REGULATORY UPDATE

APRIL 2019

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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 Bucharest Seminar and do not engage in any way the Romanian authorities or the speakers taking part in the seminar.

1. BANKING UNION ISSUES AND CHALLENGES

Fragmentation issues in the EU banking sector

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

Despite the challenges faced in recent years, with the emergence of new competitors and low levels of profitability, many European countries' banking systems remain oversized and still have surplus capacity. In addition, international consolidation processes have been few and far between, and this pattern has not changed since the launch of Banking Union.

The limited strength of private risk-sharing channels in the euro area reflects both the underdevelopment of capital markets and a highly segmented banking system at the national level. There is little progress in cross-border lending, especially in the retail markets, or in other words, in lending to households and firms. Expanding this foreign activity would be important for the sound working of the euro area.

1. The Banking Union is failing to provide the expected degree of financial integration

The existence of the SSM and the SRM have not had any marked impact on the banking industry's structure in Europe. Indeed, the banking sector in Europe is too fragmented, not concentrated enough and oversized.

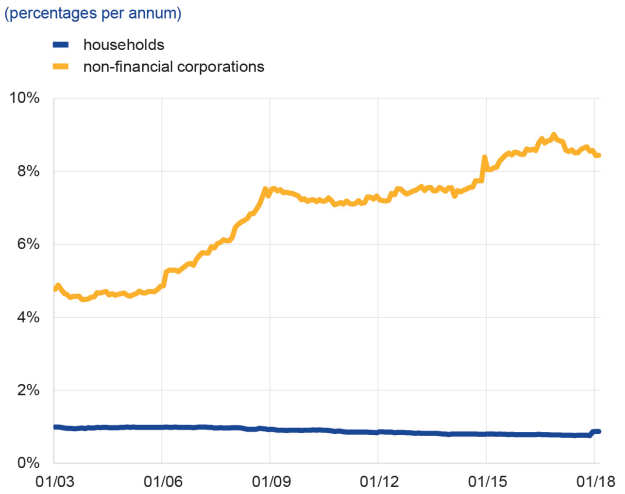
1.1. A fragmented banking landscape in the European Union

Indicators are continuing to signal banking fragmentation in Europe. The share of cross-border loans to households and cross-border deposits from households remain negligible at around 1% (see chart 2). Direct cross-border loans to firms accounts for only around 8% and this figure has hardly changed since the creation of the Banking Union (see chart 1).

The share of cross-border deposits in the euro area from firms is also very low (around 6%) and has fallen slightly over the last few years. The level of foreign bank penetration is, overall, relatively low for a Banking Union.

Chart 1

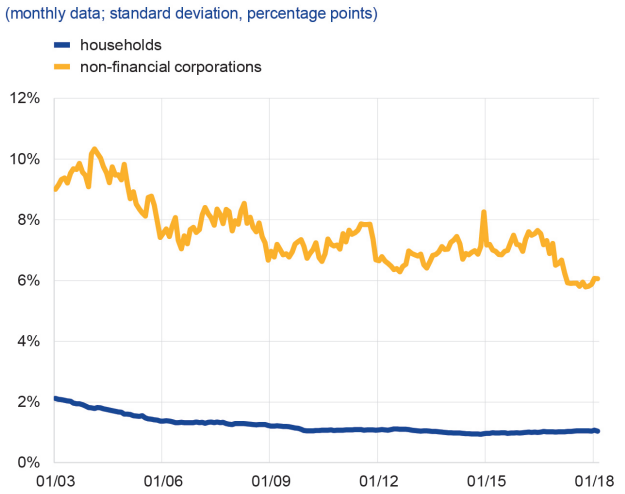
Share of cross-border loans in the euro area for NFCs and households



Source: ECB (BSI).
Note: Cross-border loans include loans to other euro area Member States for all maturities and currencies.

Chart 2

Share of cross-border deposits in the euro area for NFCs and households



Source: ECB (BSI).

Moreover, despite the quantitative easing policy of the ECB, the doom loop between banks and their sovereigns is far from being resolved. According to EBA, on average, 65% of a medium sized bank's Tier 1 capital, is on the domestic sovereign, but in the whole distribution there are banks which have up to eight or nine times their Tier 1 capital on the domestic sovereign.

1.2. An Oversized banking system in Europe

The fragmented banking sector across domestic lines leads to overcapacities of the banking sector in many countries; according to the IMF[1], the European Union is particularly concerned by overbanking, i.e. an "overly marge banking sector that in the end affects the profitability of the banks in the system".

Many indicators point to this excess capacity (see table 2). For instance, efficiency indicators – such as cost-to -income ratios (around 69% in the euro area, and 60% in the United States) or branches per population (44 per 100,000 inhabitants in the euro area and 26 in the United States) illustrate this overcapacity.

Table 1
Some comparative indicators of the US and Euro Zone banking sector

	Euro area	United States
Size of banking system (% of GDP)	280%	91%
RoE (avg 2013–17)	4.5%	9.0%
Cost–to–income	69%	60%
Branches (per 100,000 inhabitants)	44	26
Publicly traded banks (% of total assets)	52%	78%

Source: F. Restoy, «The European Banking Union: Achievements and challenges", Fundacion ICO, 2018

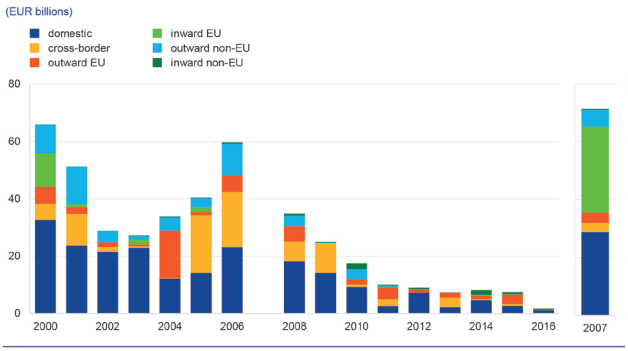
Banks in Europe therefore have to face a much more competitive environment than in the United States and therefore a much stronger pressure on their margins. Moreover, lasting low interest rates have negative consequences on EU banks profitability - it compresses net interest margins - which penalizes them vis-à-vis their American counterparts. Indeed, the target federal funds rate is currently 2.25 - 2.5% in the United States while the ECB interest rate on the main refinancing operations (MRO) is at 0% since more than 4 years.

1.3. Not concentrated enough

Bank Merger & Acquisition (M&A) transactions within the Euro Area have been on a steadily declining trend, both in terms of number and value, since the year 2000 (see charts 3 and 4). Cross-border merger and acquisition activity among banks within Europe have practically disappeared. Indeed, bank Merger and Acquisition within the euro area has been on a steadily declining trend both in terms of number and value, since the year 2000.

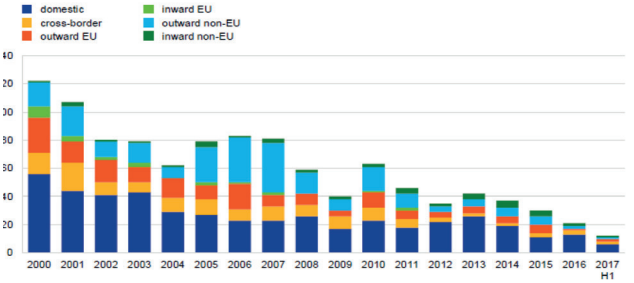
The EU banking system is much less concentrated that the US one: the market share of the top five US banks within the United States was more than 40% in 2016, whereas the market share in the Eurozone of the top five European banks stands at more or less 20%.

Chart 3
Bank M&As involving euro area banks – value of transactions



Sources: Dealogic and ECB calculations.
Notes: "M&As" refers to transactions where the acquired stake is more than 20% of the target bank. The data do not cover participation by governments or special legal entities in the restructuring or resolution of credit institutions. Transactions whose amounts are not reported are excluded. "Domestic" refers to transactions that take place within national borders of euro area countries. "Cross-border" M&As involve euro area targets and non-domestic euro area acquirers. "Inward" refers to M&As by non-EU or non-euro area EU banks in the euro area and "outward" indicates M&As carried out by euro area banks outside the euro area.

Chart 4
Bank M&As - number of transactions in the Euro Area (ECB 2017)



In 2018, there were only $5,0 bn of mergers between European banks, the lowest level for man than a decade and a tiny fraction of the €193,8 bn of such deals done on the eve of the financial crisis in 2007, according to date from Dealogic[2].

2. Why have we seen such a decline in banking M&As?

For three major reasons:

- Until now, the largest banks (GSIBs) are penalized in terms of their capital requirements in proportion of their size (G-SIB buffer). One can understand why they do not wish to be bigger given these disincentives. At the same time, regulation fails to fully acknowledge the prudential benefits associated with the geographical diversification of exposures;
- Furthermore, in an environment where digitalization and fintech challenges may be seen as a higher priority in a time of business reassessment, the largest banks are reluctant to absorb banks burdened with NPLs all the

[1] IMF, Global Financial Stability Report, October 2017.
[2] Two- thirds of Europe's banking consolidation in 2018 was from domestic deals, such as Banco Santander's takeover of Banco Popular for €1 in June or Intesa Sanpaolo's acquisition of two failed domestic rivals in Italy's Veneto region for a token price. The value of European cross-border deals done in 2017 exceeds all such deals agreed in 2018.

more so since a European securitization market is still underdeveloped due again to regulatory constraints. One can add that another obstacle to merger activity is the structure of the banking industry: only 30% of the significant banks in the euro zone (directly supervised by the SSM) are publicly traded companies. Most of the non-listed banks in the Eurozone are saving banks, regional banks or cooperative banks;

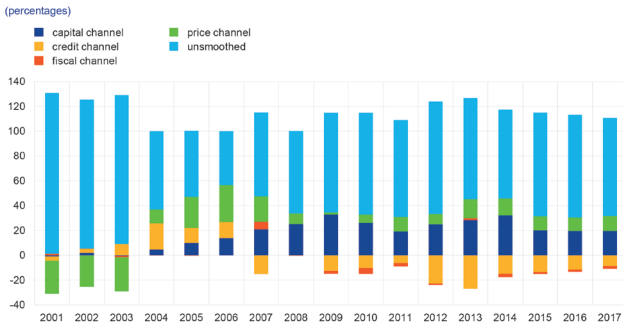
- Lastly the EU legislative prudential framework does not recognize trans-national groups at the consolidated level but as a sum of separate subsidiaries ("national or solo approach") notably due to the insufficient trust of Member States vis a vis the institutional set up of the Banking Union. Moreover, ring-fencing policies (capital, liquidity, bail-in instruments, leverage ratio...) by host supervisors, applied to subsidiaries of transnational banking groups, which are located in their countries, discourage large EU banks to increase the number of their subsidiaries in the EU.

Finally, in the current political context, no State would be happy to see the disappearance of one of its banks due to a takeover by a bank in another European country.

