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The regulatory updates in the following pages were drafted by Didier Cahen, Marc Truchet and Jean-Marie Andrès as a background to the discussions of the Eurofi Vienna Forum and do not engage in any way the Austrian authorities or the speakers taking part in the forum.

1. EUROZONE AND EU INTEGRATION CHALLENGES

Ensuring a viable EMU: are we on the right track?

By December, leaders should have been presented with a comprehensive package for a financially stable and economically resilient Economic and Monetary Union. The completion of financial integration, the symmetric adjustment in countries with large current account imbalances and the creation of a common fiscal capacity represent the key lines of action for deepening the EMU, alongside decisive structural reforms in all the euro area Member States.

1. The euro area in the process of steady repair

After a decade of poor economic performance and increased divergence, economic fortunes have improved significantly in recent years in the euro area, which is enjoying a sustained expansion with growth well exceeding potential, increasingly supported by vigorous investment and improving job creation. However, in a few countries (Italy in particular), growth remains anaemic and fragile.

Fiscal positions in most euro countries have improved visibly since 2016. All Member States, except Spain, have exited the Excessive Deficit Procedure (EDP), compared to 24 Members in EDP in 2011. About two-thirds of Member States have reduced or stabilised their government debt since 2011, but well above 60% of GDP in many Member States. At the same time, a number of countries (in particular France, Italy, and Spain) continue to face substantial fiscal imbalances: their fiscal deficits remain close to 3% of GDP, they are still far away from their Medium Term Objectives and they exhibit high, and often further increasing, government debt.

2. The eurozone economy is still facing structural challenges and looking for a new equilibrium

The Eurozone is characterized by three main structural weaknesses:

Growing heterogeneity in productive specialisation: As is normal in a currency area, the Member States of the Eurozone have divergent productive specialisations with consequences on relative productivity and potential growth rates. The elimination of foreign exchange risks encourages productive specialization within the monetary union because it mainly benefits exporting countries. Some countries specialise in upmarket industry, which is more profitable, while others focus on mid-range industry or tourism. This process also leads to a divergence of per capital levels between the euro-zone countries. Hence, the Netherlands per capita GDP is today three times higher than the Greek one, with 45 000 € per year against 16 000 € for the latter[1]. In 1999 it was only two times higher.

Moreover, the position of the best performing and most productive countries tends to improve further as a result of the monetary union itself: the economies of the best performing countries benefit from the fact that the external value of the euro represents an average for the entire economic area and appears undervalued in relation to their economic performance, resulting in an additional competitive advantage. For example, it is estimated that Germany's exchange rate is 20 % undervalued (in terms of a real effective exchange rate towards the euro area). Its correction would imply arithmetically a 2% annual inflation rate in Germany and a 0% inflation in the other countries for a decade, which would be unrealistic and probably misconceived.

Cross-border capital flows are almost inexistent: Since the financial and sovereign debt crisis, financial flows between Eurozone countries have declined. There has been a fall in cross-border loans in the euro area and the share of government bonds held by non-residents has dropped. Investors' and banks' portfolios have increasingly become national following the sovereign debt crisis.

Member States with excess savings (Germany and the Netherlands in particular) no longer finance investment projects in lower per-capita countries (Spain, Italy, Portugal, Greece). The euro area exhibits a savings surplus of more than €300 billion, or 3,5% of GDP, in 2017, which is no longer being lent to the other euro-area countries but to the rest of the world.

Rebalancing within the Eurozone remains essentially asymmetric: Virtually all Member States faced with major current account deficits prior to the crisis have managed to obtain a remarkable turnaround. All these – except France[2] – have been able to achieve a balance or surplus in their external transactions. This has however been at the price of a collapse in domestic demand, in turn resulting

[1] Source: Datastream, AMECO, Natixis.

[2] France is now the only European country which has run a current account balance deficit for the last 10 years, has increased still further its record level of public expenditure, runs a primary deficit (around –1.5% of GDP) and has the highest level of tax and social security contributions. So long as this situation prevails, the influence of France to galvanise its partners on macro-economic coherence in Europe will necessarily be limited.

in high unemployment. At the same time, the "Northern" part of the monetary union has been running persistent excessive surpluses (Germany 8,7% of GDP, Netherland 10%), but this has not benefitted the Eurozone as a whole and has had negative externalities for the economies of other countries. This results in a "fundamental disequilibrium" within the Eurozone.

3. Lines of action to deepen the EMU

The relatively favourable current economic environment provides a unique window of opportunity for improving the resilience of the eurozone economy and tackling remaining fault lines in the EMU architecture. A certain number of actions are underway, but should be reinforced or enhanced.

Implementing structural reforms within each Member State with a view to achieving steady convergence towards resilient economies is fundamental for improving the functioning of the EMU. Reducing vulnerabilities whilst enhancing the capacity to absorb shocks and reallocate resources will require comprehensive structural reforms. These internal adjustments efforts in the Eurozone become even more urgent with the long term drag of ageing populations and higher projected pension expenditure. Furthermore, Eurozone fiscal rules should be more effective and binding. This would help to rebuild buffers and ensure debt sustainability. A monetary union cannot work without fiscal discipline and the enforcement of the Stability and Growth Pact has been too lenient since 2003. It is difficult to make progress as long as existing rules have not been observed by all Member States.

Improving the Banking Union and advancing the Capital Markets Union is also essential. This would foster a more effective allocation of resources across the Eurozone, help to achieve a better diversification of risks thus contributing to private risk sharing across the EU. Banking and financial integration has virtually stalled since the crisis. It is therefore of paramount importance for public decision-makers to strengthen the Banking Union by setting up a meaningful backstop to the Resolution Fund, as proposed, but addressing the concerns of host countries regarding the EU crisis management framework in order to eliminate the present ring fencing of capital, liquidity and bailinable liabilities which is hindering the operation of true transnational banking groups in the Union is also essential.

Correcting the current disequilibrium in the monetary union is necessary for sufficient progress to be possible.

The pattern of euro area rebalancing that predominantly relies on "adjustment in weaker countries" is not sustainable either politically or economically. Lack of solidarity and an unjustified mistrust towards countries with lower productivity will indeed feed populism in Europe and undermine the cohesion of the euro area. In addition, lasting and excessive current account surpluses are not sustainable within a monetary union because they result in effect in creating currency advantages for the best performing countries. This is true also at the international level, as illustrated by the recent complaints of the US administration. Symmetric economic adjustment both in deficit and surplus countries is therefore a prerequisite for a durable rebalancing in the euro area.

This means that as long as deficit countries have embarked on the structural reforms needed to address their competitiveness gap, surplus countries should accept to reduce their surpluses and for example accept some degree of higher relative unit labour costs. Furthermore, if surpluses are persistent and excessive (for example above 3% to 5% of GDP), it could, for instance, be imagined at the level of the euro zone, to tax surpluses on balances of payments, symmetrically to the internal adjustments that are required from deficit countries when their economic situation is not improved. These taxes could then feed into a Rainy Day Fund and thus help to equalise cyclical divergences between euro area countries.

This is not a matter of fiscal redistribution or of creating a «union of transfers». It is the correction of a «fundamental imbalance» which jeopardises the survival of the euro area and threatens the functioning of the international financial system. It is up to the Eurogroup to deal with these malfunctions and to create automatic compensation mechanisms in the event of persistent current account deficits or surpluses.

Two Commission proposals are on the table in order to contribute to an improved implementation of the necessary structural reforms and fiscal consolidation: a stabilisation function and a reform delivery tool, within the Multi- annual financial framework (MFF)[3]. But steadfast and balanced efforts both in deficit and surplus countries are necessary to galvanise growth and stability in the euro area.

Until this has been achieved, private risk sharing through financial markets has to be complemented by public risk sharing. Indeed a **Central Fiscal Capacity** (CFC) would provide additional fiscal space for bad times, dampening any repeat of the recent crisis when countries were forced to raise taxes and cut spending, which further deepened the economic slump. Such a CFC will be politically acceptable only if it does not generate permanent transfers or debt mutualisation and minimises moral hazard. The recent Commission proposals are an interesting set of proposals in this perspective, usefully enriched with other proposals like those from the IMF and should be discussed without delay within the Eurogroup. ■

Written by Didier Cahen & Jacques de Larosière with the support of Lucie Truchet. We are also grateful to Servaas Deroose for helpful discussions and comments.

[3] The Reform Support Programme is a new instrument designed to foster the implementation of reforms in all EU Member States, starting with priority reforms identified at the European Semester. It would provide financial and technical support for the pursuit and implementation of reforms and to improve Member States' administrative capacity. The European Investment Stabilisation Function linked to the EU budget would represent an embryonic Central Fiscal capacity and would complement existing instruments at national and European level to absorb large asymmetric macroeconomic shocks in the euro area and countries participating in the European Exchange Rate Mechanism (ERM II). The EU budget would guarantee back-to-back loans of up to €30 billion (about 0,2% of euro area GDP) in 2021.

Restoring capital mobility in the euro area

During the decade from 2000 to 2010, there was a high level of capital mobility within the Eurozone but it mostly resulted from inter-bank funding which supported the financing of inefficient investments (e.g. in real state bubbles, sub-optimal business ventures and infrastructure projects notably in Spain, Italy, Portugal, Ireland and Greece) and which contributed to massive current account deficits. The 2011-2013 sovereign debt crisis halted the circulation of capital flows around Eurozone and EU countries.

Since then, financial flows between the Eurozone countries have declined; there has been a fall in cross-border loans in the euro area[1]. The share of the government bonds held by non-residents has dropped. Investors' and banks' portfolios have increasingly became national following the sovereign debt crisis.

Member States with excess savings (Germany and the Netherlands in particular) no longer finance investment projects in lower per-capita-capital countries (Spain, Italy, Portugal, Greece). Indeed the euro area exhibits from a savings surplus of more than €300 billion or 3,5% of GDP in 2017, which is no longer being lent to the other euro-area countries but to the rest of the world excluding the euro area.

Developing cross-border financial flows within the euro area is essential. The true objective of a currency area is that savings should flow to finance the most productive investments throughout the currency area. Indeed in a monetary union, the elimination of currency risk allows savings from the countries that have a high level of per capita capital (Germany, Netherlands, France) to finance investment in the countries with lower per capita capital and higher marginal productivity of capital (for example Spain, Italy, Portugal). Income convergence therefore normally stems from the transfer of savings from high per capita income countries to low per capita income countries. But, as mentioned above, these transfers disappeared in 2008-2010.

The fact that Germany's and the Netherlands' external surpluses are no longer lent to the other euro-zone countries reduces the capacity of peripheral countries to invest as well as their potential growth, and increases the per capita income heterogeneity in the euro area.

Symmetric economic adjustment in countries with large current account imbalances would significantly contribute to restore capital mobility in the euro area

Symmetric economic adjustment in countries with large current account imbalances is a prerequisite for restoring capital mobility in the euro area and achieving a durable rebalancing in the euro area. The pattern of euro area rebalancing that predominantly relies on "adjustment in weaker countries" is not sustainable either politically or economically. Lack of solidarity and an unjustified mistrust towards countries with lower productivity will indeed feed populism in Europe and undermine the cohesion of the euro area. In addition, lasting and excessive current account surpluses are not sustainable within a monetary union because they result in effect in creating currency advantages for the best performing countries. This is true also at the international level, as illustrated by the recent complaints of the US administration. Symmetric economic adjustment both in deficit and surplus countries is therefore a prerequisite for a durable rebalancing in the euro area.

We should not forget that countries with persistent current account surpluses are receiving a significant currency subsidy. It is estimated[2] that Germany's exchange rate is 20 % undervalued (in terms of real effective exchange rate towards the euro area); its correction would imply arithmetically a 2% annual inflation rate in Germany and a 0% inflation in the other countries for a decade, which would be unrealistic and probably misconceived.

This is not a matter of fiscal redistribution or a «union of transfers», but of correcting a «fundamental imbalance» which jeopardises the survival of the euro area[3] and threatens the functioning of the international financial system.

The proposal for a European savings-investment Fund

The proposal for a European savings- Investment Fund made to reinstate this capital mobility between countries in the Eurozone also needs to be taken up. This Fund would offer long maturity savings bonds to euro area households and life insurance companies with a guaranteed minimum rate of return over the holding period. Public domestic Development Banks would guarantee the minimum interest rate and the redemption of these savings bonds would provide that these savings are held for a sufficiently long period of time (e.g. until the retirement of the saver) and are invested in diversified portfolios mostly in euro equities[4].

The completion of financial integration

Encouraging an active banking and capital market in Europe whereby the North's surplus savings could find their way to invest in the South is essential. This push of capital mobility will of course not bear fruit unless

[1] P. Artus, The reasons why capital mobility between euro-zone countries should be restored, Flash Economics, Natixis Research, 4 April 2018.
[2] See, CEPII, "Some unpleasant Euro Arithmetic", Policy Brief No 21, January 2018.
[3] See Didier Cahen and Jacques de Larosière, "Ensuring a viable EMU: are we on the right track?, September 2018.
[4] Thomas Mayer, Olivier Garnier, Edmond Alphandéry and Jacques de Larosière, "Proposal for a European Savings Investment Fund", Brussels, Euro 50 Group 2014.

the ecosystem is conducive, especially as regards the training and skills of young people and the development of innovation and new technologies in the South in particular.

By contrast in the US, it is the private market flows that take care of some 80% of the adjustment in case of asymmetrical shocks while fiscal federal transfers are very limited, less than 20%. This is why the Banking Union needs to be optimised and the so called "Capital Markets Union" should be concretely worked on.

It is of paramount importance for public decision-makers to strengthen the Banking Union by setting up a meaningful backstop to the Resolution Fund and addressing the concerns of host countries regarding the EU crisis management framework in order to eliminate the present ring fencing of capital, liquidity and bailinable liabilities which is hindering the operation of true transnational banking groups in the Union. Given the high degree of banking intermediation in Europe, compared to other jurisdictions around the world, striving for a smoother movement of capital and liquidity, across EU countries, is essential.

The Eurofi paper on "Optimizing the Banking Union" describes two conditions to allow capital, liquidity and bail in instruments to be defined only at the consolidated level (abandonment of the solo approach).

In order to reassure local supervisors, 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 ("outright group support"). This group support should be based on EU law and enforced by EU authorities.

In addition if the group was to go into liquidation (and not only local subsidiaries), a European approach to liquidation of these transnational banking groups is also required. Indeed despite the fact that these transnational banking groups are supervised at the EU level and that the impacts of this liquidation would impact the whole euro area, the liquidation is still managed at the national level (entity by entity) and this can require public money from the Member State.

A common liquidation regime for these banking groups should ensure an equal treatment of creditors of the same rank within the group and to address the possible costs at the EU level. In an interim stage however, a solution would be to extend to subsidiaries the liquidation approach currently used for branches, whereby resolution is managed under the regime of the parent company. This would allow all the subsidiaries of the Group to be treated under the same liquidation regime. ■

Reviewing of the operation of the ESAs

In response to the financial crisis of 2007/8 and building on the recommendations of the High Level Group on financial supervision in the EU chaired by Jacques de Larosière, the Commission put forward legislative proposals to strengthen EU level financial supervision in October 2009. The three ESAs – the European Banking Authority («EBA»), the European Insurance and Occupational Pensions Authority («EIOPA») and the European Securities and Markets Authority ("ESMA") – became operational in January 2011.

The responsibilities of the ESAs include defining common practices and standards for the regulation and supervision of banking, market and insurance activities, and ensuring the consistent application of these measures within the single market.

In a very short period of time the ESAs have established themselves are respected by market participants, Member States, the EU institutions and globally for the professional way in which they have undertaken their duties. In this way the ESAs have contributed to a smother functioning Single Market for financial services.

The objective has however only partially been achieved since the implementation of EU laws is not always consistent across the Union. There remains significant potential to enhance regulatory and supervisory convergence in the Single Market. Integrated financial markets may require more integrated supervisory arrangements to function effectively, while more centralised supervisory arrangements can, in turn, foster market integration. The ESAs can play a key role in this symbiotic relationship between market integration and supervisory convergence and can assume more direct responsibility for supervision in targeted areas.

The decision of the UK to leave the EU is a further reason for strengthening EU supervisory arrangements, particularly those regarding ESMA, since Brexit reinforces the importance of developing financial markets within the EU in order to continue to support the EU economy and of appropriately managing interactions with third countries. Moreover it is important to preserve the ability in the future for the ESAs to be a platform of European cooperation with non-EU financial centres such as the City to the mutual benefit of both parties.

On 20 September 2017, The EU Commission presented a proposal to review the operations of the ESAs.

Its objective is to further enhance regulatory and supervisory convergence in the internal market in order to support the implementation of the Capital Markets Union (CMU) and the Banking Union in particular.

The ESA review proposal includes a broad range of measures concerning the governance of the ESAs, their direct supervisory responsibilities and their interactions with National Competent Authorities (NCAs) in order to ensure a more consistent application of EU law, the enhancement of the powers of the ESAs regarding third countries to support appropriately equivalence decisions, as well as measures to ensure that ESAs benefit from sufficient funding.

Governance: the EU Commission proposes the creation of an independent Executive Board (EB) consisting of the Chairperson and a number of full-time members in charge of preparing decisions to be taken by the Board of Supervisors (BoS), preparing the ESAs' work programme and budget and making decisions in a number of areas including dispute settlements, breach of Union law and independent reviews. The EB would moreover be in charge of monitoring delegation, outsourcing and risk transfer arrangements to non-EU country entities and of decisions in relation to requests for information.

General supervisory powers: the powers of the ESAs would be enhanced in a number of areas: breach of Union law, settlement of cross-border disagreements (possibility for the ESAs to trigger a settlement on their own initiative), supervisory convergence and coordination (replacement of peer reviews by independent reviews under the responsibility of the EB, supervision by the ESAs of outsourcing, delegation and risk transfer arrangements to third countries…), a coordination role for ESMA in relation to market abuse investigations including the maintenance of a data storage facility to collect and disseminate appropriate information, publication of the results of individual stress tests, preparation of equivalence decisions regarding third-countries and monitoring their enforcement on an on-going basis, direct collection of information from market participants or financial institutions.

Direct supervisory powers in targeted areas: supervisory convergence on insurance internal models by EIOPA, authorisation, registration and supervision by ESMA of three types of EU funds (ELTIF, EuVECA, EuSEF) and their managers (while the on-going supervision would be retained by the NCA), authorisation and supervision by ESMA of data reporting service providers, explicit product intervention powers (restriction or prohibition of the marketing, sale or distribution) granted to ESMA regarding UCITS and AIF funds, direct supervision by ESMA of the administrators of critical benchmarks, transfer to ESMA of the supervision of certain categories of prospectuses and prospectuses by non-EU country issuers.

Budgetary implications: At present the ESAs are funded by general contributions from the EU General Budget (40%) and contributions from NCAs (60%). For ESMA this distribution is slightly different with supervisory fees paid by the entities directly supervised by ESMA (such as CRAs and TRs). Following the ESA review, the ESAs budget would rely on three sources of financing: annual contributions paid by financial institutions indirectly supervised by the ESAs, supervisory fees paid by entities directly supervised by the ESAs (mainly ESMA), a balancing contribution from the EU that would not exceed 40% of the overall revenues of each agency. ■

Optimising the Banking Union

I. A better integrated banking system is a pre-condition for a more effective allocation of resources across the EU economy and for reinforcing a stronger Economic and Monetary Union (EMU)

In response to the sovereign debt crisis, the EU created the Banking Union in 2012 to safeguard financial stability (reduce financial fragmentation, break the link between banks and their national sovereigns), to deliver a safer banking sector and protect the taxpayer from the cost of bank failures.

The Single Supervisory Mechanism (SSM) was fully established in 2014 and the Single Resolution Mechanism (SRM) became operational in 2016, together with a Single Resolution Fund which will gradually accumulate and become mutualized in the period to 2024. The Commission put forward a proposal for a European Deposit Insurance Scheme (EDIS) in November 2015 and Member States have agreed to put in place a common fiscal backstop for the SRF again by 2024 at the latest. The Commission proposed a banking package with further risk reduction measures in November 2016, as well as an NPL action plan early in 2018. While the Banking Union is functioning well, EDIS and the common backstop are required in order to achieve fully the financial stability objectives of the Banking Union.

The Banking Union should also contribute to a strong and better functioning Economic and Monetary Union. Firstly, a safer and more integrated banking system would also better support the currency union by improving the efficiency of the transmission of the monetary policy, for which banking activities play an essential role in the euro area.

Secondly by helping to further integrate EU banking markets, the Banking Union would indeed 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 thus contributing to private risk sharing within the Union[1]. This is all the more essential as the current euro area institutional architecture does not provide for a supra national fiscal stabilization in the EMU (public risk sharing) to address the inherent imbalances. In the US, 80% of asymmetric shocks are smoothed through banking and capital markets and 20% through fiscal stabilizers. In the EU only 20% are smoothed essentially through capital markets and fiscal stabilizers[2]. While in the United States the credit channel accounts for about 20%, in the euro area its contribution is negative, although small, according to a recent study of the ECB[3]. In such a context, in the EU, crisis can only be absorbed through internal devaluation with associated social and political costs.

Thirdly, an integrated banking system would restore and improve savings allocation mechanisms to address productive investment opportunities more efficiently across Europe and in particular the Eurozone. While they share a single currency, there have never been optimal financial flows between the euro-zone countries. Before the 2009 crisis, cross-border financial flows were mainly intermediated between banks rather than within banking groups and were often used to finance inefficient investment (e.g. in real-estate bubbles, sub-optimal business ventures and infrastructure projects notably in Spain, Italy, Portugal Ireland and Greece). Since then, financial flows between the euro-zone countries have declined. ECB facilities have become a substitute for the unsecured interbank market (depressed by a loss of trust during the crisis and by the Liquidity Coverage Ratio regulatory framework) in distributing liquidity among banks with high and low domestic funding respectively.

The euro area benefits from a savings surplus of more than €300 billion a year, or 3,5% of GDP, which is no longer being lent to the other euro-area countries but to the rest of the world excluding the euro area[4]. Developing cross-border financial flows within the euro area is essential. The true objective of a currency area is that savings may flow to finance the most productive investments throughout the currency area.

The emergence of effective transnational banking groups is a way for companies and depositors across the euro area to reap these benefits, for improving the financing of EU economies and ensuring the Eurozone's sovereignty in financing. The additional solution is to implement the Capital Markets Union.

The emergence of transnational banking groups would notably help Eurozone excess savings to circulate across borders to those parts of Europe where the most attractive investment opportunities exist (innovation, digital, renewable energy technologies...) and to increase private risk sharing. As local banks are typically heavily exposed to the local economy, a downturn in their home region will lead to large losses and prompt them to cut lending to all sectors. But if there are transnational banks that operate in various parts of the Union, they can offset any losses made in the recession-hit region with gains in another, and can continue to provide credit to sound borrowers. 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.

