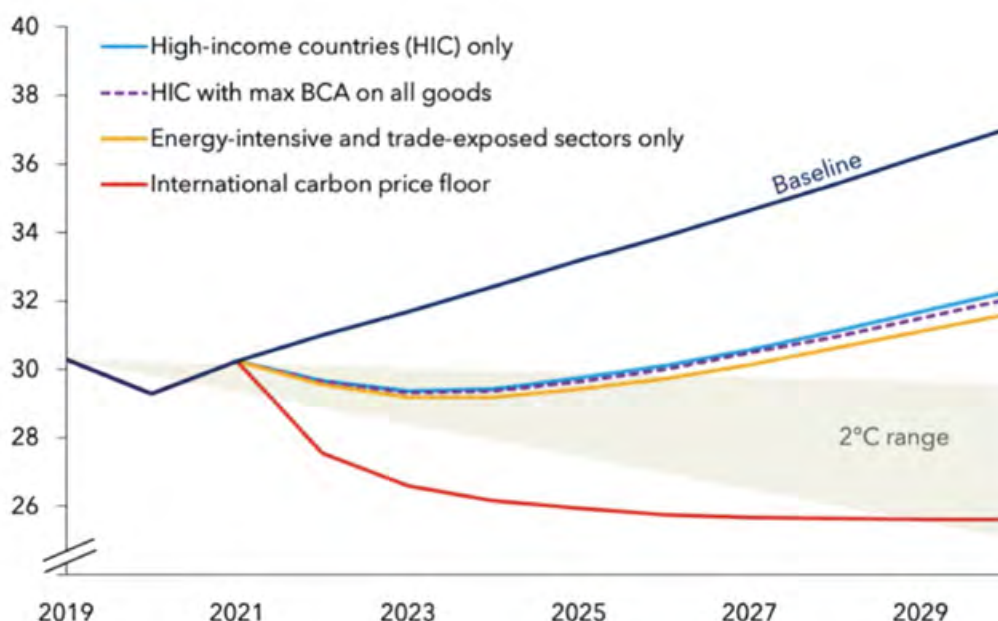
differentiated responsibilities (CBDR) enshrined in international environmental law conventions. This principle requires developed countries to contribute more substantially to climate efforts than less developed nations. Indeed, a flat carbon price would be inequitable since it would not equally affect economically diverse countries. A carbon price of \$ 50, for example, might be unviable in India, given that cement costs twice as much in a rapidly urbanizing nation, whereas the social impact of the same price would be comparatively smaller in France.

While discussions about an international carbon price floor continue, the challenge lies in achieving consensus among nations with varying degrees of economic development, diverse emission profiles, and distinct policy priorities. Establishing an international carbon price floor would necessitate significant political will and cooperation among nations.

Addressing the issue of competitiveness loss due to unilateral carbon pricing could be tackled through an agreement that sets an international floor price for carbon. This solution was proposed by IMF staff in a paper published last year, suggesting that the world's major emitters pay a floor price per ton of carbon ranging from \$ 25 to \$ 75 based on their level

THE ONLY OPTION

An international carbon price floor is the only viable scenario which limits CO₂ emissions sufficiently to prevent global temperatures from increasing above 2 degrees Celsius (emissions, gigatons of carbon dioxide equivalent)



Sources: IMF-ENV model; UNEP (2020)

Note: "High-income countries only" is a scenario in which only HICs implement an international carbon price floor (ICPF); "HIC with max BCA on all goods" is a scenario in which high-income countries implement an ICPF and impose a border carbon adjustment on other nonacting countries; Energy-intensive and trade-exposed sectors is a scenario of an ICPF for those sectors only (albeit HICs apply the ICPF to all sectors). The 2°C range refers to the likely range of emissions that the global temperature increase to the kept to 2°C

of economic development. The proposal acknowledges that some countries might implement measures other than carbon pricing – such as regulations – which should yield emissions reductions equivalent to those of the carbon price floor. The study indicates that simultaneously introducing an international carbon price floor in all countries would offer significant advantages.

Firstly, it would sufficiently reduce emissions to meet the 2-degree target. Secondly, it would have only a moderate impact on global economic growth (provided countries also invest in low-carbon energy). According to their estimates, the international price floor would decrease global GDP by 1.5% by 2030 compared to a scenario without the price floor, with the poorest countries experiencing a more modest slowdown (only 0.6%). This cost is the price we must pay to avoid the much higher costs associated with failing to curtail carbon emissions, as the IPCC explains.

Thirdly, it would ensure that transition costs are distributed in accordance with the respective responsibilities of countries at varying income levels, achieved through differentiated floor prices. The proposal suggests a floor price of \$ 25 per ton of carbon for low-income countries, \$ 50 for middle-income countries, and \$ 75 for high-income countries. This approach would be fairer than a uniform global price and would decrease the need for additional transfers between countries, which have proven to be politically challenging.

The ultimate advantage of an international carbon price floor is that high-income countries would not experience significant competitiveness loss, even with differentiated price floors. Products from middle-income and low-income countries generally possess higher carbon contents, balancing the lower carbon price and higher carbon intensity. Consequently, a given product would entail similar carbon payments across all income groups.

This proposed floor price remains in its conceptual stage. In actuality, the Paris Agreement currently stands as the most advanced framework for international cooperation concerning carbon pricing. Article 6 of the agreement provides a foundation for facilitating international acknowledgment of collaborative approaches to carbon pricing, introducing novel concepts that could potentially pave the way for further cooperation.

Paragraph 136 of the initial COP 21 decision acknowledges the pivotal role of incentives for activities aimed at reducing emissions, encompassing tools like national policies and carbon pricing. Numerous plans submitted to the UNFCCC also highlight the significance of carbon pricing, with approximately 100 countries incorporating or

contemplating carbon pricing mechanisms in their Nationally Determined Contributions (NDCs).

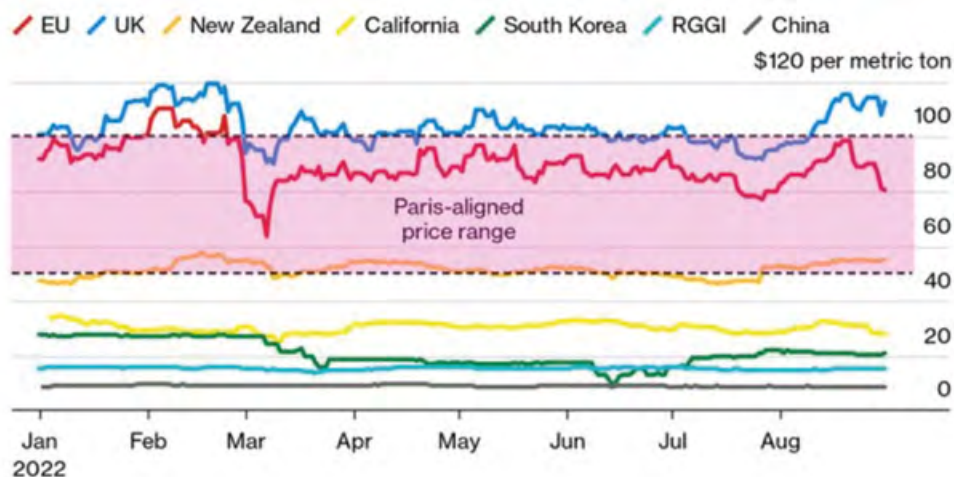
Although discussions within international organizations about minimum carbon prices or policy alignment persist, tangible progress in this direction has yet to materialize.

TO FIND OUT MORE :

<https://about.bnef.com/blog/the-untapped-power-of-carbon-markets-in-five-charts/#:~:text=There%20are%20now%2030%20%27compliance,for%20the%20emissions%20they%20produce.>

FALLING SHORT

Only carbon prices in Europe and New Zealand are currently high enough to meet the goals of the Paris Agreement



Sources: World Bank, BloombergNEF

Note: 'RGGI' refers to the US Regional Greenhouse Gas Initiative

Uncertainty acts as a catalyst for caution, making it prudent to potentially guarantee the future trajectory of the carbon price within the ETS emissions permit market in the European Union and other international markets. Such a guarantee of long-term visibility would instill confidence in transition stakeholders and mitigate a significant portion of the downside risks associated with their green investments. It's important to acknowledge that this proposal comes with an economic cost, as elucidated earlier. Indeed, should a substantial and cost-effective decarbonization technology emerge in the decades to come, maintaining a high carbon price might

inadvertently cause us to surpass our climate targets.

In conclusion, while carbon pricing plays an indispensable role, it alone may not entirely resolve the challenge of climate change; complementary and ambitious policies are indispensable. The financial services sector holds a pivotal responsibility in managing tail risks. To fulfill this role effectively, enhanced information and more comprehensive disclosure practices are imperative for all market participants, empowering investors to make well-informed decisions.

Antitrust Policy and ESG Cooperation in the Financial Sector

Note written by Jean-François Pons, Alphalex-Consult

“La calomnie, monsieur ! Vous ne savez guère ce que vous dédaignez ; j’ai vu les plus honnêtes gens près d’en être accablés” Beaumarchais, *le Barbier de Séville*

In November 2021, at the COP in Glasgow, Mark Carney, special UN Envoy for Climate Action and Finance and ex-Governor of the Bank of England (and who was amongst the first to warn about the impact on climate change on financial actors), announced the creation of the Glasgow Financial Alliance for Net Zero (GFANZ). This Alliance regroups more than 500 large financial actors worldwide (banks, insurers, asset owners, asset managers, financial services providers and investment consultants), representing around 40% of global financial assets and committed to work together to support the transition decided in the Paris climate agreement to a climate change limited to 1,5° and to a net zero economy in 2050. The Alliance was founded to expand the number of net zero-committed financial institutions and to establish a forum for addressing sector-wide challenges associated with the net zero transition. GFANZ has worked to develop the tools and the methodologies needed to turn financial institutions’ commitments into action.

The GFANZ and other alliances between financial actors have been confronted in the United States by recent antitrust initiatives by Republican Senators and House Representatives and by State Attorneys General (1), who have shown the will of using antitrust laws to oppose ESG (Environment, Social, Governance) efforts of cooperation between important financial actors. In October 2022, 19 State AGs served subpoenas on six US large banks seeking information in the Net-Zero Banking Alliance, which is a sub-group of the GFANZ. In March 2023, a letter from 21 states Attorneys General to various asset-managers confirmed their will of using antitrust law to oppose ESG efforts.

There is an evident political background of this initiative: these States are governed by Republicans, who are climate-skeptical and opposed to ESG initiatives by all possible means.

But the threat of antitrust litigation cannot be taken lightly. The typical advice of a lawyer to a firm on this kind of issue would be to be cautious.

The threat of antitrust litigation seems to have had

an impact on the GFANZ. A significant number of members have left the Alliance in the last months due to this threat and/or other reasons.

The European Commission and the United Kingdom Competition and Market Authority have recently taken position on this issue. The UKCMA has published a draft guidance in February 2023. The European Commission has revised its Horizontal guidelines in June, after consultation, to give a specific guidance on sustainable agreements. Guidelines are not laws and they do not as such put in place any obligation on the companies. But they put obligations on the authorities which have issued them insofar as they are obliged to interpret the law as they have announced that they would, and so they are useful tools for companies.

•

The content of the antitrust challenges in the United States

The AGs March letter expresses concern that participation of asset-managers in ESG initiatives could constitute collusive behavior in violation of antitrust laws, as they exert “coordinated pressure” on companies to reduce greenhouse gas emissions and “commit to forcing” these companies to align with their ideals. One of these initiatives, Climate Action 100+, is described as “an agreement to limit... the asset stewardship services offered by asset-managers” and that this will have adverse effects on competition.

The letter also suggests that companies may be orchestrating “group boycotts”, when refusing to deal with entities which do not support ESG initiatives.

The letter warns in addition asset-managers that unilaterally using proxy advisor guidance that aligns to Climate Action 100+ or Net Zero Asset Managers (NZAM) commitments in voting may be deemed a violation of antitrust laws.

Finally, the State AGs argue that **“there appears to be less restrictive means” to accomplish most of the goals related to disclosure.**

Some Republican AGs, Senators or House Representatives have put forward more stringent arguments, alleging for instance that Climate Action 100+ “pressured companies to shut down coal and natural gas plants... and that these activities likely were contributing to rising gas prices” (Arizona AG in May 2022).

It must be recalled that **State Attorney Generals do not decide any case.** This is for the courts in their judgements. There is a long way to go before a judgement issued by a court. But of course, companies can want to avoid a litigation on such an issue.

Up to now, **the antitrust authorities of the United States have not published any position** on this matter.

1. The flexible approach of the United Kingdom Competition and Markets Authority

In February 2023, the UK Competition and Markets Authority (CMA) has published for consultation draft guidance on environmental sustainability agreements (2).

Modeled on the competition rules of the Treaty of the European Union, the Competition Act 1988 prohibits certain agreements that have “as their object or effect the prevention, restriction or distortion of competition”. But these agreements can be exempted if “they contribute to improving the production or distribution... or to promoting technical progress, while allowing consumers a fair share of the resulting benefit”, provided that they do not impose any restrictions on that are not indispensable to achieve those objectives and do not eliminate competition.

In the most important part of the draft guidance, the CMA explains its approach to the four criteria that must be established for the exemption to apply:

- the agreement must give rise to benefits to production, distribution or technical or economic progress;
- the restriction of competition arising from the agreement must be indispensable to achieve these benefits;
- consumers must receive a fair share of the benefits;
- there must be no elimination of competition.

The analysis of these four conditions for ESG initiatives, and in particular for climate change agreements, by the CMA leads to the following conclusions:

- **CMA will consider environmental benefits to be efficiencies** (in line with existing jurisprudence);
- CMA give two interesting **examples of the indispensability of the agreements**: competitors entering into a collective purchasing agreement in order to increase demand and drive economies of scale for a more sustainable input (e.g., a plastic replacement); an agreement between competitors to switch to a more sustainable, but more expensive input, where no single company would be incentivized to make this change alone, because there is a “first mover disadvantage”;
- **CMA plans to exempt environment sustainability agreements** if the “fair share to consumers” condition can be justified;
- **The condition of the non-elimination of competition must always be fulfilled.**

The draft guidance asks the businesses to quantify the benefits of the agreement and demonstrate that they are sufficiently significant to offset the harm arising from the restriction of competition.

The approach of the CMA is more open to climate change agreements, because climate change “represents a special category of threat that sets it apart and requires a different approach”.

First, the CMA plans to take into account the totality of the benefits to all UK consumers, not just those that are affected by the restriction of competition. To benefit from this approach, the parties to the agreement would need to demonstrate that the benefits are in line with legally-binding requirements or with well-established national or international targets.

Secondly, for the quantification of the benefits expected from climate change agreements, the draft guidance notes that in many cases it will not be necessary to do a precise quantification, for example when the agreement will give rise to a limited restriction of competition but a significant sustainability benefit.

The draft guidance provides also that the CMA intends to operate an open-door policy and invites businesses to make contact at an early stage in the development of environmental sustainability initiative, having first conducted an initial self-assessment of their agreement following the principles set out in the guidance, including a quantification of the expected environmental benefits.

Finally the CMA intends to publish anonymized summaries of sustainability agreements which have been shared with it for consultation, in order to develop a body of positive decisional practice.