3. Overall, since 2007, the credit channel (i.e. cross-border lending and borrowing) has been acting in the euro area as a sock amplifier rather than a shock absorber (see chart 5)

Chart 5

Consumption risk sharing in the euro area and its channels



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

Whereas they used to be mostly cross-border in the pre-crisis period, they have increasingly become of a domestic type. Furthermore, as unveiled in research by Raposo and Wolff (2017), domestic M&A transactions have become increasingly of a 'controlling participation' type, whereas cross-border transactions have become increasingly of a 'minority participation' type. Certainly, all of this was, to some extent, driven by the post-crisis inward-looking bank restructuring strategies put in place by supervisors and Member States.

According to A. Enria[3], overall, since 2007, the credit channel (i.e. cross-border lending and borrowing) has been acting in the euro area as a shock amplifier rather than a shock absorber.

Private risk sharing has indeed been impaired in the euro area, and a fortiori in the EU. This should be a concern, as it is through risk-sharing channels that the overall system becomes, at the same time, more resilient and more productive.

4. What are the consequences of this geographical nationalization of the European Banking system and regulatory framework?

As explained by Jacques de Larosière in a speech delivered in October 2018 at the European Financial Committee, the consequences of this fragmentation are severe and notably mean:

- Weak profitability of banks (in 2017, the return on equity was 3,9% on average in the European Union as opposed as 9,5% in the United States) at a time of particularly rapid technological innovation. Only banks with healthy profits can invest in technology, talent and scale;
- Reducing costs through economies of scale is more difficult and in addition, there is much less transfer of technology and knowledge;
- Competitive disadvantage for Pan-European banks versus US ones, which benefit from a large domestic base;
- The EU resistance to asymmetric shocks is weaker (in the United States the capital and credit markets absorb alone more than 50% of the consumer impacts; in Europe is only 10% because of the lack of capital mobility and of credit which stay within national borders. In total, including the fiscal element, more than 2/3 of the shocks are absorbed in the US whereas it is only 1/5 in Europe.

Conversely further banking integration would foster resilience against economic shocks. A geographically diversified loan book and deposit base make banks less vulnerable to domestic banks and thus reduce the volatility of their lending and income streams; private risk sharing via the banking channel would thus be made possible by a higher degree of risk diversification enabled by diminishing the domestic bias, be it in the shareholding of banks, in the attribution of credit or in the detention by banks of domestic sovereign debt.

It is evident that « ring fencing » is a significant contribution to explain these consequences. If we continue to

[3] A. Enria, "Fragmentation in banking markets: crisis legacy and the challenge of Brexit", Speech, BCBS-FSI High Level Meeting for Europe on Banking Supervision 17 September 2018.

condone ring-fencing and hinder cross-border banking consolidation, the risk is to see banking groups split into branches instead of subsidiaries.

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Despite remarkable achievements in terms of balance sheets cleaning, regulatory harmonisation, and deepening institutional integration within the Banking Union, where the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM) are up and running, financial integration is lagging behind. The Banking Union is failing to provide the degree of financial integration that we would have expected. Rather than smoothing idiosyncratic shocks to individual Member States, the banking sector still operates as a shock amplifier.

If the EU wants to keep up with the US and China economically as well as politically, it must break out this downward spiral and strengthen its banking industry. Only competitive and profitable banks can take on the risks necessary to finance sustainable growth. This is why a financial integration agenda for the Banking Union should rank high among the priorities of legislators and authorities for the next five years. ■

Addressing ring-fencing issues in the Banking Union

The Banking Union has been successful in promoting a more resilient banking sector. However, there are remaining steps towards an effective Banking Union. The quality of banks' assets has significantly improved, but the legacy of non-performing loans is still weighing on a number of banks. The sovereign- loop remains active in peripheral countries. Moreover, the Banking Union is failing to deliver an integrated domestic a market for banking business. Despite the implementation of the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM), the banking sector in Europe is fragmented, not concentrated enough and oversized. And there are obstacles to the integrated management of bank capital and liquidity within cross-border groups operating in the Banking Union.

1. **In an effective Banking Union, there should no longer be any distinction between home and host supervisors for banks operating across borders and the possibility of "national bias" playing a part in regulation or supervision should be eliminated**

The distinction between home and host supervisors and the "national bias" still exists for banks operating across borders in the Banking Union. Indeed, regulators still believe that capital and liquidity will be trapped in individual Member States if a pan European banking group fails and are still concerned by the vicious "State-Bank" circle, which still exists in certain EU Countries. This perception is particularly acute in countries that are strongly dependent on foreign banks for the financing of their economies. This lack of trust between national authorities is one of the most damaging legacies of the recent financial and sovereign debt crises.

In addition, the EU legislative prudential framework does not recognize trans-national groups at the consolidated level but only as a sum of separate subsidiaries ("national or solo approach") notably due to the insufficient trust of Member States vis a vis the institutional set up of the Banking Union.

Consequently, ring-fencing policies are applied to capital, liquidity and bailinable liabilities. This clearly distorts the functioning of free banking markets, fragments them, contributes to the low profitability of banks in the EU and impedes 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 can rely on a large unified domestic market.

In addition, defining prudential requirements at group level should contribute to enhancing 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 resources from the parent company. If all resources have been pre-allocated, it is unlikely that any local supervisor would accept that internal MRELs located in their jurisdiction should 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.

2. **The main conditions for the abandonment of the "national and 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 ("the outright group support"). This "outright group support" would consist of mobilizing the own funds of the Group to support any difficulties of a subsidiary located in the euro area. Since the level of own funds and the creation of MRELs have considerably increased the solvency of EU banking groups, they should be able to face up to any difficulty of their subsidiary located in the euro area. This group support should be based on EU law and enforced by EU authorities. 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 order to create a climate of confidence and trust, host countries should be associated and involved upstream in the establishment of living wills.

In addition, if the group was to go into liquidation (and not only local subsidiaries), a European approach to the liquidation of these transnational banking groups is also required. Indeed, even though these transnational banking groups are supervised at the EU level and the impacts of this liquidation would impact the whole euro area, liquidation is still managed at the national level (entity by entity) and this can require the 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 the addressing of possible costs at the EU level. In an interim stage one solution could 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.

An alternative solution could be to facilitate the validation by supervisory authorities of the transformation of subsidiaries into branches for banking groups who wish to operate in a more integrated way. This requires that the national supervisors and Parliaments should receive the necessary information to understand the risks national depositors are exposed to from these branches and the possible impacts on the financing of their economies. This may require developing specific reporting instruments and processes for the local authorities to continue to be able to appropriately supervise local activities and thus contribute to supervisory decisions taken at the SSM level that may impact their jurisdiction.

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

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

Developing an EU resolution approach for SSM banks

Yet the Banking Union remains fragmented and incomplete, which weakens the global competitiveness of European banks and raises dysfunction risks in the face of a future shock.

Banking markets are still fissured along national borders. Ring fencing should no longer be an issue in the Banking Union as there is now a single supervision authority and a single resolution authority which together unite all the National Competent Authorities. However, Member States insufficiently trust the institutional set up of the Banking Union. Indeed, they believe that capital and liquidity will be trapped in individual Member States if a pan European banking group fails. It is therefore essential to address the concerns of "host countries" vis a vis the EU crisis management framework (see the Eurofi paper on "Optimising the Banking Union") in order to define prudential requirements for the pan European banking groups at the consolidated level and to abandon the "national and solo approach".

Beyond the current issues that are being discussed at the EU level (governance arrangements related to the the backstop to the Single Resolution Fund, liquidity after resolution, reduction of Non-Performing Loans ...), progress is required on several fronts.

Finding a pragmatic agreement between the SSM and host national authorities on ways to abolish ring-fencing

In this perspective, a pragmatic agreement must be found between the SSM and host national authorities on ways to abolish ring-fencing by agreeing to arrangements by which the host authorities have legal guarantees in case of banking difficulties. These guarantees, provided, as an option, by the parent company of transnational groups to their subsidiaries, should be agreed on now and in advance of possible future crises. In order to create a climate of confidence and trust, host countries should be associated with and involved upstream in the establishment of living wills.

Making more predictable the resolvability of failing banks whatever their size by a common application of the "public interest criteria"

Moreover, a common application of the "public interest criteria" by the Single Resolution Board, the EU Commission and the national Resolution Authorities would make more predictable the resolvability of failing banks whatever their size. As evidenced by some recent liquidation cases, whether the resolution of a bank (that has been deemed failing or likely to fail) is in the public interest or whether a bank should be liquidated in the absence of a public interest has however been assessed differently at the EU and at a national level based on the current legal framework.

The Veneto banks cases[1] have proved the importance of national insolvency law when triggering resolution actions. Depending on national insolvency law, resolution actions may be undertaken at a national level despite the absence of a 'public interest' determined at the EU level by the Single Resolution Board.

Balancing liability and control in the Banking Union

In terms of control or policy coordination, the SSM and SRM are responsible for bank supervision and resolution, while bank liquidation and government bail outs are still executed by Member States under national law for banks that are not considered of "public interest" by the Single Resolution Board. This can only reinforce the lethal link between the banks and the state and lead to a different treatment among the creditors of the same type in case of liquidation.

In terms of liability, the European level now bears part of the cost of bank failures: in addition to losses imposed on the private sector via bail-in, a Single Resolution Fund (SRF) and its backstop are being established. However, a part of the potential costs still lies with Member States since possible costs in the case of bank liquidation remain addressed entity by entity at the national level. Addressing this striking asymmetry between the supervision and the resolution at the EU level while, on the other hand, the liquidation of failing or likely to fail banks is managed at the national level (entity by entity) is therefore urgently needed.

Aligning the EU crisis management framework and national insolvency laws

The significant diversity of national insolvency regimes remains a key challenge for the EU. K. Knot in his interview for the Eurofi Magazine reminds us that "different frameworks imply different options and outcomes in insolvency for similar banks, dependent on the Member State in which they are located. And because the outcome of liquidation through insolvency can be different, it also confronts supervisors and resolution authorities with country-specific trade-offs in determining whether the application of resolution tools is warranted to safeguard the public interest in particular cases".

Given the impossibility of harmonising all insolvency laws, it would be as a minimum highly desirable and possible to align the outcomes of insolvency law in the EU to ensure their full consistency with the EU resolution regime.

We should indeed align the EU crisis management framework and national insolvency laws. Currently, a bank that is declared failing or likely to fail under the BRRD and the SRM Regulation does not always meet the conditions that would make it subject to national insolvency proceedings. In fact, under national legislation present and actual illiquidity is usually required if insolvency proceedings are to get under way. But at the European level, not only actual but even likely illiquidity can be grounds for declaring a bank failing or likely to fail.

In addition, the EU crisis management framework should avoid situations whereby creditors of the same type in subsidiaries are treated differently or be seen as discriminated against. Furthermore, it could happen that some medium size banks under the SSM supervision might have in difficulty in raising on acceptable conditions the required level of MRELs. In that case the relevant banks could in principle only be liquidated and the possible ultimate outcome might well be to resort again to the old national bail-out if governments fear a disorderly liquidation.

Completing the Banking Union

Following the EU political agreement on the backstop to the Single Resolution Fund, the European Deposit insurance Scheme (EDIS) remains one of the missing pieces of the Banking Union. All depositors should enjoy the same level of protection in the euro area. In this way, the European Deposit insurance Scheme would underpin stability in the banking sector by providing strong and uniform insurance coverage for all such depositors, independent of their geographical location in the Banking Union.