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.

Such transnational banking groups should go hand in hand with the strengthening of existing diversified banking business models. Such diversity constitutes an asset for the resilience of the EU banking sector and to address a broader range of financing needs. The challenge here is notably to improve the profitability of all existing business models by investing in the digital transformation and addressing the overbanking issue. Similarly while the supervision, resolution and liquidation of transnational banks need to be at the EU level, the supervision, resolution and liquidation of non-systemic local banks should remain at the domestic level but with harmonized and coordinated EU laws to guarantee the level playing field.

[1] The concept of risk sharing generally refers to the notion that economic agents, such as households and firms, attempt to insure their consumption streams against fluctuations in the business cycle of their country, i.e; they try to smooth out changes in their consumption resulting from economic shocks.
Risk sharing is the ability to smooth adverse income shocks in a particular country, through channels that operate cross-border. In a currency union, it operates either by public or private risk sharing. The private channel works through the operation of banking or capital markets. Risk sharing increases the capacity of the banking sector to absorb potential asymmetric economic shocks (or the asymmetric consequences of a common shock) affecting one or two Member States.

[2] In the US, financial markets smooth more than 50% of a shock to state-specific output growth.

[3] ECB Economic Bulletin, Risk sharing in the euro area, Issue 3 / 2018.

[4] German and Dutch savings surplus (external surplus) is no longer counterbalanced by an external deficit for other euro-zone countries, but by an external surplus for the euro zone as a whole.

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 bank.

Despite the implementation of the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM), the distinction between home and host supervisors and the "national bias" still exists for banks operating across borders in the Banking Union. Ring-fencing policies applied to capital, liquidity and bailinable liabilities clearly distort the functioning of free banking markets, fragment them and impede the restructuring of the banking sector in Europe, which cannot benefit from the economies of scale of the single market compared to US banks for instance, which rely on a large unified domestic market.

In addition, defining prudential requirements at group level should contribute to enhance financial stability. For instance the main benefit of defining MREL only at the group level rather than also on the level of each subsidiary (internal MREL) is that it increases flexibility. In the case of a loss in a subsidiary that would be greater than the amount of internal MRELs prepositioned in the country of this subsidiary, it would be easier to mobilize the required capital using centrally held resource from the parent company. If all resources has been pre-allocated, it is unlikely that any local supervisor would accept that internal MRELs located in their jurisdiction be released and transferred to another one.

In such a context, it is essential to consider transnational banking groups of the euro area as unique entities from an operational, regulatory and supervisory perspective, and not as a sum of separate subsidiaries ("the solo approach"). To ensure such an objective, it is necessary to tackle the root cause of domestic ring-fencing practices which, in general, lie in the concern that, should a banking group face difficulties, the parent company will repatriate liquidity and capital, to the detriment of subsidiaries in other jurisdictions. This lack of trust between national authorities is one of the most damaging legacies of the recent financial and sovereign debt crises.

The perception of this problem is particularly acute in countries that are strongly dependent on foreign banks for the financing of their economies. In order to reassure local supervisors, 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")[5]. 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 any difficulty of their subsidiary located in the euro area. This group support should be based on EU law and enforced by EU authorities. This commitment is the key condition for these banking groups to define prudential requirements at the consolidated level. Given the high degree of banking intermediation in Europe, compared to other jurisdictions around the world, striving for a smoother movement of capital and liquidity, across EU countries, is essential.

In addition if the group was to go into liquidation (and not only local subsidiaries), a European approach to liquidation of these transnational banking groups is also required. Indeed despite the fact that these transnational banking groups are supervised at the EU level and that the impacts of this liquidation would impact the whole euro area, the liquidation is still managed at the national level (entity by entity) and this can require public money of the Member State of the entity. A common liquidation regime for these banking groups should ensure an equal treatment of creditors of the same rank within the group and to address the possible costs at the EU level.

These are the two conditions for the abandonment of the "national and solo approach".

It is also important to assess if the governance of the SSM and the SRB needs to be improved in order to ensure an effective confidence by national supervisors on SSM and SRB decisions and to clarify possible trade-offs between local financial stability issues and euro area wide ones ad how to deal with both.

Finally 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 creep in 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 a banking (or capital) union are not workable without economic convergence and fiscal discipline. ■

[5] See E. Fernandez-Bollo, "How to foster trust between home and host authorities in the EU?" Eurofi Magazine, September 2018.

The protection of deposits in the EU: Pros and Cons and a possible way forward

This note presents the expected benefits of a European Deposit Insurance Scheme (EDIS), the arguments against it and two possible ways forward (EDRIS, EReIF).

1. The current protection of deposits

For the time being depositors are protected by Directive 2014/49/EU of 16 April 2014 (Deposit Guarantee Scheme Directive / DGSD). This Directive includes all credit institutions and all schemes, without distinction. By July 2024, the available financial means of a Deposit Guarantee Scheme (DGS) should at least reach a target level of 0,8 % of the amount of the covered deposits of its members.

These requirements will ensure that regardless of where the deposits are located in the Union, depositors will always have a claim against a scheme and that all schemes must be soundly financed. Depositors thus benefit from significantly improved access to DGSs, thanks to a broadened and clarified scope of coverage, faster repayment periods, improved information and robust funding requirements. At the same time, the common requirements laid down in this Directive ensure the same level of stability of DGSs and eliminate market distortions. The Directive therefore contributes to the completion of the internal market.

2. Weaknesses of the current system

Despite the many improvements made by DGSD, some weaknesses remain.

The most important ones concern the case of large local shocks. No national deposit guarantee scheme has sufficient resources to deal with such shocks, which could overburden a national DGS, taking into account that the DGSD provides only a vague voluntary borrowing facility between national DGSs. Under the regime of DGSD a national deposit fund, which is depleted in the case of a large pay-out, would typically get a loan from the relevant national government that would intervene as a national backstop.

This system will have negative impacts. It undermines the credibility of national DGSs in less wealthy Member States that have no financial means available to intervene as backstops. In addition, the financial disparity across backstops of national DGSs may create adverse incentives, contributing to market fragmentation and competitive distortion. Finally, it intensifies the loop between sovereign risk and banks.

Against this background, the EU Commission is aiming for the mutualisation of the national DGSs by establishing a European Deposit Insurance Scheme. In line with the Five Presidents' Report of 2015, the Commission tabled a legislative proposal on EDIS at the end of 2015 that would progressively evolve from a reinsurance scheme into a fully mutualized scheme over a number of years, replacing the existing national DGSs which are then entirely depleted. A joint Deposit Insurance Fund (DIF) would be created, managed under the auspices of the existing Single Resolution Board. EDIS would be mandatory for euro area Member States and open to non-euro area Member States willing to join the Banking Union.

Nevertheless discussions are on-going at the EU Parliament and the EU Council, particularly related to legacy risks (Non-Performing Loans / NPLs) and the fully-fledged mutualisation approach. In its Communication dated 11 October 2017, the Commission considered certain ideas in an attempt to address the diverging views and concerns that emerged during the negotiations and to influence the discussions in the European Parliament and the Council. In particular, EDIS could be introduced by the co-legislators more gradually: In the reinsurance phase, EDIS would provide national DGSs with liquidity in the case of a bank failure, which would have to be paid back by the national DGS. Liquidity support is the most essential element to ensure that depositors are paid out. In the coinsurance phase, EDIS would also cover losses, without recouping them from the national DGS. This would further reduce the link between banks and their Member States. However, moving to this second phase would be conditional on the progress achieved in reducing the level of NPLs and other legacy assets recognised in the course of an Asset Quality Review (AQR).

3. The expected benefits of the European Deposit Insurance Scheme (EDIS)

3.1. Achieving a true single currency

Full monetary union and a single banking system cannot exist without "single money", which has to be fungible whatever form it takes, independent of its location within the euro area. Therefore the concept of "single money" requires deposits to inspire the same degree of confidence regardless of where the Member States of the Banking Union are located.

And EDIS would be an effective tool to promote a uniform level of depositor confidence and help ensure the true singleness of the euro. Moreover, to ensure that deposits are truly safe everywhere across the euro area, the likelihood that a bank might fail means it has to be independent of the jurisdiction in which it is established. And, when push comes to shove, depositors must be awarded similar protection wherever they are resident.

Through a single fund, EDIS would ensure equal, high quality protection for all depositors across the Banking Union in the case of bank failure. Europe would have more resources than national deposit guarantee funds to cope with large local shocks, which could otherwise overburden national DGSs.

EDIS would be used notably when smaller banks are put into liquidation. EDIS is a European DGS and a way to break the loop between sovereign risk and the banks when the state has to intervene and fund the DGS.

If we look across the Atlantic, we can see that the US has a Deposit Insurance Fund which is pre-funded and managed by the FDIC, which has adopted a 2% Designated Reserve Ratio each year since 2010. By comparison, in the EU we have two prefunded facilities to address bank failures: Deposit Guarantee Funds at the national level and the Single Resolution Fund. Implementation of EDIS could ultimately centralise the deposit guarantee funds and would therefore align the EU and US more in this regard (even though the EU would still retain two separate pre-funded facilities).

3.2. Increasing financial stability

The Banking Union must be completed without delay if we do not want the EU banking system to be still vulnerable in case of crises and for two reasons:

- The first is size, which is the same as the law of insurance: it works better when it pools more resources. By pooling resources at a central level we will significantly increase the resilience of the financial sector. No national DGS would have sufficient resources to do this;
- The second is that, even if you believe that national DGSs can deal with a systemic crisis by themselves, bank failures do not happen in isolation. Banks are so strongly interconnected that an instrument like EDIS is much better placed to deal with spill-over effects.

EDIS could create smoother, more credible and transparent insolvency procedures. There is a concern that national DGSs could trigger massive deposit outflows that could provoke the resolution or insolvency of a bank. The financial disparity across backstops of national DGSs may indeed create adverse incentives, contributing to market fragmentation and competitive distortion. In such a context EDIS should reinforce depositor confidence, reduce market fragmentation and the risks of bank runs and increase financial stability across the Banking Union.

People need to be convinced that there is one Europe and one euro, so that whichever country their bank is in, they can trust the entire system, not just one part of it. Such a system will support confidence in the market. To achieve this goal the Eurozone must put in place a process of gradual increase in risk-sharing, that must go hand in hand and in parallel with risk reduction in a reasonable timeframe.

3.3. Aligning liability and control

EDIS is a small part of a big mosaic serving two goals: the first is to ensure that accidents in the financial sector are less frequent, cost less and are less severe; the second is to provide the financial sector with a level playing field, as soon as possible.

EDIS is important for enhancing the sector's credibility especially within the European Union, but it also has a political dimension. If the responsibility for supervision is elevated to the EU level, the question can be asked as to whether accidents should be paid for at the national level.

There is currently a mismatch between European control and national liability. As supervision and resolution are European, their effectiveness will influence the "if and when" a DGS has to pay out to insured depositors or contribute to resolution.

The supervisory powers of the Banking Union are under the lead responsibility of the ECB, so we cannot argue that national DGSs should pick up the bill in any event of failure. Thus there is a mismatch between European control and national liability that can lead to extra costs and inefficiencies. An EDIS is therefore felt to be necessary to eliminate such asymmetry by elevating accountability for a trusted safety net for deposits to the European level.

3.4. Completing the Banking Union is necessary to reduce risks of systemic crises

Unfortunately, the European Union has a history of launching new projects and leaving them incomplete. Take the Schengen treaty. It opened up opportunities for people to travel, but Europe forgot to put police in its borders until later finding out that this had created risks. The monetary union has been left unfinished, because there is no de facto economic union. Now the Banking Union has been launched, and there are doubts about whether it will be completed.

The three pillars of the Banking Union were tabled for all the negotiations taking place at the European institutions. Everybody agreed to them then, but now people are having second thoughts. Consistent in the project is that a Banking Union can unleash more risks.

It thus needs instruments capable of managing such risks. Without being part of a Banking Union, all national DGSs might prove effective in dealing with a domestic crisis, but this is a globalised financial system with a globalised banking system. Europe is part of that process.

The objective of having a fully integrated banking and financial system must also include the instruments for managing this supranational system. Instead, some argue for a reliance on national schemes and procedures, backtracking on what had been agreed at the beginning. The reason EDIS is now needed is not just for the sake of the completion of the Banking Union; it is because the industry is not immune to the possibility of a major liquidity shock that may affect European or global banking systems. Europe needs to be prepared for such an emergency but it cannot do so using the domestic imbalances of individual countries. The crisis of 2007-08 came from difficulties in controlling capital flows, and the risk management strategies adopted to deal with them. We may continue to live without EDIS, but we will be running greater risks and have insufficient instruments to deal with future crises.

4. Arguments against implementing EDIS

The on-going debate on EDIS since 2015 has shown many concerns expressed by various stakeholders (Member States, the European Parliament, industry, consumers) they range from legal ones (EDIS cannot be implemented without a treaty change; infringement of the principles of subsidiarity and proportionality), a missing comprehensive impact assessment, the lack of a necessary and suitable mutualized system up to fears of moral hazard effects and risk sharing as an entry into the transfer union through the back door (in case a European backstop has to intervene as a last resort), which would be in contradiction to the EU treaty.

Apart from the above mentioned legal problems and risk sharing issues the main concerns involving these stakeholders are:

4.1. Moral hazard

EDIS could have negative impacts on banking markets, the most important one being moral hazard. Experience shows, depositors will invest in high risk assets in risk friendly banks. By mitigating the risks of overburdening national DGS, a mutualised Deposit Guarantee Scheme would create incentives to direct flows to Member States whose banking sector as a whole has a relatively high risk affinity (including with regard to investments in government bonds) and spread precisely these risks across the entire euro area with negative impacts on financial stability. In this way relatively 'healthy' banking sectors in Member States with a low level of risk and a high level of debt sustainability would support their competitors in other Member States. EDIS thus leads to cross-subsidization on a massive scale.

It is agreed that in the context of EDIS banks with higher risk-taking will have to contribute proportionately more to the DIF. But the existing DGSD also provides for risk-based contributions. And recent examples in some Member States show, that higher contributions to the national DGS because of excessive risk-taking have absolutely not deterred banks from continuing to do so. And even enhanced supervision based on now available supervisory tools under SSM has not prevented that behaviour. General experience in insurance teaches that the larger the insurance funds the lower the risk of having to bear losses and the more careless the investor becomes. Therefore, concerns are serious that EDIS would loosen the close link between risk and responsibility.

4.2. EDIS prevents the use of alternative measures and Institutional Protection Schemes (IPSs)

Alternative measures are an important issue concerning the use of funds. Alternative measures would apply to credit institutions that are in difficulty. In some Member States (e.g. Italy) DGSs have played an important role over the years in handling banking crises, mostly by applying alternative measures. Therefore, the DGSD explicitly encourages all kinds of DGSs to use their funds for alternative measures in certain cases.

In contrast to this, the EDIS legislation does not include the use of alternative measures. This restriction does not only affect DGSs as in Italy but in particular institutional protection schemes (IPSs) as in Germany or Austria, which are protecting the credit institutions as such and are ensuring the liquidity and solvency of their members. Such systems guarantee a different level of protection for depositors in comparison to the protection provided by a standard DGS. If, due to the support of an IPS, a bank does not fail and its services continue to be provided, which is a big advantage from the perspective of the clients, it is not necessary to reimburse depositors.

According to the DGSD an IPS may be officially recognized as a DGS if it complies with DGSD criteria. Under a fully mutualised EDIS such an IPS will see all its funds transferred to the DIF. Its functioning as an IPS will no longer be possible due to the lack of funds. The argument of the Commission that risk based contributions to the DIF of banks belonging to an IPS will be much lower compared to normal banks does not apply to an IPS that is recognized as a DGS. Once its funds are transferred to the DIF, the IPS would have to abandon its activities. Without an active IPS, the banks belonging to it have no claim to reduced contributions to the DIF. This result would force the IPS member banks to completely refinance the IPS which would financially overburden them given that a potential reduction in the contributions will never cover additional costs in view of the fact that contributions to an IPS would always come on top of the contributions to the DGS. Consequently, this results in a contradiction to the key principle of EDIS: No increase of costs for the banking sector, as compared to current obligations under the DGSD.

4.3. No respect of diversity and subsidiarity by eradicating ONDs

It is widely accepted, that the diversity of banks fosters the resilience of the banking system in Europe. The specificities of the banking structures in the Member States are mirrored by the national options and discretions within the DGSD. This is especially true for the possibility of Member States to allow the use of alternative measures or a reduced target level in Member States with a highly concentrated banking market. Under the Commission proposal, EDIS would eradicate those national options and discretions. This clearly affects the diversity and resilience of the banking system on the one hand, making it more uniform but at the same time also making it more inflexible. On the other hand, these negative impacts are directly linked to legal concerns emphasizing that EDIS does not respect the principle of subsidiarity and proportionality.

5. Proposed alternative approaches

The debate on EDIS is stuck since 2015. Therefore, the political pressure on all sides to come to a decision is increasing. Taking the above mentioned weaknesses of the current system into account, the need for support between the national DGSs in the case of distress of one of them is widely accepted. It is agreed, that depositor confidence in all the Member States should be fostered independently of the geographical location of a bank in the EU.

The overview of the concerns with regard to EDIS and the proposed alternatives shows that, in principle, there is a willingness from most stakeholders to establish a support system between the national DGSs in case a national DGS is in distress. On the other hand, the rejection of a fully mutualized European system remains important in some Member States and not the least with a view to the issue of how to deal with legacy problems. Obviously, it is important to some stakeholders to retain national DGSs, so that they can maintain their important functions in the framework of the DGSD.

Therefore, most of the proposed models are based on the principle that the any DGS remains anchored at the national level while also including a "European" element. The models discussed range from a simple mandatory lending concept (favoured by some Member states) to hybrids that are based on national DGSs and complemented by European components (e.g. EP rapporteur, Council Presidency).

Given these persisting differences, one of the following models, both based on a genuine reinsurance approach, should be a possible way forward.

5.1. A way forward: European Deposit Re-Insurance Scheme (EDRIS)

Proposed by the French Banking Federation, EDRIS would be an instrument of last resort: only where the national DGS is depleted following an intervention, should the European re-insurance scheme kick in to help pay out depositors or fund resolution measures. More concretely, in cases where the national DGS has insufficient resources to finance its intervention, it would turn to the European Deposit Re-Insurance Fund (EDRIF) which would intervene as re-insurer for the DGS.

EDRIS would be funded ex-post by the national DGSs. It would call on the other national DGSs to provide funding, taken from the fees collected ex-ante at a national level. The national DGSs' respective contributions would be proportionate to the covered deposits of each participating country, weighted according to risk parameters/scoring which reflect the level of stability of the respective national banking systems.

National DGSs' ex post contributions to EDRIS would be capped so that after intervention for re-insurance purposes the available financial means of the DGS shall not decrease below a certain percentage of the target level.

Pros
- The existing model of national DGSs with all the options and discretions of DGSD would be maintained, including alternative measures and IPSs;
- Possible moral hazard effects would be reduced (pay back);
- Consistent methodology for contributions.

Cons
- Liquidity support only;
- EDRIS would impose significant organizational challenges due to ex-post contributions;
- Recovery depending on national insolvency law.

5.2. Another way forward: European Reinsurance Fund (EReIF) with fiscal backstop

CEPS proposed in 2013[1] a two-level framework in which deposit insurance would remain a national responsibility, only subject to the standards set by the EU directive, but the national DGSs would be required to take out reinsurance against systemic shocks. A new institution - the European Reinsurance Fund (EReIF) - would have to be created. This institution would collect premiums from all national DGSs and would pay out if losses at the national level exceed a certain threshold.

The responsibility for losses by individual institutions would thus remain at the national level. But the existence of the European Reinsurance scheme would stabilize the system even if a large, idiosyncratic shock destabilizes the local economy and puts the national guarantee in doubt.

Schematically there would be two tiers of deposit insurance: one by the national DGSs in relationship to 'their' banks and the other by the European re-insurer in relationship to the national DGSs.

The European re-insurer would intervene only in the event that so many banks fail in any given country that the national DGS would be overburdened. The ex-ante funding for the EReiF in turn would come from the national DGSs. National DGSs would thus continue to function as before, but each one would be forced to take out insurance coverage against large shocks to be financed from existing contributions.

Furthermore, CEPS recognizes that systemic shocks to a large country could not be handled by the two tiers of deposit insurance alone. For this reason CEPS advocates that in such a case an effective common fiscal backstop at the European level should be in place as a last resort.

Pros
- The existing model of national DGSs with all the options and discretions of DGSD would be maintained, including alternative measures and IPS;
- Possible moral hazard effects would be reduced (pay back);
- A central body is created and facilitates the implementation;
- Common fiscal backstop is available in case of systemic shocks, which even overburden the two tier system.

Cons
- Liquidity support only. ■

[1] See D. Gros, "Principles of a Two-Tier European Deposit (Re-) Insurance System", CEPS, 17 April 2013.

2. FINANCIAL STABILITY CHALLENGES

Ten years after Lehman: are the EU and global financial systems safer?

Ten years have passed since the onset of the worst financial crisis since the Great Depression. At the time, following an unparalleled build-up of leverage among households and financial institutions, the world's financial system was on the brink of collapse. Thanks to central banks' concerted efforts and their accommodative stance, a repeat of the Great Depression was avoided. Since then, historically low, even negative, interest rates and unprecedentedly large central bank balance sheets have provided important support for the global economy.

But lasting very low interest rates have triggered a continuous rise in the global stock of debt, private and public, in relation to GDP. The last financial crisis was produced by rapid leveraging, particularly in the US but current global leveraging is moving faster than during the pre-crisis period. Financial conditions are easier than before the Great Financial Crisis (GFC), when many investors, households, corporations and sovereigns were caught out in the rain with no umbrella. And there is no denying that the room for manoeuvre in terms of monetary and fiscal policies is narrower today than at that time.

Ten years after the subprime crisis, could there be another serious international financial crisis today?

This is a difficult question, since a fairly large number of developments certainly reduce the risk of a crisis: stricter regulation of banks, deleveraging of the private sector in OECD countries, a sharp reduction in the size of securitisation and improved risk management in derivatives markets.

At the same time, other developments have probably increased the risk of crisis as these developments are linked to very expansionary monetary policies: an increase in public debt in OECD countries, an increase in liquidity risk among non-bank financial intermediaries seeking better returns and moving towards less liquid or illiquid assets (private equity, infrastructure, corporate bonds, high yield, small caps, etc.), a significant compression of risk premium on public debt in fragile countries, on corporate debt or on property prices in certain countries thus leading to an excessive rise in the prices of these assets (asset bubbles).