In conclusion, the draft guidance intends to facilitate businesses' intention to address environment sustainability agreements and even more for climate change agreements. It is a clear rebuff of the position taken by Republican officials in the United States.

2. The position of the European Commission

In a speech in April 2023 (3), Margrethe Vestager, Vice-President of the European Commission and Competition Commissioner, said "antitrust rules should support the green transition". For her, "cooperation can be a good thing", notably to overcome "the first mover disadvantage" (same argument as the UKCMA). But she warns that "the last thing Europe needs is cartels using sustainability as a cover for illegal collusion".

She announced a reform of the Horizontal guidelines, which will include a new chapter on sustainability agreements. "We want to provide companies with a clear framework to assess their initiatives and we stand ready to engage with those companies that want to discuss and obtain guidance" (like the UKCMA).

In June, the European Commission adopted new Horizontal guidelines (4), which included a specific part on sustainability agreements. These guidelines are very detailed and give many practical examples, but none of them in the financial sector.

The most important points of these guidelines are the following:

1. The Commission recalls that **sustainable development is a core principle of the EU Treaty and policy and estimates that "sustainability agreements" can play a positive role in this regard.**

Competition enforcement contributes to sustainable development by ensuring effective competition, which stimulates innovation and contributes to the consumer welfare. However, the Commission recognises that individual production and consumption decisions can have negative effects on factors like the environment. One way of addressing or mitigating such market failures is through collective action, including "sustainability agreements".

2. The Commission uses the term '**sustainability agreement**' in the Guidelines to refer to any type of agreement between competitors that **genuinely pursues one or more sustainability objectives**. And it says that the notion of a sustainability objective includes, but is not limited to addressing climate change, eliminating pollution, limiting the use of natural resources, respecting human rights, fostering resilient infrastructure and innovation, reducing food waste, facilitating a shift to healthy and nutritious food, and ensuring animal welfare.

3. **The Guidelines make clear that some types of sustainability agreements are generally permissible** (under Article 101(1)), including some examples which may seem obvious:

- agreements on internal corporate conduct that do not concern the economic activity of competitors, for example measures to eliminate single-use plastics in the business premises, to not exceed certain temperatures in the buildings, or to limit the number of printed materials;
- agreements to create databases containing information about suppliers with sustainable value chains, production processes, or inputs, without the requirement to purchase from those suppliers or sell to distributors; and
- organising industry-wide awareness campaigns on the environmental footprint of consumption, without joint advertising of particular products.

4. **More importantly, the Guidelines provide specific guidance on standardisation agreements in the sustainability field**, which are agreements where competitors agree to adopt and comply with certain sustainability standards, such as manufacturing methods or input standards intended to phase out, withdraw or replace non-sustainable products and manufacturing methods.

The Commission's draft guidance clarifies that such arrangements are generally unproblematic from an EU competition law perspective provided the following cumulative conditions are met:

- the procedure for developing the sustainability standard is transparent and all interested competitors can participate in the process leading to the selection of the standard;
- there is no obligation on companies not participating in the standard to comply with the standard;
- participants remain free to adopt for themselves a higher sustainability standard than the one agreed among the participants;

- participants do not exchange commercially sensitive information that is not needed for the development, adoption or modification of the standard;
- access to the outcome of the standardisation procedure is effective and non-discriminatory;
- the standard does not lead to significant price increase or reduction in choice of products; and
- there is a mechanism monitoring the compliance with the standard by undertakings that have adopted it.

Failure to meet one or more of these conditions does not automatically mean that the arrangement is anticompetitive. However, if any of the conditions are not met, the sustainability standardisation agreement requires further justification to determine whether it could have a negative effect on competition.

5. **Even if an agreement has negative effects on competition, the Guidelines recognise that the sustainability aim can benefit consumers in several ways, and may therefore be exempted from the rules on anticompetitive agreements, if the parties prove that the traditional four cumulative conditions under Article 101(3) are satisfied:**

- the agreement in question contributes to improving the production or distribution of goods or to promoting technical or economic progress, such as use of cleaner production or distribution technologies, more resilient supply chains or better quality products;
- the agreement must not impose restrictions that are not indispensable to the attainment of the sustainability benefits under the agreement;
- consumers must receive a 'fair share' of the benefits under the agreement, which occurs when the benefits deriving from the agreement outweigh the harm, so the overall effect on consumers is at least neutral; and
- the agreement must not allow the parties to eliminate competition.

With regard to the consumer benefits, the most obvious are use-related benefits, such as the use of a healthier product. The less obvious (but still recognised) ones are non-use related benefits, such as a product that results in less water contamination or more limited deforestation.

The Guidelines also acknowledge that, in certain circumstances, **collective benefits of sustainability objectives can occur, irrespective of consumers' individual appreciation of the product.** The Commission gives the example of

drivers purchasing less polluting fuel also benefitting from cleaner air, if less polluting fuel is used. To the extent that there is a substantial overlap of consumers (the drivers) and the beneficiaries (citizens), the sustainability benefits of cleaner air are in principle relevant for the competition assessment and can be taken into account if they are significant enough to compensate consumers in the relevant market for the harm.

Therefore, **the Commission essentially requires full compensation of the consumers on the relevant markets**, contrarily of the UK authority for climate agreements and despite some criticism during the consultation. Their position is that "full compensation" is a matter of judgement and is actually the nature of the balancing act between restrictions in Art.101(1) and benefits in 101(3) to compare negative quantifiable impact on prices with usually longer term more qualitative benefits for consumers.

6. **The Guidelines also remind companies wishing to enter into a sustainability agreement that they can request informal guidance** from the Commission in order to ensure compliance with EU competition rules. The provision of such guidance may complement the general framework of analysis set out in the new sustainability chapter. Commissioner Vestager explicitly envisaged adopting the first time positive decisions under Art.10 of Regulation 1/2003 if confronted with cases where the balance between restrictions and compensation described above is not crystal clear.

This possibility offered by the Commission is of course to be welcome.

Conclusion

The antitrust controversy led by Republican officials in the United States has for objective to create an environment more difficult for the climate and the ESG alliances of financial actors.

In a recent article (5), Nathan Fabian (PRI, Principles for Responsible Investment) argues that these antitrust arguments are misguided and should not diminish the transition. He underlines that "one of the most effective ways to enable markets – and therefore long-term returns for investors – is for investors to come together to develop frameworks and encourage progress to the interest of their clients and beneficiaries... Collaboration creates the potential for more simplicity and efficiency for companies".

The new horizontal guidelines of the European Commission, as also the draft guidance of the Competition Market Authority of the United Kingdom, go in the same direction and have clarified their position which in general contradict the position of the US Republican officials. They notably underline the benefits that can be produced by sustainable agreements between competitors, they define some “safe harbour” cases and at least they give rather clear check-lists that firms, including financial entities, must carry out before entering in sustainability agreements.

They also offer to the firms the possibility to request informal guidance from them before entering into sustainability agreements.

These new guidelines should comfort ESG cooperation in the financial sector.

•

Bibliography

1. Latham & Watkins : “ESG initiatives face increased pressure from potential antitrust challenges”, May 2023.
2. CMA: “Draft guidance on the application of the Chapter 1 prohibition in the Competition Act of 1998 to environmental sustainability agreements”, February 2023.
3. European Commission: “EVP Vestager speech at the Global Competition Law Conference: Competition policy for greater resilience and effective transition”, April 2023.
4. European Commission: “Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements”, June 2023.
5. Nathan Fabian: “Misguided antitrust arguments must not diminish the transition”, August 2023, Environmental Finance.

Case Study

The ambition and uncertainties of the aviation net-zero transition plan challenge the financial sector

Note written by Jean-Marie Andres & Louise Le Borgne

EXECUTIVE SUMMARY

The aviation sector is confronted with the urgent task of reducing its GHG emissions and aligning with net-zero targets by 2050, all while forecasting a doubling of traffic. This case study delves into the complexities and obstacles faced in the aviation industry's journey towards decarbonization. The ICAO1 and the ATAG1 have set a target of zero GHG emissions growth for the international civil aviation sector since 2019, putting the spotlight on innovation, SAF2, and offset mechanisms. Nonetheless, doubts persist about the feasibility of these ambitious goals.

Main challenges:

- **Insufficient production of SAF:** The industry's reliance on green fuels surpasses the current volume available. Biomass competition among sectors restricts contributions to biofuels, and high costs introduce additional obstacles. In 2022, around 240,000 tonnes were produced, whereas the total production capacity in 2050 is projected to reach approximately 450 Mtoe against a 2050 goal of 4,800 Mtoe (with a 30% consumption reduction due to enhanced efficiency).
- **Uncertain availability of green technologies:** Technological innovations, like electric and hydrogen propulsion, hold the potential for emission reductions. However, translating these advancements into practical applications encounters significant challenges and uncertainties, especially regarding the timeline for industrial-scale implementation. Most commissioning announcements pertain to individual players rather than sector-wide adoption (the transition plan refrains from mandating a technology still in the R&D phase for all companies but instead suggests potential avenues to explore).

- Commissioning of engines using 100% SAF: 2030-35
- Airbus has revealed the development of a hydrogen aircraft by 2035
- Global fleet transition to hybrid/electric aircraft and innovative architectures from 2035-40 (scenario 1)

- **Reliance on carbon offsets smaller than anticipated:** The industry heavily depends on carbon offset mechanisms like CORSIA to compensate for unavoidable emissions (between 6 and 76% of the efforts). The mandatory phase for all airlines worldwide commences in 2027. However, the efficacy and environmental integrity of these offsets remain subject to debate, primarily due to the loss of natural sequestration capacities across various regions worldwide.

Key Recommendations:

- **Clarify sustainability criteria for aviation sustainable fuels:** Public authorities should establish sustainability criteria for SAFs, considering the emission reduction levels across the fuel's entire life cycle. This would offer clear guidance to investors and simplify the identification of investment opportunities within this expanding field.
- **Provide venture capital to foster innovation and SAF production facility investment:** Given the substantial required investments and the urgency to replace kerosene, financial institutions could supply venture capital for constructing sustainable fuel production facilities and new infrastructure. Airlines could also commit to purchasing sustainable fuels at predefined prices or price differentials compared to traditional kerosene, thereby eliminating market risks for fuel suppliers, price volatility risks for applicants, and transition risks for investors.

- **Adapt depreciation rules:** Swift decisions are essential to mitigate the economic impact of deviating from the traditional asset depreciation rhythm. Policymakers could create incentives for SAF production by reallocating aviation taxes to fund decarbonization, thereby narrowing the remaining cost gap between conventional oil and sustainable fuels.
- **Harmonize regulations:** Ensure convergence between global programs (such as CORSIA) and regional initiatives like EU-ETS, minimizing competition distortions and maximizing emissions reductions. Extend carbon quota systems to encompass global domestic flights.
- **Improve transparency and carbon offsetting quality:** Establish robust criteria for carbon offset credits, preventing double counting and preserving environmental integrity. Consider governmental regulations and price floors to prevent subpar quality credits from undermining emissions reduction endeavors.
- **Strengthen international collaboration:** Foster partnerships and knowledge exchange among stakeholders, leveraging collective efforts to accelerate the adoption of sustainable practices in aviation and transportation at large.

The aviation sector faces significant challenges in attaining its net-zero emissions goal while accommodating traffic growth. Innovations in green fuels, technological advancements, and effective carbon offset mechanisms are pivotal, necessitating considerable investment, regulatory alignment, and collaboration. Government support, transparent sustainability criteria, and enhanced financial incentives are vital to achieving a sustainable and decarbonized aviation industry.

•

Climate change poses an almost existential threat to commercial aviation. With current emissions around 900 MtCO₂eq/year, the civil aviation industry is committed to reducing its emissions and aligning itself with Net-zero objectives by 2050 while doubling its traffic.

On the road to Net-zero, the aviation industry is showing itself to be **dependent on green fuels**, for which the volume produced is largely insufficient, and on future technological innovations. To achieve

zero net emissions, the industry also intends, to a lesser extent, to make massive use of “credit offsets”, the reality and effectiveness of which are open to debate. This objective is still possible according to the assumptions of the International Civil Aviation Organization (ICAO), but not everyone is convinced the target is achievable – a recent poll of industry executives by GE Aerospace found that 32% doubt it can be reached. This case study is inspired by a Montaigne Institute paper¹.

1. Challenging ambitious aviation decarbonation plans in the face of doubled traffic by 2050

In 2020, the ICAO and the ATAG (Air Transport Action Group), representing the global aviation industry, set a target of zero growth in GHG emissions for the international civil aviation sector to align with the Paris Agreement.

To achieve this, airlines must commit to lowering their emissions by implementing innovation and technical/operational improvements, accessing sustainable aviation fuels (SAF) in accordance with the recommendations of the **LTAG** (Long-Term Aviation Goals) reports, and offsetting remaining incompressible emissions. This offsetting involves purchasing carbon credits through the CORSIA scheme to compensate for emissions exceeding the 2020 level.

Depending on the transition scenario analyzed by the ICAO and ATAG, the contribution to decarbonization from these various levers differs significantly.

The ICAO promotes the “Scenario 3 WayPoint 2050” (Annex 1), which primarily focuses on reducing carbon emissions through the use of **sustainable aviation fuels (SAF) (53%), technology innovation (34%), operational and infrastructure optimization (7%), and offsetting mechanisms and carbon capture (6%)**.

Another scenario, the “Scenario 0 Waypoint 2050 low SAF”, places greater emphasis on **offsetting (76%), with technology innovation (10%), operational and infrastructure optimization (9%), and SAF (5%)** making more modest contributions.

These simulations reveal that, while challenging, achieving the net-zero pathway for the aviation sector heavily relies on important innovation breakthroughs and widespread access to sustainable aviation fuels, as carbon offsetting alone may not suffice.

1. <https://www.institutmontaigne.org/ressources/pdfs/publications/aviation-decarbhonee-embarquement-immmediat-rapport.pdf#page=52>

2. The necessity to unleash innovation though actual formidable obstacles

2.1 Multiple innovation opportunities

Aviation's transition ambitions are marked by their boldness in terms of innovation. The simulations are based on the CAEP² Task Force on the Feasibility of a Long-Term Ambitious Target (LTAG-TG) to Reduce CO₂ Emissions from International Civil Aviation³, which developed three integrated sector scenarios. Each scenario is built upon a subset of technology, fuel, and operational scenarios, representing a wide range of readiness states and delivery capabilities. It's evident that the different scenarios present varying strategies concerning technologies based on anticipation. However, they all may encounter significant challenges in translating these advancements into reality, leading them to often be considered unrealistic.

Innovation, as considered by the LTAG report, includes:

- Implementing technical and technological innovations in aircraft engines and structures. This entails (hybrid) electric propulsion and hydrogen propulsion, along with accelerating the incremental reduction in aircraft fuel consumption. Facilitating the financing of fleet renewal (every 15 to 20 years) as new technologies emerge is essential for these innovations. This could be achieved through mechanisms such as taxonomy or accelerated depreciation.
- Enhancing performance in all transportation phases, including ground operations and air traffic management. Unconventional measures like formation flights and introducing inter-modality for the start/end of journeys (connecting main rail stations to terminals for easier transitions) are considered.
- The primary lever for decarbonization remains the replacement of fossil fuels with sustainable aviation fuels (SAF). These include biofuels based on biomass, waste, low-carbon aviation fuels (LCAF), and e-fuels produced from electricity, water, and CO₂ (synthetic electrofuels, or PtL for Power-to-Liquid).