A possible way forward on EDIS is proposed in the Eurofi paper "The protection of deposits in the EU: Pros and Cons and a possible way forward" (see following note). Reaching an agreement on the deposit insurance mechanism would show inter alia that political commitments taken in 2012 have been fulfilled.

Such an agreement would increase the credibility of the Banking Union even if it would not solve all issues related to the strong differences in national insolvency regimes ■

[1] The Veneto banks - which did not pass the SRB's 'public interest test' that is required for a bank to be 'resolved' at the EU-level - have been liquidated through a special insolvency procedure under Italian law. That special insolvency procedure involved resolution tools and state aid. Albeit the SRB concluded that the resolution was not warranted in the 'public interest', the Commission indicated that EU state aid rules foresee the possibility to grant State aid to mitigate any economic disturbance at the regional level. Those liquidation cases have highlighted the existence of what Andrea Enria, Chair of the European Banking Authority (EBA) called "two different definitions of "public interest" [...] one at the EU level and another one by national authorities".

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).

Further to the Franco-German declaration of Meseberg and a decision of the heads of government of last year a High Level Working Group has now been established at the Council in order to consider ways forward on the political level since it seems that all the technical details and options of a European deposit scheme have been laid out in the council discussions. The HLWG is supposed to present its report in June and has been given a broad mandate, acknowledging the fact that any European deposit guarantee scheme has to be embedded in a wider context, dealing with legacy issues, existence of any backstops and the general set-up of the Economic and Monetary Union.

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.

Reaching an agreement on the deposit insurance mechanism would also show inter alia that political commitments taken in 2012 are fulfilled.

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. RISK MITIGATION AND FINANCIAL STABILITY CHALLENGES

Key macro and micro risks that may affect EU financial markets

Ten years have passed since the onset of the worst financial crisis since the Great Depression. Since then, historically low, even negative, interest rates and unprecedentedly large central bank balance sheets have provided important support for the global economy. Persistently low interest rates facilitated notably a deleveraging in those countries and sectors that were at the epicenter of the crisis – in particular, households and banking sectors in major advanced economies.

The last financial crisis was activated by rapid leveraging, particularly in the US but current global leveraging is moving faster than during the pre-crisis period. Financial conditions are indeed easier than before the Great Financial Crisis (GFC) when many investors, households, corporations and sovereigns were caught out in the rain with no umbrella. But, lasting very low interest rates have triggered a continuous rise in the global stock of debt, private and public. The world is now 12 per cent of GDP deeper than the previous peak in 2019. Experience shows that in a cyclical upswing, it is wise to raise interest rates in order to create margins to reduce them when the next recession comes.

The most damaging consequence of the crisis has probably been the postponement of the implementation of pro-growth structural reforms. Accommodative financial conditions cannot boost long-run growth potential. Implementing growth-friendly structural reforms will become harder as monetary accommodation is withdrawn. And there is no denying that the room for manoeuvre in terms of monetary and fiscal policies is narrower today than 10 years ago. In addition, the continued growth of nonbank finance requires further efforts to properly monitor risks and react appropriately through regulation and supervision.

1. **Considerable progress has been 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. 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.

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

Persistent low funding costs and the search for yield environment can lead to the mispricing of risks and encourage excessive risk taking.

Lasting very low interest rates have triggered a continuous rise in the global stock of debt, private and public, in relation to GDP. Global debt is at historic highs. Total nonfinancial sector debt—borrowings by governments, nonfinancial companies, and households—has expanded at a much faster pace than the growth rate of the economy. As a result, total nonfinancial debt in countries with systemically important financial sectors stands in 2017 at $167 trillion, or over 250 percent of aggregate GDP[2], compared with $113 trillion (210 percent of GDP) in 2008. The world is now 12 percent of GDP deeper in debt than at the previous peak in 2009.

Non-financial companies have dramatically increased their borrowing in the form of corporate bonds[3]. According to a recent paper issued by OECD[4], between 2008-2018, global corporate bond issuance averaged USD 1.7 trillion per year, compared to an annual average of USD 864 billion during the years leading up to the crisis. The risks and vulnerabilities in the corporate debt market are also significantly different from those of the previous pre-crisis cycle. The share of lowest quality investment grade bonds stands at 54%, a historical high. At the same time, in the case of a financial shock similar to 2008, USD 500 billions' worth of corporate bonds would migrate to the non-

[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] Figures quoted in the Global Financial stability Report, IMF, Oct 2018.
[3] The sustainability of public debt in the EU is analysed in a separate note since a specific session is dedicated to this topic.
[4] OECD, "Corporate markets in a time of unconventional monetary policy", February 2019.

investment grade market within a year, forcing sales that are hard to absorb by non-investment grade investors.

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 rates 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. Indeed, over extended corporations can experience difficulties to service their debt when growth slow down.

Looking ahead, a sharp tightening of global financial conditions could be trigged by a further escalation of trade tensions or by a sudden shift in risk sentiment caused by rising geopolitical risks or policy uncertainty in major economies (For example, uncertainty about fiscal policy in some highly indebted euro area countries could damage confidence in financial markets).

3. The toolkit needs to keep pace with new developments in the non-bank financing area

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.

M. Draghi stated[5] that "non-bank finance is playing an increasingly important role in financing the economy. The shadow banking sector[6] accounts for around 40 per cent of the EU financial system, with total assets of just over €42 trillion. As the Capital Markets Union (CMU) progresses, the role of non-bank finance is expected to increase further.

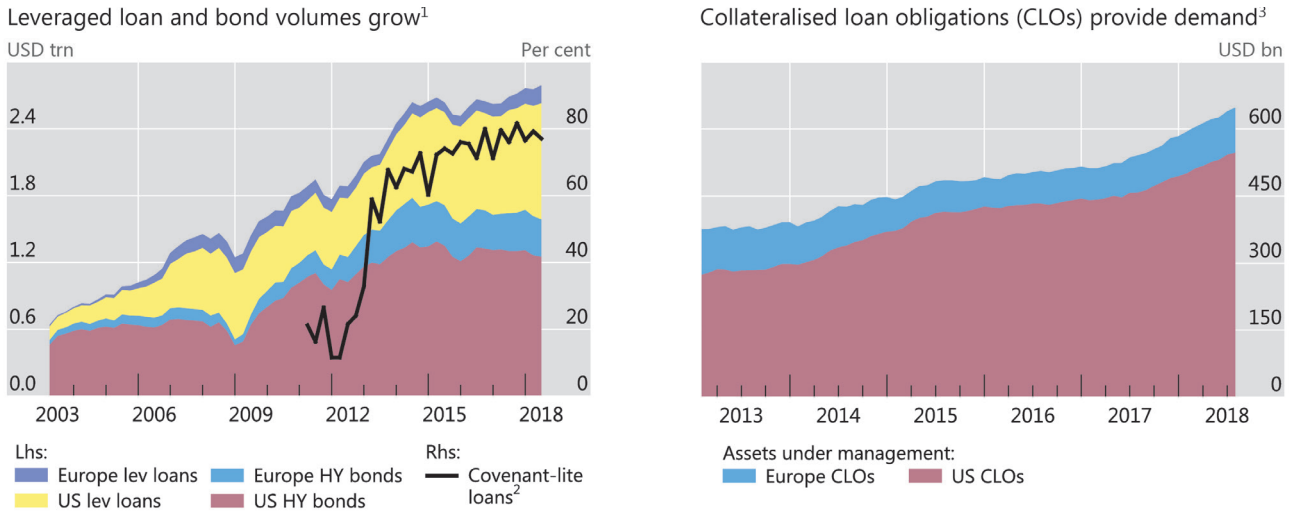
Certain asset management products and activities may create potential financial stability risks particularly in the area of liquidity and redemption, leverage, operational functions, securities lending, and resolvability and transition planning. Many of these risks are now mitigated by funds legislation notably in the EU.

Strong demand for high yield debt has been accompanied by lower covenant protection for lenders/investors

Over the past decade, we have seen, in the current intense search for yield, both nationally and internationally, often reflecting excessive risk-taking by investors. This has dramatically compressed risk premia, including term premia and credit risk premia in corporate and EME sovereign yields.

In a recent speech[7], A. Carstens explained that In the United States and Europe, the volume of high-yield bonds and leveraged lending has picked up in recent years, and leveraged loans tend to have fewer covenants. One driver of this surge is the revival of collateralised loan obligations, which have grown steadily in volume.

Risk-taking picks up — Chart 1



[1] For institutional leveraged loans (lev loans), outstanding amounts are based on S&P/LSTA leveraged loan index (LLI) for the US, and S&P European leveraged loan index for Europe, where LSTA = Loan Syndications and Trading Association; for high-yield (HY) bonds, outstanding amounts are based on the USD high-yield ICE BofAML index for the US and the EUR high-yield ICE BofAML index for Europe. [2] Based on US market deals. [3] "US CLOs" covers USD-denominated issuances and "Europe CLOs" EUR-denominated issuances.

Source: A. Carstens, "Shelter from the storm", Seminar at the European Stability Mechanism, Luxembourg, 7 December 2018.

[5] M. Draghi, "Welcome remarks at the third annual conference of the ESRB", Frankfurt, 27 September 2018.

[6] The EU shadow banking measure includes all assets of the financial sector except those of banks, insurance corporations, pension funds, and central counterparties (CCPs). Within the EU shadow banking system, investment funds account for about one third and so-called other financial institutions (OFIs), including securitisation vehicles, account for the remainder.

[7] A. Carstens, "Shelter from the storm", Seminar at the European Stability Mechanism, Luxembourg, 7 December 2018.

According to the Financial Stability Board[8], roughly $1,4 trillion in institutional leveraged loans, or loans purchased by institutional investors other than syndicate banks, was estimated to be outstanding globally as of October 2018. This outstanding amount of leveraged loans is even higher if the amount that syndicate banks retain on their balance sheets (which includes revolving credit facilities, letters of credit and certain term loans) is taken into account[9]. Available data suggest non-banks purchase the vast majority of leveraged loans in the primary market and therefore have greater exposure to potentially adverse market developments.

4. Improving macroprudential tools for reducing 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. The development of a macroprudential perspective and the creation of macroprudential authorities in many countries has contributed to a more holistic assessment of risks in the financial system, including the nonbank sector. 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.

Macroprudential instruments in the EU are for the most part aimed at the banking sector, given the predominance of bank-based finance at the time that the initial response to the global financial crisis was designed.

But as explained by Claudio Borio[10], 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. 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.

According to M. Draghi, the policymakers' ability to mitigate the risks related to the development of non-bank financing, is hampered by an incomplete toolkit. Policymakers need a comprehensive macroprudential toolkit to act in case existing risks migrate outside the banking sector or new risks emerge. And that means widening the toolkit so that policymakers can effectively confront risks emerging beyond the banking sector. Additional tools should deal with liquidity risk and those risks associated with leverage among some types of investment funds. Fund managers themselves also need to be given a broader range of tools to better manage such risks. The wider toolkit includes, according to M. Draghi, macroprudential tools for insurance.