1. Given how much levels of debt have risen over the decade, risks ahead are material

Global debt is at historic highs, reaching the record peak of US$164 trillion in 2016, equivalent to 225 percent of global GDP. The world is now 12 percent of GDP deeper in debt than the previous peak in 2009. Debt in advanced economies is at 105 percent of GDP on average—levels not seen since World War II.

The continuous accumulation of debt is worrying for at least two reasons. First, the higher the debt, the more sensitive the economy and financial valuations are to higher interest rates. This, in turn, makes it more difficult to raise them, favouring further debt accumulation – a kind of "debt trap". Second, higher debt – private and public – narrows the room for policy manoeuvre to address any downturn.

Experience shows that in a cyclical upward episode, it is wise to raise interest rate in order to create margins in order to reduce them when the next recession comes.

High sovereign, corporate and household debt levels in many parts of the world could expose the financial system to market losses, rising credit defaults and increased rollover risk as monetary conditions tighten.

2. The search for yield has gone too far and could lead to significant market disruptions

According to the Global Financial Stability Report of the IMF (October 2017), the low-interest-rate environment has stimulated a search for yield in markets, pushing investors beyond their traditional risk mandates. This has compressed spreads, reduced the compensation for credit and market risk in bond markets, contributed to low volatility, and facilitated the use of financial leverage.

While these supportive financial conditions have helped boost growth, as intended, they have also increased the sensitivity of the financial system to market risks. Prolonged normalization of monetary policy could compound these trends. Unless well managed, these rising medium-term vulnerabilities could lead to significant market disruptions if risk premiums and volatility increase rapidly.

In such an environment a line of action is to redouble efforts to implement structural policies, the only way to raise sustainable growth without generating inflationary pressures. Another one is to ensure the sustainability of public sector finances. The third line of action is to strengthen further the financial system. The fourth one concerns monetary policy normalisation which can create room for countercyclical policy, help reduce the risk of emergence of financial vulnerabilities and contribute to restrain debt accumulation.

3. Considerable progress was achieved over the last decade in strengthening the resilience of the financial system

The post crisis financial reforms[1], not least Basel III and the implementation of macro prudential frameworks have bolstered the financial system. Banks are now better capitalised, more resilient and better able to cope with financial instability. Indeed substantial progress has already been made with most banks meeting the more stringent capital requirements and new liquidity standards (Liquidity Covered Ratio, Net Stable Funding Ratio). Most of the Basel III elements has been fully implemented while some others are still been worked upon.

Other reforms, such as minimum requirements for global systemically important banks' (G-SIBs') total loss-absorbing capacity, enhanced bank resolution regimes and the central clearing of all standardised derivatives contracts, are being implemented in parallel.

Non-bank institutional asset managers, ranging from investment management companies to pension funds and insurers have grown strongly over the past decade. Their total assets are estimated at nearly $ 160 trillion according to the BIS, exceeding those of banks worldwide. Certain asset management products and activities may create potential financial stability risks particularly in the area of liquidity and redemption, leverage, operational functions, securities lending, and resolvability and transition planning. Many of these risks are now mitigated by funds legislation notably in the EU. Moreover IOSCO has provided liquidity measures for liquidity and will deliver by the end of this year leverage guidelines in order to address systemic risk issues in the asset management sector.

4. Using macroprudential tools to reduce systemic risk where financial vulnerabilities are building up

Macroprudential frameworks have become a key new element of the post-crisis financial reforms designed to ensure financial stability. This is important because the Great Financial Crisis (GFC) and previous crises have shown that vulnerabilities may build up across the system even though individual institutions may look stable on a standalone basis. Indeed, many systemic financial crises of recent decades, the GFC included, resulted from the financial system's procyclicality – its tendency to amplify financial expansions and contractions, often with serious macroeconomic costs.

Progress has been made in their implementation. Macroprudential frameworks have indeed been useful as a complement to the other financial reforms put in place after the GFC. Macroprudential measures build buffers, discourage risky lending and strengthen the financial system's resilience. But as explained by Claudio Borio[2], more must to be done: to better identify risks and calibrate the tools; to develop tools that target the non-bank sector; and to implement mechanisms to address cross-country leakages.

Correlated and procyclical trading by asset management funds could destabilise asset markets, resulting in large losses that could be propagated through the financial system. Such effects are possible even if each market participant acts prudently on a standalone basis, given the interactions between market dynamics and the collective actions of individual market participants. However, current regulation on the asset management fund industry is geared mainly towards microprudential and consumer protection objectives and thus fails to fully incorporate how actions by one player can affect the health of others via changes in asset prices, exchange rates and market liquidity. The macroprudential perspective should be extended to asset management funds to address these concerns.

To deal effectively with systemic risks stemming from asset management funds and other institutional investors, close cooperation among the various authorities involved is crucial – central banks, bank regulators, insurance regulators and securities regulators. Here, differences in perspectives can complicate matters. For instance, securities regulators with responsibility for asset managers put prime emphasis on investor protection, while central banks and bank regulators focus more on financial stability and hence are more inclined to apply macroprudential approaches.

National authorities are currently taking the very first steps towards a macroprudential perspective on capital market activities, as compared with the progress already made in introducing macroprudential frameworks to the banking sector. The growing importance of asset managers and other institutional investors in both domestic and cross-border financial intermediation requires national authorities to monitor potential systemic risks from these activities at both the national and global levels and to consider how best to employ macroprudential approaches to deal with such risks.

While the measures have strengthened the financial system's resilience, as used so far they have not necessarily prevented the build-up of financial imbalances. Macroprudential measures need to be embedded in a broader macro-financial stability framework that includes, in addition to strong microprudentially oriented regulation and supervision, also monetary, fiscal and even structural policies.

[1] In 2009, the G20 launched a comprehensive programme of reforms, coordinated through the FSB, to increase the resilience of the global financial system. These reforms were built on the four pillars of: making financial institutions more resilient; ending the problem of financial institutions being too-big-to-fail; making over-the-counter (OTC) derivative markets safer; and transforming shadow banking into resilient market-based finance.

[2] See C. Borio, Macroprudential frameworks: experience, prospects and a way forward, BIS, 24 June 2018.

5. Monetary policy normalization is essential

Monetary policy normalization is essential in rebuilding policy space. It can create room for countercyclical policy, help reduce the risk of the emergence of financial vulnerabilities, and contribute to restraining debt accumulation. Experience shows that in a cyclical upward episode, it is wise to raise interest rate in order to create margins in order to reduce them when the next recession comes.

5.1. Normalization raises a big issue in the Eurozone: the one of public debt and finance

Public debt remains very high at around 90% of GDP in the euro area. Some core countries of the euro area are still running substantial primary fiscal deficits. Therefore if and when monetary policy becomes less accommodative and interest rates rise, the cost of a public financing of the Eurozone will feel strong pressure as well as a significant impact on budgetary outlays.

The time provided to European Governments by the massive fall in interest rates (that has reduced to a minimum the debt service burden of these States), has not been sufficiently used to start meaningful structural reforms that are needed to achieve the reduction of excessively high public expenditures and to revitalize the supply side. In essence, the ECB's understandable interventions in the government bond markets have pari passu weakened market pressure and discipline on governments.

Here is a paradox of European Monetary Policy:

- By easing financial costs it allows deficit countries to postpone structural reforms, buy time and borrow more...
- But this makes a change to «normal» monetary policy all the more problematic since the budgetary cost of the tightening of monetary policy is significant.

This also raises the issue of the independence of Central Banks. Whilst they are, de facto, massively monetizing public debt (through public bond acquisitions programmes) they become, de facto, fiscal agents of Governments.

5.2. Too much responsibility may have been put on the shoulders of Central Bankers over the years

One reason for the current vulnerabilities is that central banks have had to bear the burden of the post-crisis recovery. In the old days, Central Banks used to fight against inflation by raising short term interest rates and monitoring credit expansion. Today they have become quasi responsible for the whole outcome of economic cycles.

Their core mission is to ensure maximum growth over the cycle by forcing long term rates to fall, and remain low. This has enticed the ECB into hyperactive monetary policies. Such policies – whatever their short term advantages – can bear long term costs that could be very significant, notably concerning the stability of financial markets as well as on the profitability of the banking sector. The longer the period of exceptionally low rates, the stronger the impact on interest rate margins.

The time has come to overhaul such policies and to correct the mistaken view that money creation can, by itself, resolve structural economic problems which can only be addressed by structural reforms. Public debt will fall much faster if growth – boosted by such reforms – is higher than the present forecasts. ■

Profitability challenges of EU banks: impacts and possible solutions

1. Profitability remains the key challenge for the EU banking sector

Throughout 2017, euro area banks – supported by the improving economic environment – further strengthened their capital positions and improved their balance sheets. Their average CET1 ratio increased to 14.8% in Q4 2017. CET1 ratios are now above 11% for all institutions. Continued efforts to tackle NPLs resulted in an overall decrease of the NPL ratio for banks under ECB supervision from 6.5% in the third quarter of 2016 to 5.2% one year later. However profitability remains a key challenge for the EU banking sector.

1.1. EU Bank profitability recovered in 2017, supported by the improvement in Economic growth but remains weak

After a prolonged period of low profitability, bank performance in Europe rebounded in 2017. According to the Financial Stability Review issued by the ECB in May 2018, Euro area significant institutions' aggregate return on equity increased to around 6% in 2017, compared with 3.5% one year earlier. The main driver of higher profitability was lower impairment costs, as new NPL formation slowed.

Across countries, the bulk of the euro area-wide improvement was driven by banks operating in the countries most affected by the crisis. The bulk of the improvement in these countries was concentrated within the largest banks, while profitability levels remained subdued at other banks. At the same time, the aggregate profitability of banks in countries less affected by the crisis remained broadly stable as the positive impact of declining impairment and operating costs was offset by somewhat lower revenues.

The Financial Stability Review (FSR) also pointed out that financial performance improved across most (though not all) business models, although profitability levels continued to diverge somewhat. Universal banks tended to outperform banks with other business models in 2017, possibly benefiting from a greater diversification of their business activities. At the other end of the spectrum, retail lenders and diversified lenders typically displayed lower profitability levels than banks in other categories, partly due to their greater reliance on net interest income-generating activities. It should be added, however, that divergences in profitability levels across business models partly reflect disparities between country groups as the majority of banks classified under the weaker-performing business models (diversified and retail lenders) are located in the countries more affected by the crisis. By contrast, retail banks in the countries less affected by the crisis were among the better performers within their country group.

The FSR also stressed that the stock of Non-Performing Loans fell in 2017 but remains persistently high in some countries. Moreover high operating costs remain a key obstacle to achieving sustainable bank profitability. Indeed cost-efficiency across banks in the euro area remains low compared with that of their international peers.

1.2. A number of euro area banks do not earn the cost of their capital and this situation is not sustainable over the longer term

The updated "Risk Dashboard" issued by the EBA in April 2018 stressed that the return on equity for a number of EU banks remains below the cost of equity with legacy assets, cost-efficiency and bank business models still being some of the main obstacles towards reaching sustainable profitability levels.

Despite recent positive signs, profitability remains uneven across EU banks and is at a low level with return on equity remaining below the cost of equity. NPLs, cost-efficiency and bank business models are still among the main obstacles towards reaching sustainable profitability levels. Bank profitability is on average still driven by more volatile components, like trading and other incomes. Banks have not yet managed to increase the share of sustainable components in their income.

Unprofitable banks cannot support economic growth and build up capital buffers. Low profitability weakens a bank's ability to accumulate capital through retained earnings and it may also negatively affect its ability to raise funds externally by issuing equities. Furthermore, the incentive for managers to generate higher returns could result in excessive risk-taking or cost-cutting, which may make their bank more vulnerable to risks.

1.3. Lasting low interest rates have negative consequences on EU banks profitability

Banks are very sensitive to the spread between their funding costs (deposits and borrowings) and the return on their assets. A long-lasting low interest rate environment indeed impairs bank performance because it compresses net interest margins notably in an environment with strong competitive pressures as it is the case in Europe. These adverse effects are however counterbalanced by improvements in macro-economic conditions associated with low interest rates.

1.4. Overbanking in some systems should be reduced

The European Central Bank has said that overbanking and overcapacity create intense competition and affect bank profitability[1]. Here, the term "overbanking" refers to the variety of structural factors that lead to an overly large banking sector that affects the profitability of the banks in the system. The Global Financial Stability Report issued by the IMF (April 2017) pointed out that overbanking can affect revenues – possibly owing to too many banks chasing too few profitable and sound lending opportunities, compressing pricing and margins – and can affect costs and operational efficiency – possibly due to a high number of branches or staff. The causes of overbanking can vary from country to country. In addition, system structure may have an impact on profitability according to this IMF report.

Overall, no single structural factor clearly explains profitability concerns across a range of countries. A number of features in a system may hurt institutions' pricing and other behavior that then put downward pressure on the profitability of other banks operating in the same country. Each country has a unique mix of structural features that may impact profitability. For example, the French banking sector is large relative to the economy and has a high share of savings and cooperative banks. The banking systems in Austria and Germany have a large number of banks, low concentration, and a large share of savings and cooperative banks. In Italy, Portugal, and Spain there is a large number of branches or staff relative to banking assets (there is also a large number of banks and low concentration in Italy).

1.5. The rapid pace of technological advances, along with a change in the competitive landscape represent a key strategic challenge for banks

Banks have been facing the dual challenge of persistently and unusually low interest rates eating away at their net interest margins, and growing competition from new technology-savvy players – big tech and fintech.

These adjustments have to take place at a time of rapid technological change in the financial sector. On the one hand, many of the "fintech innovations" allow banks to better exploit scale economies and – ultimately – reduce costs. On the other hand, client expectations are changing – and with them the nature of bank competitors. Clients, in particular those on the retail side, increasingly ask for a "seamless customer experience". While this may help segment the customer base and support price discrimination, the corresponding shift to multipurpose internet platforms invites new competitors. Here, so-called "big tech" players – dominant technology firms from the online sales or messaging sector – loom large. These already have the necessary IT infrastructure, analytical

[1] See V. Costancio, « Resolving Europe's NPL burden: challenges and benefits, 3 February 2017.

skills, financial resources and established client base to erode banks' market share.

The Annual report of the BIS stressed that the arrival of big tech competitors may require cooperation among regulators from different fields (data protection agencies, competition authorities and others) and jurisdictions to preserve a level playing field ("same risk, same regulation"), without unduly constraining technological innovation. One such example is aligning constraints on the accumulation, use and sharing of client data for both banks and non-banks.

2. EU banks are less profitable than equivalent US ones since the financial crisis

The profitability of European banks is weaker than that of American ones. Unlike their US peers, they do not enjoy the benefits of a single market and the economies of scale that it brings.

As B. de Longevialle stressed in his article for the Eurofi Vienna Magazine, US banks also tend to sell lower-risk residential mortgages into the securitisation market and have deeper nonmortgage consumer finance and more attractive midsize corporate lending businesses. Large US banks generate a higher interest spread on loans and deposits than many European banks, reflecting the higher interest rates in the US, and high levels of nonperforming, nonaccrual loans in several European countries. The focus of European banks on low-risk mortgage loans, where industry overcapacity affects pricing, contributes to erode profitability.

In addition, the way regulations are applied by national supervisors has led to a retreat of the Single Market and to higher fragmentation. In particular the lack of "branchification" and waivers on stand-alone capital, liquidity and internal MREL requirements for foreign subsidiaries impedes the efficient and seamless use of resources across the euro area.

At a time when the industry is transforming into the digital rules the current EU prudential and accounting rules continue to require their deduction from capital. P. Bordenave in his article for the Eurofi Magazine pointed out that this is also a key issue that further accentuates the competitive disadvantage of European banks versus US banks, which are able to record software investments as tangible assets with a Risk Weight Assets (RWA) of 100%.

2.1. Contrary to the United States, the EU regulatory framework impedes the reduction of overcapacity, cross-border consolidation and the related economies of scales

Cross-border mergers within the euro area may bring three main benefits. First, it will deepen financial integration within the euro area, paving the road towards the common goal of a truly European banking sector. Second, savers will have more options when investing their money, and companies as well as households will be able to tap more sources of funding. Third, risk-sharing will be improved, helping the EU economy to become more stable and more efficient. Moreover, bank mergers can play a role in reducing excess capacity and making banks themselves more efficient. However these benefits do not materialise notably due to regulatory disincentives.

In the 10 years since the financial crisis, consolidation in the European banking sector has been very limited, contrary to the United States, where the five biggest banks hold over 40% of domestic assets, compared to 20% in the EU.

The main driver is the regulatory framework in Europe, which has not been conducive to creating an attractive business case for pan European integrated banking groups. Indeed it does not consider trans-national banking groups structured around subsidiaries at the consolidated level, but as a sum of separate subsidiaries ("national and solo approach"). This was not reviewed when the Banking Union was implemented and limits the possible benefits of developing trans-national banking activities since the management of liquidity and capital is not possible at group level (see Eurofi paper on "Optimizing the Banking Union").

European policy makers have expressed their wish for industry consolidation, but the current fragmented regulatory framework creates barriers to carry out significant cross-border acquisitions.

Thus, in reality, in each EU Member State, lending to the economy remains largely domestic. Indeed it remains fragmented according to national lines. At the same time, the market share of US banks in European investment banking is now nearly 50%, while EU banks' share is only 38%, down from 43% shortly after the crisis. These figures speak for themselves and point to a structural problem in Europe.

2.2. Monetary policy is also a source of an unlevel playing field between EU and US banks

The US Federal Reserve (Fed) is well ahead of its peers on the path to policy normalization. It began normalizing the stance of monetary policy in 2014, when it ended its asset purchases. Then, in 2015, it started increasing its policy rate. Since then, the Fed has raised its benchmark interest rate seven times by 25 basis points each, so that the target federal funds rate now stands at a range of between 1.75 and 2.00%.

In March 2017, the European Central Bank began reducing the pace of its asset purchases but expected the key interest rates to remain at their present levels at least through the summer of 2019. In other words, the ECB interest rates on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 0.00%, 0.25% and -0.40% until the summer of 2019.

Such a spread between US and EU interest rates leads to divergence in the cost of liquidity buffer thus generating ROE gap for EU versus US G-SIBs:

- If the US G-SIBs had to replace their Central Bank (CB) deposits at the ECB with the same rate as EU banks at -0,4% instead + 1,5% their ROE would decrease from 8,7% to 6%;

- If the EU G-SIBs could replace their CD deposits at 1,5% instead of -0,4%, their ROE would increase from 7,3% to 10%[2].

2.3. Software treatment: EU banks at a competitive disadvantage vs US banks

The value of software is real as they are as important for producing banking services as are factories for car makers!

At a time when the industry is transforming into the digital age, every euro that an EU bank invests in an IT development needs to be backed with one euro of the most expensive category of funding (CET1). Such an EU software accounting treatment has a direct effect on the solvability ratio and the leverage ratio of the bank and represents a disincentive to investments in innovation.

In the US, software can be recorded as "other assets" with a RW of 100%, and not deducted from the CET1. ■

[2] It is difficult for banks to decrease their amount of Central Bank Deposits because of Liquidity Covered Ratio requirements and intraday liquidity needs. The 8 EU G-SIBs hold $ 2,400 HQLA of which central bank deposits represent $ 1, 050 bn. Moreover government bonds in Europe benefit from lower medium and long term rates in the core countries of the EU than in the US.

Risk reduction measures in the EU banking sector

1. Substantial risk reduction has already taken place

Common Equity Tier 1 ratios of significant banks – a key indicator of bank health – are now 67% higher than they were ten years ago.

Between end-2014 and end-2017, the CET1 capital ratio for significant banks directly supervised by the ECB rose on average by over 3 percentage points, to 14.6%, and the total capital ratio increased by over 4 percentage points to 18.1%[1]. This was achieved mainly through genuine capital increases, rather than by adjustments in risk weights or deleveraging.

The strengthening of balance sheets was not limited to capital. Between end-2014 and end-2017, the liquidity coverage ratio of the banks we supervise rose on average by 16.4 percentage points to 143.6%, and the net stable funding ratio rose by 11 percentage points to 113.4%.

2. The return on the equity of banks remain far below pre-crisis level

Although better results in 2017 spurred bank stock over performance relative to the overall market indices, the return on the equity of banks remain far below pre-crisis level. The IMF staff report for the 2018 Article IV related to the euro area (July 2018) stressed that this reflects deep structural issues, including overbanking, both in terms of staff numbers and branch networks, and unviable business models in some cases. In some countries it also reflects still high NPL burdens.

3. Ambitious reduction targets should be agreed on in order to Reduce Non-Performing Loans (NPLs)

10 years after the start of the financial crisis, the legacy of the high stock of NPLs on the balance sheets of some EU banks continues to be a concern for policy makers. Though high NPL ratios are concentrated in some Member States, high NPL ratios can pose systemic-wide risks of spill-overs to other European countries and generate negative externalities. In addition, the profitability of banks is impaired by NPL exposures and NPLs lock capital in banks to back unproductive assets instead of funding new projects, with crippling effects on the bank lending channel for the transmission of monetary policy: if banks do not have the capacity to raise capital, they need to comply with prudential ratios thus impeding their ability to lend to the economy and decreasing the amount of credit available.

Since its creation (2014), the SSM has developed its NPLs policy by first issuing a qualitative guidance on how banks should manage non-performing loans (NPLs), addressing their governance and requiring banks to draft plans to reduce them; and then issuing an addendum to this guidance in 2018 indicating supervisory expectations with regard to prudent provisioning for new NPLs.

These measures helped to put NPLs on a firm downward path. The gross NPL ratio of significant banks dropped to 4.9% on a weighted average basis by the end of 2017, against 7.6% at the end of 2014, as a result of a 25% reduction in the total outstanding NPL stock[2]. Policies for further provisioning expectations on legacy NPLs are currently in progress.

According to the IMF, NPLs fell by €145billion in 2017, to near 842 billion, with a €70 billion in Italy alone – the latter almost entirely reflecting proactive NPL sales by two large banks.

Too many banks, however, still have double-digit NPL ratios and low provisioning coverage by international standards. Although the recent measures of the ECB and the Commission are steps in the right direction (see Box 1), the IMF encourages supervisors and policy makers to energize banks' NPL restructuring and disposal efforts to set minimum standards for national insolvency laws and creditor right regimes. To advance further, it would help to require banks to write down nonperforming loans in a time-bound way, improve the consistency of legal insolvency frameworks (for example, regarding credit rights) across countries, and sharpen valuation rules. In parallel, an EU wide NPL clearing house to facilitate information dissemination could be a useful initial step toward developing secondary distressed debt markets.