By 2050, the ICAO aims for a 55% reduction in fuel emissions in Scenario 3 WayPoint 2050. Given that operational costs make up 20% to 40% of airline

expenses, replacing conventional kerosene-based fuels (derived from high-emission petroleum) is imperative, especially since it's the most effective lever for emission reduction. New fuels, along with associated technical innovations in fuel efficiency, have the potential to reduce climate impact by up to 50% by replacing fossil kerosene, which is encouraging.

According to CAEP, innovation in aircraft technology could lead to a 21% reduction in CO₂ emissions by 2050, provided we take action promptly. However, caution should be exercised when interpreting absolute CO₂ emission levels in various reports due to modelling assumptions⁴. Hydrogen-powered aircraft might exhibit lower in-flight fuel efficiency compared to aircraft using interchangeable fuels. The extent of CO₂ emission reductions depends on the lifecycle of the hydrogen used, and the production of interchangeable fuels may be less energy-efficient than the production of liquid hydrogen on a lifecycle basis.

Ultimately, while integrated scenarios demonstrate the potential for a substantial reduction in CO₂ emissions, none of them predict zero CO₂ emissions through sector-specific measures, even with a 100% replacement of conventional jet fuels by SAF. This underscores the vital role of carbon offsetting in the Net-zero plan without significantly reducing flight levels.

2.2 Uncertain SAF availability

While the aviation sector relies on sustainable aviation fuels (SAF), several physical, technological, and economic barriers on the production side will likely prevent biofuels from surpassing conventional kerosene by 2050, as indicated by the ICCT.

Each mode of transportation follows a distinct and varying trajectory towards advanced decarbonization, featuring a specific level of penetration of substitution technologies. However, there exists a shared need for biofuels across transportation modes to mitigate the environmental impact associated with high petroleum product consumption.

Furthermore, the energy demand is closely linked to the evolution of total transport traffic. A decrease in traffic of around 30% compared to the projected 2050 levels could lead to a reduction of approximately 40% in the requirement for carbon-free energy. Conversely, a traffic increase of about 30% would necessitate a 35% energy increase.

2. CAEP : a group of researchers dealing with technical issues related to the implementation of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), including the maintenance of the Standards and Recommended Practices (SARPs) contained in the Convention on International Civil Aviation and related guidance.

3. This report is based on 3 integrated scenarios developed for the LTAG, considering "readiness, achievability and ambition" (See Annex 1).

4. e.g., aircraft continue to enter the fleet, but their technology is frozen at 2050 levels (no further technological improvements after 2050, resulting in higher than expected CO₂ emissions after 2050).

Expected exploding investments and operating costs of innovation:

ICAO stressed that a lot of investment and funding would be needed to promote the achievement of the plan.

Concerning Investment needs between 2020-2050, according to ICAO for the Integrated scenario 2 :

- **Technology** : Needed investment range \$ 335-1830 B
- **Operations** : Needed investment \$ 97 B
- **Fuels** : Needed investment \$ 2305 B + 2,705 trillion of incremental costs to airlines

See annex 3 for costs and investments details of Waypoint integrated scenario 2 (medium ambition and medium level of traffic forecast).

Low speculative savings

Faced with the colossal investments required, the quantified gains to date seem relatively low. According to the ICAO Integrated Scenario 2, investments in the different categories would:

- **Technology**: reduced operator fuel costs: ≈ \$ 740 B
- **Operations**: - reduced operator fuel costs: ≈ \$ 300 B

The decarbonization of air transport is integral to a global energy transition, entailing the large-scale production of decarbonized energy to replace fossil fuels. Oil, being a high-carbon energy source, is extensively used in transportation, as well as for petrochemicals and heating. The global consumption of petroleum-derived fuels (gasoline, diesel, kerosene, heavy fuel oil, etc.) was approximately 2,600 Mtoe in 2018 and could potentially reach 4,800 Mtoe by 2050, according to the Montaigne Institute.

Hence, while the available sustainable biomass might be sufficient for the aviation sector alone, this adequacy diminishes when considering all sectors collectively. Biomass availability will face competition between sectors, thus limiting the contribution of biofuels to aviation's alternative fuel supply. These physical limitations introduce elevated risks, rendering sector planning particularly uncertain, especially in cases of similar needs among sectors.

2.3 The cost of biofuels raises an additional concern

Currently, biofuels cost 2 to 5 times more than fossil kerosene. Even in industrial production, biofuels are expected to remain the most expensive option, unless influenced by carbon tax or other financial mechanisms that might favor e-fuels if carbon prices remain at their current levels.

2.3 Rolling out certain new technologies requires almost a revolution

The results of current technological innovations are still highly speculative, as they are generally still in the R&D phase. Meanwhile, the aviation industry has set targets for 2050, which is less than 30 years from now, and the level of investment needed to industrialize such innovations is colossal.

In the case of hydrogen, the current results appear promising, with a potential reduction in the carbon footprint of up to -65% according to Carbon4, including non-CO₂ effects. However, even in its condensed form, hydrogen takes up three times more space than paraffin, necessitating larger tanks. Additionally, it comes with greater safety constraints compared to kerosene.

As a result, hydrogen requires changes to the entire airport ecosystem, including hydrogen production, storage, and aircraft refueling. This implication carries a particularly high cost, coupled with a significant level of risk for investors⁵. Furthermore, historical precedent demonstrates that it can take between 20 and almost 70 years for new energy technologies to progress from the initial prototype to materialization, which means reaching 1% of a national market (Gross, 2018; Bento, Wilson, and Anadon, 2018).

5. Airbus recently announced its intention to develop a hydrogen-powered single-aisle aircraft that would enter service in 2035 and cover a radius of 1,500 km. Longer-range aircraft would have to wait until 2045. And even with a great deal of political will, it will take time for these breakthrough technologies to spread and have a significant impact on the world fleet, even though the industry has set targets for 2050. ICCT estimates that hydrogen could contribute between 6% and 12% to the decarbonization of aviation by 2050, due to the slow implementation of changes, and even IATA considers that it should only represent 10% of the fuel used by that date.

3. The controversial path of carbon offsets in the aviation's quest for net-zero

CORSIA system

CORSIA, the world's first market-based offsetting scheme, offers a harmonized means of offsetting emissions for the international aviation sector, which constitutes more than 60% of global traffic. The scheme aims to minimize market distortions while considering the specific circumstances of ICAO Member States.

The CORSIA scheme offsets the volume of CO₂ emissions that cannot be reduced through technological improvements, operational enhancements, and sustainable aviation fuels. It achieves this by using emissions units from the carbon market.

Starting from January 1, 2019, all aircraft operators, including large passenger airlines, cargo airlines, business aviation, and private aviation, with emissions exceeding 10,000 tons of CO₂, are required to annually report their emissions to their respective national authorities. These authorities then determine the number of offset credits needed for each airline.

To alleviate administrative burdens on operators with low activity levels and offset requirements, an offset threshold of 3,000 tons of CO₂ over a three-year compliance period has been agreed upon.

Certain situations, such as island countries and least developed countries, are excluded from the scope of application.

By January 1, 2024, the mechanism will include 120 companies. The year 2021 marks the commencement of using all CORSIA-eligible emission units during the first phase. Refer to Annex 4 for a list of entities whose programs are eligible to supply emission units to CORSIA during its initial phase.

The analysis period has been extended to 2070 to observe the effects of new technologies that will enter the fleet by 2050. In order to incentivize innovation when technological and technical improvements are not available in the year following their introduction, the CORSIA mechanism can rely on 75% of the associated efforts of "decarbonization". This further fuels the debate over offsetting choices.

CORSIA v.s EU-ETS

Insufficient convergence and remaining competition challenges in the global aviation's battle for carbon neutrality

Two major carbon quota systems will now coexist: the EU-ETS (European scale) and CORSIA (global scale). While they differ in terms of geographical coverage, approach, applicability, and the objective of limiting CO₂ emissions from the aviation sector is comparable, albeit with the EU-ETS being stricter. It is essential that the coexistence of these systems does not distort competition, eventually leading to convergence towards a carbon-neutral objective, and encompassing all commercial international flights (*see Annex 6*).

The EU-ETS operates as a cap-and-trade system, where covered sectors like air transport must not exceed their authorized emissions cap. To achieve the goal of reducing emissions by 55% between 1990 and 2030, the EU is currently in the process of reducing the cap. This action is intended to send a strong price signal, incentivizing emission reductions and discontinuing the issuance of free allowances.

CORSIA, on the other hand, is a compensation system without a cap on the total CO₂ emissions. Airlines are required to offset their emissions against 2019 levels (which are considerably higher than those of 1990). Therefore, the system aims to achieve carbon-neutral growth from 2019 (not from 1990 as the EU is aiming for by 2050). Implementation of CORSIA is expected to take time, with potentially extended 5-year test phases, all while the climate emergency persists. The system only covers a limited scope of emissions and partly relies on carbon offsetting, which does not effectively reduce emissions.

This asymmetry of ambition presents several limitations. Firstly, due to the EU-ETS's higher ambition, it could lead to higher costs, potentially impacting the profitability of EU airlines or directly.../...

.../... influencing ticket prices. This could affect demand and create significant competition distortions, especially for journeys involving stopovers within or outside the EU. Secondly, this coexistence implies sub-optimal emission reductions, particularly if technological innovation and sufficient sustainable aviation fuels (SAF) are not forthcoming.

According to a 2021 EU study obtained by Transport & Environment, regulating EU airline pollution solely through CORSIA is the least favorable option. This choice is linked to the largest net increase in global aviation CO₂ emissions. If CORSIA replaces existing EU climate regulations, it “risks undermining the ability to reach net-zero emissions by mid-century”.

In contrast, the Council and the European Parliament have reached a provisional political agreement on revising the EU-ETS rules applicable to the aviation sector. Under this agreement, the EU-ETS will cover intra-European flights, including flights to the UK and Switzerland. CORSIA will apply to extra-European flights to and from third countries participating in CORSIA from 2022 to 2027, ensuring aviation contributes to the EU’s emission reduction targets under the Paris Agreement.

The co-legislators have agreed to phase out free EU-ETS emission allowances for the aviation sector as follows: 25% in 2024, 50% in 2025, and 100% from 2026. In other words, allowances will be fully auctioned from 2026 onwards. Regarding revenue utilization, the co-legislators agreed to transfer 5 million allowances from the aviation sector to the Innovation Fund. Additionally, the Council and Parliament allocated 20 million free allowances to promote the use of SAF.

Notably, domestic flights in non-European countries, currently constituting nearly a third of global air traffic, are not covered by either scheme. This notably applies to countries like China (2nd largest domestic market in CO₂ emissions in 2019), India (3rd), and Brazil (6th).

Given the expected increase in traffic levels in these dynamic regions, especially in Asia, extending these carbon quota systems to domestic flights outside of Europe will become necessary to address air traffic emissions as effectively as possible.

4. Why the carbon offset based CORSIA Mechanism “risks undermining the ability to reach net-zero emissions by mid-century” according to the ONG transport & environment

Planting trees and allowing them to grow to capture CO₂ can cost between \$ 3 and \$ 10 per metric tonne of CO₂ captured, without significantly reducing the carbon footprint. This translates to a ticket price increase of less than a dollar per passenger on a short-haul flight, providing a low incentive to reduce flight frequency.

While fifty percent of airline companies have made substantial offsetting commitments that exceed CORSIA requirements, and they offer customers the option to cover offset costs themselves, according to a McKinsey survey, fewer than 1% of customers use this system.

An oversupply of carbon offsets currently exists due to weakened CORSIA rules resulting from industry lobbying last year, resulting in three times more supply than demand.

Currently, it remains unclear how the commitments and mechanisms of the Paris Agreement will interact with the voluntary carbon market. However, they pose a potential challenge to CORSIA’s carbon credit supply. Nevertheless, CORSIA is anticipated to generate a demand for approximately 1.6 billion carbon credits during its current lifespan, and the private sector is already witnessing a surge in offset credit demand as companies pursue carbon neutrality goals and ESG objectives⁶.

The capacity to provide high-quality credited emission reductions may diminish under pressure from various sectors. Carbon offsetting companies might be tempted to issue more credits to satisfy demand at low prices, potentially compromising quality (e.g., deforestation concerns). Without public regulations (such as price floors), this carbon offset mechanism could significantly limit emissions reduction efforts achieved through technological innovation.

Additionally, a study by the Publication Office of the European Union highlighted that accepting credits from existing projects in CORSIA’s first and second phases poses a risk of double-counting emissions reductions toward both CORSIA and the project

6. The ICAO estimated the costs from CORSIA offsetting, assuming carbon prices range from a low of \$ 6 to \$ 12, to a high of \$ 20 to \$ 40, per metric ton of CO₂.

Carbon capture/Sequestration

Carbon capture is currently a topic of significant controversy for multiple reasons. **Carbon sequestration** serves as a means to attribute responsibility for human emissions to nature. There are two options for carbon sequestration:

- Firstly, natural sequestration occurs in soils, forests, peatlands, and oceanic carbon sinks. However, these sinks are no longer adequate to absorb human CO₂ emissions. This phenomenon is predicted to worsen due to climate change. Factors like drought followed by torrential rain, forest fires triggered by drought, rising temperatures, and pest epidemics are all set to increase. A study published in Science last September already indicated that calculations of carbon storage by forests were “excessively optimistic”, given that many forests are losing their carbon-sequestering capacity.
- Secondly, mechanical sequestration involves capturing carbon dioxide in boilers or gas turbines, compressing it, and transporting it to a landfill site for massive and secure underground burial. However, since CO₂ emissions from transportation and housing are too diffuse to be captured and stored, aviation relies on natural carbon capture.

host country’s NDC targets. The evaluation of credit quality is crucial, and ICAO has established eligibility and integrity criteria. However, inconsistency in applying these criteria is evident, with no program fully meeting all requirements. Concerns arise regarding safeguards, sustainable development, additionality, and the lack of provisions to prevent double counting. These doubts cast uncertainty on the environmental integrity of using these credits to offset aviation emissions in CORSIA’s Pilot Phase.

5. Political imperatives in aviation’s decarbonization journey: navigating (turbulent waters) towards sustainability

5.1 Low emissions fuels require further common efforts and clarifications

The institution also recommends developing the obligation to incorporate SAF in all geographical areas, similar to what has been initiated in Europe with Refuel.

Regional differences are anticipated in the implementation of operational measures, with the most significant disparities likely to emerge in the production and adoption of fuels. This takes into consideration the regional availability of biomass and hydrogen, renewable energy sources, as well as market dynamics and infrastructure. Current planning does not account for these variations (Annex 5).

In an interconnected-sector economy, innovations in low-emission fuels could benefit the entire transport industry. Furthermore, biofuels could benefit from various sector investments.

To address the challenges financiers face in integrating substantial investments in developing technologies and fuels, often characterized by uncertain profitability rates, the Institut Montaigne recommends that public authorities clarify the definition of SAF. This can be accomplished by introducing sustainability criteria for SAF that are universally shared by all countries worldwide, as defined by the ICAO. These criteria would encompass the type of raw materials used and the level of emissions reduction throughout the fuel’s life cycle.