5. Monetary policy normalization is essential

Monetary policy normalization is important 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.

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.

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. ■

[8] Financial Stability Board, "Global Monitoring Report on Non-Bank financial Intermediation, 4 February 2019.

[9] The total market size of leveraged loans is difficult to estimate given that: (i) leveraged loans are private, and therefore transaction data in some cases are not publicly available (in particular for the middle market and direct lending segments, where leveraged loans typically are bilateral or not broadly syndicated); and (ii) commercially available data sources vary in methodology and coverage.

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

Are sovereign debts sustainable in the EU?

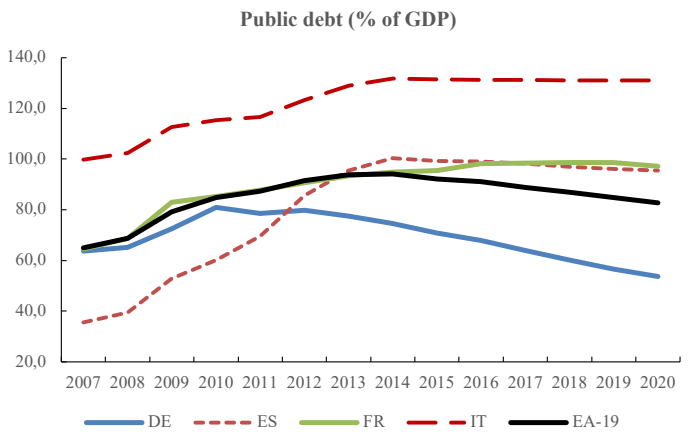
1. Public debt vulnerabilities remain high in a small set of-mainly large- European economies

At an aggregate level, EU public finances compare positively to other advanced economies. The euro area government debt ratio has been decreasing since 2014 and reached less than 87% of GDP in 2018. At the same time, some other advanced economies exhibit much higher ratios (around 238% of GDP in Japan and around 106% of GDP in the United-States).

Fiscal positions of EU countries have improved visibly since 2016. All Member States, except Spain, have exited the Excessive Deficit Procedure (EDP), compared to 24 Members in EDP 2011.

But challenges remain in the European Union. The public debt is high in the euro zone excluding Germany. Fiscal risks are essentially concentrated on a small set of - mainly large - European economies. If most EU Member States have successfully managed to reduce their debt ratio over the last few years (notably in Austria, Netherlands and Finland), other countries – such as Italy, France, Spain and Belgium – are still faced with increasing or not sufficiently receding government debt ratios (see Chart 1).

Chart 1
Debt Divergence: in France and Italy public debt keep rising as other countries cut back



Source: Commission services

Although Italian debt is significantly higher than that of France (130% versus 100% of GDP in 2018), unlike Italy, France has had a primary budget deficit for several years and its debt is mainly held by non-residents.

Table 1

(1)	GG debt (% GDP)*		
	2007	2012	2018
BE	87,0	104,3	101,4
DE	63,7	79,9	60,1
EL	103,1	159,6	182,5
ES	35,6	85,7	96,9
FR	64,5	90,6	98,7
IT	99,8	123,4	131,1
PT	68,4	126,2	121,5

Table 2

(2)	Budgetary balance (% GDP)		
	2007	2012	2018
BE	0,1	-4,2	-1,0
DE	0,2	0,0	1,6
EL	-6,7	-8,9	0,6
ES	1,9	-10,5	-2,7
FR	-2,6	-5,0	-2,6
IT	-1,5	-2,9	-1,9
PT	-3,0	-5,7	-0,7

Table 3

(3)	Primary balance (% GDP)		
	2007	2012	2018
BE	4,0	-0,6	1,4
DE	2,9	2,3	2,5
EL	-2,2	-3,8	3,9
ES	3,5	-7,5	-0,3
FR	0,1	-2,4	-0,8
IT	3,3	2,3	1,7
PT	-0,1	-0,8	2,7

Table 4

(4)	GG expenditure (% GDP)**		
	2007	2012	2018
BE	48,2	55,9	52,0
DE	42,8	44,3	43,8
EL	47,1	55,7	47,6
ES	39,0	48,1	41,1
FR	52,6	57,1	56,2
IT	46,8	50,8	48,1
PT	44,5	48,5	44,0

Source: Commission services
* General government consolidated gross debt
**Total expenditure general government

In addition, even though these expansive fiscal policies were put in place a long time ago in these highly indebted countries, they failed to increase their potential growth because they did not carry out sufficient structural reforms (of the labour market, the education system, support for innovative companies, etc.).

As long as we do not understand notably in indebted countries (France, Italy, Spain etc) that excessive debt is a source of under competitiveness, the economic situation will continue to deteriorate in these countries. Only domestic structural reforms can resolve structural issues and increase productivity and growth. It is an illusion to try to solve the structural problems of our economies by a prolonged increase in public or private debt. Yet this is what we have tried to do by pursuing lax fiscal, monetary and political policies that pose systemic risks to financial stability and therefore to future growth.

France and Italy notably are suffering from a supply problem, due to the decline in industrial production capacity, the deterioration in cost competitiveness, the low level of labour force skills and the low level of potential growth, especially in Italy. When demand increases in France and Italy, this increase in demand mainly leads to an increase in imports and not in domestic production. Increasing fiscal deficits in these countries could only lead to a noticeable rise in interest rates that may threaten fiscal solvency and dampen private sector demand.

In such a context, France urgently needs to rebalance its public accounts in order to reduce the excessive level of tax and contributions which are detrimental to the competitiveness of French companies. What is needed is a reduction of public expenses, which represented in 2018 56% of GDP compared to 41% in Spain or 43% in Germany (as illustrated in Table 4 on the previous page) and not a lesser increase.

Italy, for its part, needs to increase its potential output and reduce public debt, which represents a major potential source of financial spill over for the rest of the euro area. No illusions should be held over the capacity to stimulate demand in these highly indebted euro-zone countries.

2. The economic consequences of high government debt

We cannot see any positive outcome of the situation of high public debt in certain EU countries, notably considering the budgetary costs of population ageing (pensions, healthcare). For the public finances, higher rates increase the cost of the debt and make it more difficult to reduce the debt-to-GDP ratio. Higher long-term interest rates and a re-pricing of sovereign risk may reignite government debt sustainability concerns in the absence of further reforms and consolidation efforts.

In its Economic Bulletin (Issue 3/2016), the ECB explains the significant economic challenges raised by high government debt.

First a high government debt burden makes the economy more vulnerable to macro-economic shocks and limits the room for counter-cyclical fiscal policy. For instance, a rise in long-term interest rates may reignite pressures on more vulnerable sovereigns, thereby triggering a sovereign risk re-pricing.

Second a high government debt entails the need to sustain high primary surpluses over long periods, which may be difficult under fragile political or economic circumstances. Indeed, high primary surpluses are difficult to maintain under adverse economic conditions.

Third theoretical and empirical literature suggests that high government debt burdens can ultimately impede long-term growth. This is particularly the case when it is contracted to finance unproductive expenses. While country heterogeneity plays an important role, several studies reveal that detrimental growth effects may appear at levels of around 80-100% of GDP.

3. Favourable macroeconomic conditions and an accommodative monetary policy should be used to re-build fiscal buffers

The more limited room for policy manoeuvre on the monetary policy and fiscal sides relative to pre-crisis should give us cause for reflection. In high-debt countries, failure to reduce government debt increases the risk of heightened market pressures, which could have negative spillover effects on other Member States. Hence, in a context where uncertainties remain high - both on the external and domestic sides - Member States need to run prudent fiscal policies to ensure sound public finances in the short to longer term.

In several countries, public debt levels have not decreased, or have done so at a slow pace, and remain close to their historical peaks. Close to 90% of GDP at the euro area aggregate level in 2018, public debt ratios linger around 100% of GDP in Belgium, Spain, France and Cyprus, and around 130% of GDP in Italy and Portugal. Several countries remain therefore exposed to unfavorable shocks.

According to the Fiscal Sustainability Report (FSR 2018) published by the EU Commission, EU and EA overall debt ratios are projected to remain in 10 years' time above their pre-crisis levels, and well above the 60% of GDP Treaty reference threshold. These remaining important debt-vulnerabilities impede the mobility of cross border capital flows within the EU and expose highly indebted Member States to unfavourable shocks, in particular to hikes in interest rates. For instance, an increase of market interest rates of 100 basis points (combined with lower economic growth), compared to the baseline scenario, would raise public debt ratios by around 10 pps. of GDP or more in high-debt countries. Stabilising public debt in a higher interest rate environment would thus require larger fiscal efforts.

This analysis of the EU Commission also states that seven countries are deemed at high fiscal sustainability risk in the medium-term, as a result of inherited high post-crisis debt burdens, weak projected fiscal positions in some cases, and / or sensitivity to unfavorable shocks. This concerns Belgium, Spain, France Italy, Hungary, Portugal and the United-Kingdom. In five additional countries, namely

Croatia, Cyprus, Romania and Slovenia, medium-term fiscal sustainability risks are deemed medium.

4. The debt rule in the EU fiscal framework has effectively not been implemented since the start of the EMU

All 28 EU member states are committed by the paragraphs in the EU Treaty, referred to as the Stability and Growth Pact (SGP), to implement a fiscal policy aiming for the country to stay within the limits on government deficit (3% of GDP) and debt (60% of GDP); and in case of having a debt level above 60% it should each year have a declining trend.

However, the Stability and Growth Pact regarding debt criteria has effectively not been implemented since the start of the EMU. In 2007, a number of countries recorded government debts to GDP ratios. Despite the different reforms which took place after the sovereign debt crisis[1], the public debt ratio in significant European Union countries continues to increase and is approaching 100% of GDP or even more in certain Member States.

Looking ahead, it should be ensured that compliance with the requirements of the debt reduction benchmark is not unduly delayed. This requires complementary policy action. A monetary union is not workable without economic convergence and fiscal discipline. The enforcement of the Stability and Growth Pact has been too lenient since 2003. EU Fiscal rules need to be enforced more rigorously and should be more binding and effective. By converging towards lower levels of government debt and regaining fiscal buffers, the euro area will increase its resilience and fiscal space to cope with potentially adverse economic shocks in the future. ■

[1] A reform (part of the 'Six-Pack') amending the Stability and Growth Pact entered into force at the end of 2011. Another one, the intergovernmental Treaty on Stability, Coordination and Governance, including the Fiscal Compact, entered into force in early 2013. A regulation on assessing national draft budgetary plans (part of the 'Two-Pack') entered into force in May 2013.

Challenges posed by the sovereign-bank loop in the EU

The sovereign debt crisis that erupted in the euro area in 2010 highlighted again the fact that bank risk and sovereign risk are closely intertwined. Sovereigns were indeed exposed to banking risk, and banks were exposed to sovereign risk.

Therefore, a major objective of the Banking Union was to weaken the feedback loop between banks and sovereigns so that increases in banks' credit risk would no longer be reflected in sovereign risk and, conversely, banks' financing costs would no longer be driven by their sovereign's creditworthiness.