4. Careful steps should be taken to encourage a gradual reduction of home bias in financial intermediaries' sovereign exposures

This would help ameliorate the nexus between national governments and domestic financial institutions. According to the IMF[3], almost 60 percent of French, German, Italian and Spanish banking groups' exposure to euro area sovereigns, for instance, is concentrated in securities issued by the home sovereign. Similarly 60-80 percent of French, Italian and Spanish insurance companies 'investments in sovereign debt are in home-country bonds. Proposals to reduce the bias, ranging from concentration charges to sovereign risk weights to risk-based premia for common deposit issuance, warrant careful consideration, with due attention to serious transitional risks in a context where the international banking regulatory framework (Basel III) creates further incentives for banking institutions to purchase sovereign debt (Liquidity Coverage Ratio..)

5. Risk-sharing greatly helps risk reduction

The United States Federal Deposit Insurance Corporation has successfully resolved 500 banks without causing financial instability, also because it was backstopped by the US government. The corresponding number for the euro area was ten times lower, which is another reason why the euro area banking sector still faces structural challenges.

In other words, if risk-sharing were to lead to an orderly management of the financial stability consequences derived from risk reduction, risk reduction would proceed at a much faster pace. Moreover, a European deposit insurance scheme would avoid the risk of destabilising self-fulfilling prophecies in the form of bank runs. It would also reduce the risk of financial fragmentation and thus support the effectiveness of monetary policy throughout the EMU, contributing to its economic stability. As M. Draghi pointed out in a recent speech[4], "With the right policy framework, risk-sharing and risk reduction are thus mutually reinforcing".

6. Optimising the Banking Union remains essential for reaping the benefits of the Banking Union

Several essential building blocks are missing in order to progress towards the integration of the EU banking sector. Despite the implementation of the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM), the distinction between home and host supervisors and the "national bias" still exist for banks operating across borders in the euro area: ring-fencing policies of capital, liquidity and bail-inable liabilities clearly distort the functioning of free banking markets, fragment them and impede the restructuring of the banking sector in Europe.

In order to reassure local supervisors, 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 ("outright group support"). This group support should be based on EU law and enforced by EU authorities. This commitment is the key condition for these banking groups to define prudential requirements at the consolidated level, to suppress the current disincentives to cross-border banking consolidation and favour transnational private risk sharing via the banking channel (see Eurofi paper on "Optimising the Banking Union»). ■

Box 1. Recent Policy Proposals on NPLs

In March 2018, the Commission and the ECB proposed new risk-reduction measures. Both initiatives follow on from the EU Council's far-reaching Action Plan for Non-Performing Loans of July 2017, the formulation of which benefited from extensive Fund staff input.

The Commission's package proposes to:

- **Amend the Capital Requirements Regulation**. Changes would require that new unsecured loans be fully provisioned no later than two years, and new secured loans no later than eight years, after they become nonperforming, with concomitant pillar 1 deductions from banks' own funds.
- **Put forward a directive on credit servicers, credit purchasers, and collateral recovery**. This would seek to provide banks with efficient out-of-court mechanisms for value recovery on secured loans while pushing the development of distressed debt markets supported by specialized credit servicers.
- **Guide EU member states that choose to set up national asset management companies**. A blueprint clarifies that, under exceptional circumstances, state aid may be permissible.

The ECB's guideline sets provisioning expectations for all loans, new or existing, that become nonperforming going forward. As part of the supervisory dialogue, banks will be expected to cover the full value of unsecured loans no later than two years, and secured loans no later than seven years, after default, with more ambitious interim expectations than the binding requirements proposed by the Commission. Provisioning shortfalls could incur pillar 2 add-ons from 2021 onward.

The euro area FSAP urges that the ECB be given broad powers to adjust loan classification rules and regulatory provisioning requirements.

Source: IMF 2018 Article IV July 2018

[3] IMF Country Report, 2018 Article IV, July 2018.
[4] M. Draghi, Introductory statement at the ECON Committee of the European Parliament, Brussels , 8 July 2018.

Resolution of banking groups at the EU level

The EU banking regulatory framework does not consider in practice transnational EU banking groups of the euro area as unique entities but as a sum of separate subsidiaries ("the solo approach"). This issue creates fragmentation within the Banking Union, hinders cross-border consolidation and reduces potential for additional private risk sharing via the banking channel. Addressing the concerns of "Host countries", which explain this situation is urgently needed for reaping all the benefits of the Banking Union.

1. Concerns of host countries in the effectiveness of EU crisis management tools

Many Member States (Belgium, Luxembourg, Baltic States, Finland, Slovakia, Poland, Hungary, etc.) are dependent on Eurozone banks situated in other Member States (Austria, France, Italy, Germany, etc.) for the financing of their economies. They are not inclined to move towards a more integrated management of capital and liquidity at banking group level, despite the common supervision of Eurozone banking groups.

This is because they are concerned by the impact that the possible failure of one of these financial transnational groups might have on their depositors and on their economies, and by the fact that these impacts would have to be addressed entity by entity domestically.

Three main factors explain these concerns (aggravated by the slow resolution of NPLs in some jurisdictions and persistent economic imbalances):

1.1. The availability of group financial support to a failing subsidiary is not guaranteed but conditional in case of bank failure according to the rules of the BRRD

Article 23 of BRRD, for instance, limits the application of group support to cases that do not represent a risk for the whole group. Consequently, host countries fear that if local subsidiary records significant losses, the parent company may let it fail, which leads them to pre-emptively increase the capital requirements of local subsidiaries and to ring-fence liquidity and capital.

In addition, the treatment of certain subsidiaries in living wills may be insufficiently specific even though they are locally systemic. The living wills of banking groups sometimes do not describe the treatment of some local subsidiaries given their limited size compared to the size of the group although they are locally systemic. This increases uncertainty regarding the handling of a possible resolution and encourages solo approaches

1.2. No rule currently prevents liquidity from being abusively removed from a foreign subsidiary by the parent company prior to resolution

Host countries fear that in the final stages before resolution, all or part of the liquidity of local subsidiaries situated in their jurisdiction may be transferred to a failing foreign parent or sister company to ease liquidity shortages, leaving the former subsidiaries as "non-preferred creditors" of the entity in resolution. Such a practice would improve the net assets of the parent/sister company, and benefit its creditors while deteriorating the situation of the creditors of the subsidiary.

Although the Single Point of Entry (SPE) Resolution approach was specifically designed to ensure a transmission of losses to parent resolution entities, host countries fear that it may not provide, in all foreseeable circumstances, a complete mitigation of the risk of contagion from foreign parent or sister companies.

1.3. The treatment of bank failures at the EU level is not sufficiently harmonized and predictable, meaning that the same types of creditors of different subsidiaries may be treated differently across the Eurozone

Firstly, liquidation is implemented at entity level and follows domestic insolvency laws for part of the creditors. As a result, the treatment of liquidation may differ across the subsidiaries of trans-national banking groups. Indeed resolution is currently organized at the European level, while the calculation of the counterfactual underlying the NCWO safeguard can generate very different results across different Member States.

Secondly, the treatment of bank failures at the EU level is not sufficiently predictable. The decision to resolve (governed by EU rules) or to liquidate (regulated by national insolvency laws) relies on the SRB's assessment (at EU level) of whether public interest is at stake, which depends on whether the functions performed by the failing bank are critical and whether the failure has a significant adverse impact on financial stability.

The notion of public interest produces different outcomes depending on the level of the jurisdiction – (i.e. European, national, regional) – for similar banks. For example, in the case of the liquidation of the two Venetian banks the SRB stated that there was no public interest that could trigger resolution but the Italian national authorities considered that there was sufficient public interest to justify their intervention. Consequently, BRRD bail-in rules were not enforced, the Italian government made available 17 billion euros, and creditors were "in fine" better off than in a resolution which would have entailed a more stringent bail-in of creditors than this liquidation.

2. A more integrated approach to resolution and liquidation is needed for reaping all the benefits of the Banking Union

Developing private risk sharing through banking activities within the euro area requires that the financing activities of transnational banks take place across jurisdictions. Thus capital and liquidity should circulate freely within these banking groups. For this to be possible, i.e. addressing the three factors mentioned above, these groups have to be treated in practice as a single entity from operational, regulatory, supervisory and liquidation perspective.

EDIS and the backstop for the Single Resolution Fund would strengthen the credibility of the crisis management framework but would not address the current fragmentation issues in the EU banking markets.

In order to reassure local supervisors, 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 ("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 any difficulty of their subsidiary located in the euro area. This group support should be based on EU law and enforced by EU authorities. This commitment is the key condition for these banking groups to define prudential requirements at the consolidated level.

In addition if the group was to go into liquidation (and not only local subsidiaries), a European approach to liquidation of these transnational banking groups is also required. Indeed despite these transnational banking groups are supervised at the EU level and that the impacts of this liquidation would impact the whole euro area, the liquidation is still managed at the national level (entity by entity) and this can require public money of the Member State. A common liquidation regime for these banking groups should ensure an equal treatment of creditors of the same rank within the group and to address the possible costs at the EU level.

These are the two conditions for the abandonment of the "national and solo approach". ■

3. BREXIT IMPACTS

Short term operational and practical challenges of Brexit

Planning for a no-deal Brexit is underway given the current uncertainty

The UK has decided in its July White Paper to limit its proposals concerning the financial sector to an enhancement of the existing equivalence regime of EU financial regulations[1] with more stability and a broadening of the range of cross-border activities covered[2]. The final outcome of the discussions between the EU and the UK on the future EU-UK trade relationship is however still uncertain at the time this note has been drafted and it is not sure either that there will be a transition period until December 2020, since this depends on the ratification of the withdrawal agreement before the end of March 2019.

In this uncertain context financial institutions have been asked by the authorities to prepare for all scenarios including the absence of a withdrawal agreement. This involves inter alia for non-EU and British financial institutions based in the UK, establishing or growing a local EU27 presence with a subsidiary[3] through which they can passport across the EU27, if they wish to continue operating in the EU. Consequently these institutions need to apply for a licence in the EU27 if they do not have one, set up or reinforce a stand-alone governance structure and ring-fence capital and liquidity in their EU27 entity(ies) and possibly also re-locate some collateral in EU27 market infrastructures. This is a relatively lengthy process leading to additional costs and complexity at least in the short term.

Contract continuity issues

Ensuring cross-border contract continuity beyond Brexit is a major challenge according to many stakeholders. When the UK leaves the EU, UK-based financial service providers will no longer be able to rely on passports and the right of establishment to service existing cross-border financial contracts throughout the EU[4]. The same goes for EU providers having contracts with UK-based parties. This may affect a large number of insurance contracts and cleared and uncleared derivative contracts in particular, with obligations extending beyond Brexit[5]. The Bank of England has stressed the operational and also the potential financial stability implications of a possible absence of continuity of these financial contracts.

In the absence of a blanket solution agreed between the EU and UK to ensure the legal validity of these cross-border contracts after Brexit (e.g. allowing a grandfathering of existing cross-border contracts until maturity or run-off[6] or granting these contracts a specific transition period), UK-based financial institutions need to assess the validity of their cross-border contracts with EU27 customers or counterparties in the light of Brexit[7] (and the reverse for EU based institutions). The contracts that involve regulated activities either for some parts of their performance (e.g. making or receiving payments under an insurance or pension fund contract or paying claims) or for changing them (e.g. changes to derivative contracts in order to manage their risk) may be impacted by Brexit

[1] The UK has called for equivalence regimes to be expanded to encompass a broader range of cross-border activities. UK proposals also include a 'bilateral agreement' that would require each side to consult the other before withdrawing access and provide a safeguard to make sure that existing contracts can be fulfilled even if access is withdrawn. Under these proposals, each side would however retain autonomous judgment about access to their market.

[2] Some financial activities are not covered by current EU equivalence regimes e.g. there are no market access provisions for third-country firms in particular in CRD IV/CRR (e.g. corporate lending), payments or in UCITS and these are limited to professional clients for MiFID and to reinsurance companies in Solvency II.

[3] Large non-EU banks will also need to establish an intermediate holding company in the EU referred to as an EU intermediate parent undertaking (IPU).

[4] Unless they can rely on an equivalence decision notably for derivative contracts.

[5] Contracts affected include general insurance, long-term life insurance, pension schemes, medium and long-dated derivative contracts, revolving credit facilities… The Bank of England has estimated that £82 billion of insurance liabilities involving 48 million policyholders could be impacted by Brexit across the UK and the EEA and that uncleared derivative contracts alone worth a notional value of £29 trillion pounds may also be affected (although the actual number of affected derivative contracts is probably significantly lower, when taking into account the netting of swap positions).

[6] As proposed e.g. by TheCity UK in its paper on the 'Continuity of cross-border financial contracts post-Brexit' or by ICMA. Grandfathering would need to be underpinned by on-going supervisory cooperation between UK and EU regulators according to the CityUK.

[7] i.e. assess contract-by-contract and jurisdiction-by-jurisdiction whether elements of the performance of the contract or amendment or termination constitute a regulated activity for which the UK-based firm is no longer authorized under the regulatory regime of the Member State where services are being provided.

if the UK-based entities that sold them are no longer authorized to service them in the EU27[8]. Such contracts would need to be transferred to an authorized entity in the EU27 in order to ensure that these contractual activities or changes can continue to be performed (also referred to as 'repapering'). In some cases the only option might be to terminate a contract (e.g. if the transfer is too costly or lengthy or if it is impossible to make because equivalent products do not exist in the home country of the customer). The Commission has however indicated that the performance of existing obligations can generally continue after Brexit according to their assessments, thus considering that "at this juncture" there does not appear to be a general problem of contract continuity[9].

The UK authorities have stated their intention to legislate if necessary to allow European counterparties to be able to service contracts with UK entities after Brexit. But until now there has been no reciprocal commitment from the EU authorities, who have expressed preference for a handling of necessary changes and transfers by the private sector, considering that the transition period would leave sufficient time for this process to be completed for most contracts[10].

Market participants have generally initiated the process of establishing an EU-based entity and repapering as part of their preparations for Brexit, but many consider that the scale of the task (in terms of the number of contracts to handle and of the number of clients and counterparties concerned[11]) and the time needed to obtain supervisory agreements and in some cases approval through a court procedure (e.g. for some insurance contracts) make it very difficult if not impossible to complete the process before the end of the transition period (and all the more before March 2019 if there is no transition). The ESAs have been urging financial entities to make the necessary changes related to the establishment of new entities in the EU27 by the summer of 2018, but the EBA in particular has recently expressed concern at the "inadequate level" of preparation of lenders in particular for a March 2019 deadline[12]. The UK authorities have also warned that financial institutions need to prepare for all scenarios including a no-deal situation.

Additional operational and practical issues that need tackling

Financial institutions based in the UK are moreover facing a certain number of additional operational challenges in their preparation for Brexit[13]. These include reviewing their booking model to clearly articulate how and where risk will be managed post-Brexit and adjusting their future capital planning, taking into account UK exposures[14]; reviewing outsourcing arrangements with regard to possible substance requirements[15] post-Brexit; identifying where client data is stored and possibly transferring the storage in line with GDPR requirements; reviewing options with regard to access to financial market infrastructures and possible collateral relocation needs; ensuring that access to wholesale funding is preserved post-Brexit; for entities subject to the BRRD, making sure that their MREL-eligible instruments remain so after; managing possible staff movements accordingly; and also making sure that changes are communicated to clients when necessary. ■

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[8] For example the EU27 customers of cross-border insurance contracts issued by UK-based companies might no longer be able to make or receive payments under an insurance or pension fund contract and it might not be possible to enforce some of these contracts afterwards (e.g. pay claims). Regarding derivative contracts, it is unlikely that there will be any impact from Brexit on the performance of contractual obligations of existing trades (which includes payments, settlements, transfer of collateral and the exercise of pre-agreed options), according to ISDA. However, certain events or actions that occur during the lifecycle of a transaction and which are outside contractual obligations could be affected by Brexit, if they are considered as a regulated activity for which the firm is no longer authorised in the EU27 jurisdiction where the counterparties are based. In that case counterparties might not be able to make these changes in order to manage the risks of the contract. This includes novations, certain types of portfolio compression, the rolling of open positions (extending the maturity of a trade), material amendments and some types of unwind that may be classified as a regulated activity. In addition the EU clearing members of UK clearing houses might not be able to fulfil some of their obligations following Brexit e.g. in terms of margin payments.

[9] Some legal specialists have also claimed that most derivative and insurance contracts should still be executable after Brexit because they will continue to be protected by English contract law, the international law of acquired rights and the EU's right of property. In addition Brexit does not mean that derivative contracts in particular are voided. Legal obligations of existing contracts will continue, however activity outside the legal contractual obligations may be constrained such as changes to existing contracts, as explained above.

[10] Source: Communication from the Commission "Preparing for the withdrawal of the UK from the EU on 30 March 2019" – 19 July 2018.

[11] Some distinctions have been made also between bilateral contracts such as insurance and uncleared derivative contracts which are bilateral and could be easier to transfer, and cleared derivative contracts.

[12] The EBA has confirmed this recently, considering in an opinion published in June 2018 that the level of planning of lenders for a hard Brexit (i.e. with no transitional agreement beyond March 2019) was 'inadequate' - Opinion of the EBA on preparations for the withdrawal of the UK from the EU – 25 June 2018.

[13] Underlined notably in the EBA opinion paper on the preparations for Brexit.

[14] The EBA cautioned that the possible application of increased risk weights for certain UK exposures or higher capital requirements for derivatives cleared through non-qualifying CCPs after Brexit should be taken into account in capital planning.

[15] Depending on whether existing EU delegation rules e.g. in the asset management sector change significantly for example.

4. CMU IMPLEMENTATION AND SUSTAINABLE FINANCE

Building an effective CMU for the EU27 post-Brexit

Many new CMU-related legislations have been proposed, but the effective progress made so far in their adoption and implementation is limited

The Capital Markets Union (CMU) was designed at the end of 2014 as an EU-wide project aimed at developing and further integrating capital markets in the EU28. The objective is to better connect savings to investment across the Union and foster growth by providing SMEs and infrastructure projects in particular with alternative sources of financing. The Action Plan of September 2015 set out a broad range of 33 actions. These were completed at the end of 2016, following the mid-term review of the CMU, with an additional set of priorities regarding fintech, sustainable finance and personal pensions (PEPP). The Commission considers that with these actions all the necessary building blocks of the CMU are on the table and most of the legislative proposals corresponding to this action plan have now been delivered by the Commission.

However only a limited number of them have so far been adopted. This is the case of the framework concerning safe and transparent securitization, the review of prospectus rules, amendments to EuVECA venture capital fund rules and a code of conduct regarding withholding tax. Many other proposals regarding e.g. the operation of the ESAs, the development of fintech and of sustainable investment and the cross-border distribution of funds are still being reviewed by the co-legislators. It is therefore likely that the implementation of the CMU will only be quite partial by the end of the present Commission.

In addition, the political and macro-economic context in Europe creates further challenges for the CMU. Brexit is a first issue given the current importance of the City for EU27 capital market activities. A second concern are the lasting fiscal and structural economic divergences across Member States and developing nationalistic trends that may increase domestic retrenchment in the Union, where cross-border capital flows are still lower than they used to be before the crisis. These issues at the same time reinforce the need to further develop and integrate EU27 capital markets.

With the European elections in sight, the time has come to reassess the CMU project

Completing the CMU should be a key objective of the upcoming Commission. Several key issues need to be considered in this perspective.

Prioritization: The current CMU action plan adopts a toolbox approach and comprises a large number of legislative and non-legislative actions (around 70) that have quite diverse objectives and scopes. Some actions aim to improve fundamental components of EU capital markets (e.g. related to market infrastructure, taxation or supervision), while some others have more specific objectives (e.g. focusing on SME listing on growth markets, the passporting of crowdfunding platforms or the cross-border distribution of funds) and others yet have a broader agenda going beyond the development of capital markets (such as securitisation[1] or sustainable investment[2]).

This multiplicity and diversity of actions is understandable due to the complexity of capital markets and the number of improvements that are needed. But it makes the building of momentum and of an appropriate timetable for the CMU project quite challenging and exposes it to multiple negotiations at Parliament and Council levels, reinforcing the risk of delays and blockages in its implementation.

A further prioritization of the actions needed to achieve the CMU seems necessary to accelerate its implementation in the short term. This idea was recently supported by eight EU Finance Ministers[3] who called in July for ensuring that the priority issues for the CMU are delivered within the current term of the Commission. This involves focusing resources on the outstanding parts of the CMU with the largest impact, which enjoy broad support among Member States and can be completed quickly (including in their view the investment firms review, the proposed framework for covered bonds and proposals regarding sustainable investment), on proposals that will allow the financial services industry in Europe to benefit fully from technological developments and on achieving an effective supervisory framework in the context of the

[1] Which aim to support bank financing and facilitate risk allocation.
[2] Which aims to put the EU economy on a more sustainable growth path.
[3] Shared views of the Finance Ministers from Denmark, Estonia, Finland, Ireland, Latvia, Lithuania, Sweden, and The Netherlands about Capital Markets Union – 18 July 2018.

ESAs review in order to ensure a consistent approach to the implementation of the Single Rule Book. Support was also brought by these ministers to the pursuit of national reforms to develop local capital markets possibly backed by the Commission's Structural Reform Support Service.

Longer term ambition: The current CMU action plan, which is focused on actions that were initially considered to be achievable by 2019, mostly leaves out more ambitious but essential objectives regarding fundamental components of EU capital markets such as insolvency law or taxation processes. Some specific issues are being addressed in the CMU or thanks to TARGET2-Securities (e.g. regarding withholding tax, some conflicts of law, certain Giovannini barriers). However further improvement and harmonization of these rules is necessary[4], at least as a longer term objective, in areas that impact the most issuers and investors in order to eventually achieve a real CMU.

Moreover, some key issues for the development of EU capital markets seem under-developed in the current action plan, despite its breadth. One is equity financing, which is essential for financing innovative and immaterial projects in particular and which could benefit from a dedicated workstream in the action plan[5]. A second area is the further development of a retail and institutional investor base in the EU27 that would be more likely to invest in EU businesses and be more stable in case of economic shock. Proposals have been made regarding the PEPP and the adjustment of prudential requirements but many market observers consider that further efforts are needed at the EU level to e.g. reinforce the long term investment capacity of European insurance companies, develop pension funds in the EU and encourage retail investment.

Brexit: Brexit is a potential catalyst for the CMU. But adapting the CMU action plan, which was designed prior to the Brexit process, to a European capital market context that is likely to be more fragmented post-Brexit, with activity moving to different EU27 locations and new frictions between the EU and the UK is essential. This means in particular ensuring that there is an appropriate focus in the CMU action plan on further developing and integrating EU27 capital markets and connecting EU27 financial centres and on reviewing regulatory and supervisory approaches for handling relationships with third-countries (e.g. in the context of equivalence arrangements).