This recommendation also advises the EU to encompass hydrogen in the definition of SAFs. This move would facilitate the development of all sectors contributing to the decarbonization of air transport. Hydrogen, as a fuel, requires even more significant investment than other SAFs, as it currently entails changing the engines in existing aircraft without waiting for these assets to depreciate. To unlock various investments associated with this energy, providing producers and investors with visibility is necessary. The EU should take a leading role in SAF production.

5.2 Swift adoption of emerging technologies necessitates adjusting depreciation rules and providing investment incentives

The amount simulated by the plan appears achievable only if proactive policies are established to offer project leaders visibility on demand. Governments hold a pivotal role in supporting the energy transition within the sector.

As the aviation industry must align its strategy with the Paris Agreement while managing its long-life assets, which can rapidly become obsolete, making decisions now is essential to mitigate the economic impact of disrupting the traditional depreciation cycle.

Secondly, to facilitate acceptance and optimize the utilization of necessary aviation taxes by industry players, policymakers at the national and regional levels could create incentives for FAS production. This can be achieved by setting appropriate targets and reallocating aviation taxes to finance decarbonization within the industry. This action would narrow the remaining cost gap between conventional oil and SAF.

Thirdly, given the anticipated investment amounts and the urgency to replace kerosene, financial institutions could provide risk capital for the construction of FAS production facilities and new infrastructure needed to achieve anticipated cost savings. Forming a coalition of airlines could amplify the required volume, thereby generating economies of scale and reducing competition distortion linked to asset write-offs. Airlines could also commit to purchasing SAF at a predetermined price or a price differential compared to traditional kerosene. This would eliminate market risks for fuel suppliers and mitigate price volatility risks for demanders.

6. Political drivers of aviation sustainability: several unilateral regulations and bold targets to lead the way

Unilateral regulations linked to this internationally ambitious transition plan are emerging (Annex 8 provides current worldwide policies on aviation fuels).

In July 2021, the European Commission released a legislative package called Fit for 55. One component of this package, ReFuelEU, aims to stimulate the production and utilization of FAS. It is crucial to support the supply of SAF to establish a competitive market in Europe and ensure that SAFs are used to attain emission reduction goals, minimizing competition distortions.

The EU proposal mandates suppliers to ensure that all aviation fuel supplied to aircraft operators at European Union (EU) airports contains a minimum proportion of SAF. This mandate is set to commence in 2025, with a minimum FAS volume of 2%. This volume will increase in five-year intervals, reaching a minimum of 63% in 2050.

In the US since 2019, SAF has been recognized as eligible fuel for generating credits, such as a fuel tax credit or a credit in the form of a general business credit. These credits can incentivize SAF production, as they can be sold to other obligated parties under the obligation. From 2021, the credit will range from USD 1.50 to USD 2 per gallon for blenders that provide SAFs with a demonstrated lifecycle GHG reduction of 50% or more and ICAO eligibility⁷.

In 2021, the US also announced a new sustainable aviation fuel goal, aiming to increase SAF production to at least 3 billion gallons per year by 2030. Additionally, a \$1 billion grant over five years was planned to enhance the number of SAF production facilities. A proposed SAF tax credit is intended to reduce costs and expedite domestic SAF production.

New actions include:

- A proposed SAF tax credit aiming to reduce costs and rapidly scale domestic SAF production.
Norway has mandated that 30% of aviation fuel used in the country must be sustainable by 2030, and all short-haul flights must be 100% electric by 2040.
Canada has introduced a carbon tax of approximately \$ 21 per metric tonne of CO₂.

In conclusion, this case study leads us to various lines of thought. Eamonn Brennan, Director General of Eurocontrol, stated, “We expect the number of flights to grow by 44% between now and 2050, taking us up to 16 million a year – compared to 11 million in 2019. Our report shows that we can achieve net zero by 2050 with a series of tangible measures requiring coordinated action by aircraft manufacturers, airlines, airports, fuel companies, ANSPs, and, crucially, governments and regulators”. Therefore, is it politically reasonable to double traffic as planned?

James Mitchell, director at the Center for Climate-Aligned Finance, emphasizes that “collaboration is key to meeting climate commitments and to decarbonizing the hard-to-abate sectors”. Indeed, every financial institution must determine its acceptable risk level in relation to greening its portfolio and increasing collaboration with partners in technological breakthroughs or complete business model overhauls. Hence, is this sectoral approach adequate to meet the sector’s decarbonization goals compared to a widespread adoption of the SBTi approach by all sector players, and/or an ambitious transition plan within the transport sector that could provide more visibility?

Moreover, do we possess adequate sectoral agreements to allocate sufficient biofuel production? How can we encourage more partnerships in the realm of SAF? Although SAF and aviation tax policies

7. There is also a supplemental credit of one cent for each percent that the reduction exceeds 50%.

continue to evolve, regional efforts remain insufficient according to IEA.

Do financial institutions possess the means to manage risks associated with these various developing technologies?

While debates and incentives exist regarding the incorporation of aviation in the sectors of the European green taxonomy, these discussions lead us to ask how to ascertain that a sector is genuinely undergoing transition while substantial technical and technological uncertainties remain, as is the case for aviation.

Are the financial incentives for decarbonization sufficient and optimized? Should we promote and regulate other complementary incentive tools? For example, could certain forms of transition debt financing, where borrowers receive discounts on their borrowings upon reducing CO₂ per revenue per passenger kilometer over a set period (such as the life of the debt), be effective tools for encouraging emission reduction? The aviation finance market is adapting, but is it adapting quickly enough?

Should a special emphasis be placed on working groups like the collective Climate-Aligned Finance (CAF) framework, enabling financial institutions to assess the emissions of their aviation loan portfolios and collaborate with clients to report their emissions, fund lower-carbon solutions, and support investments in new technologies?

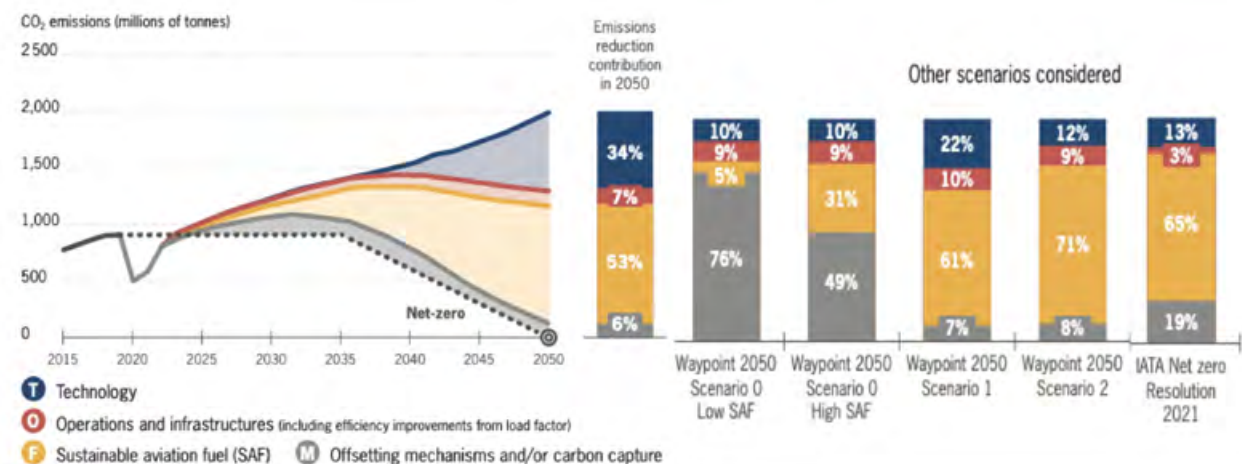
Do scientific authorities like the IPCC feel comfortable with the scale of carbon offsetting that this transition plan could involve (as well as that of other sectors)? In this context, do existing public policies prove sufficient and adequately ambitious? Would it be optimal to establish a maximum proportion of carbon offsetting on the total avoided emissions by the concerned entity/sector? How can public authorities encourage the issuance of high-quality carbon offset credits without undermining natural sequestration capabilities?

ANNEX 1

WORLD AIR TRANSPORT DECARBONIZATION SCENARIOS

Scenario 3 - Waypoint 2050

Other scenarios considered



Based on Waypoint 2050, ATAG, IATA10, Fly Net Zero. Archery Strategy Consulting analysis.

Modified version from Institut Montaigne

Source: Waypoint 2050 p26, ATAG, IATA10, Fly Net Zero pp 5-8. Archery Strategy Consulting analysis.

https://aviationbenefits.org/media/167417/w2050_v2021_27sept_full.pdf

Methodology and scenarios; the different scenarios of WayPoint differ in the way they use the various levers for improvement:

- All scenarios are placed in the context of an Integrated Scenario 0 (IS0) which represents emissions reductions from fleet evolution based on aircraft technology frozen at 2018 levels and no further operational or fuel improvements⁹; whatever the level of FAS penetration envisaged (5% to 31%), achieving the objective of neutrality relies mainly on measures to capture CO₂ or offset carbon emissions (49% to 76%);
- Integrated Scenario 1 (IS1) – “high readiness, high capability and low ambition”. This nominal or low-level scenario represents current (2021) expectations of future technologies, operational efficiencies and fuel availability. It includes expected enabling policy factors favouring technology, operational and fuel investments and a low level of system change, in particular the absence of major infrastructure changes. Technological improvements are amplified with the integration of disruptive technologies (22%), in particular with the transition of the fleet to hybrid/electric aircraft and innovative architectures from 2035/40; the carbon neutrality objective is achieved through the use of large quantities of SAF (61%); Of the three scenarios, it requires the least effort to implement, although this effort is still considerable for some players.
- Integrated Scenario 2 (IS2) – “average readiness and ability to deliver and medium ambition”. This enhanced or more ambitious scenario is roughly halfway between the other two scenarios – faster deployment of future technologies, greater operational efficiencies and greater fuel availability. Technological improvements include new aircraft configurations but no significant switch to electric or hybrid engines; the carbon neutrality objective is again achieved by using very large quantities of SAF (71%). The scenario assumes stronger policy drivers for investment in technology, operations and fuels and greater system change, e.g., limited infrastructure changes.
- Integrated Scenario 3 (IS3) – “low readiness and capability and high ambition”. This dynamic or high-ambition scenario represents the maximum possible effort in terms of future technology deployment, operational efficiencies and fuel availability. It assumes maximum political enablers for investment in technology, operations and fuels, and major change to the globally harmonised system, for example major and far-reaching changes to airport and energy infrastructure. Technological developments are more marked (34%), with electric aircraft with up to 100 seats (regional), zero-emission aircraft (fuelled by decarbonised hydrogen) for the 100-200 seat segment (short and medium-haul), and non-conventional aircraft with hybrid-electric propulsion for larger aircraft; SAFs continue to play a major role in achieving carbon neutrality in this scenario (53%). Of the three scenarios, this one requires the greatest implementation effort.

The LTAG's IS1 scenario would give 23 GtCO₂ of residual cumulative emissions from international aviation from 2020 to 2050 and 23 GtCO₂ from 2051 to 2070. The IS2 scenario would give emissions of 17 GtCO₂ from international aviation from 2020 to 2050 and 11 GtCO₂ from 2051 to 2070. The IS3 scenario gives emissions of 12 GtCO₂ from international aviation from 2020 to 2050 and 4 GtCO₂ from 2051 to 2070.

Source : LTAG report with comments from Institut Montaigne
<https://www.institutmontaigne.org/ressources/pdfs/publications/report-decarbonizing-aviation-all-aboard.pdf#page=20>

8. Recognising that its task is to assess the feasibility of possible future scenarios, the LTAG-TG has drawn on the tools and methodologies of the Forecasting and Economic Analysis Support Group (FESG) and the Modelling and Database Group (MDG) that were used to establish the trends in the CAEP trend analysis. In particular, it drew on the most recent trend analysis from the CAEP/12 cycle.

ANNEX 2

CORSIA phases

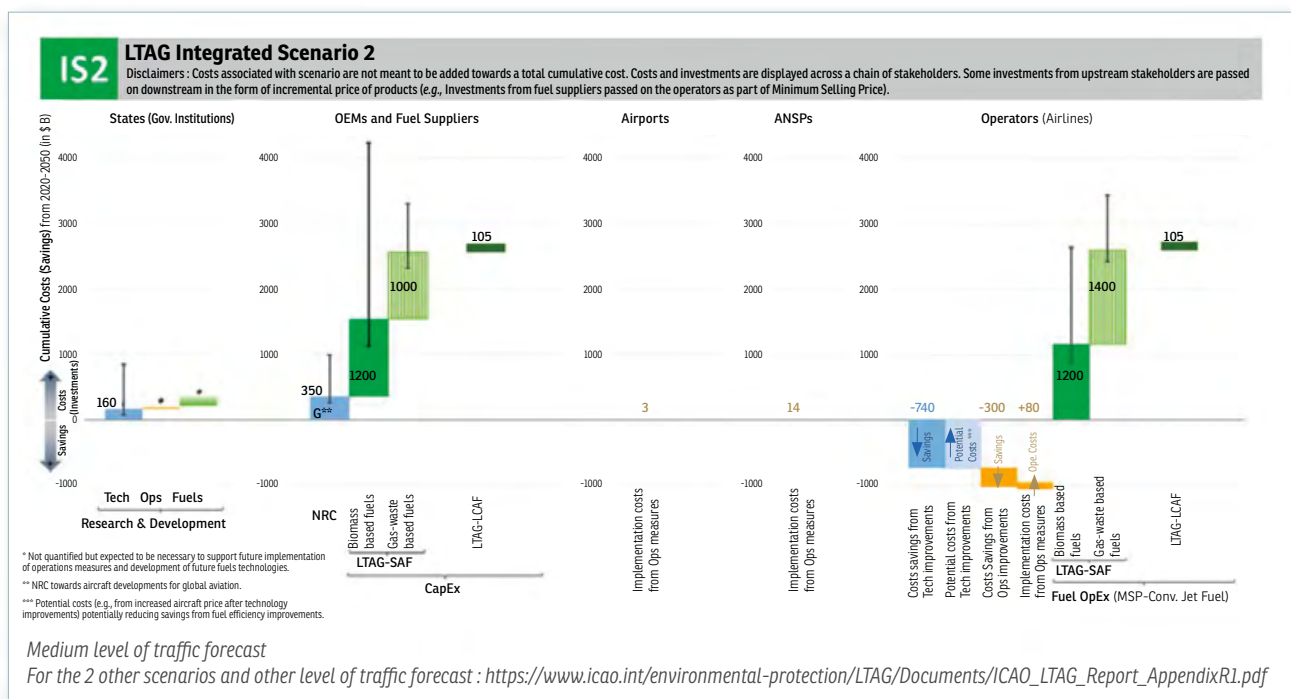
CORSIA is being implemented in three phases; for the first two phases (2021–2026), participation is voluntary. From 2027, participation will be determined on the basis of 2018 RTK data.