However, 7 years after its creation, the Banking Union has not succeeded in breaking this vicious circle. The quantitative easing policy of the ECB has even extended this loop to the central banks with large holdings of government bonds purchased. A solution could be a change in the regulatory treatment of sovereign exposures but there is no momentum for changing this framework. Fiscal discipline would therefore be the main component of a possible solution for reducing this sovereign-bank loop.

1. The feedback loop between banks and their sovereigns escalated the financial crisis in Europe into a sovereign debt crisis

The sovereign debt crisis that erupted in the euro area in 2010 highlighted again that bank risk and sovereign risk are closely intertwined. In some countries (Ireland, Spain), the problems arose from a major and unsustainable growth in bank lending, as well as from poor risk management. In these countries, the central government had to provide substantial financial assistance in order to prevent a collapse of the banking sector that would have shaken the whole financial system. In countries where the root cause of the problems was excessive government indebtedness (Greece, Italy, Portugal), domestic banks ultimately ensured their sovereign's access to financing. In both cases the outcome was identical: both banks and the sovereign ended up in significant distress, and external financial assistance was required to solve the problem.

In other words, domestic bank risk can weaken a country's public finances in case troubled banks require government support, while domestic sovereign risk can weaken bank balance sheets through banks' holdings of government debt. The feedbacks between bank and sovereign risks can lead to a `doom loop', as a result of which both banks and their sovereigns can end up in a crisis simultaneously.

The Banking Union was precisely designed to weaken this feedback loop between banks and their sovereigns. 7 years after its creation, it is appropriate to consider whether progress has been made in this area.

2. Banks' exposures to their sovereigns are still significant in certain high-indebted countries

The ESRB report on the regulatory treatment of sovereign exposure (March 2015) and the CEPR analysis of

M. Lanotte and P. Tomasino[1] show that in most euro area countries, euro area sovereign debt exposures of banks (as a proportion of total assets) were considerably larger at the inception of the Economic and Monetary Union than they are now.

After a reduction in the first half of the 2000s, banks in stressed euro area countries have gradually increased their euro area sovereign debt holdings again (as a proportion of total assets) in the last eight years (see figure 1). In contrast, banks from other euro area countries either continued to reduce or stabilised their euro area sovereign debt exposures[2].

In almost all euro area countries, the euro area sovereign debt exposure of banks is overwhelmingly towards their domestic issuer, and this home bias is particularly strong in the countries where banks' total euro area sovereign exposure is largest (as a proportion of total assets)[3].

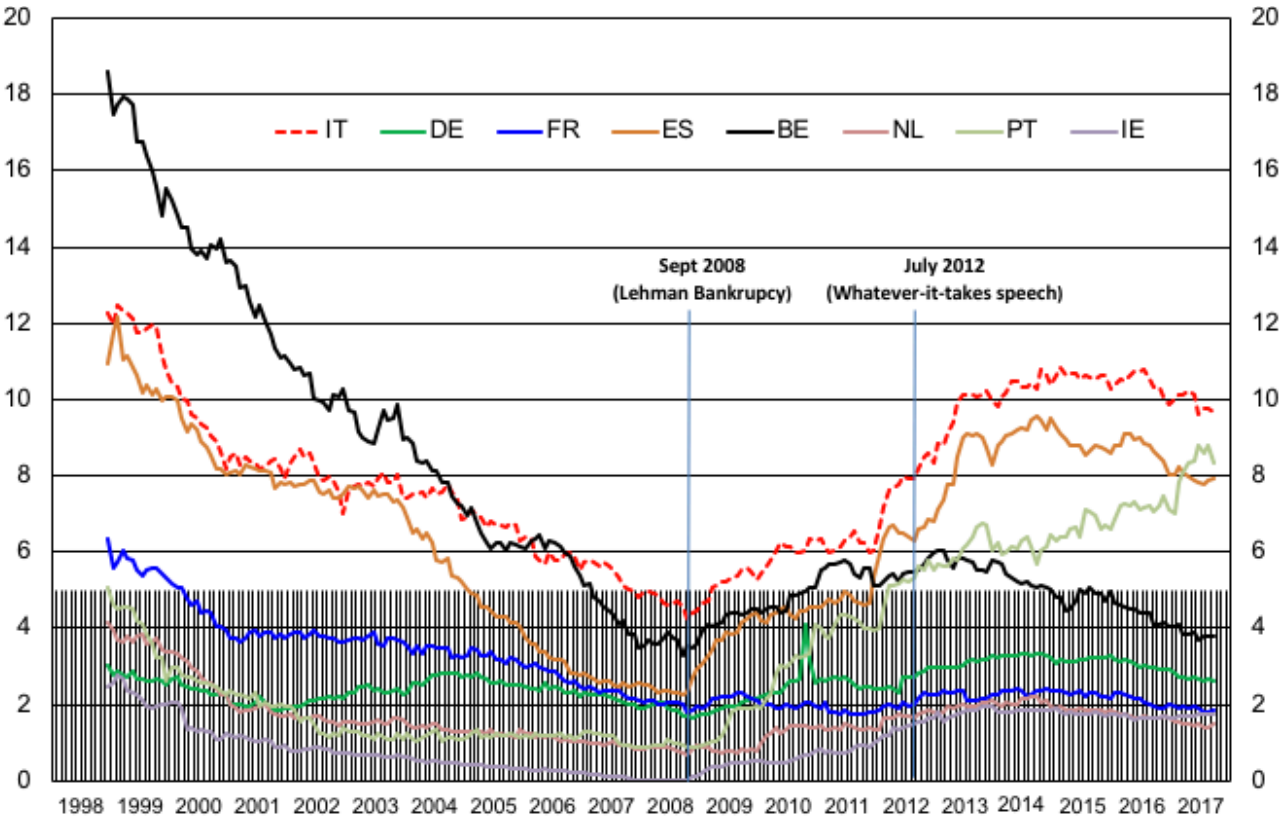
In general, banks in stressed euro area countries increased their exposure to domestic sovereign debt in response to increases in its yield. This response may have been motivated by different factors, including banks' search for yield by engaging in carry trades that take into account redenomination risk, the desire to increase holdings of liquid assets etc. For a more limited range of countries, there is also some evidence that banks in stressed countries increased their sovereign exposures in response to worsening domestic macroeconomic conditions.

According to the IMF[4], 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.

Whatever the motive, the exposure of banks in stressed euro area countries to domestic sovereign debt has increased concurrently with an increase in the risk of such debt, therefore increasing risk in these banks' balance sheets and reinforcing the banks-sovereign link, which is itself a source of systemic risk.

According to the Risk Assessment of the European Banking System issued by the EBA in December 2018, exposures to general governments have declined in particular since June 2016. Total sovereign exposure of the EU banking sector stood at EUR 3.0 tn as of June 2018, a 2% decrease compared with June 2017 and a 10% decrease compared with 2 years ago. On EU average, nearly 50% of these exposures were towards domestic counterparties (June 2018), with significant dispersion across countries.

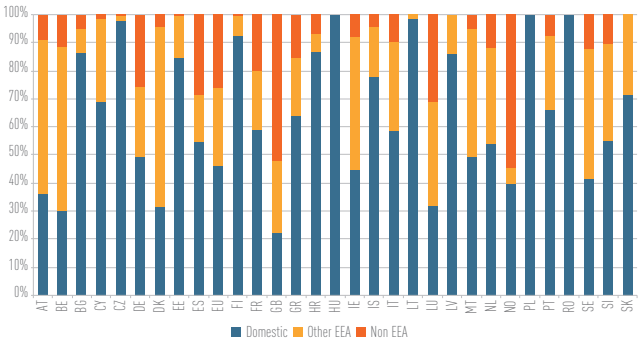
Figure 1 Banks' holdings of domestic sovereign bonds



[1] M. Lanotte and P. Tomasino, "Recent developments in the regulatory treatment of sovereign exposures", VOX, February 2018.
[2] According to the ESRB study, there is no significant difference between sovereign exposures held by systemically important financial institutions (SIFI) and non-SIFI.
[3] Italian banks are the most exposed in Europe, holding €387bn of domestic sovereign debt, equivalent tp about 10% of their total assets, according to data from the ECB.
[4] IMF, Euro area policies, article IV, July 2018

For the vast majority of these countries, foreign sovereign exposures are mostly concentrated in EEA countries, with the exceptions of Norway and the UK, where banks have at least 50% of their total exposures towards non-EEA countries (Figure 2).

Figure 2 Country distribution of exposures to general governments by their domicile – June 2018 (domestic, other EEA and non-EEA



Source: EBA supervisory reporting data

According to EBA, on average, 65% of a medium sized bank's Tier 1 capital is on the domestic sovereign, but in the whole distribution there are banks which have up to eight or nine times their Tier 1 capital on domestic sovereign.

3. The sovereign doom loop also affects central banks with large holdings of government bonds purchased as part of QE programs.

The quantitative easing policy of the ECB has led to a doubling of the Eurosystem's balance sheet from €2,150 billion at the end of 2014 to €4,620 billion in September 2018. As a result of the Public Sector Purchase Programme of the ECB, the share of government bonds held by NCBs surged in the last three years from around 5% to 15-20% of total outstanding government bonds, as illustrated in Figure 3.

Figure 3 Government debt held by central bank (as % of government debt)

	Belgium	Spain	France	Italy	Portugal	EA19
2017	12,2	17,8	14,2	16,3	10,6	15,4
2016	8,3	12,9	10,1	12,3	8,8	11,0
2015	4,4	8,3	5,5	7,8	4,5	6,2
2014	1,6	3,9	2,2	5,0	0,7	2,9
2013	2,0	3,9	2,5	5,0	0,9	2,9
2012	2,1	4,2	3,3	5,1	1,0	2,8
2011	1,9	4,7	2,5	4,9	1,1	2,5
2010	1,7	4,0	2,4	3,8	1,0	2,2
2009	1,5	4,1	2,4	3,7	0,4	2,2
2008	1,5	4,6	2,5	3,7	0,4	2,3
2007	1,5	4,8	2,5	4,0	0,4	2,4
2006	1,2	4,8	2,5	4,2	0,4	2,4
2005	1,1	5,3	2,5	4,1	0,4	2,4
2004	1,0	5,1	2,5	3,9	0,4	2,4
2003	1,0	4,9	2,5	3,7	0,4	2,4
2002	1,0	4,2	2,5	3,2	0,6	2,3
2001	1,1	3,7	2,6	4,8	0,5	2,8
2000	1,1	3,9	2,6	4,9	0,5	2,9
1999	1,1	4,2	2,6	4,7	1,2	2,8
1998	0,9	4,6	2,6	5,2	0,8	3,0
1997	0,9	4,7	2,5	6,5	1,9	3,5
1996	0,8	5,0	2,7	7,4	2,2	3,8
1995	0,8	5,8	2,9	9,2	2,6	4,5

But this policy has not reduced the vicious circle between Sovereign and banks in euro area highly indebted countries, as explained above. On the contrary, quantitative easing programs encouraged institutions to borrow cheaply from central banks and invest in government bonds with higher returns. In addition, in Italy, the end of the European Central Bank's QE program and domestic political instability — have increased the problems of financial institutions already laden with significant nonperforming loans.

The linkages between governments and banks are now extended to central banks and this casts a special light on the independence of the central banks.