Technology: Another important development is the growth of new technologies, which may substantially change financial business models and the structure of the EU financial sector in the coming years. This may require a more substantial change of paradigm of the CMU than what the current Fintech and crowdfunding proposals may allow. Technology is indeed likely to be a key driver of the efficiency and cross-border development of capital market activities in the coming years and the policy actions needed to support these changes for the benefit of EU27 issuers and investors need to be anticipated appropriately in the CMU.

Connection with the Banking Union: A final question that needs further addressing is the positioning of the CMU vis a vis the Banking Union and more specifically the role that the banking sector may play in the achievement of the CMU, given its importance for the financing of the EU economy. Some stakeholders have been calling for a "financing union" combining the two, but this objective still needs further specifying.

Basel and CRD IV rules have resulted in reducing banking activities, therefore the need to complete financing resources with the capital markets is unquestionable. However, how this should be done, building on the role that banks will continue to play in capital markets (as underwriters, distributors, administrative agents of securities and liquidity providers) needs defining more precisely. Another question is whether the achievement of the CMU is dependent on the support of a sufficiently integrated banking sector in the EU and of stronger pan-European corporate and investment banks, in which case a more European approach to banking regulation and supervision than what is possible in the current Banking Union structure would be needed. ■

[4] Building e.g. on the on-going work of the EPTF.

[5] Which could include in particular a review of Solvency II prudential requirements regarding equity investment and of the debt-equity fiscal bias, in addition to on-going CMU actions and proposals likely to impact equity markets (prospectus, SME listing, EuVECA...).

Developing EU securities markets: SME listing package and corporate bond proposals

Proposals for facilitating the listing of SMEs on MiFID II "SME Growth Markets"

The Commission published in May 2018 proposals aiming to make SME Growth Markets (SME GM) more attractive, while maintaining a high level of investor protection and preserving market integrity. These proposals are the first of a set of actions (the SME listing package) which will also include a study on SME research provisions and an assessment on the role that public financial support could play in encouraging more listing on public markets.

Developing the access of SMEs to bond and equity markets is a key objective of the CMU in order to diversify their funding sources and facilitate the access of these companies to funding that is more appropriate to the financing of innovative projects and growing businesses. However EU public markets for SMEs are currently struggling to attract new issuers[1], Europe is producing only half of the SME IPOs that were generated before the crisis and SME bond markets remain underdeveloped notably compared to the US. This low level of activity has consequences for the funding of SMEs but also affects the "funding escalator", decreasing the potential number of companies that may eventually access to the main regulated markets (RM). The main obstacles identified by the Commission are the high compliance costs and complexity for issuers to list on public markets and the low level of liquidity of these markets, which affects issuers, investors as well as intermediaries.

SME GMs are a new category of trading venue that was introduced by MiFID II in January 2018 with the objective to raise the profile and visibility of SME Markets across the EU[2]. In order to qualify as an SME GM, at least 50% of the issuers whose financial instruments are traded on the venue need to be SMEs, defined as companies with an average market capitalisation of less than € 200 million[3]. The listing rules of SME GMs must also satisfy certain quality standards in order to guarantee investor confidence, including appropriate admission documents and periodic financial reporting. SME GMs are subject to the new Prospectus Regulation, which has introduced a reduced disclosure regime (the EU growth prospectus) for SMEs which have no securities admitted to trading on a RM. SME GMs are also subject to the Market Abuse Regulation (MAR), which provides two alleviations for these markets: issuers can disclose inside information on the trading venue's website rather than on their own website[4] and SME GM issuers are exempted from maintaining 'insider lists' on an ongoing basis.

However SME GMs have so far not generated much enthusiasm with only three venues registered as such, out of the 40 that could qualify in the EU. According to the Commission's impact assessment this is due to the insufficient alleviation that is provided at present from Prospectus and MAR requirements, the lack of authorized mechanisms to promote trading and liquidity on SME GMs and an inadequate definition of SME GM, which uses a relatively low market capitalisation threshold indicating that these markets are mainly focused on micro-caps and illiquid securities.

In order to address these issues and increase the attractiveness of SME GMs, the Commission proposes to reduce the administrative burden and cut red-tape faced by SMEs listing shares or bonds on SME GM, by introducing targeted amendments to the Prospectus and MAR regulations as well as technical adjustments to MiFID II.

The main proposed changes to SME listings rules are the following:

- Adapt current obligations to keep registers of persons that have access to price-sensitive information so as to avoid excessive administrative burden for SMEs, while ensuring that competent authorities can still investigate cases of insider dealing;
- Allow issuers with at least three years of listing on SME GMs to produce a lighter prospectus when transferring to a regulated market;
- Make it easier for trading venues specialised in bond issuance to register as SME GMs. This will be done by setting a new definition of debt-only issuers. Those would be companies that issue less than EUR 50 million of bonds over a 12-months period;
- Create a common set of rules on liquidity contracts for SME GMs (i.e. agreements between issuers and financial intermediaries for buying and selling shares of and on behalf of the issuer) in all Member States, in parallel to national rules.

Recommendations to improve the functioning of European corporate bond markets

Developing more integrated, more liquid and deeper corporate bond markets in the EU is another important objective of the CMU.

The issuance of corporate bonds has significantly increased in Europe over the last few years, notably driven by low interest rates, the corporate sector purchase programme of the ECB and the reduction of bank funding since the implementation of Basel rules. However questions remain about the sustainability of this trend in the future. In addition corporate bond markets are still quite underused compared to the US since the value of European corporate bond markets represents less than one third of what it is in the US (10% of GDP in 2017, compared with 31%)[5].

Concerns have also been raised by market participants about a perceived reduction of liquidity on secondary bond markets and the segmentation of EU corporate bond markets along national lines. Most studies of bond

[1] At present only 3000 SMEs are listed on stock exchanges in the EU.

[2] The objective was also to distinguish them from other multilateral trading facilities (MTFs). Most MTFs operate as trading facilities but do not have a primary market function.

[3] i.e. companies that had an average market capitalisation of less than EUR200 million on the basis of end-year quotes for the previous three calendar years. This proportion is assessed annually based on the market capitalisation of the three prior calendar years. If the criterion has not been met, the registration as SME growth market does not have to be cancelled or rejected if there is a reasonable prospect that the criterion will be met at the beginning of the next year.

[4] This is related to the obligation under MAR for issuers using public listing to publicly disclose inside information that directly concerns issuers. Inside information is information of a precise nature (i.e. which is precise enough for conclusions to be drawn given certan circumstances or events), that has not been made public, relating directly or indirectly to one or more issuers or to one or more financial instruments, and that, if it were made public, would be likely to have a significant effect on the prices of those financial instruments or on the price of related derivative financial instruments.

[5] Source: Report from the Commission Expert Group on corporate bonds "Improving European corporate bond markets" – November 2017.

market liquidity conducted to date, notably by domestic regulators, have not allowed to confirm the claims of market participants regarding the difficulty of obtaining liquidity for many types of European corporate bonds. A recent study on the drivers of corporate bond market liquidity conducted under the aegis of the Commission and published in November 2017[6] however concludes that there is some evidence of reduced liquidity in the European corporate bond market since the crisis, shown by significant declines in key activity indicators such as turnover rates[7] and mean trade numbers and an increasing number of bonds that hardly trade at all[8]. Price-based indicators of liquidity[9] (such as effective and bid-ask spreads[10], round trip costs[11]) and market depth measures have also deteriorated markedly since 2014[12].

Regulatory changes affecting market-making activities (new Basel capital and liquidity rules in particular) are considered to be a contributing factor of this evolution, although it is difficult to draw definitive conclusions, according to the study. They appear to have placed pressure on traditional market-making activities and dealer inventories of European corporate bonds have fallen markedly since 2011[13].

An expert group set up by the Commission in the context of the CMU made recommendations at the end of 2017 to improve European corporate bond markets. 22 recommendations were formulated, building on existing EU initiatives in the capital markets area and pursuing six main objectives, in addition to a general recommendation to adapt rules to the characteristics of bond markets, which differ from stock market[14]:

- Making issuance easier for companies by amending some Market Abuse regulation rules, reviewing rules in the high yield market, further alleviating the growth prospectus and encouraging private placements for SMEs and enhancing the role of promotional banks in the development of these markets;
- Increasing access and options for investors by improving and further harmonizing insolvency regimes across the EU, discouraging an inflation of primary orders, recalibrating Solvency II capital requirements for corporate bonds with a long tenor, reviewing fund rules for the internal crossing of orders, encouraging retail investment with the PEPP and ETFs;
- Ensuring the efficiency of intermediation and trading activities and notably avoiding a dis-incentivisation of market-making by reviewing bank capital and liquidity requirements and ensuring that CSDR buy-in rules are implemented in a way that is not detrimental for corporate bond markets;
- Fostering the development of new forms of trading (e-trading, fintech enabled), further integrating the EU post-trade environment and extending CCP services to more non-cleared fixed income trades;
- Ensuring an appropriate level of information and transparency following the implementation of MiFID II by centralising data collection and a consolidated tape at ESMA level, encouraging via ESMA more consistency in the implementation of transparency rules across EU jurisdictions, monitoring the impact of MiFID II rules on the availability of research on the corporate bond market, notably for small issuers;
- Improving the supervisory and policy framework and its consistency in the EU with stronger supervisory convergence at ESMA level.

Another study on the development of private placement of debt in the EU[15] confirmed the potential of this type of instrument on a national and cross-border basis in complementing traditional funding instruments, given the success of these markets in Germany and France[16]. The main target is companies with revenues ranging between

[6] Drivers of corporate bond liquidity in the European Union – November 2017.
[7] The Bonds Turnover Ratio is a measure of bond market liquidity. The ratio shows the extent of trading in the secondary market relative to the amount of bonds outstanding.
[8] Presumably gravitating towards the portfolio of long-term or even buy-and-hold investors.
[9] Liquidity can notably be defined as the ability to trade large quantities of an asset at a low cost and with negligible price impact. Therefore it is reflected in trading costs, which can be proxied by bid-ask spreads, or in the impact of a single trade on prices. In this study several liquidity measures are used that capture different liquidity dimensions: (i) Amihud's (2002) measure and the standard deviation thereof to capture the price impact of a trade; (ii) the imputed roundtrip cost, its standard deviation, and Roll's (1984) measure as a proxy of trading cost; (iii) the ratio of a bond's zero trading days within a period to capture trading activity.
[10] i.e. the difference between the bid price for a security and its ask (or offer) price. It represents the difference between the highest price that a buyer is willing to pay (bid) for a security and the lowest price that a seller is willing to accept for it.
[11] Round trip transaction costs refer to all the costs incurred in a securities or other financial transaction. Round trip transaction costs include commissions, exchange and other fees, bid/ask spreads, market impact costs and occasionally taxes.
[12] When price-based measures of liquidity are adjusted for risk, the sharp rise in transaction costs associated with the 2011 crisis appears to have never been reversed.
[13] The study suggests that the pressure of new regulations would have been bearable for market-makers had these activities remained reasonably profitable, but analysis shows that at the same time underlying profitability of dealer activity has been poor. Another issue is that the market share of electronic trading has increased in the European corporate bond market since 2010 but fully electronic trading is still limited. One explanation could be that these new platforms have not yet convincingly demonstrated that they have struck the right balance between good pre-trade price discovery and protection from information leakage which discourages the supply of risk capital.
[14] i.e. differences in the investment propositions they represent, higher number of corporate bonds, predominant OTC trading…
[15] "Identifying market and regulatory obstacles to the development of private placement of debt in the EU" published under the aegis of the Commission at the end of 2017.
[16] The two existing domestic markets in the EU (the German Schuldschein and the French Euro-PP) are generally well functioning and are expected to grow further. Italy, Spain and the NL also have a large number of potential issuers and have taken steps to establish their own private placement markets. The study identified significant potential for cross-border activities in the EU related to these instruments with a share of international issuers already reaching 30 to 40% of market volumes in France and Germany.

€75M and €5B and with strong credit ratings. No specific regulatory obstacles to the expansion of private placements at the national and cross-border levels were identified by this study, apart from concerns already identified for corporate bond markets[17].

Some policy steps were proposed in this study at the European and national levels in order to foster the development of domestic private placement markets, however the study did not envisage the creation of a European framework for these products. Actions proposed include information campaigns to increase the awareness of issuers and investors about private placements, the exchange of best practices between Member States and financial institutions, the standardisation of documentation and processes and reviewing the regulatory framework applying to private placements at domestic level in order to relax overly prescriptive laws and create private placement specific provisions. Considering how to provide an independent and cost-efficient third-party opinion on the credit quality of private placement issuers was also suggested. ■

[17] Obstacles related to the reconciliation of different national legal and regulatory systems as they apply to such instruments (i.e. withholding tax treatment of payments or insolvency rules) or dis-incentives from Solvency II capital charges for insurance companies investing in corporate bonds with a long tenor.

How can sustainable investment be a major economic driver for Europe?

I. Climate adaptation and low carbon transition projects require incremental investments, which are both accessible and attractive economy wise

European targets regarding Green House Gas (GHG) emissions, energy efficiency and the development of renewable energies are the following:

EU targets	2020	2030	long-term (2050)
% cut in greenhouse gas compared with 1990	>20%	>40%	80% to 95%
% of total energy consumption from renewable energy	>20%	>27%	
% increase in energy efficiency	>20%	>27%	

Some figures elaborated in 2014 by the UK's Department of Energy and Climate Change in the context of the proposal for an EU 2030 framework for climate and energy policies, though somewhat outdated stress the economic sustainability of the "energy efficiency and transition project" since the benefits of EU 2030 GHS targets largely surpass the related cost.

According to the study, implementing a GHG emissions reduction target will reduce dependence on imported energy sources. Overall, the EU could reduce its energy import bill for fossil fuels in 2030 by over 0.4% of GDP. Finally, overall, reduced reliance on fossil fuel electricity generation could reduce EU health costs due to respiratory illness by an average of 0.1% of GDP in 2030, under the mean value of health impacts.

On the other hand, the GHG target of 40% domestic reduction by 2030, might require an additional cost for the EU amounting to 0.2% of GDP in 2030 compared to the Reference case (current EU policy) equivalent to a reduction in the average annual growth rate from 2014-2030 of 0.01 pp (from 1.59 to 1.58%). As the GHG target in 2030 increases, related costs rise more than proportionally but remain below 0.6% of GDP for a 50% target. And related benefits increase also more than proportionally (energy import bill reduction 0,7% of GDP, health cost reduction 0,2% of GDP).

II. Next EU targets regarding climate adaptation and low carbon transition of the EU economy, require changing gears in terms of investment ambitions and financing capacities

However, at present, the level of investment in the EU is not in the appropriate gear to address 2030 and 2050 greenhouse gas, renewable energy share of consumption, and energy efficiency targets neither related adaptation plans of the member states (not mentioning the investment need required to increase the resilience of our economies in order to cope with the expected negative impacts of climate change e.g. flood, draft conditions, the rising severity of storms, etc.). It is also necessary to make certain that the financial system will be able to answer the various and huge financing needs that climate-related investments require.

Indeed, creating renewable energy generation capacities, up-grading the energy efficiency of existing buildings and developing the networks required to recharge batteries or fill up hydrogen tanks (fuel cell technology), etc. will now require procuring and financing large innovative infrastructure projects.

Simultaneously, the financial sphere has to build up its capabilities to address the myriad of small financings that will be required notably to answer to households' transition needs when they will have to invest in order to insulate their flats or make their heating equipment more energy efficient. In this respect the still limited size of the Green bond market that is at the forefront of the financing of the energy transition, although not all green financing needs have the appropriate label, is a concern.

One essential challenge for the EU is also to set up appropriate balancing economic mechanisms, which make it possible to reimburse investment cost thanks to the savings made on energy and health bills, to enable the incremental level of investment and set up.

III. Transitioning to a circular economy would involve considerable transition costs

More generally, a transition to the circular economy would involve considerable transition costs (e.g. R&D and asset investments, stranded investments, subsidy payments to promote market penetration of new products, and public expenditure) but if well managed could create an opportunity for economic and industrial renewal[1].

McKinsey quotes the British government who has estimated that creating a fully efficient reuse and recycling system would cost around €14 billion, which would translate according to the consultancy into €108 billion scaled to a Europe-wide level.

The Ellen MacArthur Foundation[2], estimated in January 2017 that Europe has €320 Billion of circular economy investment opportunities.

IV. Channelling finance toward all investment areas

In this context according to the EUROFI study on the obstacles to the financing of the energy transition in the EU certain difficulties should be addressed.

Firstly, whereas there is a relatively high volume of available financial resources at present, the financing is concentrated in a few areas: wind and solar plants and energy efficiency in transport, industry and commercial buildings. But big technological innovations lack financing. In addition, green finance is being developed much faster in market financing than in retail financing.

Furthermore, there is a heated debate on the fact that the increase of funds coming from public actors both at European and Member States' levels might not always lead to an additionality vis-à-vis private funding and some private actors think that they often crowd out private funds.

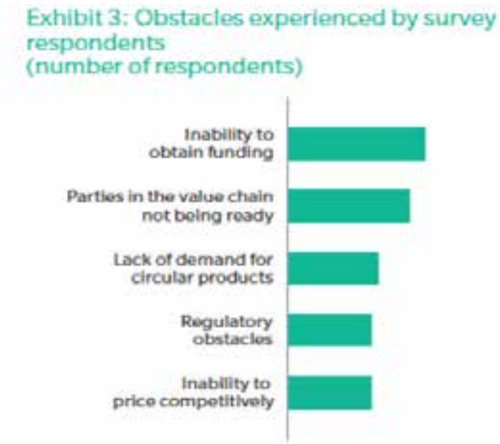
The European Union Emission Trading System (EU ETS) which is an essential economic balancing mechanism, should have anchored expectations and facilitated the reduction of CO_2 emissions, but has actually failed to give a realistic carbon price.

Creating investment mechanisms incentivising households is essential.

It is essential notably in a context where buildings account for 40% of the EU's energy consumption and 36% of its CO_2 emissions, and most of the stock of buildings in the EU (90% was built before 1990) needs to be renovated (only 1 to 2% of the building stock is renovated each year). These mechanisms should closely involve bank networks, and facilitate the technology/economic choices that households just cannot make at present.

Finally, one challenge is also to address the disparities observed among European countries regarding the progress made on EU sustainability targets and related investments. Furthermore, developing countries need also to see that their support for action combating Climate Change, takes into account their lower stage of industrialisation.

More generally as suggested by the survey issued by Oliver Wyman in 2017[3], while EU policies should be multiform, the ability to obtain funding remains essential to achieve a sustainable economy.



V. Improving long-term green finance attractiveness

Among the necessary investments many are capital intensive investments that only fully yield their benefits in the long run (battery charging networks or hydrogen fuel cell refill stations, renewable energy generation capacities,...).

One essential climate adaptation, low carbon transition and circular economy enabler is therefore to make the attractiveness of those climate related investments, compare favourably with other shorter term investment opportunities, notably avoiding unnecessary fluctuations of their investment holdings among which are those provoked by market short term evolutions.

In addition, some of these investments also require risk mitigation approaches involving the public sector since they include significant technology and industrial challenges (fuel cell versus electric cars, electric storage, offshore windfarms, etc.), while others may be subject to the risk of political U-turns. ■

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[1] See McKinsey study https://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/europes-circular-economy-opportunity.

[2] The Ellen MacArthur Foundation works with business, government and academia to build a framework for an economy that is restorative and regenerative by design. https://www.ellenmacarthurfoundation.org/publications/achieving-growth-within.

[3] Supporting the circular economy transistion - Oliver Wyman - https://www.oliverwyman.com/content/dam/oliver-wyman/v2/publications/2017/sep/CircularEconomy_web.pdf.

Regulatory implications of sustainable finance

I. The need for mainstreaming what we know about climate related medium- to long-term risks

"Any good policy to combat climate change 'requires a price' to act as an incentive to reduce a negative externality such as Green House Gas, in line with basic welfare economics". This sentence from the Deputy General Manager of the Bank for International Settlements (BIS), summarises the challenges that the EU Commission is trying to face up to.

In this perspective indeed, one critical issue is mainstreaming "what we already know about medium- to long-term additional costs of climate change" i.e. providing a common definition of what is green, encouraging the disclosure of sustainability risk, and fostering the use of related information and risk mitigation tools intended to facilitate an operational use of the information provided (benchmarks, labels, advice and disclosure obligations, possible regulatory climate related risk mitigation obligations).

To address this need, in May 2018, the Commission adopted a package of measures implementing several key actions announced in its action plan on sustainable finance.

Indeed, the systematic provision of sustainability information will in particular help to address a huge moral hazard, notably existing in the financial sphere, by which investors, entrepreneurs and project sponsors may maintain or increase their contribution to environmental and social threats, since the cost of those threats are at present borne by others, or by society as a whole and such risks are likely to materialise over a longer time horizon. Indeed, this situation stems notably from the fact that those economic players with insufficient information or accountability, regarding the long-term or indirect consequences of their actions, have a tendency or even the incentive to behave inappropriately from the perspective of society as a whole.

II. Main features of the EU Commission package

The Commission's package includes:

- A proposal for a regulation of the establishment of a framework to facilitate sustainable investment. This regulation establishes the conditions and the framework to gradually create a unified classification system ('taxonomy') on what can be considered an environmentally sustainable economic activity. This is a first and essential step in the efforts to channel investments into sustainable activities;
- A proposal for a regulation on disclosures relating to sustainable investments and sustainability risks and amending Directive (EU)2016/2341. This regulation will introduce disclosure obligations on how institutional investors and asset managers integrate environmental, social and governance (ESG) factors in their risk processes. Requirements to integrate ESG factors in investment decision-making processes, as part of their duties towards investors and beneficiaries, will be further specified through delegated acts;
- The proposal for a regulation amending the benchmark regulation. The proposed amendment will create a new category of benchmarks comprising low-carbon and positive carbon impact benchmarks, which will provide investors with better information on the carbon footprint of their investments;
- In addition, the Commission is, from 24 May to 21 June, seeking feedback on amendments to delegated acts under the Markets in Financial Instruments Directive (MiFID II) and the Insurance Distribution Directive to include ESG considerations in the advice that investment firms and insurance distributors offer to individual clients.