Source : Aviation Benefits

ANNEX 3

Costs and Investments details of Waypoint integrated scenario 2 (medium ambition)



ANNEX 4

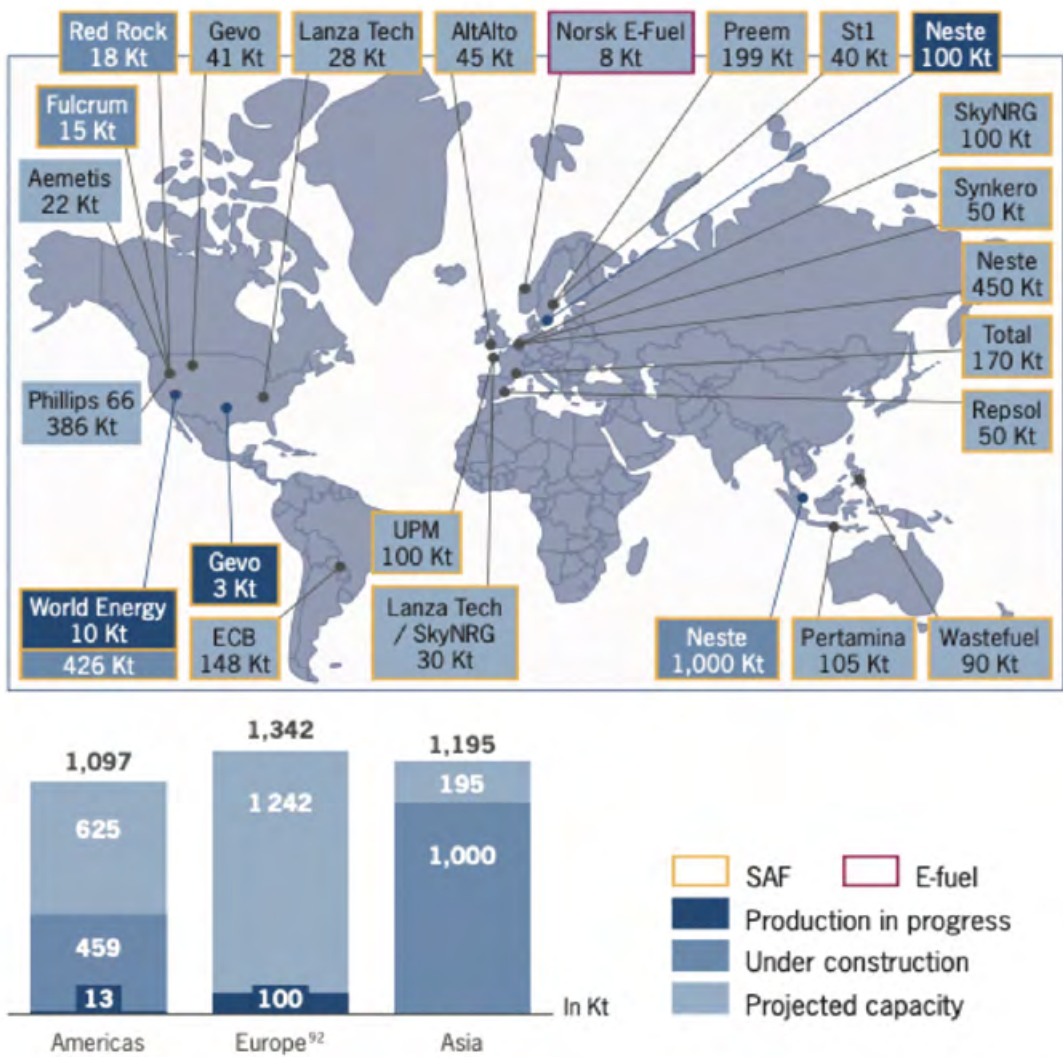
Entities whose programmes are eligible to supply emission units to CORSIA for its first phase are:

- American Carbon Registry;
- the Architecture for REDD+ Transactions;
- China’s voluntary GHG emissions reduction programme;
- Clean Development Mechanism;
- Climate Action Reserve;
- The Gold Standard;
- Verified Carbon Standard.

Exept China’s voluntary GHG emissions reduction programme, this is only North American organisations.

ANNEX 5

OVERVIEW OF INCENTIVES FOR SAF USE AROUND THE WORLD



Source: SkyNRG – WDB Action Programme; Archry Strategy Consulting analysis

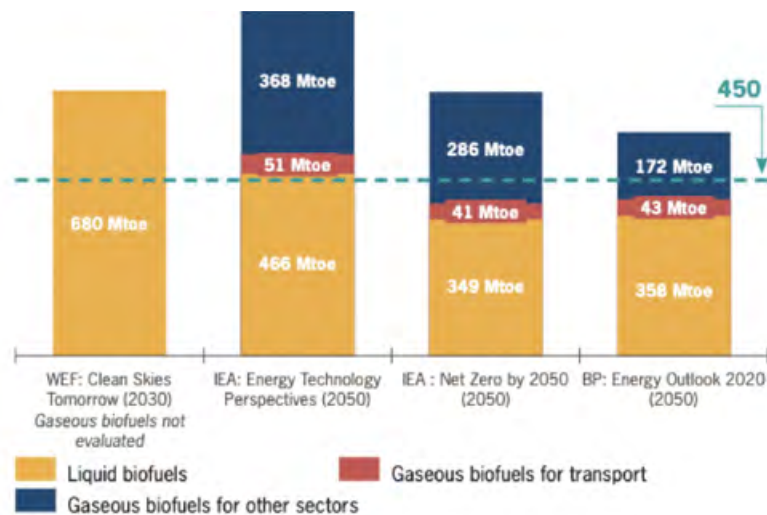
OVERVIEW OF INCENTIVES FOR SAF USE AROUND THE WORLD

Source: ITF Transport Outlook 2019, Waypoint 2050, IEA, Archery Strategy Consulting Analysis
Notes: The column "30% of reduction in consumption (Mtoe)" considers the reduction in consumption (In megaton of oil equivalent) linked to technological change (improvement in yield) compared to a scenario by 2050 where technologies would not have gained in efficiency

	Traffic and emissions 2018			Ballistic trajectory 2050	
	Traffic 2018 (Bn passenger.Km or Bn T.Km)	Fuel consumption 2018 (Mtoe)	Of which biofuel	Traffic 2050 (Bn passenger.Km or Bn T.Km)	30% reduction in consumption (Mtoe)
Road transport for passengers	30	1,200	2,4%	71	2,000
Road transport for goods	22	800	3%	58	1,600
Air transport	8	350	0,1%	22	600
Shipping	85	250	0,1%	269	600
		2,600 Mtoe			4,800 Mtoe

ESTIMATED LIQUID BIOFUEL PRODUCTION IN 2030/2050 ACCORDING TO DIFFERENT PLAYERS

Source: IEA, Net Zero by 2050 & Energy Technology Perspectives; Clean Skies Tomorrow; BP, Energy Outlook 2020 Edition; Archery Strategy Consulting Analysis



Incentives of SAF production around the world facing the prospected requirements in 2050

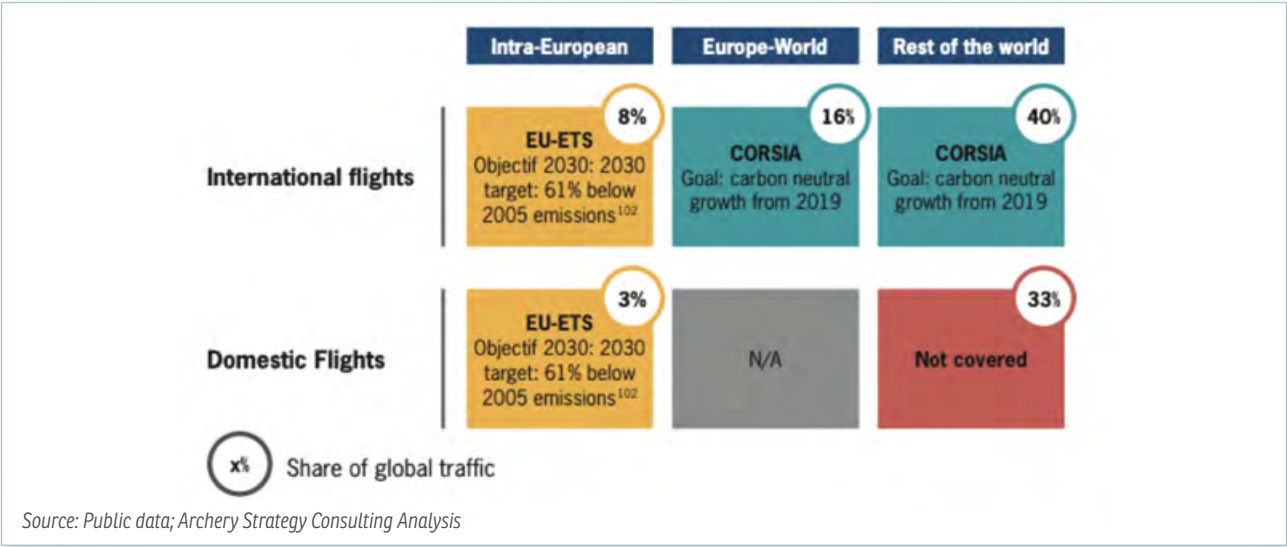
Total incentives for SAF reach around **450 Mtoe** and we will need (with a 30% reduction in consumption due to better efficiency) **4,800 Mtoe**. Global biofuel production in 2022 was around **300,000 tonnes**.

In order to secure the business plans of project developers, and therefore the development of new production capacity, SAF producers must be given visibility over long-term demand, so that they can invest in production facilities with confidence:

- in terms of **volume**, the mandatory incorporation of FAS guarantees significant and growing demand from airlines, thereby securing this dimension;
- In terms of **value**, there is considerable uncertainty over the expected price cuts for the various FAS, with a risk of losing competitiveness in the medium term.

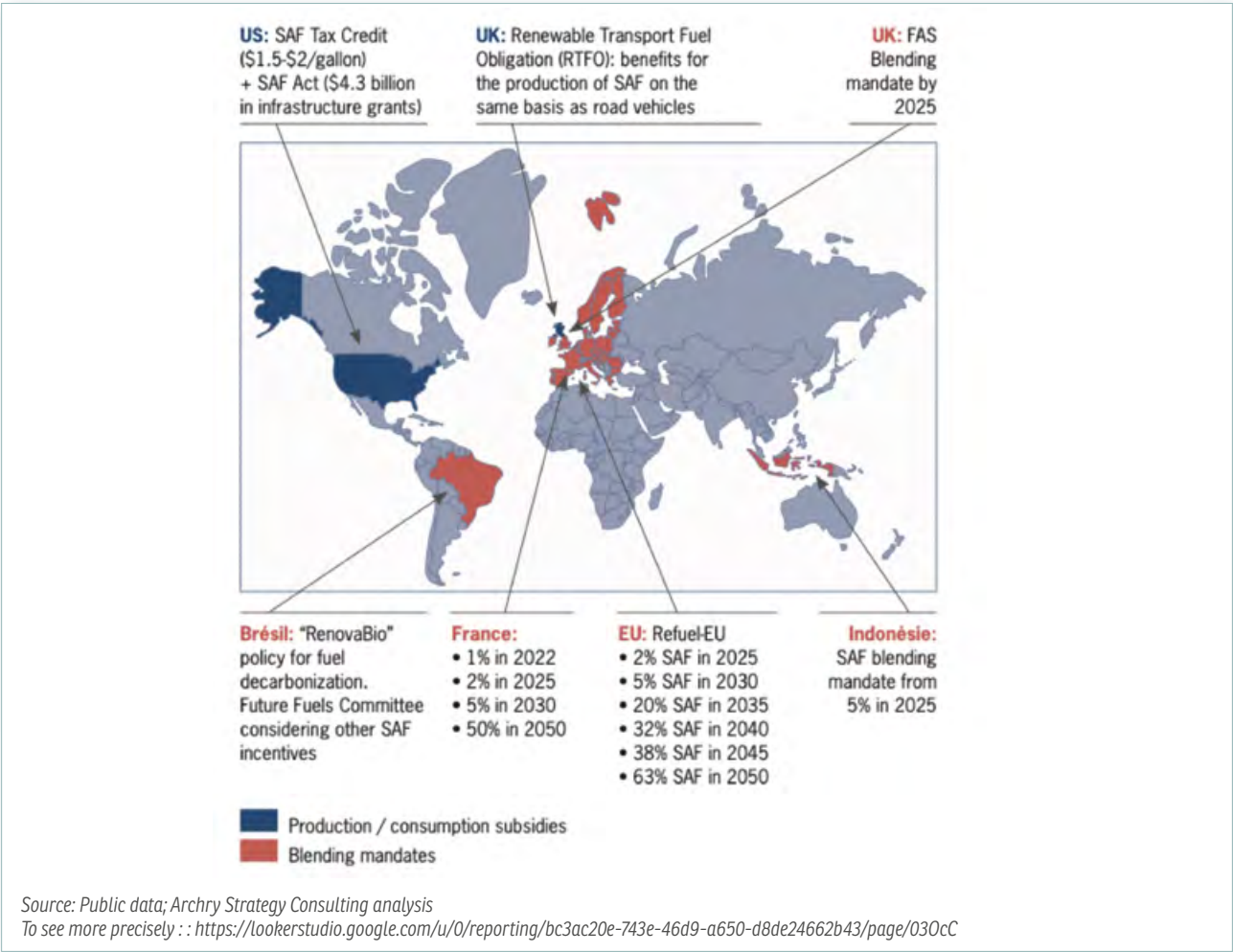
ANNEX 6

Level of coverage of EU-ETS and CORSIA mechanisms by region and type of journey



ANNEX 7

Overview of incentives for SAF use around the world



ANNEX 8

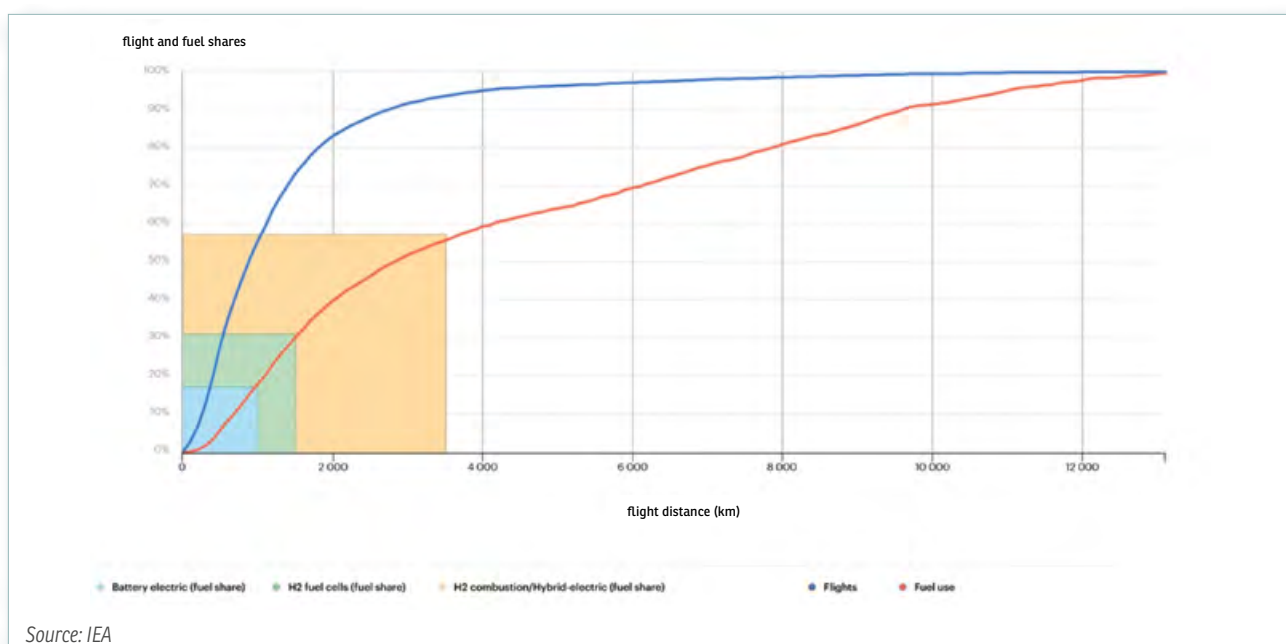
Summary of the policies (adopted and under development) to foster the use of SAF and Lower Carbon Aviation Fuels



ANNEX 9

To look forward on new technologies capacities:

The IAE is not categorical on the certainty of the path to take concerning future technologies, in particular hydrogen and electric battery aircraft.