In any case, the normalization of the monetary policy of the ECB should be very challenging in the absence of structural reforms in these highly indebted Member States and could still reinforce the sovereign- domestic bank nexus.

4. At the global and EU levels, there is no momentum for changing the regulatory treatment of sovereign exposures

For decades, the regulatory treatment of sovereign debt has significantly discounted and, in many cases, ignored the possibility of default on exposures that are denominated and funded in the country's own currency

In most cases, the existing treatment of sovereign exposures is more favourable than other asset classes. Most notably, the risk-weighted framework includes a national discretion that allows jurisdictions to apply a 0% risk weight for sovereign exposures denominated and funded in domestic currency, regardless of their inherent risk. This discretion is currently exercised by all members of the Basel Committee on Banking Supervision. Sovereign exposures are also currently exempted from the large exposures framework. Moreover, no limits or haircuts are applied to domestic sovereign exposures that are eligible as high-quality liquid assets in meeting the liquidity standards. In contrast, sovereign exposures are included as part of the leverage ratio framework.

EU policy makers urged regulatory actions on EU sovereign doom loop

The SSM said last year that it was vital that banks' capital regimes should reflect the risks they were taking when they held the sovereign bonds of less secure countries. The EU Commission also stressed that the eurozone should think about the concentration charges above a certain level of retention of the home sovereign. The Bundesbank has repeatedly urged regulators to impose limits on the amount of their own government's bonds that banks can hold on their balance sheets. The German Central Bank views the weakening of the sovereign bank nexus as vital for a more solid Banking Union and is reluctant to back measures such as a Europe-wide insurance scheme for deposits (EDIS) without such limits.

The Basel Committee published a discussion paper on the regulatory treatment of sovereign exposures in December 2017, but it did not reach a consensus on making any changes to the regulatory treatment of sovereign exposures

In a discussion paper issued for comments in December 2017, the Banking Committee on Banking Supervision set out some ideas regarding the regulatory treatment of sovereign exposures. It started by reviewing the existing perimeter and segmentation of sovereign exposures and presented the Committee's discussions on possible revisions to the definition of sovereign entities to ensure greater consistency across jurisdictions. It then outlined ideas related to revising the regulatory treatment of sovereign exposures. These can be grouped into three broad categories.

The first set of ideas relates to: (i) the removal of the internal ratings-based (IRB) approach framework for sovereign exposures; (ii) revised standardised risk weights for sovereign exposures held in both the banking and trading book, including the removal of the national discretion to apply a preferential risk weight for certain sovereign exposures; and (iii) adjustments to the existing credit risk mitigation framework, including the removal of the national discretion to set a zero haircut for certain sovereign repo-style transactions.

The second set of ideas relate to mitigating the potential risks of excessive holdings of sovereign exposures, which, for instance, could take the form of marginal risk weight add-ons that would vary based on the degree of a bank's concentration to a sovereign (defined as the proportion of sovereign exposures relative to Tier 1 capital).

The third set of ideas is related to the Pillar 2 (supervisory review process) and Pillar 3 (disclosure) treatment of sovereign exposures. Regarding the former, these include ideas related to guidance on: (i) monitoring sovereign risk; (ii) stress testing for sovereign risk; and (iii) supervisory responses to mitigating sovereign risk. Regarding the Pillar 3 framework, this paper includes ideas related to disclosure requirements related to banks' exposures and risk-weighted assets of different sovereign entities by jurisdictional breakdown, currency breakdown and accounting classification.

However, the Committee has not reached a consensus on making any changes to the regulatory treatment of sovereign exposures at this stage and has therefore decided not to consult on the ideas presented in the discussion paper. This has of course weakened the momentum for change in the EU because it would be contrary to maintaining an international level playing field issues.

In any case, 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. Fiscal discipline should be the essential feature of the required solution

When States are sanctioned by the market because of their excessive indebtedness, and when commercial banks are saddled with huge amounts of sovereign instruments issued by their country, the weakening of State ratings is automatically reflected in banking balance sheets. Fundamentally, the problem comes from lack of fiscal discipline, excess liquidity created by lasting loose monetary policy as well as from the lack of macroeconomic coordination, more than from banking weaknesses. Therefore, fiscal discipline in all parts of the euro area and in particular in high indebted countries would effectively improve sovereign debt sustainability and reduce the risk of sovereign-related distress.

The enforcement of the Stability and Growth Pact has been too lenient since 2003 EU. Despite the different reforms which took place after the sovereign debt crisis[5], the public debt ratio in significant European Union countries continues to increase and is approaching 100% of GDP or even more in certain Member States. Looking ahead, it should be ensured that compliance with the requirements of the debt reduction benchmark (60% of GDP) is not unduly delayed. Indeed, a monetary union is not workable without economic convergence and fiscal discipline. Fiscal rules need to be enforced more rigorously. By converging towards lower levels of government debt and regaining fiscal buffers, the euro area will increase its resilience and fiscal space to cope with potentially adverse economic shocks in the future.

Lastly, there is also an international dimension in the sovereign- bank nexus. Indeed, this nexus would weaken if banks were diversified across countries of the Eurozone. This is the reason why addressing the regulatory impediments related to cross-border banking in the euro area would significantly contribute to address the sovereign bank loop in the European Union. In this perspective, cleaning up rapidly the Non - Performing Loan issue and addressing the asymmetry between supervision and resolution at the EU level and, on the other hand, liquidation which is still handled at the national level remain essential EU regulatory priorities.■

[5] A reform (part of the 'Six-Pack') amending the Stability and Growth Pact entered into force at the end of 2011. Another one, the intergovernmental Treaty on Stability, Coordination and Governance, including the Fiscal Compact, entered into force in early 2013. A regulation on assessing national draft budgetary plans (part of the 'Two-Pack') entered into force in May 2013

3. ENHANCING SUSTAINABILITY AND LONG-TERM INVESTMENT

Developing a stronger European long-term investment capacity

1. Long term investment remains below pre-crisis levels at a time when the challenges facing the EU demand an unprecedented investment effort

More than 10 years since the eruption of the financial crisis, growth has finally returned – on the whole – but investment, and especially long-term investment, is yet to reach pre-crisis levels. The challenges the EU is facing require an unprecedented long-term investment effort, where stable capital is key to finance the tangible and intangible assets we need for the future. It remains sluggish at a time when the challenges indiscriminately faced by the EU - accelerating technological innovation via the digital revolution, climate change, an ageing population, emigration issues, the renewal and extension of infrastructure, European security and defense requirements...- demand an unprecedented investment effort in a context where some significant countries are very highly indebted and the households are generally risk averse and prefer to build up a savings buffer that is liquid to a great extent.

Paradoxically 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.

At the same time, the challenges faced by the EU financial system 10 years ago, which are still pending in some areas, have led regulators and supervisors to put the onus on "financial stability". This work program was defined by the G20 Financial Services Board in the main sectors concerned (banks, insurers and CCPs) by the approach "solvency, systemicity, resolution".

As this 10-year effort in financial regulation has now largely reached its objectives, with a conceptual focus on the resistance of single entities to default through a reinforcement of their own funds, it is time to open the discussion on to other policy objectives and tools.

2. If the EU wants to be sovereign and prosperous, it must strengthen its long-term investment capacity

A radical change and a strong political impetus are therefore needed. A coherent and comprehensive long-term investment policy is essential to close the gap. Public funding cannot be sufficient to close this long-term investment gap. The results of the "Juncker Plan" underline that the mobilization of public funds is not equal to the financing challenges and encourages the exploration of other techniques in order to optimize the effect of public funding.

It is also imperative to remove prudential and accounting constraints that prevent financial institutions from channeling savings collected towards long-term investments. In this perspective, better understanding and defining the nature and specificities of the long-term risk and its dedicated prudential framework is an urgent priority.

More generally, such a stronger European long-term investment capacity requires not only a shared political vision on the key industrial strategic choices for the essential sectors (renewable energies, the circular economy, digital, new technologies...) but also financial players of sufficient size and competitiveness who can rely on a truly integrated financial market, appropriate prudential and accounting rules that do not discourage investment in equity in particular, adequate investment products and efficient provision of retailed investor information and advice provided by financial intermediaries.

3. Optimising the impact of public financing

Public funding is compulsory but cannot be sufficient to close the long-term investment gap in Europe. The political challenge has to go well beyond the need to ensure the real "additionality" of the projects financed by the "Juncker Investment Plan". With an initial contribution of €21 billion, it has mobilised €335 billion over three years, which has boosted investment in Europe. But the results of this EU initiative also underline that the mobilization of public funds is not equal to the financing challenges and invite to explore other techniques to optimize the effect of public funding.

Europe must define and implement economic and financial conditions in order to free up public and private initiative. Public authorities play a central role in long-term planning. They are the only ones capable of addressing the uncertainties related to the long-term strategies put in place to address for instance energy transition challenges (such as the choice of the proportion of nuclear power according to the sensitivity of voters, the reweighting of the share of

wind power, etc.). This is the reason why the public guarantee must be applied in a preferential manner to cover the uncertainty risk (notably political) associated with the long-term forecast. In this perspective a public insurance mechanism should certainly be a right way forward.

This scheme should mitigate the uncertainties linked to the industrial strategic guidelines provided by public decision makers. The challenge is to go beyond the direct participation of the public authorities in the financing of these investments. Indeed, only an EU insurance mechanism would enable project sponsors and their financiers to commit to long term investments. These are the conditions for achieving an effective additionality of the projects made possible by the intervention of the public sector.

4. **Prudential and accounting standards should acknowledge that the long term does not entail greater risk, but presents a different risk profile, which needs to be analysed and calibrated in a specific way**

Prudential and accounting regimes for long term investment, whether they relate to banks, insurance companies or those governing the distribution of funds associate long-term with high levels of uncertainty and focus on market and liquidity risks. But we have to keep in mind that long term reflects the very nature of our financial institutions, which are here to stay and which clients shall be able to trust upon. The average duration of the liabilities is close to 14 years for European life-insurers, for example. Against this background, is that such a problem if a life insurer invests more in equities, which holding period is currently around 4,5 years, or in a private equity fund whole holding period is currently close to 6 years?

This is the specificity of long-term financial players: for them, there is no contradiction between matching their liabilities and holding their long-term investments to maturity, contrarily to a "trading book" approach reflecting mainly market risks. In this context, prudential frameworks shall develop more "hold to maturity" or "hold to duration" asset classes allowing for reduced market shocks, with criteria protecting these asset classes absent short-term, trading book-like shocks. Another specificity is a potentially countercyclical investment behaviour of these players through the financial cycle and investment choices voluntarily abstracting from short term volatility and selecting assets on the basis of their yields on the long run : this means also that penalizing the assets invested with this strategy in prudential framework for their bigger volatility (or illiquidity) is a great mistake (sadly made very recently by the insurance International Capital Standard, which will contain a specific volatility shock for equities). Last point: entities investing in the long term, for decades, for example pension funds, sovereign funds or insurers holding pension risks, are the only ones able to finance long term activities and projects with positive returns for the society as a whole, like infrastructures, private placements, venture capital or projects for the energy transition in general.