The measures proposed by the EU Commission in may 2018 aim to:

- Provide clarity on what sustainable investments are by creating an EU-wide classification system or taxonomy to provide businesses and investors with a common language to identify to what degree economic activities can be considered environmentally-sustainable. This is a first and essential step in efforts to channel investments into sustainable activities;
- Ensure that asset managers, institutional investors, insurance distributors and investment advisors include economic, social and governance (ESG) factors in their investment decisions and advisory processes as part of their duty to act in the best interest of investors or beneficiaries. Asset managers and institutional investors who claim to pursue sustainability objectives would have to disclose how their investments are aligned with those objectives. This means greater transparency towards end-investors, ensuring comparability between products and discouraging 'green-washing' or misleading information;
- Create a new benchmark category for low-carbon and positive-carbon impact benchmarks, fostering a generally accepted market standard to measure a company's footprint and, in consequence, an investment portfolio's carbon footprint. This would give investors who want to invest in low-carbon strategies an appropriate tool to enable them to compare the performance of their investment;
- Ensure that investment firms and insurance distributors integrate sustainability preferences into their suitability tests when offering advice to investors and that the products offered meet their clients' needs.

III. The specific challenge posed by climate adaptation of prudential requirements are to address the implications for financial stability and providing incentives for adjusting credit and portfolio decisions

Indeed, the Deputy General Manager of the BIS also stressed that since Climate Change entails considerable risks, the first need is to address the implications for financial stability. He stressed also that the challenge is at "the same time to provide incentives for financial market participants and make them adjust credit and portfolio decisions consistently without inadvertently creating other types of distortions."

Three channels through which climate risk affects financial stability (physical risk, liability risk, transition risk), have been identified:

- The physical risks that arise from the increased frequency and severity of climate- and weather- related events that damage property and disrupt trade;
- The liability risks stemming from parties who have suffered loss from the effects of climate change seeking compensation from those they hold responsible; and
- The transition risks that can arise through a sudden and disorderly adjustment to a low carbon economy.

In this context the first mandatory step for the financial sphere is to better understand, measure and manage these financial risks posed by climate change. Indeed, whereas late or inadequate transition investment may deteriorate counterpart risk, adaptation investments conversely can improve it (improved/preserved value of collateral, reduced energy spending etc.). Notably, and before all, asset owners and asset managers have to consider the long-term viability of their portfolios in terms of the financial risks posed by climate change is vital.

However, a general mapping of the possible climate change related risks for the whole financial sector is also necessary. Indeed, negative and positive large impacts of environment related issues on financial firms' risk profiles are possible, which should in turn trigger large prudential burden adjustments by institutions. Those firms running internal risk modelling tools are more likely to anticipate these shifts provided that they make the necessary effort required to identify the consequences of climate change scenarios. Yet, simultaneously these shifts might be ignored or taken into account later, by those relying on standard approaches. To be better managed and made more consistent throughout the financial profession the adjustment to these risks, dedicated prudential rules may be needed to help to anticipate those risk profile shifts, notably providing general stress tests factoring in likely general deteriorations of the value of collateral, the impacts of climate events and sudden adjustments, etc. Anticipating possible stress situations linked to climate change should also help to avoid many possible unwanted situations in the financial sphere e.g. un-level playing field between institutions using or not internal models, the insufficient resilience of certain institutions, the unexpected adverse evolution of the value of collateral…

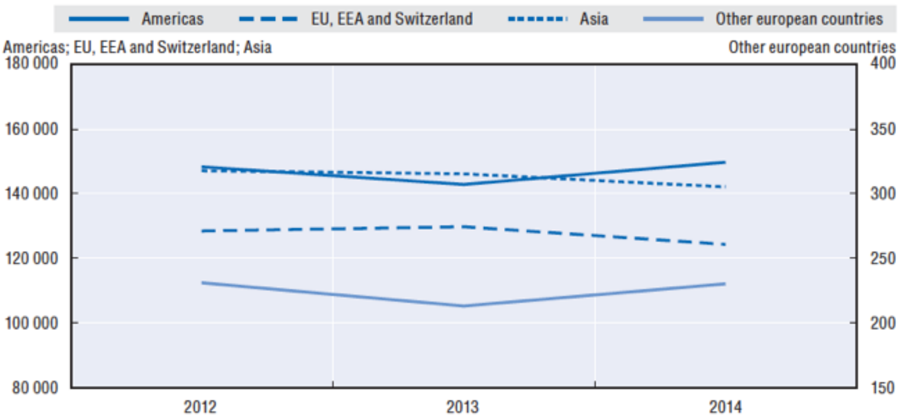
Finally, a well anticipated evolution of risk weights (be it positive and negative) could contribute to increasing the awareness of households, corporates or local public institutions… on climate related risk and opportunities, and notably induce smoother price adaptations and early adaption by providing a sort of forward guidance. ■

What measures are necessary to increase long-term institutional investment in the EU?

Institutional investors among which figure insurance companies, are essential financing suppliers for the economy notably regarding long term financing.

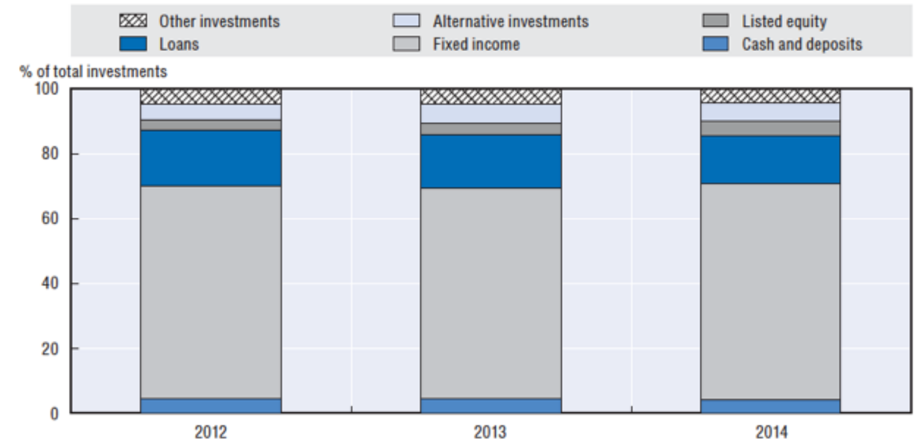
In 2016 the OECD started its report on "The evolution of insurer portfolio investment strategies" by stating that "the potential role that insurers, particularly life insurers and pension funds, can play as long-term institutional investors and how this role develops will, in the long run, affect how the economy obtains financing for their investments and ultimately lead to the growth of the real economy."

Average total investment of insurers by region, 2012-2014 (in millions of USD)



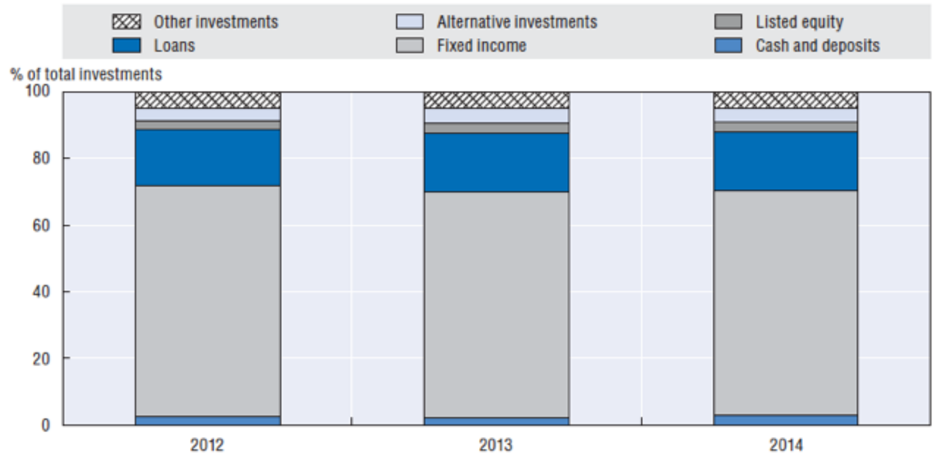
Source: OECD Large Insurer Survey. The average total investments in the areas of Americas, EU, EEA and Switzerland, and Asia align to the left y-axis, whereas the average total investment in Other European Countries is reflected by the right y-axis. All investment volumes are in million USD.

Average asset allocation in the EU, EEA and Switzerland, 2012-2014



Source: OECD Large Insurer Survey. The asset allocation is illustrated by the percentage of total investments in seven asset classes: Cash and Deposit, Fixed Income, Loans, Listed Equity, Alternative Investment and Other Investments, reflected from the bottom of the figure to the top correspondingly.

Average asset allocation in the Americas, 2012-2014



Source: OECD Large Insurer Survey. The asset allocation is illustrated by the percentage of total investments in seven asset classes: Cash and Deposit, Fixed Income, Loans, Listed Equity, Alternative Investment and Other Investments, reflected from the bottom of the figure to the top correspondingly.

The charts above suggest large similarities in investment policies in the EU and in the Americas. However, important differences exist regarding certain asset classes: equity investment is important in the US but is mainly driven by pension funds, with a higher share in insurers' portfolios in the Americas of corporate issued debt, non-listed infrastructure equity or asset and mortgage backed securities than in the EU.

Yet the statement of the OECD raises many more specific questions regarding possible investment policy evolutions, such as whether insurers should foster their investment in equities, should changes in the share of debt issued by the private sector vs. public debt be envisaged, is the current involvement of insurers in securitisation and infrastructure financing appropriate…?

It is in this context that one has to consider an essential working strand "Investing for long term, infrastructure, and sustainable investment", included in the Capital Markets Union European Commission action plan, since it may influence EU investment policies.

Indeed, under this strand the Commission notably has already:

- Amended Solvency II on infrastructure projects (the creation of an asset class calibration of risk charges for infrastructure corporates);
- Amended Solvency II regarding the prudential treatment of private equity and privately placed corporate debt;
- In May 2018 adopted legislative proposals on sustainable finance which notably targeted the mainstreaming of sustainability into risk management and fostering transparency.

In addition, the EU commission is also assessing the drivers of equity investments by insurance companies and pension funds (Study launched in December 2017), and whether the accounting treatment of equity instruments in IFRS 9 is sufficiently conducive to long term financing.

Indeed, beyond targeted recalibrations of solvency regulations, addressing the long term investment challenge might also require additional in depth evolutions. Let us quote Jacques de Larosière "Life Insurance and pension organizations have long-term liabilities (20 to 30 years)". It would therefore be natural for the assets held by these organizations to have long average duration, in order to match with these liabilities. But it is on this point that the rules enacted, and in particular that of "full fair value" and the perspective of the potential liquidation of the insurance organisation within a short horizon, have deviated from the simplicity of this optimal balance between assets and liabilities.

Consequently, accounting standards consider the assets of life insurance and pension funds' balance sheets separately from the liabilities.

In addition, by imposing higher – and eventually discouraging – capital constraints, solvency regulations require compensation for the higher volatility of the assets held, although most of this volatility is specific to short term market risks to which life insurance and pension organisations are hardly exposed.

Furthermore, as long as one considers that the solvency of an institution providing long term guarantees must be judged upon the probability of its one-year liquidation, one runs two risks. The first is to align these companies on a (short-term) time horizon. The second risk is to prevent these companies from holding long assets, particularly in the form of shares, which are inappropriate with the permanent short-term liquidation perspective imposed by the regulation. Finally, under these conditions, one of the essential providers of equity and long-term financing of the economy will tend to wane. Yet it was the lack of equity that was at the root of the excesses observed during the financial crisis.

These reflections also have important stability implications. It is worth alluding in this respect to the ECB[1] that is encouraging "initiatives to further develop equity markets" as they "would promise to significantly foster innovation, growth and cross-country risk sharing in the euro area" because "growth is fostered not only by both bank and equity financing, but also by the "financial structure", i.e. the ratio of equity market capitalisation to bank credit". This is particularly essential for innovative growth-industries.

The Central Bank also stresses that the composition of international asset holdings appears to have an important impact on the extent to which financial integration can withstand shocks (the "resilience" of integration) and suggests consequently looking at securities market according to various angles and notably the type of financial instruments used (debt or equity) and the investment horizon (short term or long term).

However, other factors are in play when it comes to investment behaviours.

In response to the recent financial crisis and the current macroeconomic conditions, the risk appetites of insurers and pension funds are diversifying. In searching for higher yields, some fund managers have opted for "re-risking" strategies by investing in alternative assets (illiquid assets) or in emerging markets. Others have chosen "de-risking" strategies by investing in shorter-term assets so as to cope with changing regulation.

In addition, since large insurers hold relatively more diversified insurance and investment products, they have greater latitude to invest in assets or underwrite obligations, which could otherwise be considered risky on a stand-alone basis.

In this complex context, an effective EU level policy should be underpinned by further clarity regarding:

- The stakes related to the definition of long term investment strategies both for Insurance companies and for the EU economy;
- The specificities of actual investment strategies of EU insurance undertakings;
- Whether Institutional investors investment strategies are evolving over time and fit with EU economic challenges, outlining, as an essential aside, possible regional impediments and the different drivers for differentiated investment strategies;
- Whether the bulk of regulatory evolutions underway (among which figure those listed above) are up to EU long-term investment ambitions;
- Whether the one-year horizon which underpins the EU insurance solvency regime is unduly influencing insurance groups' approach and their long term role, despite notably the introduction of the so called long term guarantees package;
- Whether the evolutions undertaken notably by the IASB, to better account for business model specificities in regulation and accounting standards go far enough;
- The possible regulatory priorities which should contribute to improve the situation. ■

[1] https://www.ecb.europa.eu/pub/pdf/other/ecb.financialintegrationineurope201805.en.pdf.

European retirement needs: prospects of the PEPP

1. Reasons for and objectives of the Proposal of the European Commission

Europe is facing an unprecedented demographic challenge. In 2060, for every retired person there will only be two people of working age, compared to four today. Our social and welfare systems are already coming under pressure. That is why it is urgently needed to bridge the pension gap created by our ageing population.

Alongside occupational pensions, personal pension plans are part of the solution to supplement state-based pensions. But today they are underused: only 27% of Europeans between 25 and 59 years of age save towards a voluntary personal pension plan[1].

This is linked to the underdevelopment of the personal pensions market. In many Member States, supply is limited, and savers often face limited competition between providers, hidden fees and expensive or no switching between providers. For those providers wishing to develop EU-wide products, a patchwork of rules stands in the way.

The legislative proposal of the European Commission aims to address this situation by contributing to a European market for personal pensions and encouraging competition between providers of the benefits of consumers. The European market for personal pensions is indeed fragmented and uneven. Supply is concentrated in a few Member States, while in some others it is nearly non-existent. In only 5 Member States (SI, DE, ES, AT, SE), has more than 15% of the population bought a personal pension product.

2. Some key issues

Eligible providers

The legislative proposal enables a broad range of providers to offer a PEPP. The proposed financial institutions are regulated by different EU instruments, for example, CRD IV, Solvency II, IORPII, MiFID, IDD, UCITS and AIFM. Considering the diversity of applicable regimes, every effort must be made to ensure a level playing field for providers, and clear and even rights of PEPP users regardless of the type of provider.

Portability

With regard to the portability service, the Commission proposes in Article 13(3) that compartments must have been set up in all Member States within three years after entry into force of the Regulation. The compartments feature will ensure that PEPP is easily portable and enable providers to adapt their product to the requirements of each Member State, so that their savers can benefit from the tax incentives of their successive Member State of residence.

This is an important feature, but some providers, in particular smaller ones, have expressed concerns about the difficulties to comply with the obligation on compartments. Solutions can be found to address these concerns, such as encouraging partnerships with other eligible PEPP providers, or creating a central EU database with information on the specific requirements of each Member State. Speakers could share their views on how the final legislative text could strike the right balance between the need to ensure the portability of the PEPP and the need to alleviate burdens in particular for small providers. .

Capital protection

PEPP will be a new product on the market. It will have to be both attractive and trusted by consumers and providers. The Commission proposes that providers should offer up to five PEPP investment options, including a default option. Providers may also offer the option of a coverage of biometric risks.

The default option must ensure capital protection either by a guarantee or by other risk mitigation techniques, such a life-cycle investment strategy. However irrespective of the type of capital protection, providers must ensure that the default option enables savers to recoup at least the capital invested. A capital guarantee lifts the investment risk from the saver to the provider, giving the savers a high degree of certainty over their investment. However, the safety of a guarantee has the downside of being expensive, and providers will generally invest via low risk/low return investment strategies. Furthermore, not all providers will be able to offer capital guarantees.

A life-cycle investment strategy does not provide a capital guarantee, but it may well deliver a better investment result because the risk mitigation generally sets in a number of years before the retirement age. Most assets in life-cycle strategies are invested in higher risk/higher return assets, with a switching mechanism to more conservative investments shortly before retirement.

'Life cycle investment strategy' can take the form of asset allocation using "risk desensitization grids" between funds. This strategy ensures that most savings are invested in equities for younger savers and include a de-risking mechanism to increase the proportion of bonds and monetary instruments as the planned retirement approaches achieved by the switching of funds. This is done quarterly or annually, the allocation being determined depending on investors' age.

The extent of the capital protection to be offered by the default option is still subject to discussions (whether the capital should cover also inflation and costs, and whether

[1] According to EIOPA, 67 million individuals in the EU have a voluntary personal pension plan out of 243 million EU citizens aged 25-59 years.

providers offering a default option taking the form of other risk mitigation techniques should have a legal obligation to ensure capital protection). Irrespective of the final response to these questions, savers should be fully aware of the characteristics of their default option and of the differences that might exist between guarantees and other risk mitigation techniques.

Decumulation phase and out-payment options

According to the Commission's proposal, the type of decumulation options proposed to savers is up to the providers' choice (annuities, lump sum, regular withdrawals or a combination of options). This flexibility would enable providers to adapt their product to the specific requirements of each Member State, as conditions for the decumulation phase will generally be determined by national legislation.

Savers would have the right to change the form of out payments once every five years during the accumulation period. However, savers exercising this right need to be aware that this might trigger tax consequences, if the tax treatment of the relevant Member State depends on the type of outpayments.

Information, advice, costs and consumer rights

Given that «trust» must be the key word, information on the product to consumers, and protection of their rights, must be an essential feature of PEPP. The Commission has proposed a specific PEPP KID (Key Information Document) that takes into account the particular retirement-related features of the PEPP. It is extremely important to provide savers with targeted information that is simple and accessible for a very broad audience, including people with limited financial literacy.

A pan-European product with the options of cross-border portability and switching, clearly requires a single, harmonised PEPP Benefit Statement. It would also require pan-European consumer protection rules, and a single harmonised complaints and redress procedure. ■

Review of Solvency II long-term guaranties package

European insurers are important institutional investors in Europe's financial markets. It is therefore crucial that prudential regulation does not unduly restrain their appetite for long-term investments, while properly depicting the risks.

Indeed, matching financial cash-flows of long-term assets with insurers' long-term guarantees means insurers are less exposed to the short-term market-type price movements of their assets, which are unrelated to potential credit defaults.

Firstly, Solvency II withdrew some existing investment limits imposed by Member States regarding in particular less liquid ones such as infrastructure. Instead, insurers are now free to invest provided that they apply the 'prudent person principle' that capital requirements depend on the actual investment risk.

Consequently, the standard formula is detailed enough to cater for different asset classes, featuring different risk profiles among which:

- certain types of investment fund that have been created recently under EU legislation, such as European Social Entrepreneurship Funds and European Venture Capital Funds;
- investments in closed-ended, unleveraged alternative investment funds, which capture in particular other private equity funds and infrastructure funds other than the European Funds mentioned above;
- infrastructure assets which are considered as a specific asset class to cope with its specific (and attractive) long term risk profile;
- unrated bonds and loans targeting in particular SMEs;
- debt instruments fully guaranteed by multilateral development banks, such as the European Investment Bank or the European Investment Fund, which are exempted from any capital requirement for spread and concentration risk.

Finally, the identification of a high-quality category of securitisation should also be a significant enabler for insurers to invest in a diversified type of safe long term (mortgage backed securities notably) real economy assets.

Since a perfect match in duration neutralises the capital requirement for interest rate risk, which is one of the main components of the total capital requirement for life insurers in particular, the Solvency II capital requirements also incentivise insurers to match the duration of assets and liabilities.

In addition, besides this, the capital requirements seek to reduce undue volatility. The so-called "long-term guarantees" (LTG) measures, introduced by Omnibus II, mitigates this artificial volatility by partially reflecting movements in asset prices in the market-consistent valuation of the liabilities, thereby reducing artificial balance sheet volatility.

In this perspective, in certain portfolios where cash-flows are matched and insurers can hold fixed-income assets to maturity, one may also use the 'matching adjustment', which smooths out the artificial volatility of their balance sheet and significantly reduces the capital requirement corresponding to short-term spread fluctuation risk.

Alternatively, a volatility adjustment applied to the discount rates for calculating technical provisions, can stabilise insurers' capital resources, and avoid triggering pro-cyclical divestments behaviours in response to a deterioration of bond prices.

The EIOPA is required to provide an annual report on the LTG measures until 1 January 2021 (two of our annual reports have already been published in December 2016 and December 2017). These reports provide an instructive basis for understanding the impact and the sensitivity of these measures.

LTG measures as a whole are being widely used. More than 25% of the undertakings accounting for 74% of technical provisions of European insurers in the European Economic Area use one of voluntary measures. On a Europe-wide basis, the volatility adjustment is the most frequently used measure.

The impact of the LTG measures is significant. For the ones using them, they result in an increase in the SCR ratio of an average of 69 percentage points[1]. According to the EIOPA the first observations from the impact of Solvency II point to an increase in long-term investment and a stable allocation to equity.

However, despite LTG measures, the EIOPA also points point to more illiquid investments and to non-traditional asset classes, such as infrastructure, which improve asset diversification but are attributed to the low interest rate environment.

In addition, the EIOPA also witnesses an acceleration of the change in business models, especially in life insurance, with the move towards contracts with lower and more flexible guarantees and, in some countries, the significant increase of pure unit-linked products to ensure the long-term sustainability of the insurers' commitments and optimise capital in a Solvency II environment. This evolution also increases the transfer of risks to policyholders.

In this context, whereas Insurance Europe welcomed the improvements the European Commission has already made to the framework in particular by recognising infrastructure investment as a separate asset class and by removing barriers to standardised transparent securitisations, a survey of insurers[2] from across Europe completed by this EU trade association, shows that Solvency II brings benefits but deters long-term business.

While the survey has shown that over three quarters of the respondents have seen a positive effect from the EU's 2016 Solvency II regulation on their risk management and governance practices and on their management of assets and liabilities, 58% of the respondents offering long-term savings products with guarantees said that Solvency II has had a negative effect on those products. And 48% said that Solvency II has led them to invest less than optimum amounts in equities, long-term bonds, private placements or unrated debt.

The survey also provides evidence that insurers are under pressure to shift risk to customers and to withdraw from long-term guaranteed savings products and that Solvency II is affecting the ability of insurers to invest long-term in the economy at a time when the European Commission is seeking to boost sustainable EU growth.