Source: IEA

BIBLIOGRAPHY

- <https://www.institutmontaigne.org/ressources/pdfs/publications/report-decarbonizing-aviation-all-aboard.pdf>
- https://www.icao.int/environmental-protection/LTAG/Documents/REPORT%20ON%20THE%20FEASIBILITY%20OF%20A%20LONG-TERM%20ASPIRATIONAL%20GOAL_fr.pdf
- <https://www.transportenvironment.org/wp-content/uploads/2021/03/Ares20211459392.pdf>
- https://www.ft.com/content/628534ad-5dcc-4160-84f8-69e6d5df0098?accessToken=zwAF_wQA_Htgkc9ihTStXcxBYNOE-Gnm1d8AmA.MEUCIQDw-MxCpVvN25YjhUW2f8RNzvisXC_kTgC5st7-H09OiAlgNiO_ZtkGIDAJW9m_Q_0Hh62Ze-dq_Vm6J5p8_Lzw&sharetype=gift&token=fa0d1263-b8ab-4f0c-b276-7d5267751d3e
- <https://www.transportenvironment.org/discover/revealed-unpublished-eu-analysis-scathing-airline-co2-deal/>

Financial sector's climate transition requires public policy support

Note written by Jean-Marie Andres & Louise Le Borgne

1. Insufficient climate-related investments and a growing level of transition uncertainty raise concerns notably for the financial sector

Insufficient climate-related investments and a growing level of transition uncertainty raise significant concerns, particularly within the financial sector.

The inadequate pace of climate-related investments and the subsequent increase in transition uncertainty rank among the most pressing concerns in achieving a globally sustainable net-zero transition of economies.

Observing the insufficient level of climate-related investments across economies worldwide, it becomes evident that, given the current pace of the climate transition, meeting the commitments of the Paris Agreement remains unattainable. Instead, we risk falling into a scenario known as the 'too little and too late transition', as articulated by the Climate Policy Initiative¹. Their analysis indicates that the compounded annual growth rate of investments needed for a sufficient transition amount to 21%, whereas the actual rate currently averages around 7%. Consequently, the current level of investment reaches only 33% of the required threshold.

The consequences of such an inadequate response will extend beyond mere diplomatic concerns, encompassing human and ecological impacts. The anticipated increase in frequency and severity of extreme weather events is poised to exact a substantial toll on both the environment and humanity.

In addition to the rising incidence of natural catastrophes and the subsequent physical risks they pose, another weighty burden emerges due to the escalating uncertainty inherent in insufficient transition efforts. This elevates the likelihood of

abrupt and disruptive adjustments, resulting from inadequately planned transitions. Optimal outcomes can only arise from a gradual and well-managed shift toward a low-carbon economy. Conversely, an escalating scale of climate-related adverse events could trigger unpredictable and significant economic impacts through sudden and disorderly changes in energy consumption and the devaluation of carbon-intensive assets. 'Late and sudden transition scenarios' inevitably follow the 'too little and too late transition scenario'. The longer the initiation of climate-related transition is delayed, the higher the associated costs become, amplifying various risks for the most vulnerable countries and citizens. A report from the Banque de France² confirms that starting from 2030, the GDP reduction resulting from a delayed transition deviates increasingly from the orderly transition scenario, culminating in a -2.1% deviation in 2050.

Delays in communicating national transition plans and the absence of precise, well-defined international targets introduce escalating risks for private and financial entities.

Consequently, there exist significant perils both in the absence of action and in adopting a wait-and-see stance. Simultaneously, hasty, inappropriate, or uncoordinated transitions also pose considerable risks.

The Financial Sector's Exposure to Transition Risks

The financial sector currently faces, and will increasingly confront, a heightened exposure to these risks. Failure to effectively mitigate these risks could lead the mechanisms that underpin the financial sector towards reduced funding for the transition, potentially favoring short-term funding. Such a scenario, driven by a rush towards high-emissive technologies or energies, risks compromising the speed and optimality of the transition and innovation.

1. A decade of Data: 2011-2020.

2. "Too little, too late": Impact of a disorderly climate transition. <https://blocnotesdeleco.banque-france.fr/en/blog-entry/too-little-too-late-impact-disorderly-climate-transition>

Risks Associated with Ecological and Energy Transitions: The Imperative of Decision-Making and Global Coordination

The ecological and energy transition stands as a critical imperative in mitigating the devastating impacts of climate change and environmental degradation. However, this intricate process introduces substantial risks to the global economy. Both physical and transition-related factors contribute to these risks, exerting influence over economic activities and, consequently, the financial system. This influence may manifest directly, leading to diminished business profitability or asset devaluation, or indirectly, through macro-financial shifts, liability risks, and reputation risks.

The scale and distribution of physical and transition risks fluctuate based on the level and timing of mitigation measures, as well as the manner in which the transition unfolds—whether in an organized or chaotic fashion. The potential losses stemming from climate and environmental risks are closely intertwined with the future adoption of climate and environmental policies, technological advancements, consumer preferences, and market sentiment.

Several specific factors, among others, amplify these risks:

- **Anticipated but Hard-to-Plan Disruption of Traditional Sectors:** This could result in job losses within industries reliant on fossil fuels.
- **Market Volatility:** Significant shifts in business models can lead to volatility in financial markets and company/asset valuations.
- **Need for New Sustainable Infrastructures and Technologies:** While crucial, this can generate high costs and financial uncertainties, particularly within highly indebted contexts.
- **Technological and Economic Barriers:** Overcoming these is vital before implementing large-scale technologies. Established industries' resistance to new technologies might hinder the transition.
- **Increased Vulnerability of Indebted Entities:** Both governments and companies undergoing ecological transition projects could face heightened vulnerability.
- **Inequality in Transition:** Disparities among countries and sectors could result in global financial imbalances, particularly impacting economic competitiveness and market access.
- **Rising Demand for Rare Resources:** This may induce price volatility, impacting supply chain stability and production costs of green technologies.
- **Energy Cost Volatility:** The growing reliance on intermittent renewable energies with uncertain production and storage could render the economy more susceptible to energy cost fluctuations.
- **Potential Geopolitical Disruptions:** These could arise from struggles over access to rare earths, metals, renewable resources, and key technologies, influencing international and commercial relations.
- **Ensuring equitable risk distribution among economic stakeholders is of paramount importance.** Insurers, civil society, and investors all have roles to play in managing the risks associated with the ecological transition. The support of civil society is vital for adaptation and resilience efforts, safeguarding vulnerable communities from the impact of extreme weather events.
- **Effective risk-sharing mechanisms are essential,** as ecological and energy transitions could be financially burdensome for low-income individuals – such as the shift to electric cars in areas lacking accessible public transportation, thereby exacerbating economic inequalities.
- **Challenges in accessing reliable data and assessing the economic costs of climate change persist,** given that numerous potential costs extend beyond the scope of traditional economic analysis.

2. Possible causes

2.1 An inadequate reliance on the financial sector and risk supervisors to drive investment

While enhancing climate-related risk management within the financial sector is crucial, it alone will not suffice to mitigate the disorderly transition risk.

Clearly, the emergence of physical risks poses significant, albeit still somewhat distant, threats to the financial sector. Moreover, these risks compound subsequent macroeconomic vulnerabilities. In response, financial regulation, supervisors, and the management of financial institutions will increasingly focus on addressing these concerns and refining risk anticipation processes.

However, the additional proactive measures undertaken by the financial sector will provide clarity, yet may not fully alleviate the many uncertainties – both technological and policy-driven – that underscore the magnitude of these macro risks.

Furthermore, a transition scenario that prioritizes minimizing financial sector risks may not necessarily align with the most optimal transition scenario for economies. The European Systemic Risk Board³ (ESRB) emphasizes that employing bank capital requirements to discourage funding for carbon-intensive activities might prove insufficient. As long as such activities remain profitable, it might be challenging to entirely eliminate their financing from the banking sector. Alternatively, lowering capital requirements for entities with low carbon footprints could fall below the prudentially optimal threshold. Additionally, successful removal of “dirty loans” from the banking system through capital regulation might result in alternative funding gravitating towards high-emitting, yet profitable, activities.

Ultimately, the inherently long-term nature of climate-related risks diminishes the effectiveness of risk mitigation strategies as catalysts for comprehensive economic transition. Climate risks introduce unique measurement challenges, as historical data offers limited insight into future climate-related risks. Beyond current climate stress testing, substantial work remains to comprehend the financial sector's exposure to climate risks – a process that unfolds over a time horizon exceeding the scope typically considered for prudential regulation. This reality implies that relying solely on financial sector-based climate-related risk mitigation might inadvertently contribute to postponing a timely and substantial phase of economic transition.

In 2021, the International Monetary Fund (IMF) acknowledged the responsibility of central banks and financial regulators in supporting the shift towards a low-carbon economy, primarily by redirecting financial flows crucial to the transition. Nevertheless, the IMF cautioned against over-estimating the capabilities of regulators and supervisors, as their diagnostic and policy toolkits are still in their nascent stages. Moreover, the IMF underscored the potential pitfalls and unintended consequences associated with assuming these new responsibilities. Consequently, the IMF concluded that financial regulators alone cannot usher in a low-carbon economy and should not risk being solely responsible for such a transformation.

Similarly, an ESRB report proposed that while bank capital requirements may play a supplementary role, more direct policy measures – such as carbon taxes – hold far greater potential to effectively reduce emissions and associated externalities by directly curbing the profitability of carbon-intensive investments.

2.2 Focusing on Transparency and the Green Economy

The emphasis on transparency, while valuable, should not be viewed in isolation. This focus is expected to naturally redirect savings, financing, and the intentions of both financial institutions and corporations toward the green economy.

One explicit advantage of enhanced disclosures, as proposed by the Task Force on Climate-related Financial Disclosures, lies in facilitating well-informed decisions regarding the allocation of capital. These decisions can be based on a more comprehensive evaluation of climate-related risks affecting companies, their suppliers, and competitors across short, medium, and long-term horizons.

In 2018, within the European Union (EU), the Final Report from the High-Level Expert Group on Sustainable Finance took a more proactive stance. It aimed to tackle the funding deficit by exploring regulatory modifications to mobilize the substantial funding potential within the private capital sphere. The High-Level Expert Group (HLEG) emphasized that achieving this ambition necessitates no less than a transformation of the entire financial system, including its culture and incentives.

Building upon these statements, the EU Commission extended its efforts by establishing a workstream to support the European Green Deal's objective of channelling private investments into the transition towards a climate-neutral economy.

3. ESRB Moody's <https://www.moodyanalytics.com/regulatory-news/nov-16-22-esrb-report-examines-effective-tools-for-carbon-emission-reduction>

It is important to note that the outcomes of this workstream predominantly encompass disclosure regulations and standards. These include corporate disclosures of climate-related information, EU labels and disclosure standards for benchmarks (climate, ESG), sustainability-related disclosures in the financial services sector, and specific tools and standards such as the EU taxonomy for sustainable activities and the European green bond standard.

These approaches, varying in their level of ambition, revolve around corporate risk and opportunity analysis. Anchored in transparency standards, they operate under the assumption that introducing structured sustainability dialogues among diverse stakeholders connected to corporations will facilitate the transition of economies.

Nonetheless, recent objections raised by prominent global investment players indicate that savers, particularly, confront a growing conflict between sustainability aspirations and more conventional return and security objectives. Furthermore, while these constructive exchanges between micro-economic entities and their stakeholders are commendable, they may not yield the same impact as an international carbon tax. Such a tax could effectively address the imbalance caused by excessively subsidized carbon-based energy. Additionally, it could help clarify the uncertainties surrounding pivotal choices, choices that only policy makers can address – such as the role of hydrogen in economies, the long-term viability of subsequent infrastructures, the evolution of multimodal transportation and urban options, and the prioritization of transitions in the future.

2.3 Some essential development needs remain poorly founded

The imperative for developmental investment is further underscored by the exacerbating impact of climate change on existing vulnerabilities. Recent years have witnessed a notable shift in development finance towards projects explicitly addressing climate-related concerns.

I4CE⁴ has identified three pivotal gaps within international development funding:

Firstly, as mentioned earlier, the quantum of development finance available falls short of meeting global demands. This deficiency is evident in the expanding financing shortfall for the Sustainable Development Goals (SDGs). A report by Oxfam and Development Finance International (DFI) substantiates this, revealing that public expenditure alone lags behind SDGs requirements by a third – a glaring gap that necessitates an additional annual

investment of at least \$ 1.5 trillion for the SDGs to be realized.

Secondly, certain countries continue to encounter difficulties in accessing development finance. This is partly attributed to the burden of high interest payments and outdated risk perceptions. Additionally, the reliance on loans as a primary source of development finance contributes to the escalating debt load of developing nations, consequently constricting their fiscal manoeuvrability to address both climate and developmental priorities. A concerning statistic from 2021 underscores this: 88% of World Bank financing was channelled through loans. Moreover, data from the IMF reveals that, as of 2022, 19 out of 35 low-income African countries already faced imminent debt distress or high-risk scenarios.

Lastly, a significant misalignment persists in the allocation of development finance, often failing to direct resources where they are most critically required for sustainable development. Notably, the bulk of international public resources is dedicated to climate change mitigation ventures. However, there exists an unequivocal need for these funds to be directed towards unlocking adaptation projects and addressing the surge in losses and damages induced by the impacts of climate change in developing economies – areas that continue to pose intricate financing challenges. Remarkably, amidst mitigation endeavours, development finance institutions exhibit a propensity to predominantly favour profitable ventures, mirroring the priorities of the private sector. Such ventures typically include renewable energy projects in power generation. Consequently, other sectors equally pivotal to sustainable development are overlooked, largely due to their inherent difficulty in establishing financially viable projects within specific country contexts. These sectors encompass domains such as agriculture, land use and deforestation, and household energy efficiency. The complexities involved in translating these sectors into bankable projects hinder their access to necessary funding.