Moreover, current risk assessment systems only depict the future as an occurrence of the phenomena witnessed in the past. This proves particularly inadequate to capture long-term risks such as the current climate-related disruptions, the risks of which are linked to the socio-economic adaptations and numerous and competing technological challenges. More emphasis shall be put on prospective supervisory tools like the insurance ORSA or recovery plans in resolution.

The construction of a coherent system of evaluation but also of the management and mitigation of long-term risks is urgently needed. This system must be specific to actors who are not subject to short-term risks. In such a context, better recognizing and defining the nature and specificities of the long-term risk and defining the dedicated prudential framework is an urgent priority, as well as defining explicitly its objectives. Such a long-term framework must be open to all financial players likely to have a long-term investment strategy based on stable resources and also on the reality of long-term risks as well as on a performance measurement consistent with the duration of the investment. ■

Sustainable finance: expected impacts of the current EU legislative proposals

The yearly investment gap to cover the targets defined by the EU commission to meet climate and energy targets for 2030 in line with the UN 2030 Agenda, the Sustainable Development Goals and the Paris Agreement, is estimated to be between € 175 to 290 billion. To honour those investments a specific policy framework is needed to incentivise the private sector which will have to play an important role.

1. **The tasks of the Technical Expert Group**

In this perspective, a Technical Expert Group (TEG) was established in June 2018 to assist the Commission notably in the development of screening criteria helping to sort out economic activities in an EU taxonomy; and minimum standards for the methodology of «low carbon» and «positive carbon impact» indices.

Later on, a Platform on Sustainable Finance is expected to advise the Commission on: (i) further developing the taxonomy (including the identification of activities - and their technical screening criteria - delivering on the other environmental objectives) and (ii) updating the taxonomy to cater for market and technological developments.

Therefore one key subgroup of the TEG, is related to the taxonomy the objectives of which are to:

- Defragment capital markets in the EU, by avoiding heterogeneous taxonomies among different Member States and financial institutions;
- Protect investors by increasing transparency and avoiding green-washing;
- Provide projects sponsors and investors with appropriate signals and more certainty.

According to the G20 Green Finance Synthesis Report (2016): "In many countries and markets, the lack of clarity as to what constitutes green financial activities and products (such as green loans and green bonds) can be an obstacle for investors, companies and banks seeking to identify opportunities for green investment." Furthermore, a taxonomy should make it easier and less costly to raise capital and further channel savings toward energy efficiency investments.

This should also create a common ground for the other envisaged policy tools (benchmarks, disclosure obligations…) expected to foster green finance and mitigate non-sustainability risks notably climate related ones.

Indeed, the forthcoming taxonomy should further enhance transparency, consistency and comparability, to the benefit of EU Green Bond standards. Similarly, EU low carbon and positive carbon impact benchmarks, which require defining how emission savings are calculated, how to choose baseline scenarios and what category of emissions must be encompassed, have to be consistent with the defined taxonomy as should also be the EU disclosure framework on climate-related information. More generally in addition to those related to capital markets, the benefits of a common taxonomy should extend to project evaluation, lending practices and risk management.

2. The task of the subgroup on taxonomy is to:

- Determine a list of environmentally sustainable economic activities i.e. activities contributing substantially to a given environmental objective - starting with climate change mitigation and adaptation - and without any significantly negative contribution to any other environmental objective;
- Assess the environmental, economic and financial market impacts of the envisaged taxonomy.

2.1. Mitigation taxonomy

The TEG has identified six macro-sectors for climate-change mitigation based on GHG emissions. Within these sectors, as of December 2018, certain activities are under more detailed consideration for climate change mitigation[1]:

- Afforestation, reforestation and forest rehabilitation/restoration;
- Manufacturing, including energy and resource efficiency as well as the manufacturing of renewable energy equipment, low carbon transport vehicles, equipment and infrastructure, or energy efficiency equipment for buildings;
- Energy Production techniques (Geothermal, Hydro, Solar, Wind, Ocean);
- Passenger and Freight Rail Transport and interurban scheduled road transport services for passengers, as well as light passenger cars and commercial vehicles and freight transport services by road;
- Construction and renovation of buildings (residential and non-residential).

Certain of these activities were identified as providing a substantial carbon sequestration opportunity. Among mining activities, extracting certain materials has been identified as essential to the low carbon transition. Certain manufacturing activities are also acknowledged as being key to providing components to enable emission reductions in other sectors. Among energy supply activities the TEG initially focused on renewable energy generation.

Two enabling sectors[2] are also being considered.

2.2. In addition, an adaptation[3] taxonomy is being developed regarding economic activities for adaptation to climate change

A two-step process is proposed to demonstrate that an economic activity contributes to a substantial reduction, of specific diverse negative effects of climate change, bearing in mind that adaptation activities may target an asset and/or benefit a wider system beyond a specific economic activity/asset.

The first step consists of assessing the targeted negative effects of a climate change, while the second step seeks to demonstrate how economic activity will address or prevent these identified negative effects.

The adaptation methodology is supported by four principles:

- An economic-activity has to address material physical climate risks;
- Any adaptation economic-activity should avoid maladaptation;

[1] Mitigation refers to actions taken to lower the concentration of greenhouse gasses in the atmosphere and thereby reduce the extent to which the global climate system changes.
[2] Information and communication and professional, scientific and technical activities.
[3] Adaptation in the field of climate change, refers to actions taken to reduce the negative consequences of changes in the climate.

- Any adaptation economic-activity must benefit from a monitoring system in order to measure progress;
- Any adaptation economic-activity has also to be part of a wider strategy that promotes long-term climate resilience.

These principles are reflected in a set of criteria, related metrics and possibly compliance thresholds, which are specific to each activity. Number of options to set these criteria have been proposed in the consultation.

3. The discussed approach raises concerns

Cicero - Shades of Green[4] expressed in January 2019 some concern about the implications of the initial design of this taxonomy, which, it feared, might discourage the issuers of green bonds from heading further in a greener direction.

Consequently, it advised that the taxonomy should be used as a guidance rather than a standard. Indeed, explicitly-justified thresholds, adopted on a voluntary basis and combined with transparency on reporting, would sufficiently guide the market without setting up a binary compliance system. In particular, the concern is that binary thresholds might discourage still modest initial investments that will be deepened over time, although they need to be made soon. Furthermore, estimating avoided emissions might be considered as unrealistic, controversial or too complex, while the target of the taxonomy should be to encourage all investments to be as green as possible.

Furthermore, the consultancy considered that the proposed taxonomy approach does not currently provide an integrated framework for informing investors about climate and environmental risks since at present, mitigation and adaptation activities are considered separately.

This could result in missed opportunities for infrastructure investments which should be designed to integrate both low emissions and resiliency to extreme weather changes events. Furthermore, energy efficiency should not be the only focus for green bond issuers in particular in sectors already mainly relying on renewable energy.

Finally, one essential issue is that approximately 67% of the green bonds that Cicero has reviewed according to its own framework, would probably not comply with the preliminary EU taxonomy.

To address these issues, Cicero has put forward its "Shades of Green" methodology which combines mitigation and adaptation, and rates green bonds on a scale to indicate the relative level of climate risk, rather than a threshold-based approach.

Indeed, since there are now around $1.5tr of bonds outstanding, according to numbers published by the Climate Bonds Initiative (CBI), common sense for the EC's package is to be based on highly pragmatic, market-driven proposals that seek in particular to link the sustainability qualification of an investment with concrete objectives. They also favour open-ended approaches to the eligibility of activities since mitigation and adaptation are context- and location-specific.

However, the EIB insists on the fact that the EC classification also needs to be based on the contribution of economic activities to clearly defined objectives supporting the UN 2030 agenda (SDGs) and the Paris Agreement. It also insists in this perspective on the need to establish impact indicators, in line with the approach proposed by the G20 Green Finance Study Group in 2016, and also to specify significance-thresholds for clear reference.

4. Standards comparable at the international level are necessary

International consensus around comparable standards is also necessary. International issuances require the translation of the EU issuers' classification standard in the non-EU investors' classification standards, and vice versa.

In this respect an important task for the legislator is also to give a global dimension to the forthcoming EU standard. In it preface to the EIB and the GFC co-authored white paper, the China Green Finance Committee insists on the necessity of a common language for green bonds due to a maturing domestic green bond market which is experiencing a rapid expansion of cross-border issuance and investing as well. This is happening in a context where actually, the People's Bank of China (PBOC) and six other ministries jointly issued the 'Guidelines for Establishing the Green Financial System', providing a comprehensive and overarching framework for developing green finance.

In this respect the EIB is contributing to an initiative developed in partnership with China's Green Finance Committee (GFC), which was set up in 2015 by the People's Bank of China (PBoC) to enhance transparency and comparability in the green bond market. In 2017, the EIB and the GFC co-authored a white paper mapping out common principles for climate mitigation finance contributing to the emergence of a global taxonomy for the use of proceeds. And an interim report has been published in a second EIB-GFC white paper at COP 24 in Katowice.

The pragmatic objective of the CGFC-EIB ongoing work on taxonomy is the establishment of a reference platform that facilitates China's green bond issuance in the EU and EU's green bond issuance in China. Phase III of the CGFC-EIB joint research project develops a clear framework for the mutual translation of China and EU climate mitigation standards by COP25.

5. Low carbon and positive carbon impact indices

ISDA and AFME provided a number of comments on the detail of a proposed methodology, including the view that benchmark administrators should be able to obtain low carbon impact and positive carbon impact benchmark

[4] CICERO Shades of Green is a provider of Second Opinions on green bond frameworks, drawing on competence from CICERO Center for International Climate Research https://static1.squarespace.com/static/5bc5b31a7788975c96763ea7/t/5c5040dfc2241bf977863de3/1548763359811/CICERO+GREEN+taxonomy+comments+final.pdf

designation on an optional basis at this stage, and should not be mandatorily required to do so (if falling within the low carbon impact or positive carbon impact definitions in the proposal).

This would allow administrators to adapt and innovate as our understanding and technology in this area develops. They also believed that the inclusion of 'scope 3' emissions should be optional at this stage given the limitations regarding the data behind such a criterion.

ISDA and AFME also noted that the proposal as drafted would come into force and apply from the day following publication in the Official Journal (OJ) of the EU. They stressed that it would be more realistic and proportionate to define a transition period for complying. ■

Addressing sustainability risks in the financial sector

Physical risks, liability risks and transition risks challenge policy makers

In 2015 ahead of the Paris agreement, Governor Carney stated that there are three broad channels through which climate change can affect financial stability: physical risks, liability risks and transition risks. Some NGFS (Network for Greening the Financial System) members have extended their analysis to broader environmental risks finding that these are a source of financial risk as well.

The consequences of liability risks – i.e. the claims of parties who have suffered loss or damage from the effects of climate change, seeking compensation from those they hold responsible - are well illustrated by PG&E that recently entered under Chapter 11 bankruptcy protection: this insolvency is due to the expected costs of the class actions triggered in the wake of the devastating wildfire that swept through northern California in 2018. The exact cause of most recent fires in California remains undetermined. But the State's climatic and hydrological conditions, further deteriorated by global warming, are favourable to such fires.