Insurance Europe suggests consequently that 2018 and 2020 reviews should address the overly conservative nature of the regulation, that resulting notably from the fact that it treats insurers as if they were short-term traders when they are, in fact, mostly long-term investors.

Among the issues to be addressed in the current Solvency II review features reducing the cost of capital in the risk margin, which requires all insurers to set aside extra capital. This currently removes over €200bn of capital from insurers' balance sheets, which could be put to productive use since in practice such resources are only needed in the very rare cases of failure.

The EIOPA acknowledges that Specific work is required in this area, in order to explore the development of a specific regulatory treatment of the spread and equity risk charges associated with long-term assets backing certain types of truly long-term illiquid liabilities.

The review of Solvency II follows the structured process envisaged in the legislative texts:

- by 2018, the review of the Solvency Capital Requirement (SCR); and
- by 2021, the overall review of the regime, including the treatment of long-term guarantees (LTG).

This is the occasion to address those building blocks of insurers' regulatory framework and accounting standards – calibration, time horizon for assessing risk, etc. – that still prevent these regimes from fully properly capturing risks and restraining the appetite of insurers for long-term investments.

Although they require often more than marginal recalibrations and prefer defining certain fundamental principles, which should enable not to consider insurers as "short term traders" expected adjustments should not trigger a revolution in the investment strategy of insurers since the profession "only" points to "less than optimum amounts in equities, long-term bonds, private placements or unrated debt".

Another challenge is to deliver two sets of revisions which are fully consistent and apply evenly to the insurers using the standard formula or internal models. ■

[1] In 12/31/2017, the results show, similar to last year's analysis, that most of the measures are widely used. 783 (re)insurance undertakings in 23 countries with a European market share of 74% use at least one of the following voluntary measures: the matching adjustment, the volatility adjustment, the transitional measures on the risk-free interest rates, the transitional measures on technical provisions or the duration-based equity risk sub-module. The volatility adjustment and the transitional measure on technical provisions are particularly widely used.
The average Solvency Capital Requirement ratio of undertakings using the voluntary measures is 217% and would drop to 148% if the measures were not applied which confirms their importance for the financial position of (re)insurance undertakings.

[2] https://www.insuranceeurope.eu/sites/default/files/attachments/Solvency%20II%20Conference%2026%20June%20-%20slides%20Olav%20Jones.pdf.

5. FINTECH AND DIGITALISATION

Crypto-currencies: which policy approach?

Main features and potential use of cryptocurrencies

Payments can already be made in various digital ways (e.g. with debit and credit cards, online transfers, mobile phone apps) and these solutions are being further improved e.g. with the introduction of instant payments. However cryptocurrencies have one additional feature, which is their anonymity (or pseudo-anonymity) provided by their peer-to-peer nature and the usage of encryption codes. A cryptocurrency[1] is indeed a combination of digital money with a payment system based on the blockchain technology[2]. A decentralized ledger[3] protected with encrypted codes allows payments and asset transfers to be made anonymously and directly between counterparties without the transaction having to be processed by intermediaries (bank, card provider) or a centralized clearing system. The primary issuance market is conducted through Initial Coin Offerings (ICOs[4]). Secondary market trading takes place through cryptocurrency exchanges[5] on which crypto-assets can be bought or sold for fiat currencies and a futures trading market is also starting to appear for bitcoins[6].

Created in 2009, cryptocurrencies are booming at present. In April 2018 more than 1500 different cryptocurrencies were identified representing a market capitalisation of more than $300 B and about 0.4% of global GDP[7]. Their market capitalisation is however still negligible compared to the total amount of currency in circulation and is currently decreasing: i.e. the M1 monetary aggregates in the euro area (€7.5 T) and in the US ($3.5 T).

Cryptocurrencies can potentially be used in a retail context, as a digital substitute to physical cash, due to their anonymity. This is currently being considered for example in Sweden, where the demand for physical cash has considerably dropped, with many shops that no longer accept it (eKrona project).

However at present, cryptocurrencies are mainly used for illegal activities (e.g. criminal, money laundering or terrorist activities) or for speculative investment. This investment activity is also fostering the development of many other services related to the storage of cryptocurrencies and the provision of information, data and advice on cryptocurrency investments.

Crytocurrencies can also be used in a wholesale context. The payment system of cryptocurrencies and their underlying blockchain or distributed ledger technology (DLT) is indeed considered to be their main innovative and useful feature by many stakeholders. DLT can indeed potentially be used to share information, transfer value or record transactions in a faster and more effective way than existing processes in many financial and business areas such as securities markets, supply chain finance or trade finance for example, although it is mainly confined

[1] In this paper we will use "cryptocurrency" or "crypto-asset" indifferently to designate bitcoin and other similar cryptocurrencies including projects for wholesale coins, but some central banks prefer to refer to them as "cryptoassets", considering that they are not currencies as described further down in this note.

[2] Blockchain allows direct digital transfers of money by providing a public record of all the transactions that are carried out in a given cryptocurrency through a decentralized ledger that is protected by encryption and thus cannot be modified or falsified. In addition the digital signatures that are used to execute the transactions are protected with encrypted codes that preserve the identity of the users and the decentralised nature of the ledger might make it less vulnerable than current centralised systems, some believe.

[3] The ledger is protected with encrypted codes. An up-to-date copy of the entire ledger is stored by each user making it distributed. In permissioned system the ledger can only be updated by trusted participants in the cryptocurrency called "trusted nodes", In a permissioned system, nodes updating the ledger need permission from a central entity to access the network and make changes to the ledger. Access controls can include identity verification. In a permissionless system such as Bitcoin, the ledger recording transactions can only be changed by a consensus of the participants in the cryptocurrency. Each node in a peer-to-peer network stores a full and up-to-date copy of the entire ledger. Every proposed local addition to the ledger by a network participant is communicated across the network to all nodes. In principle, nodes collectively attempt to validate the addition through an algorithmic consensus mechanism. If validation is accepted, the new addition is added to all ledgers to ensure data consistency across the entire network.

[4] ICOs are also used as a fundraising mechanism by blockchain-backed businesses selling a share of the usage of their platform or technology in the form of tokens (instead of a share of their capital through an IPO). ICOs are unregulted at present but several EU jurisdictions are assessing the opportunity to put in place a specific domestic legislative framework for ICOs.

[5] At the end of 2017 cryptocurrencies traded through more than 5500 markets worldwide.

[6] So far attempts to launch bitcoin-based ETFs, which some believe could help to further grow the market, have however failed authorization by the US authorities in particular.

[7] Source CaixaBank research May 2018.

to niche processes at present, due to its scalability that is still limited.

Digital coins backed directly or indirectly by central bank money[8] can be used on DLT platforms for example for paying for securities without waiting for traditional money transfers to be completed thus accelerating securities transactions and reducing the need for collateral to back them compared to centralised systems[9]. Cryptocurrencies can also be used for making transactions between financial institutions more efficient.

Another indirect application of cryptocurrencies is through the use of ICOs as a fundraising mechanism. Blockchain-backed businesses are indeed using ICOs for selling a share of the usage of their platform or technology in the form of tokens (instead of selling shares of the capital of the firm developing the technology through an IPO). ICOs are unregulated at present but several EU jurisdictions are assessing the need to put in place a specific domestic legislative framework for these operations.

Potential issues and risks posed by cryptocurrencies

The issues and risks raised by cryptocurrencies with respect to consumer and investor protection, market integrity, tax evasion, money laundering and terrorist financing were underlined by the G20 at the March 2018 summit.

The FSB believes that "at this time" cryptocurrencies do not pose a material risk to global financial stability given that they remain a very small part of the overall financial system[10]. In addition, the fact that they are not real substitutes for currency at present and are only used in a very limited way for real economy and financial transactions means that their inter-connectedness to the regulated financial system is limited.

The FSB however recognises the need for a "vigilant monitoring" of cryptocurrencies in light of the speed of market developments. Assessments are underway in connection with other global standard setters. A framework has been developed by the FSB in collaboration with CPMI in order to monitor the financial stability implications of cryptoasset markets and be able to identify quickly any emerging financial stability risks[11]. CPMI is reviewing applications of DLT and is monitoring in particular payment innovations. IOSCO is assessing issues associated with ICOs and cryptoasset platforms and whether any of them are not appropriately addressed by existing IOSCO principles. The BCBS is also conducting an initial stocktake on the materiality of the direct and indirect exposures of banks to cryptoassets and based on the results will consider whether there is a need to formally clarify the prudential treatment of cryptoassets.

The challenges raised by cryptocurrencies have also been assessed by the BIS and domestic central banks. Firstly, many authorities argue that they cannot be considered as "currencies" and should rather be designated as "crypto-assets", given that they do not satisfy the three functions of money[12]: (1) their value fluctuates very significantly meaning that it is difficult to use them as a unit of account; (2) as a medium of exchange they are far less effective than fiat currencies since their price fluctuates significantly, they generate transaction costs that are relatively high for simple retail payments and there is no guarantee of reimbursement in case of fraud, and (3) their lack of intrinsic value and the fact that they are not based on any underlying economic fundamentals mean that they cannot be used as a trusted store of value.

Secondly, cryptocurrencies pose investor and customer protection risks due to their high price and liquidity volatility. The total market capitalisation of cryptocurrencies has indeed been divided by 4 since the end of 2017 and trading volumes sharply decreased over the last few months[13]. This high volatility can be explained by the speculative nature of cryptocurrency investment and also by limits to the supply and issuance of existing cryptocurrencies (which are determined by a protocol and constrained by mining capacity), the unlimited creation of new cryptocurrencies, as well as the ownership which can be quite concentrated[14]. The absence of guaranteed convertibility into fiat currency by a central authority also means that their value is not guaranteed. In addition the lack of any recourse in case of fraud (e.g. in the context of ICOs), digital theft or hacking of crypto-wallets is also underlined.

Thirdly, the high cost and environmental impacts of crypto-currency processing are also criticized (notably the high electricity consumption needed for ensuring decentralised trust through mining processes and facilities), as well as the lack of scalability and the congestion risks notably due to the relatively limited

[8] Either directly or by cash assets held at a central bank such as in the utility settlement coin project for example. These cash assets in different currencies would also be convertible at parity with a bank deposit in the same currency.

[9] In effect this would be a way of representing the cash settlement on the ledger.

[10] This was not the case for example of credit derivative swaps before the global financial crisis for example Cryptocurrencies represent less than 1% of GDP even at their peak in 2017 in comparison to the notional value of credit default swaps which represented 100% of total GDP prior to the global financial crisis, as underlined by the FSB.

[11] Monitoring the size and rate of growth of these markets, the potential size of the wealth effect, the use of leverage and the exposure of financial institutions to cryptoasset markets in particular.

[12] Source: Banque de France – Focus N°16 – March 2018.

[13] Source Financial Times 9 June 2018 - Bitcoin for example enjoyed a dramatic increase in its value in 2017 as retail investors in particular tried to cash in on its rise. Its price rose more than 1,000 % during the year peaking at about $20,000 in mid-December and it has since been divided approximately by 3. Since June 2018 it is evolving in a $ 6000 to 8000 range.

[14] For example in the case of Bitcoin, 1000 or so wallets own about 40% of the market – source Financial Times article.

mining capacity for updating the ledger[15]. Some other issues are underlined such as the difficulty to (totally) guarantee the finality of payments in permissionless cryptocurrencies (i.e. those with no central agents in charge of updating the ledger such as bitcoin) or to avoid manipulations[16] and also the impossibility to amend or reverse transactions.

A fourth, longer-term challenge concerns the stability of the financial system. It remains to be seen whether a widespread use of cryptocurrencies and related financial instruments without centralized monitoring might give rise to new financial vulnerabilities and systemic risks according to the BIS[17].

Addressing cryptocurrency challenges

Central Bank backing

Central Bank cryptocurrencies (CBCCs), the prospects of which are being explored by several central banks, could mitigate some of the risks posed by privately-created cryptocurrencies, notably in terms of price volatility and customer protection, thanks to their central bank backing. Some authorities are however cautious about these developments[18]. CBCCs would be initially issued by a central bank, much like cash, and could then circulate with the support of a permissioned distributed ledger[19] with the central bank determining who may act as a "trusted node" (i.e. an agent in charge of the ledger). Several projects of retail CBCCs have emerged, although they remain at the conceptual phase at present. Fedcoins have been proposed in the US which would be created solely by the Federal Reserve with a one-for-one convertibility with cash and reserves[20]. In Europe the eKrona project of the Sveriges Riksbank is the most advanced in thinking about the potential issuance of a retail CBCC. Retail CBCCs could provide a cheaper alternative to physical cash and could potentially be used to transmit monetary policy in a more efficient way[21]. However they also have potential risks and downsides. CBCC could threaten the business model of commercial banks, possibly disintermediating many of them for the provision of ordinary accounts, and could also increase the possibility of bank runs by making it easier to convert commercial bank money into risk-free central bank liabilities[22]. Privately created permissioned cryptocurrencies (with a central agent in charge of the ledger) may achieve part of the benefits of CBCCs but without the backing of a central bank.

Some projects for wholesale CBCCs that could be used for facilitating the cash settlement of securities transactions or supporting wholesale payment systems are at the proof-of-concept stage. A challenge they face however is to be able to transfer central bank money in real time on a distributed ledger in sufficient volumes and with appropriate liquidity.

Regulating cryptocurrency activities

The regulation of some activities associated with cryptocurrencies has also been proposed aiming to ensure AML / CFT objectives[23], operational security and also the improvement of customer protection. Such a policy approach should preferably be conducted at the European and global levels in order to take into account the strong cross-border nature of internet-based technologies and dematerialised assets. Regulating the actual cryptocurrency platforms however seems quite challenging, given the permissionless nature of many of them (e.g. bitcoin), which means that there are no legal entities or persons that can be brought into the regulatory perimeter. Regulators are therefore exploring the possibility to regulate some intermediaries involved in crypto-currency activities.

A first area that some authorities have proposed to further regulate is the conversion of crypto-assets into fiat currencies or vice versa by internet platforms. The role of intermediary between buyers and sellers is normally considered to be a payment service and requires an authorisation. However, this requirement arises from the third-party management of accounts held and denominated in a fiat currency, and not from the provision of services associated with crypto-assets.

[15] Miners updating the ledger are paid a reward per block on top of user fees but reward blocks are being phased out and therefore user fees (paid by users for their transaction to get ahead of the queue) will increasingly have to sustain the system. Increasing capacity would reduce the amount of fees paid to miners which would drive them away, therefore capacity is limited. In addition capacity is limited at present by computer power and could be further decreased at least in the short term by a possible reduction or ban by the Chinese authorities of ICOs and mining activities as it is estimated that Chinese miners produce between 50 and 70 per cent of the world's bitcoins, as well as a significant amount of other major cryptocurrencies (source FT).

[16] Given the highly concentrated nature of mining pools that can make collusion by packs of miners a real possibility e.g. for Bitcoin three mining pools account for more than 50% of the computing power. Source sppech by Hyun Song Shin Head of research of the BIS June 2018.

[17] Source BIS – Annual Economic Report 2018.

[18] Such as CPMI who has considered that responding directly to the challenges raised by retail payments with a central bank digital currency "would be en entry into unchartered territory".

[19] In permissioned DLT the ledger can only be updated by trusted participants in the cryptocurrency called "trusted nodes", whereas in permissionless DLT such as Bitcoin the ledger recording transactions can only be changed by a consensus of the participants in the cryptocurrency (while anybody can participate nobody has a special key to change the ledger).

[20] This convertibility both ways with fiat currency managed by the central bank could make the CBCC into a third component of the money base alongside cash and reserves. The same benefits could also be obtained to a certain extent through the possibility for the general public to hold accounts directly at the Central Bank, referred to as deposited currency accounts (DCAs). So far, however central banks have generally chosen not to provide DCAs, although this has existed in the past.

[21] The central bank could in particular gain greater control over the transmission of interest rates (including negative rates) to households and businesses – Source "The future of central bank money" speech by B. Coeuré May 2018.

[22] Source BIS – Central Bank currencies – BIS Quarterly review – September 2017.

[23] Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT).

It should therefore be assessed whether crypto-asset related activities (e.g. the exchange of crypto-assets for fiat currencies, the storage of cryptographic keys and the maintenance of crypto-wallets, which are managed thanks to cryptocurrency service providers) need to be regulated through a specific framework or whether they are at least partly covered by existing rules relating to e.g. intermediaries or trading venues. A related question is whether cryptoassets are securities or some other form of financial product (if they cannot be considered as cash). A second potential area of regulation could be customer protection rules to limit or ban the sale and marketing of risky crypto-assets in the form of investments or loans to the general public, including crypto-asset derivatives. ■

Data privacy: implications and challenges

I. Financial institutions are under pressure to keep up with digital transformation

Indeed, according to the BREACH LEVEL INDEX[1] 199,769 data are lost or stolen every hour, among which about 10% In the financial sphere in a context where data grows exponentially. Organizations must protect their customer's personal information for reputational reasons and increasingly because when an organization is breached, it risks facing important regulatory penalties. All digital technologies are exposed but, the Internet of Things (IoT) is among the areas of critical vulnerability. Finally, human errors also significantly contribute to threatening data privacy and protection.

Consequently, financial institutions must make investments in a number of key security technologies such as data archiving, backup, and redundant infrastructure, to ensure data is safeguarded and can be recovered and restored.

In parallel, the GAFA (Google, Airbnb, Alibaba, Amazon, Apple, Facebook, LinkedIn, ...) are transforming the digital banking landscape. With a huge pool of customer data collected through social media, mobile, customer purchase information, the GAFA have moved into financial services.

II. Digital transformation requires financial institutions to provide valuable customer experiences and achieve economies of scale

In this context, since the rise of digital banking and the decline of the branch, relationships between bank provider and customer have weakened. At the same time demand for a personalised customer experience is high on the banking agenda.

Banks must provide valuable customer experiences across the digital and physical environment going beyond customers' accounts, building individualised offers and services, focus on evolving their business models and developing new revenue streams.

Banks have already focused on improving the front-end process. But they have now to optimise end to end capabilities to maintain their competitive differentiation and make products available immediately. In addition, services and related sources of revenues, may be better achieved through a third-party which means developing new forms of partnerships.

At the same time, notably to achieve economies of scale and cost efficiency, banks should also offer white-label banking services through open APIs and new partnership models with innovative fintechs or working alongside GAFA.

Finally, the key element is to effectively leverage consumers' data which involves running Artificial Intelligence.

III. Securing and leveraging larger volumes of sensitive information is one of the essential challenges

In this context, for financial services companies, big data is both an opportunity and a threat since they face the challenges of securing and leveraging larger volumes of sensitive information but preserving their reputation and costumers' confidence.

This challenge is notably illustrated by the various existing or emerging data protection regulations e.g. PCI DSS, which relates to the management of customers' payment card information (12 requirements for payment card processors, including firewalls and antivirus software, the encryption of cardholder data...). The European Union's General Data Protection Regulation (GDPR) will fundamentally change how EU institutions operate.

In June 2018 California lawmakers passed one of the toughest data privacy laws in the United States: the California Consumer Privacy Act of 2018 which is similar to Europe's new GDPR protections.

In most regulations, organisations must inform users how they collect and process their personal information and allow them to opt out from such processing. The regulation affects all organisations that process the data of EU citizens and residents, meaning that international companies are impacted as well.

Beyond important managerial and technology challenges to be addressed, such evolutions provide an opportunity for companies notably financial ones, to distinguish themselves and to be more competitive by demonstrating and prominently advertising compliance with data privacy regulations.

[1] https://breachlevelindex.com

IV. Data portability is an essential feature of data protection regulations

The effectiveness of the portability of data introduced by the GDPR is an essential issue. Data portability creates an opportunity to develop services and to increase the awareness of citizens regarding the value of their data, namely that it is their data and they can use it to fulfil their needs with different actors. Interesting portability initiatives have been observed around the world, such as the 'blue button' in the United States that allows patients to transfer their data from one health institution to another. The 'Rainbow Initiative' in France aims at facilitating cross-sector portability which should help to improve and redefine services.

The challenge however is huge since despite increased awareness of data issues, people are not necessarily aware of what is acceptable in terms of the use of their personal data, nor are they necessarily aware of the value of that data. Consequently, whereas the GDPR strengthens the rights of individuals as far as the right to portability and the right to be forgotten are concerned, people have different opinions regarding their rights in terms of privacy.

V. Regulators are also faced with the challenge of adapting to a moving economy and technology

Regulators are thus challenged since striking the right balance between the effectiveness and stability of the rules and the need to adapt to a moving economy and technology, is difficult. Regulators have to anticipate the issues in order to protect customers and the favoured actors' capability to innovate.

Increasing progressively the consistency of data related regulations is also necessary. For example, the GDPR might require a company to 'forget' data that it may need to keep in order to comply with other regulations and laws. In particular, the requirement to maintain audit trails can result in a customer's data being retained after that customer have asked to be 'forgotten'.

Another area for progress is facilitating consistently the portability of data. In the EU, while the payment service provider can access data of current accounts through standardised APIs, nothing concrete is at this stage envisaged to make effective the portability proposed by the GDPR. This is essential notably in order to balance the competition between the GAFAs which are lightly regulated, and financial institutions.

The GDPR entails significant investment and adaptation efforts and public authorities need time to adapt their controls and to contend with interpretation issues. To this end, the G29, the organisation of public authorities in charge of the protection of privacy and data in Europe, has been asked to develop a common interpretation on data issues in order to strike the right balance between privacy and efficiency. ■

Digital and regulatory disruptions in EU retail payments

I. An important challenge in the EU since regulators are trying to leverage digitalisation in the payment area in terms of competition and innovation

By introducing third party entities into the market and obliging banks to give access to their customers' payment accounts, the PSD2 fundamentally changes the landscape. Indeed, PSD2 is expected to increase competition resulting in better services to customers, lower costs, and a better use of data.

The General Data Protection Regulation is also challenging since a great deal of data is exchanged in the field of payments.

Other challenges lie in the security and cyber-resilience of the new systems. The risk of fraud is not new, but new technologies allow fraud on a wider scale, and the infrastructure to protect the safety of payments is critical.

Finally, strengthening anti money laundering and counter-terrorist-financing rules also interplay with PSD2. There, a wrong approach would be just bringing established methods into a new space without understanding the threats created by technology. Fostering innovation does not mean either setting aside the principles underpinning the need to establish clearly the inherent AML, terrorism financing or cyber-risk, and to mitigate it appropriately. Rather the challenge is to leverage new technology notably to find fit-for-purpose and risk-responsive methods to KYC.