2.4 So far, a poor political and economic transition planning

It is unrealistic to anticipate a seamless and timely transition when transition planning, both at micro and macro levels, is still in its nascent stages. Let's provide a swift overview of zerotracker.net, an initiative aimed at enhancing the transparency and accountability of net zero targets declared by nations, states, regions, cities, and corporations. It is readily apparent that the number of targets and

4. Reforming development finance to enable the sustainable development transition – I4CE.
<https://www.i4ce.org/reformer-financement-developpement-pour-permettre-transition-vers-developpement-durable-climat/>

interim milestones established by these entities remains limited, and even fewer have comprehensive plans in place.

At best, we are informed of the targets themselves, yet the strategies selected to attain these objectives are often obscure. The formulation of an appropriate climate-related transition pathway is a work in progress, largely due to persisting uncertainties related to technology, policy frameworks, and the challenges inherent in decision-making. Simultaneously, this widespread delay in planning exacerbates the overarching uncertainty.

3. In this context a few priorities become of the essence

3.1 Leverage the data corporations and financial institutions making increasingly available

In an economy undergoing transition, information asymmetry will inevitably escalate, potentially leading to suboptimal decision-making. Crucial information regarding companies' transition plans becomes paramount in this context, as operational transformations take time, and companies may pursue vastly different strategies, yielding significantly disparate outcomes. Such information pertaining to the existence, quality, and execution of transition plans serves as vital insight for a company's value chain, encompassing financial institutions. These entities rely on these plans to fulfill their own objectives and assess the financial risks associated with their clientele.

Jurisdictional and international reporting standards, such as the Corporate Sustainability Reporting Directive (CSRD) and International Sustainability Standards (ISS), include the provision of information on decarbonization targets spanning various time horizons. They also encompass details regarding levers and actions that companies intend to employ to attain these objectives⁵. The CSRD's contribution lies in standardizing the shared information, thereby alleviating reporting costs for companies. The ongoing negotiations in the Parliament surrounding the Corporate Sustainability and Social Responsibility Directive (CS3D) mandate the adoption of this plan – an “obligation to do” that adheres to four key principles: scientific basis, scope 3 inclusion, associated investments, and double materiality.

The incorporation of scope 3, the most intricate to

quantify due to its requirement for comprehensive knowledge of a product's value chain – especially its often outsourced segments – represents progress in policy coordination and the predictability of future trajectories. This addition also addresses the issue of carbon leakage, arising from the transfer of emission-intensive activities from developed to developing countries. This regulation will grant interested investors access to data concerning these emissions. Companies are thereby prompted to exercise greater vigilance, as this plan imbues a sense of responsibility over the future value chain and encourages forward-looking investments in emerging technologies.

However, a more unified and standardized framework for guidance would optimize the utility of this data. Clarification regarding the preparation of this information, including the presence of an implementation and change program, the extent of management and governance involvement, and a standardized presentation format, would enhance comparability, auditability, and, by extension, ease of utilization.

An encouraging stride in the aviation sector is the Collective Climate Aligned Finance (CAF) Framework project, supported by the industry. This initiative establishes shared objectives to decarbonize the aviation sector, ensuring consistency and transparency in reporting. It levels the playing field for gauging progress, compelling financial institutions to disclose annually, in alignment with the Net-Zero Banking Alliance, the alignment of greenhouse gas emissions from aircraft, airlines, and their financiers with the 1.5°C trajectory.

While the credibility and recognition of the roadmap by numerous global NGOs is imperative, the aviation industry must equally endorse and embrace an aviation roadmap to foster a comprehensive transition strategy.

3.2 Develop consistent and understandable transition planning at complementary relevant levels (financial institutions, corporations, countries...)

In the present landscape, financing for sustainable development follows a fragmented framework that distinguishes between funding for development, climate-related endeavors – including mitigation, adaptation, and addressing loss and damage – alongside support for risk reduction and, more recently, funding allocated to biodiversity. However, this compartmentalization lacks authenticity, as development, climate considerations, risk

5. In particular, the CSRD requires the disclosure of a significant set of information such as: the reduction objectives, the levers and actions to achieve these objectives, the investments and financing, the blocked emission potential, the planned alignment potential with the European taxonomy, integration from the plan into the overall strategy and approval by management and governance and the progress made.

management, and biodiversity are all intricately interconnected and shaped by each country's unique context. Therefore, I4CE contends that only an integrated approach, grounded in the specific circumstances of each nation, can effectively mitigate trade-offs and maximize synergies across these dimensions. Countries must chart distinctive trajectories, prioritize funding, and formulate transition plans that optimally align these objectives with their current national realities while contributing to global aspirations.

For instance, the correlation between access to sustainable energy in developing nations and development is profound – it serves as a prerequisite for essential energy services, while also facilitating low-carbon emission practices, thereby advancing both mitigation and adaptation efforts. Considerations of climate change's uneven regional impact underscore the complex web of physical risks. It's only through the holistic consideration of these dimensions within a country's particular context that a comprehensive financing strategy for clean energy access can be effectively devised.

Given that the time horizon for sustainable development financing extends beyond the norm of the financial system, financial institutions must cultivate a proactive and systematic utilization of reference tools. These tools aid in assessing a country's long-term transition and risk management, especially in light of the inherent complexities. A backcasting approach, divergent from the conventional focus on short-term, cost-effective emissions reduction, becomes indispensable. While current trends emphasize this approach, particularly in light of the shared goal to limit global warming to well below 2°C by 2050, its application reveals a blind spot in infrastructure investments with substantial inertia, such as transport, buildings, and urban structures. In these cases, short-term effects tend to overshadow long-term considerations. For instance, an aviation transition plan grounded in backcasting may falter if reliant on uncertain technologies (like large-scale electric or hydrogen propulsion by 2035) while overlooking the pivotal role of adjusting traffic volume to align with CO₂ emission reductions.

Moreover, as emphasized by IPCC reports⁶, the pursuit of sustainable development necessitates systemic shifts. Instead of the historical project-based approach, a concerted focus should be directed toward fostering transformation on an economy-wide scale. Recent instances of support for sectoral transformation, exemplified by the Just Energy

Transition Partnerships (JETPs), represent a commendable stride in this direction. These partnerships foster collaboration between emerging and developed countries to facilitate a just energy transition. Notably, JETPs in South Africa, Indonesia, and Vietnam signify significant strides in sectoral-level transformative action. These initiatives involve substantial funding to support decarbonization and promote equitable energy transitions. While calls for European-level trajectories have emerged from the financial sphere, particularly for sectors like oil and gas, development financing demands a more comprehensive approach that transforms the economy holistically, transcending sectoral boundaries.

The pivotal role of public authorities becomes evident in ensuring private companies receive clear and credible objectives, coupled with a conducive economic environment encompassing coherent communication, transparent regulations, and appropriate incentives. This prioritization is essential, yet insufficient on its own. A critical aspect involves the formulation of transition plans at both jurisdictional and state levels. Such plans, constructed within the framework of legal requirements, should also be supplemented by international coordination and a carbon tax or tariff mechanism to prevent competitive distortions when global objectives and transitions are misaligned. These plans further serve to elucidate technical advancements and guide systemic research and innovation.

Sectoral-level planning, characterized by granularity and responsiveness to private companies' needs, is equally crucial. These plans must factor in interdependencies, encompassing material and technological requisites, as well as social implications like employment and access to essential services. Ultimately, embracing this integrated, multi-dimensional approach holds the key to realizing sustainable development aspirations.

3.3 Hope that policy makers will bring about the necessary clarifications, incentives and risk reduction, that financiers cannot achieve

At its core, there exists a finite carbon budget to be allocated from now until 2050. This budget signifies the maximum cumulative amount of CO₂ emissions permissible to attain carbon neutrality and curb global warming to a predetermined temperature threshold. Adhering to this carbon budget by 2050 is now an imperative, necessitating its steadfast observance throughout the transitional trajectory.

6. In all of the IPCC reports it is outlined that global scale and systemic changes are required, but this report is insisting on it : https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_Chapter17.pdf

Pathways to Progress: Market forces unlikely able to address the challenges

Bloomberg has unveiled the findings of two energy scenarios: the Economic Transition Scenario (ETS) and the Net Zero Scenario (NZS). Let's delve into the assumptions and outcomes of each:

- **Climate Targets:** The Energy Transition Scenario (ETS) illustrates the trajectory of greenhouse gas emissions, driven by cost-effective technological shifts, without specific climate targets. In contrast, the Ambitious Energy Transition Scenario (NZS) boldly strives to realize the Paris Agreement's objectives, curbing global warming at 1.77°C by 2050 and achieving complete net emissions neutrality.
- **Energy Transition:** The ETS adheres to historical patterns, relying on firm short-term legislative measures for energy transition, without imposing added restrictions for meeting climate objectives. On the contrary, the NZS adopts a transformative, sector-specific approach from the grassroots level, presenting a scientifically grounded route to fulfill the Paris Agreement's aims. This encompasses phasing out fossil fuels and embracing carbon-free energy sources.
- **Energy Sources:** The ETS prioritizes commercially available technologies to meet energy demand, projecting a 46,000 terawatt-hour electricity production by 2050. Conversely, the NZS places heavy reliance on renewables, clean hydrogen, and nuclear power to realize net zero emissions, forecasting electricity production exceeding 80,000 terawatt-hours by 2050.
- **Energy Efficiency:** Both scenarios underscore the importance of energy efficiency gains. Nonetheless, the ETS leans towards established technologies, with less emphasis on electrification. Conversely, the NZS emphasizes broad electrification across transport, industry, buildings, and heating systems to enhance energy system efficiency and decrease overall consumption.
- **Carbon Capture and Storage:** While CCS plays a notable role in the ETS, its significance markedly escalates in the NZS, contributing to 11% of emissions reduction during the scenario period. This signifies a remarkable upswing in CO₂ capture volumes between 2021 and 2050.
- **Investments:** The ETS involves short-term market-linked investments, exerting minimal impact on current energy infrastructure. Conversely, the NZS demands substantial investments to realize ambitious decarbonization objectives. It necessitates substantial funding in clean energy supply ventures, encompassing renewables, clean hydrogen, carbon capture, and nuclear power. For every dollar invested in fossil energy supply, nearly five dollars must be allocated to low-carbon energy sources.

It's crucial to note that the IPCC reports emphasize demographic shifts, economic and social development, and technological advancements as principal drivers of future greenhouse gas trajectories. However, the available Bloomberg reports do not explicitly factor in demographic changes and their integration into the energy scenarios.

From these two scenarios, it becomes evident that the market's economic forces alone may prove insufficient to achieve our aspirations. It is imperative to complement these efforts with well-crafted public policies.

For instance, SUPAERO's analysis⁷ reveals that to uphold global warming at 1.5°C, the median global carbon budget from 2020 to 2050 is approximately 380 GtCO₂. Should the temperature target be 2°C, the permissible net CO₂ emissions over this period cannot exceed 860 GtCO₂. Among financial circles, discussions ponder whether this carbon allocation will follow a linear trajectory or a more gradual ramp-up. This deliberation considers the delayed deployment of new technologies, which may not be

feasible until after 2035 or even as late as 2040. Central to the discourse is the equitable allocation of this carbon budget across vital sectors. For instance, considering aviation's contribution of 2.6% to global anthropogenic emissions, its carbon budget by 2050 varies between 10 to 22.8 GtCO₂, contingent on the targeted warming level (+1.5°C to +2°C).

Public authorities also bear the responsibility of defining standards and norms for transition planning, ensuring shared efforts across economies,

7. Calculation made by ISAE-SUPAERO researchers based on IPCC 1.5° scenarios. <https://www.polytechnique-insights.com/tribunes/energie/comment-le-secteur-de-laviation-pourrait-elle-respecter-laccord-de-paris/#note-3>

and absorbing associated risks. Currently, multiple ambitious international planning standards have emerged, like the taskforce on climate-directed financial disclosure, the GFANZ Recommendations and Guidance on Financial Institution Net-zero Transition Plans, and the transition plan taskforce. However, the lack of global adoption hinders effective coordination between private companies and the financial sector in devising optimal transition strategies. Scenarios encompass myriad necessary assumptions and exclusions, amplifying the challenge of coordinating planning efforts. Additionally, industrial and financial entities find themselves reliant on scenario modelling institutions, contributing to inefficiencies and potential time lag issues.

Companies increasingly depend on external model providers, yet their comprehension of these models' limitations often remains incomplete. In certain cases, climate change information derived from these models is publicly disclosed despite not being comprehensively understood. Such disclosures can raise concerns, such as benign economic outcomes in high physical risk scenarios, potentially misleading institutions, and advisers. This misrepresentation could also undermine regulators' assessment of systemic risk.

A crucial case in point is the offset carbon sector, necessitating swift regulation and standardization. Addressing the risk of double counting and preventing the issuance of subpar carbon offset credits is essential. Carbon offset supply pressure is set to intensify across various sectors, even as existing projects witness decreasing sequestration capacity, especially in forest-based projects.

Even with clarified objectives and transparency tools from public authorities, a monumental, comprehensive transformation of the economy lies ahead, demanding substantial financial and human support. While the private sector will contribute, the magnitude and swiftness of the change necessitate public support to efficiently coordinate, ensure, and facilitate the transition. This entails mobilizing research and development capacities for new technologies.

In our pursuit of a sustainable future, comprehending and evaluating diverse energy scenarios is imperative. Two divergent approaches, the Energy Transition Scenario (ETS) and the Ambitious Energy Transition Scenario (NZS), present distinct avenues to achieve our global climate goals. These scenarios underscore that a transition reliant on historical trends, existing technologies, and short-term market investments is far from optimal, potentially leading to emissions consistent with a 2.6°C warming trajectory by the century's end.

While achieving low-carbon alignment in portfolios is deemed essential for a credible economic decarbonization, this approach, characterized by "avoidance" or "commitment" strategies to mitigate physical risks, may fall short in addressing most transition risks. In the financial realm, conventional risk management tactics such as "risk transfer" through hedging and insurance, or "diversification", are unlikely to comprehensively cover exposure to transition risks. The NGFS (Network for Greening the Financial System) underscores the necessity of considering the diverse requirements of the financial sector to ensure sufficient funding for the transition. Failing to ensure the reliability of decarbonization strategies across different scales could lead to a paradox between greening the economy and greening financial portfolios. This is particularly problematic as the sectors requiring transformative shifts are often those in need of costly transitions.

Incentive schemes, including tax exemptions and direct subsidies, can play a pivotal role in mitigating the challenges and uncertainties accompanying transformation. The extensive changes needed in high-emitting sectors involve substantial investments in new assets (such as factories, transport, and supply chains) and the development of new technologies (like carbon capture, clean energy, and biodiversity preservation). These investments often disrupt the usual depreciation and amortization patterns of assets, impacting long-term profitability. In sectors resistant to reduction, like aviation, adopting a "market-shaping" approach may be essential. This could entail providing patient public financing, characterized by longer terms and accepting potentially lower returns, either directly or through public financial institutions or public-private financial arrangements incorporating risk sharing.

Supporting these changes requires the establishment of a comprehensive structure, potentially involving private stakeholders under the guidance and coordination of public support. This structure could offer training, technical assistance, pertinent connections, information on existing programs, and incentive systems. This support would be especially valuable for small and medium-sized enterprises (SMEs), which often lack the financial and human resources available to larger corporations.