II. Regulation consistency and clarity and a level and swift adoption across the EU remain essential targets

The legislation to some extent contains conflicts that should be addressed. For example, PSD2 talks of explicit consent, whilst GDPR just talks of consent regarding the use of customers' data.

To achieve deeper competition, a harmonised and rapid implementation of PSD2 across Europe is also key.

PSD2 introduces third parties into the relationship between banks and customers and creates a question of who is liable to the customer. This brings potential problems because there is no relationship with the third party. Each player in the payment value chain must be liable for what it does and the customer should be clearly aware of that situation.

Although regulatory technical standards related to the PSD2 will provide a context and principles for harmonising APIs and practices and processing payments, it would be a pity to have multiple APIs in the EU. Developing quickly an API which is expected to safely enable third parties to access bank customers' accounts, is crucial.

III. The emerging Instant Payment scheme is an additional source for disruption

Large Banks rely heavily on a simple but ultimately very innovative service: instant payment. Instant payment is based on an account-to-account model the need of which is definitely demonstrated by many situations faced by customers, such as e-commerce, P2P and even in some cases at the physical point of sale. Initially, instant payment was expected to compete with cash and existing payment formulae but it also has the potential to change customer behaviour.

Instant payments are an essential tool for Europe. The EPC has developed a Sepa wide instant credit-transfer scheme (SCT-Inst), following the requests from the ECB and ERPB. Inter-operability will progressively increase customer choice and value, which paves the way for having instant payments as the new norm for transferring funds from one account to another between banks. In this respect he European dimension is also important and a key achievement for consumers and businesses will be implementing new frameworks and technology with a European dimension, allowing businesses to scale up and consumers to enjoy cross-border benefits.

Operators have opened instant payment services, some at a national level and others at the Euro area level. Large banks have already started to exchange instant payments on RT1, the first operational clearing and settlement system for SCT Inst, which is operated by EBA Clearing.

The Eurosystem supports the establishment of an integrated instant payment market through TARGET Instant Payment Services (TIPS), which will enable payment service providers (PSPs) to offer fund transfers in real time and around the clock, 365 days a year, and using the SCT-Inst scheme. It is designed to offer multi-currency settlement in central bank money for usage throughout the EU and not just the euro area. The launch by the Eurosystem of the Target Instant Payment Settlement (TIPS) service in November 2018 is awaited, as it could be a solution notably for smaller banks.

IV. Challenges faced by Instant Payment

Risks of AML and counter-terrorist financing are a challenge in the context of instant payment, because only a few seconds are available, so instant payment transactions that have to go through further screening will have to be rejected. Tackling these problems will benefit from technology, leading to new methods of identifying AML risk and challenging potential transactions that raise concern.

Furthermore, developing payments at the European level means risk management must also develop at that level. Consistent implementation across the EU is crucial and is a challenge for the future. If the capacity for harmonisation does not exist, payments will be rejected.

But above all some individuals may be reluctant to have their account debited immediately. Furthermore, the effective instant reachability in the EU of any beneficiary is not guaranteed so far because contrary to normal credit transfers which are mandatory services offered by all banks, SCT-Inst is an optional scheme. In addition, provided that the business model of instant payments has not been specified and that it might well progressively develop as a free service, the emerging payment scheme would impair the revenues of incumbent payment services.

However, despite the multiplication new consumer practices and players in the area of payments, it is likely that the various payment means will continue to coexist. But their use will be more fragmented according to the age and behaviour of users.

V. The future of payment cards

Despite the extension of e-commerce and contactless payments the rise of purchases on the Internet and the widespread use of contactless payment have given it a boost to card transactions. Paradoxically, the arrival of new mobile phone banks (N26, Revolut...), which all offer cards, and the arrival of new players and new payment solutions give the card a second youth. All in all, card payments are expected to increase by 5-7% per year in Europe over the next three years.

Indeed, the majority of new payment solutions – PayPal, Apple Pay - are based on the consumer's payment card, whose details are integrated into the mobile phone or Internet. This is also the case for electronic wallets, which can store one or more cards. Indeed, electronic wallets are mainly payment interfaces between the consumer and the merchant or between two individuals. Not forgetting the almost invisible payment models implemented by many service platforms, such as Uber, Deliveroo or Netflix, or Amazon. Yet, while Paylib and Apple Pay are solutions that focus on the consumer payment function, Lyf Pay – is differently positioned. It aims at facilitating and enriching interaction between merchants and their customers. For example, customers passing through are offered dematerialised coupons on their telephone when they approach an associated physical business.

Finally, this environment makes payment easier and fluid: you no longer have to enter either the visual cryptogram or 3D secure code, you are asked for them when directly using a payment card. Finally, if we compare the time spent to pay for purchases between payment methods, in cash, it takes 33 seconds; in the card «magnetic» version, it is faster (about 26 seconds). With a smart card the time spent is about 20 seconds. And with contactless payment systems, freedom is acquired in 12 seconds. But with Apple Pay, it would only take 10 seconds to complete the transaction.

VI. The business model of each payment solution is specific

In this context business models are diverse. A payment solution like Lyfpay invoices the merchant for the costs associated with payment, as for any means of payment, in the form of commissions. As far as the commercial animation part is concerned, additional services are added, the work unit of which may be the shop, the user or the service. If the service is useful the billing is accepted. PayPal, for example, reassures customers and merchants, because its teams know how to manage Internet fraud, more numerous than in physical stores.

Unlike other electronic wallets, Apple Pay does not ask for any extra fees. With 4 million payment points in the United States, one transaction out of two is now settled via Apple Pay in the United States. Apple Pay is beginning to find its way into Europe with 8 countries already integrated (France - Ireland - Italy - Russia - Spain - Switzerland – the United Kingdom).

Payment card revenues of banks are generated by annual card fees borne by individual customers, interchange fees which are paid by merchants on each transaction, and by payment-terminal management service fees. Actually banks are increasingly reducing certain commissions or face growing competition on payment-terminal service.

VII. The bank business model in the area of payments, is also evolving

However, as this develops, it is critical notably for payment and credit card companies and schemes, to demonstrate specific value. Understanding new third-party players' business models is one of the various interesting issues to understand.

Similarly, while banks are perhaps progressively losing their monopoly, they will likely retain the management of inter-PSP payment infrastructure.

Banks work also with merchants to improve services in collecting payment information.

Finally, addressing fraud and safety challenges, which could be increasingly countered by predicting behavioural patterns, identifying irregularities and connecting with customers, might represent an attractive service. ■

APPENDIX

EUROFI study on obstacles to financing for the energy transition in the EU

Study conducted by Jean-François Pons, whom we thank for his contribution

Introduction

We have conducted a study of the activities of numerous financial stakeholders in Europe (banks, insurers, asset managers, pension funds), including a collection of interviews with some of them. Our study shows that the financial sector in Europe is genuinely committed to supporting financing for the energy transition.

However, the amounts invested are still clearly insufficient to match the levels needed. According to the European Commission, an extra €180bn of funding is needed each year to meet the EU 2030 targets linked to the commitments made with the Paris Agreement[1]. Investments should of course take into account the main sources of greenhouse gas emissions in the EU, i.e. energy supply (29.3% of total emissions), transport (19.5%), industry (19%), residential and commercial buildings (11.5%) and agriculture (11.3%)[2].

Following the report by the High-Level Expert Group on Sustainable Finance that it mandated[3], the European Commission published an Action Plan[4] setting out 10 priority actions to be taken to achieve three objectives:

1) Reorienting capital flows towards a more sustainable economy;
2) Mainstreaming sustainability into risk management;
3) Fostering transparency and long-termism.

The first legislative proposals resulting from the Action Plan were published on May 24, 2018[5] and include:

- A proposal for a regulation creating a unified classification system ("taxonomy"), setting harmonised criteria for determining whether an economic activity is environmentally-sustainable;
- A proposal for a regulation on investors' duties and disclosures, under which financial market participants will publish online written policies for integrating sustainability risks into their investment decision-making processes;
- A proposal for a regulation creating two carbon benchmarks enabling investors to better evaluate and compare their portfolio's carbon footprint: with a "low-carbon benchmark" creating standard indices to evaluate portfolios that have a lower carbon footprint than the average portfolio activities; and a "positive-carbon impact benchmark", where underlying assets are selected on the basis that their carbon emissions savings exceed their carbon footprint.

In this context, EUROFI has interviewed more than 15 of Europe's most active financial stakeholders and experts in order to better understand the obstacles to a significant increase in financing for the energy transition in the European Union.

This report presents the conclusions drawn from these interviews, as well as the recommendations, aimed at both private stakeholders and public authorities for them to overcome the obstacles faced and increase financing for the energy transition.

Main findings

The financial sector is committed to the energy transition

All the companies interviewed have decided to invest in the energy transition, which has become a top priority. They have dedicated teams reporting to the highest levels within their companies, and they are developing new methodologies and products and engaging in dialogue with clients on this priority. They are financing investments in the energy transition, mostly through the green bond market.

However, investors still define internal green investment targets in qualitative terms (transparency, definition of "green") and give examples of green projects which they finance, but generally not in quantitative terms (percentage of green assets on their balance sheet).

Moreover, there is a lack of tools to properly measure "green finance": for instance, many loans to businesses

[1] European Commission, *Action Plan: Financing Sustainable Growth*, March 8, 2018 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0097&from=EN.

[2] Source: Sectoral greenhouse gas emissions by IPCC sector in 2014, European Environment Agency, published June 21, 2016, retrieved July 5, 2018. https://www.eea.europa.eu/data-and-maps/daviz/change-of-co2-eq-emissions-2#tab-dashboard-01.

[3] EU High-Level Expert Group on Sustainable Finance, *Financing a Sustainable European Economy*, Final Report https://ec.europa.eu/info/publications/180131-sustainable-finance-report_en.

[4] *Ibid* note 1.

[5] https://ec.europa.eu/info/publications/180524-proposal-sustainable-finance_en.

or households include a "green" component (energy-efficiency notably) that is not measured and reported. This is one argument for a generalisation of "green reporting", following the recommendations of the Taskforce on Climate Disclosure or the French Energy Transition Act.

Lastly, recent studies looking at long-term European investors have shown that their portfolios are far from being aligned with a "2° scenario[6]".

Green Bonds at the forefront of energy transition financing

In 2017, the global Green Bond market totalled US$155.5bn in issuance, up 78% from 2016[7]. Between 2007 and Q1 2018, European issuers (EU + EFTA-based) represented 37% of the global market. Public issuers still led the way in 2017, with €13.0bn of Green Bonds issued by KfW and €9.7bn by the Republic of France, followed by energy distributors and network operators (Iberdrola 7.4bn; Engie 6.2bn; Tennet 5.0bn; EDF 4.5bn[9]). Private banks, although only Crédit Agricole is among Europe's top 10 issuers with €4.5bn, are growing their activities on this market as shown by BBVA's recent record-breaking €1bn green bond issuance[10].

However, Green Bonds still account for less than 2% of global debt issuance[11]. This is a young market and its use is far from widespread, as shown by the weighting of certain individual investors. The Green Bond market is in its early stage of development and far from reaching maturity.

The EU taxonomy is going to contribute to more transparency and trust on this market by removing green-washing suspicions.

Nevertheless, significant efforts are needed as the Climate Bonds Initiative estimates that the green bond market needs to reach US€1tn by 2020 to make a substantial impact on climate targets[12].

Lack of financing for technological innovation and retail projects

The volume of financial resources available is relatively high, but financing for investments is concentrated in a few areas: wind and solar plants and energy savings for transport, industry and commercial buildings.

Green finance is being developed a lot faster in market financing than retail financing.

The main areas of the energy transition that lack financing are major technological innovations (for instance, energy storage and hydrogen) and small-scale projects (residential housing and small-size energy transition projects).

Financial regulation is an obstacle to banks and insurers financing technological innovation, especially through private equity.

Use of public funds

Public funding is most needed to address some types of risk (innovation, political risk). Additionality should be more linked to risk than to volume. This is essential to enable the emergence of tomorrow's green technologies.

The increase in funds coming from public stakeholders at both European level (EIB, EFSI, H2020) and Member State level (KfW, Caisse des Dépôts, Cassa Depositi e Prestati, etc.) might not always lead to the additionality of public funding in relation to private funding; certain private stakeholders believe that they often crowd out private funding; they stress that these institutions' mandates and indicators are focused more on the volume of investment than the level of risks on projects. Representatives from public institutions strongly disagree with these comments.

Failure of EU ETS

The European Union emission trading system (EU ETS) has failed to give a realistic carbon price, which should have anchored expectations and facilitated the reduction of CO2 emissions. Despite an agreement being reached at European level in February 2018 providing new EU ETS rules after 2020, many observers fear that the price of carbon will remain too low and such measures will be insufficient if they are not accompanied by a price floor and by national policies on energy production (especially reducing the use of coal plants)[13].

To compensate, some Member States like Sweden have set higher carbon prices through taxation.

Alongside this, many firms in different sectors have set an internal price for their own investment choices, yet they are rarely made public.

Several barriers to green retail financing, especially with financing for housing

Buildings account for 40% of the EU's energy consumption, 55% of its electricity consumption and 36% of its CO2 emissions. 40% of the EU's building stock was built before 1960 and 90% was built before 1990. Most of the buildings need to be renovated to reach European Energy efficiency

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[6] WWF Report "European asset owners: alignment and misalignment of equity portfolios", June 2017; 2°Investing initiative and PACTA "Out of the fog: quantifying the alignment of Swiss pension funds and insurances with the Paris Agreement", October 2017.

[7] ICMA - Bond Market Contact Group, *Green & Social Bond Market Update*, European Central Bank, Frankfurt, February 6, 2018 https://www.ecb.europa.eu/paym/groups/pdf/bmcg/180206/2018-02-06_-_BMCG_-_Item_3_-_Update_on_the_green_and_social_bond_market_-_ICMA.pdf.

[8] Climate Bonds Initiative, *The Green Bond Market in Europe*, 2018 https://www.climatebonds.net/files/reports/the_green_bond_market_in_europe.pdf.

[9] *Ibid*.

[10] "BBVA issues eurozone's largest ever senior green bond", https://www.bbva.com/en/bbva-launches-first-green-bond/, retrieved on July 3, 2018.

[11] Keynote speech by François Villeroy de Galhau at the International Climate Risk Conference for Supervisors, Amsterdam, April 6, 2018. Figures based on Climate Bonds Initiative, *Green Bond Highlights 2017*, January 2018.

[12] Climate Bonds Initiative, *Green Bond Highlights 2017*, January 2018 https://www.climatebonds.net/files/reports/cbi-green-bonds-highlights-2017.pdf.

[13] Agora Energiewende, Iddri (2017): *L'Energiewende et la transition énergétique à l'horizon 2030 - Focus sur le secteur électrique. Impacts croisés des choix de la France et de l'Allemagne sur le nucléaire et le charbon dans le contexte du développement des énergies renouvelables*.

ratings A & B. However, only 1 to 2% of the building stock is renovated each year. One of the main sources of energy savings in the EU is residential housing, which represents 75% of its building stock[14].

Incentives: renovation is of course in the interests of households in the long run, because they will save money on their energy bills, they will enjoy more comfort and the value of their homes will be enhanced. However, they need advice, because the technical choices to be made are not always obvious and they represent an additional cost to begin with. Renovation is also in the interests of lenders, as suggested by work carried out by the European Efficient Mortgage Initiative[15] and the HLEG[16], as well as statistical research by several retail banks.

Lack of data: for green retail financing, including that related to residential housing (and the production of renewable energy by households) in particular, there is primarily a lack of knowledge and available data. For instance, it is particularly difficult to measure to what extent housing loans are financing insulation.

However, experts agree that energy savings and energy production by households are still underdeveloped in Europe. This is closely related to the fact that banks and households lack incentives to finance these kinds of projects. Households also face a shortage of good and free technical advice. Insurers, for which the refinancing of housing loans would fit with their long-term needs, are discouraged from doing this by securitisation regulations. Furthermore, retail financial advisors do not guide customers towards green investment solutions.

Disparities among European countries

There are significant differences between European countries. Nordic countries lead the way, followed by France, Austria and Portugal. Other countries are lagging behind for various reasons:

- Germany – despite the development of renewable energies - and Central European Member States such as the Czech Republic or Poland are falling behind, mainly because of their commitment to coal for electricity production;
- Spain and Norway have confused international investors by changes in their policies after massive investments have been financed;
- Other European countries (in Central and Eastern Europe) lag behind because their markets are insufficiently developed for the financing of infrastructures in general.

Defining “green”

There is a need to define what is “green” (taxonomy) for both market financing and retail financing. Combined with the creation of “green standards” and “green benchmarks” at EU level, this will support and help measure the development of both markets. In this regard, the European Commission’s proposals are widely supported.

Insufficient access to data

One of the biggest challenges for market financing is access to data and the lack of transparency hindering the correct evaluation of projects and therefore of financial products linked to these projects and exposure to environmental risks. Data come from variable sources and are often the result of voluntary disclosures, without any strong means in place to verify them. Comparisons are difficult as there are no common standards. Initiatives such as the Taskforce on Climate Disclosures (TFCD) recommendations or article 173 in France are regarded as useful and necessary steps. However, some companies warn against compulsory extensive disclosure provisions that might lead to a “tick-the-box” approach.

Transparency is once again key to both building trust and better measuring efforts made to support the energy transition.

Negative impacts of several financial regulations

Some European regulations put an unnecessary burden on financing mechanisms in this area: Solvency II, securitisation and potentially new rules coming from Basel that have not been implemented yet (notably project financing). Some national regulations are also inadequate and should be repealed: one national scheme supposed to support green financing, “the green 0% loan”, has been a failure and deemed too bureaucratic; in France, the regulation of the maximum lending rate put a cap on certain financing for housing, which has impeded their distribution.

From the energy transition to other environment and sustainable policies

This study’s focus on financing for the energy transition could be extended to other areas of environment and sustainable policy, which also need an increased public and private financing effort. The lessons learned from financing for the energy transition and the progress made should be used to support this effort.

Systemic risks result not only from climate change, but also from the collapse of ecosystems. In its Global Risks Report 2018, the World Economic Forum points to biodiversity loss, ecosystem collapse and climate change as being among the top 10 global risks in terms of impact, well above the risks of common concerns for economic stakeholders such as asset bubbles or fiscal crises.

There are three reasons to adopt this broader perspective: synergies, trade-offs and opportunities.

- Synergies: for example, the significant energy savings that accompany water savings – with huge potential in terms of reducing leaks; the same applies to adopting sustainable agricultural practices;

[14] Economidou & al., *Europe’s Buildings under the Microscope: A Country-by-Country Review of the Energy Performance of Buildings*, BPIE, 2011.
[15] European Efficient Mortgage Initiative, Energy Efficient Mortgages Action Plan (EeMAP) Initiative, June 2017. http://eemap.energyefficientmortgages.eu/wp-content/uploads/2018/04/Emerging-Analysis-1.pdf.
[16] EU High-Level Expert Group on Sustainable Finance, *Financing a Sustainable European Economy*, Final Report, p.59.

- Trade-offs: they have to be carefully considered when looking at biofuels for instance, given the potential negative impact on land use and biodiversity;
- Opportunities: a narrow focus could mean opportunities would be missed, as many mature environmental technologies can lead to significant resource and cost savings or mitigate risks (even though they are not climate-related).

Recommendations

1. Further developing the Green Bond market

- The EU taxonomy is going to contribute to more transparency and trust on this market and should be supported, along with the development of EU standards and benchmarks.
- Investors could publicly commit to increasing the share of Green Bonds among invested assets following the example of several insurers.

2. Improving the financing of sustainability innovation

- Creating major funds of funds embracing several important technologies that would involve an important number of financial institutions and public funds (EIB, EFSI, etc.) This would allow risk mitigation through portfolio diversification and critical mass and would be less penalised by prudential regulation. This would need the cooperation of financial institutions (banks, insurers, asset managers) that are competitors. Two projects could be interesting examples: a major EU project on batteries with a dozen industrial firms, EIB, etc. and another focused on hydrogen with energy producers, industrial firms, etc.
- Public development banks and retail banks should act as aggregators for small-scale projects to facilitate their access to financing.

3. Developing a specific offer for green and sustainable household transition loans

- Banks should develop an offer of home loans with energy efficiency targets based on increasingly ambitious certification categories. As households need independent technical advice, lenders should recommend independent experts and the costs linked to this advice should be included in the amount of the loan.
- A "green adjusting factor" that would adjust prudential obligations to the specific features of energy efficiency-linked loans (categories A & B) should be considered. It is justified on prudential grounds, on both a macro level, if the long-term effect of energy efficiency on financial stability is taken into account (reduction to transition and physical risk and improved reimbursement capacity for borrowers due to savings from lower energy consumption), and a micro level, as suggested by the work of the European Efficient Mortgage Initiative[17] and the HLEG[18], as well as statistical research by several retail banks.

4. Assessing the additionality of public funds

- A taskforce made up of neutral experts could be commissioned to evaluate the additionality of public funding by reviewing recent projects and recommend solutions.

5. Setting realistic carbon pricing

- A working group could be set up to work on this topic and produce a set of guidelines and best practices for carbon pricing within companies. It would be made up of economists, representatives from financial institutions and other firms that already have internal carbon pricing, and representatives from public authorities, including the European Commission.

6. Supporting better commitment and involvement for EU Member States

- Member States that are lagging behind in the energy transition should be the priority for public funds aimed at financing the energy transition.
- Clear and predictable administrative processes should be put in place and clear political priorities should be defined within all Member States. Administrative and technical assistance could be provided by the European Union to accompany the funding process.

7. Improving data access and reuse

- The European Commission's proposals for a European taxonomy, standards, disclosures and harmonised carbon benchmarks represent great progress towards better access to data.
- However, further steps must be taken to promote the reuse and interoperability of these data. The methodologies used to calculate risk exposure differ from one firm to another, making comparisons impossible. A set of non-binding best practices and guidelines for calculating risk exposure linked to the energy transition could be prepared by an expert group of representatives from the financial and industrial sectors as a first step towards a harmonised methodology.

8. Improving the integration of ESG factors in prudential regulation

- Review processes for prudential regulation should systematically take into account ESG factors and particularly concerns linked to the financing of the energy transition, starting with the European securitisation regulation and Solvency 2 (equity, securitisation), to notably take into account upcoming transition risks and adjust calibrations to the actual risks involved with green assets.

[17] European Efficient Mortgage Initiative, Energy Efficient Mortgages Action Plan (EeMAP) Initiative, June 2017 http://eemap.energyefficientmortgages.eu/wp-content/uploads/2018/04/Emerging-Analysis-1.pdf

[18] EU High-Level Expert Group on Sustainable Finance, *Financing a Sustainable European Economy*, Final Report, p.59

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