As the prospect of a seamless net-zero transition diminishes, the importance of adaptation planning grows. Similar guidance from public authorities should be extended to adaptation strategies, complementing the overall framework for a successful transition.

ANNEX 1

2 transition plan taskforces to Net-zero:

	GFANZ Recommendations and Guidance on Financial Institution Net-zero Transition Plans	TPT (transition plan Taskforce)
Founding organization	GFANZ (Glasgow financial alliance for Net-0)	HM Treasury
What is the primary objective of the group?	The GFANZ is a global coalition of leading financial institutions committed to accelerating the decarbonization of the economy. Achieving the objective of the Paris Agreement requires a whole economy transition . Companies, banks, insurers, and investors will need to adjust their business models, develop credible plans for the transition to a low-carbon, climate-resilient future, and then implement those plans .	Issue recommendations that will form the basis of regulatory requirements (UK for TPT, TCFD and GFANZ framework) for transition plan information and corresponding guidance . The target of the 3 recommendations is Net-Zero by 2050. It suggests going beyond TCFD guidance by recommending the disclosure of current and planned engagement activities aimed at driving behavioral and business model changes within the entity's industry, companies, and customers in its value chain or portfolio.
Date of publication	The report " Financial Institution Net-zero Transition Plans-Fundamentals, Recommendations, and Guidance " was published in November 2022. The report " Expectations for Real-economy Transition Plans " was published in September 2022 .	Disclosure framework was published in November 2022 , a consultation period is planned between Nov 2022-Feb 2023. Final publication in summer 2023.
Definition of transition plan	A net-zero transition plan is a set of goals, actions, and accountability mechanisms to align an organization's business activities with a pathway to net-zero GHG emissions that delivers real-economy emissions reduction in line with achieving global net zero.	A transition plan is integral to an entity's overall strategy , setting out its plan to contribute to and prepare for a rapid global transition towards a low GHG-emissions economy.
Key features; how to planified ?	- Foundations: by defining the organization's objectives to reach net zero by 2050 or sooner , in line with science-based pathways to limit warming to 1.5°C, stating clearly defined and measurable interim and long-term targets and strategic timelines , and identify the priority financing strategies to enable real-economy emissions reduction; - Implementation and engagement strategy: Engage with peers, government, and public sectors to accelerate and scale the net-zero transition in the real economy, provide transition-related education and advice , utilize existing and new products/services to support and enhance clients' and portfolio companies' transition efforts aligned with the institution's net-zero strategy, establish and enforce policies and conditions for priority sectors (e.g., thermal coal, oil and gas, deforestation) and other high-emitting activities to define business boundaries in line with net-zero objectives; - Metrics & targets: establish a comprehensive set of metrics and targets, focus on aligning financial activity with the real-economy net-zero transition, measure changes in client and portfolio GHG, monitor progress in the near, medium, and long term; and - Governance: defining roles, responsibilities remuneration, skills and culture aligned with net-zero objectives. 4 key financing strategies to enable the net-zero: Climate solutions (technologies, services, and tools that mitigate, eliminate or remove GHG emissions), aligned (entities that are already aligned to a 1.5 degrees C pathway), aligning (entities committed to aligning to a 1.5 degrees C pathway) and managed phaseout (high-emitting physical assets that can be phased out before end-of-life).	Values are : Ambition (objectives, priorities, and their impact on business model), action (implementation and engagement strategy) and accountability (metrics, targets, and governance). The TPT Disclosure Framework recommends is based on TCFD principles but propose further detail beyond the TCFD 4 keys to planify.
Do they consider the technical constraints of different sectors (level of detail/Latitude of application to sectors)	Where appropriate and possible, statements should be endorsed by the Board (or equivalent strategic oversight body). Institutions should also consider articulating and adapting their strategy to : - business context (institution's size, business units/operating models, departments, products, and services will affect or contribute to net-zero objectives; - assumptions (transition pathway uncertainties and implementation challenges); - timing (in addition to near-term GHG emissions reduction, objectives that target medium-term outcomes); - geographical context (differences in policy and regulatory environments, regional business activity, other country, or region-specific risks and opportunities).	- The proposed stages of the TPT can be universally applied across sectors , although terminology and process steps may vary. - Entities are advised to prioritize decarbonization and risk mitigation based on the materiality of their emissions profile, considering factors like sector, size, and geography. - In addition to financial planning, entities need to carry out a sensitivity analysis of assumptions specific to their plan, such as: • technology evolution, • supply chain actions, • policy changes and • demand evolution, to assess the feasibility of the plan and inform future iterations of implementation and engagement strategies. - Information on sectoral transition plans will be developed to provide additional guidance to complement the TPT.

ANNEX 2

Leading NGOs and international institutions involved in global energy transition planning

Organization	Sponsor	Action	Typical” deliverables
IPCC (Intergovernmental Panel on Climate Change) https://www.ipcc.ch	Created by the WMO (World Meteorological Organization) and the UNEP (United Nations Environment Programme).	Prepares Assessment Reports about the state of scientific, technical, and socio-economic knowledge on climate change, its impacts and future risks, and options for reducing the rate at which climate change is taking place. Also produces Special Reports , and Methodology Reports (notably guidelines for national GHG inventories).	- General or specific Assessment and synthesis reports . - Methodology on GHG inventory.
IEA (International Energy Agency) https://www.iea.org	The OECD supports and facilitates its operations of the IEA, which is an (autonomous agency of the OECD).	The IEA provide authoritative analysis, data, statistics, policy recommendations and solutions to ensure energy security and enable world's transition to clean energy. It provides climate scenarios , information on last innovations, as well as simulators and calculators regarding energy transition.	- Reports on energy-related topics and programme. - Simulation of transition.
NGFS (Network for Greening the Financial System) https://www.ngfs.net/en	Initially eight central banks (France, England, Japan, Italy, Canada, Sweden, European and people's bank of China) and supervisors.	Enhance the role of the financial system to manage risks and to mobilize capital for green and low-carbon investments in the broader context of environmentally sustainable development and the goals of the Paris agreement. It defines and promotes best practices to be implemented within and outside of the Membership of the NGFS and conducts or commissions analytical work on green finance.	- Analysis on climate-related risks through reports on finance. - Climate scenarios. - Stocktake on Financial Institutions' Transition Plans and their Relevance to Micro-prudential Authorities.
GHG Protocol https://ghgprotocol.org	Multi-stakeholder partnership where WRI (World Resources Institute) and the WBCSD (World Business Council for Sustainable Development) have a leading role	GHG Protocol establishes comprehensive global standardised frameworks to measure and manage GHG emissions from private and public sector operations, value chains and mitigation actions. It develops standards, tools and online training that helps countries and cities track progress towards their climate goals.	- GHG accounting standards. - Sectorial tools (including scope 3 accounting).
SBTi (Science Based Targets initiative) https://sciencebasedtargets.org	No specific sponsor. Collaboration between several organisations: the CDP, the United Nations Global Compact, the WRI and the WWF (World Wildlife Fund).	Science-based target setting resources and guidance. Independently assesses and approves companies' targets in line with its strict criteria.	Target-setting and guidance directed to company and sector scale.
CDP (Disclosure Insight Action) https://www.cdp.net/en/	Charitable limited liability company EU funding support.	CDP runs the global disclosure system for investors, companies, cities, states, and regions to manage their environmental impacts. Provides data to international institution and taskforces and developed a scoring methodology guidance providing comparability on the market.	- The CDP score for companies (to show where they are on the road to 1.5-degree, deforestation-free and water-secure future). - Disclosure system.
VCMI (Voluntary Carbon Market Integrity Initiative) https://vcmintegrity.org	Independent non-profit organization. Received co-funding from the Children's Investment Fund Foundation, Ballmer Group, the Bezos Earth Fund, Google LLC, the Packard Foundation and the UK Department for Business, Energy, and Industrial Strategy (BEIS).	VCMI is a multi-stakeholder platform to drive credible, net-zero aligned participation in voluntary carbon markets. Promoting demand-side integrity (to ensure meaningful use of carbon credits for voluntary purposes and the associated business case for scaling voluntary carbon markets) and supply-side integrity (by promoting access as countries develop voluntary carbon markets policies and engaging with supply-side integrity efforts to ensure transparency and assurance).	Categorization and utilization scheme for claims to transparently communicate how carbon credits are being used.
ICVCM (Integrity Council for the Voluntary Carbon Market) https://icvcm.org	Independent governance body.	It is setting and enforcing definitive global threshold standards, drawing on the best science and expertise available , so high-quality carbon credits channel finance towards additional GHG reductions.	A set of Core Carbon Principles (CCPs), which will set new standards for high-quality carbon credits and define which carbon-crediting programs and methodology types are CCP-eligible.

Actual role and interactions between these organisations

- **IPCC** has strong international credibility. Its research results have been used during various summits and COPs as a scientific reference to establish international policies and agreements, notably the Paris Agreement.
- Data from the **IEA** is an important source for many organizations. The IEA collaborates with entities such as the African Union, APEC, ASEAN, Asian Development Bank, G7, G20, International Energy Forum, IRENA, OPEC, UNFCCC, CEM, BioFuture Platform, Mission Innovation, Energy Efficiency Hub, RETA, and more. The IEA also frequently provides expert advice in discussions at the Conference of Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC).
- **SBTi** partnership includes **CDP, UNGC, World Resources Institute, WWF**. SBTi is an important resource for companies. However, their latest reference data are those from the 2017 **IAE's** work (SBTi considers the **IEA** and **IPCC** scenarios, but as far as the IPCC is concerned, it does not yet consider the AR6 scenario, which is the latest to date). This poses a problem in terms of updating targets and factoring in accelerating technological innovations.
- The Sectoral Decarbonization Approach (SDA) from the SBTi is an alternative method of deriving carbon intensity measures and targets from global mitigation pathways for some of the most carbon-intensive activities. The current version of SDA supports 1.5°C targets for power generation, while methods for other sectors are based on well below the IEA's 2°C pathways. SBTi has ongoing efforts to further develop 1.5°C sectoral trajectories, such as the one published by SBTi for the power sector in June 2020, and will consider the publication of forthcoming IPCC AR6 and IEA scenarios.
- **CDP** collaborates with **UNGC** (United Nations Global Compact), the **We Mean Business** coalition, **UN's Marrakech Partnership for Global Climate Action**, **Business for Nature**, **IUCN**, **Taskforce on Nature-related Financial Disclosures**, the **Investor Agenda**, the **Future of Sustainable Data Alliance**, **Impact Management Platform**, **ACA Brazil**, **Brazilian Association of State Environmental Entities**, **Water Europe**, the **Alliance for Corporate Transparency**, the **Climate Action Network**, **UN-Water Expert Group**, **ADEME**, and more. CDP is an accredited observer to the **UNFCCC**, an accredited observer to the **UN Environment Programme**, and holds Consultative Status with the **UN Economic and Social Council**. The **European Commission Joint Research Centre (JRC)** is a data partner of CDP. CDP's global policy team engages with policymakers and regulators including the United Framework Convention on Climate Change, the Sustainable Development Goals, TCFD, EFRAG, ESMA, and others.
- **NGFS** collaborates with the National Institute of Economic and Social Research, Climate Analytics, and more.
- On June 15, 2022, the **GFANZ** announced its direction for the transition plan and worked closely with the **TPT** to develop its framework.
- The **FCA** is working closely with **HM Treasury** on the development of a sustainable investment labelling regime. The labels will help consumers select investment products based on their sustainability characteristics and will be supported by the underlying **SDR** disclosures.

ABOUT EUROFI

The European think tank dedicated to financial services

- A platform for exchanges between the financial services industry and the public authorities
 - Topics addressed include the latest developments in financial regulation and supervision and the macroeconomic and industry trends affecting the financial sector
 - A process organised around 2 major international yearly events, supported by extensive research and consultation among the public and private sectors
-

OUR OBJECTIVES

Eurofi was created in 2000 with the aim to contribute to the strengthening and integration of European financial markets.

Our objective is to improve the common understanding among the public and private sectors of the trends and risks affecting the financial sector and facilitate the identification of areas of improvement that may be addressed through regulatory or market-led actions.

OUR APPROACH

We work in a general interest perspective for the improvement of the overall financial market, using an analytical and fact-based approach that considers the impacts of regulations and trends for all concerned stakeholders. We also endeavour to approach issues in a holistic perspective including all relevant implications from a macro-economic, risk, efficiency and user standpoint.

We organise our work mainly around two-yearly international events gathering the main stakeholders concerned by financial regulation and macro-economic issues for informal debates. Research conducted by the Eurofi team and contributions from a wide range of private and public sector participants allow us to structure effective debates and offer extensive input. The result of discussions, once analysed and summarized, provides a comprehensive account of the latest thinking on financial regulation and helps to identify pending issues that merit further action or assessment.

This process combining analytical rigour, diverse inputs and informal interaction has proved over time to be an effective way of moving the regulatory debate forward in an objective and open manner.

OUR ORGANISATION AND MEMBERSHIP

Eurofi works on a membership basis and comprises a diverse range of more than 65 European and international firms, covering all sectors of the financial services industry and all steps of the value chain: banks, insurance companies, asset managers, stock exchanges, market infrastructures, service providers... The members support the activities of Eurofi both financially and in terms of content.

The association is chaired by David Wright who succeeded Jacques de Larosière, Honorary Chairman, in 2016. Its day-to-day activities are conducted by Didier Cahen (Secretary General), Jean-Marie Andres and Marc Truchet (Senior Fellows).

OUR EVENTS AND MEETINGS

Eurofi organizes annually two major international events (the High Level Seminar in April and the Financial Forum in September) for open and in-depth discussions about the latest developments in financial regulation and the possible implications of on-going macro-economic and industry trends. These events assemble a wide range of private sector representatives, EU and international public decision makers and representatives of the civil society.

More than 900 participants on average have attended these events over the last few years, with a balanced representation between the public and private sectors. All European countries are represented as well as several other G20 countries (US, Japan...) and international organisations. The logistics of these events are handled by Virginie Denis and her team. These events take place just before the informal meetings of the Ministers of Finance of the EU (Ecofin) in the country of the EU Council Presidency. Eurofi has also organized similar events in parallel with G20 Presidency meetings.

In addition, Eurofi organizes on an ad hoc basis some meetings and workshops on specific topics depending on the regulatory agenda.

OUR RESEARCH ACTIVITIES AND PUBLICATIONS

Eurofi conducts extensive research on the main topics on the European and global regulatory agenda, recent macro-economic and monetary developments affecting the financial sector and significant industry trends (technology, sustainable finance...). Three main documents are published every 6 months on the occasion of the annual events, as well as a number of research notes on key topics such as the Banking Union, the Capital Markets Union, the EMU, vulnerabilities in the financial sector, sustainable finance.... These documents are widely distributed in the market and to the public sector and are also publicly available on our website www.eurofi.net :

- Regulatory update: background notes and policy papers on the latest developments in financial regulation
- Views Magazine: over 190 contributions on current regulatory topics and trends from a wide and diversified group of European and international public and private sector representatives
- Summary of discussions: report providing a detailed and structured account of the different views expressed by public and private sector representatives during the sessions of the conference on on-going trends, regulatory initiatives underway and how to improve the functioning of the EU financial market.

eurofi
www.eurofi.net