More generally, anticipating the potential reassessment of the value of a large range of assets triggered by potential changes in policy, technology and physical risks is challenging.

Finally, the possible magnitude of the impacts on insurance liabilities and the value of financial assets that arise from climate- and weather-related events is amazing.

Furthermore, the size of such a challenge is magnified by the fact that these risks will be highly influenced by policy choices that are under the responsibility of elected governments. In addition, unfortunately, as these risks are a function of cumulative emissions, earlier (later) action will mean less (higher) risks. This means that, since the negative impacts of climate change will occur beyond the traditional horizons of those policy makers, they will lag behind.

This is what Governor Carney named the tragedy of the horizon.

EU Supervisory authorities started the process to better integrate sustainability risk in regulatory frameworks

In this context, the EIOPA received a call from the European Commission to provide technical advice on potential amendments to or introduction of delegated acts under the Solvency II Directive and IDD with regard to the integration of sustainability risks and sustainability factors. This Call for Advice refers particularly to the following areas:

The EIOPA ended a consultation in January 2019 on possible amendments to the Solvency II Delegated Regulation aimed to ensure the identification and assessment of sustainability risks in the areas of underwriting and investments. In these amendments, insurance undertakings are expected to take into account the potential long-term impact of investment decisions on sustainability factors (stewardship principle) and, when relevant, reflect policyholders' Environmental, Social and Governance (ESG) preferences.

The EBA for its part stressed that without common definitions and metrics, trying to quantify the magnitude of un- sustainable exposures in banks' balance sheets, remained a key challenge when using supervisory reporting data. This is also the reason why the development of a taxonomy is one of the main priorities on the European Commission's agenda.

Yet, the EBA includes in it s2019 workplan a contribution to the Commission's work on sustainable finance, particularly regarding the taxonomy for sustainable finance and green bond standards, as well as the specific mandate given to the EBA for advising on the feasibility of green/brown supporting/penalising factors in the bank prudential framework, as included in the action plan for sustainable finance.

In the short term a telling piece of information is that EBA has earmarked certain sectors as potentially non-green, and that according to the EBA, EU banks' total exposure to these sectors amounted to 2,049,037 EUR m, in June 2018. The EBA assess the riskiness of certain of these sectors considering their expected default frequencies e.g. mining and quarrying that rank first among potentially carbon-intensive sectors, followed by construction.

EBF/Bruegel controversy

The European Banking Federation (EBF) on its part is of the opinion that encouraging green loans is a sensible idea. It stressed on the one hand that a "punishing" factor could negatively impact adequate risk management notably in the context where globally there is no clarity about the definition of 'brown', while there is a lack of reliable data on the way that 'brown' companies affect the climate. Conversely,

it stressed that a supporting factor would mean banks committing less capital for loans what would effectively contribute to accelerating the transition to a sustainable, climate-neutral economy, incentivise economic players in the right direction provided that a green supporting factor should realistically reflect the real risks for such green loans.

On the contrary some argue that "a much stronger case that can be made for a "brown penalising factor" to discourage further investments that contribute to climate change and enhancing the resilience of financial players.

However, this debate risks hiding important questions, which deserve to be carefully sorted out avoiding too comfortable intellectual shortcuts.

The first issue is that one challenge specific to climate related risk is that these are future risks that require new forward-looking assessment tools. One consequence in this respect, is that at the moment nobody even knows whether brown or green assets actually yield or not significantly and to what extent measurable risks exist and in which time horizon.

The second issue is that it is naïve to think that the physical risk on an institution's portfolio will be mitigated by just penalising "brown" assets since they are generally not more exposed to adverse climate related risks than others. Similarly, it is naïve to assert that "green" assets are per se better positioned risk wise. In the same vein appropriate climate change related policies are able to alleviate the uncertainties weighing on "brown" assets and related risk, by providing appropriate forward guidance.

The third issue is related to the ability of prudential frameworks to provide incentives. There the answer is definitively yes, they do! Indeed, regulatory capital consumption drives the performance of activities, the profitability of transactions and ultimately business decisions. Accounting and regulatory capital rules cannot be neutral as they directly impact institutions' behaviour.

Fourthly, furthermore, expected and unexpected incentives are already provided by the existing accounting and regulatory environment. One should bear in mind in particular that they all play against long term investments. Indeed, most emerging (positive or negative) externalities - due notably to their the long-term nature - are usually not taken into account since existing rules look backward. This issue should be addressed notably by factoring in sustainability considerations.

Neutrality is highly dependent on what one is trying to measure.

The way forward

Work is needed to assess whether a financial risk differential exists between "green" (low-carbon) and "brown" (carbon and pollution-intensive) assets.

Competent authorities and financial institutions also need to develop new analytical and supervisory approaches, notably based on long-term forward-looking scenario analysis and stress tests, in a context where historical data is not sufficient to assess the risks. This represents an unprecedented change of the current risk assessment and mitigation paradigm.

In addition, assessing the possible effective and balanced roles that a prudential framework could play to incentivizing financial institutions in order to accelerate the shift of economies toward green finance, remains essential. This should complement the fact that some central banks, regulators and local authorities have already introduced incentives for banks to increase green lending and for issuers to issue green bonds.

In this context the NGFS will carry on its work on the following deliverables which will feature in its first comprehensive report to be published by April 2019:

- Narrowing down the complexity of risk analysis, e.g. through the development of a small number of high-level scenarios;
- Analysing the outcomes of the stock-take of supervisory and macro-prudential approaches to enhance firms' financial risk management, assess systemic risks and support disclosure;
- Analysing potential risk differentials between "green" and "brown" assets;
- Identifying some specific areas for Central Banks and Supervisors to "lead by example" notably integrating climate-related criteria in a growing number of their operations.

However, at this stage, the NGFS stressed that "the quality and availability of data is limited, taxonomies and definitions are still developing and there is a need to build intellectual capacity in translating the science into decision-useful financial risk assessment information".

In any case static disclosure appears to be a necessary short-term step. However, Governor Carney suggested that governments might complement disclosure by giving guidance on possible carbon price paths in order to avoid making the transition path bumpy. He suggested a possible carbon price corridor that should involve an indicative minimum and maximum price for carbon, calibrated to reflect both price and non-price policy actions, and increasing over time until the price converges towards the level required to fully translate the expected externality. Even if the initial indicative price is set far below the "true" cost of carbon, the price signal itself holds great power.

Finally, the important challenge beyond an appropriate anticipation of climate related risks of each asset, is to calculate the general impacts on society (externalities) and to translate them into monetary values. It would first internalise the externalities in the relevant balance sheets. It would also provide a monetary perspective of the potential impacts of possible policy changes, notably on asset values and business models. Not only would this actually reallocate appropriately the cost of negative expected externalities and provide an effective economic opportunity for correcting this externality by mitigating global warming, but it would also provide an efficient guidance which should contribute to avoiding sudden and deep asset price corrections, possibly threatening systemic stability. ■

Review of the Solvency II long-term package

1. The Long-Term Guarantees package

In May 2014, in addition to transitional measures intended to facilitate the implementation of the new insurance sector solvency framework, the European Union introduced the so-called Long-Term Guarantees package. Finally, regarding long-term Guarantees underwritten by insurance undertakings, the Solvency II framework encompasses in addition to a yield-curve extrapolation, the following elements:

- **An Equity symmetric adjustment (SA) mechanism** with respect to changes in the level of equity prices, included in the market risk module of the standard formula for the SCR.

  The calculation of the symmetric adjustment is based on the behaviour of an equity index built by the EIOPA exclusively for that purpose.

  The mechanism smoothens short term evolutions of equity markets so as that they do not impact the solvency position of undertakings in order to avoid in particular encouraging speculation behaviours (equities bought to benefit to short term market price raises) and fire sales triggered by solvency constraints suddenly raising due to short term general downward evolutions of equity prices.

- **A volatility adjustment (VA)**, which consists of linking the discount rate for undertakings' liabilities to an adjusted risk-free curve, which incorporates a correction corresponding to the evolution of the spreads between risk free rates and those observed for a reference portfolio.

  The mechanism smoothens the volatility of the valuation of the liabilities resulting from short term spread volatility.

- **A matching adjustment (MA)**, which links the discount rate for a liability to the credit-risk-adjusted yield earned on the assets backing those liabilities (restrictive conditions on the underlying business are imposed). This takes the form of a constant addition to the risk-free curve for portfolios for which both the obligation and the related asset portfolio can be identified, organised and managed separately from other activities of an undertaking.

  Naturally the probability of default of the assets (based on long- term statistics) and the loss resulting possibly from downgrading the assets are deducted from the matching adjustment.

  The matching adjustment is added to the whole yield curve after extrapolation. The impact of the matching adjustment on the financial statement is publicly disclosed.

- **Extension of recovery period:** certain lasting adverse situations require increased flexibility on the side of the supervisors to favour greater stability. In this context EU regulation allows supervisory authorities to extend the recovery period by a maximum of seven years from the normal 6-month recovery period, if an exceptional situation has been declared by the EIOPA after consultation with the European Systemic Risk Board (ESRB).

  A combination of matching adjustment and volatility adjustment or transitional measures is not permitted.

  These regulatory measures aim at facilitating the detention of long-tenure assets and avoiding focussing the asset-management strategy of insurers on shorter-term to the expense of the insurers' traditional role as a stabiliser of market volatility. This results mainly, from preventing pro-cyclical investment behaviour ("forced sales") by mitigating the effect of an extreme widening of bond spreads in stressed market conditions and more generally from market short-term volatility.

2. Solvency II standard formula: inspiring measures already proposed in the 2018 review

Anyway, in the draft regulation published on 9 November 2018 and open for consultation until December, in the context of the current review of the standard formula of the Solvency II prudential framework, the European Commission has already introduced new provisions notably to assign a reduced capital charge of 22% to certain ring-fenced equity investments subject to long-term investment requirements: the average holding period of the equity investments must exceed 12 years and must be higher than the average duration of the liabilities held in the ring-fenced portfolio. The intention to hold the equity investments for the long term must be documented and the insurer must be able to demonstrate that the investment can overcome stress scenarios.

Beyond the proposed adjustments intended to simplify the standard formula and observing the principle of proportionality, the aim here is to reduce the constraints that are hindering the financing of the economy notably in the form of listed and non-listed equities, for assets held for long term liabilities.

An assessment of a preliminary version[1] of the proposed adjustment regarding the potential impacts resulting from the introduction of such a specific long-term category of equity holdings, estimated that:

- 50% of equities held by European companies could be eligible for such a classification;
- Consequently, the coverage ratio would be improved by up to ten points if the shock is reduced to 22%;

[1] Report on a new category of equities (LTEIP) under Solvency 2 Standard Formula Nov 2018 - Institut des actuaires/PwC.

- European insurers applying the Standard Formula (or a partial internal model that does not cover equity risk) could reinforce their allocation in equities up to 20%;
- This would correspond to additional purchases of equities in the range of 50 and 100 EUR bn.

3. LTG is widely used by insurance undertakings

Most measures of the LTG are widely used and their impact on the LTG on the SCR and on Eligible own Funds are material.

The calculation of the EIOPA is that at EEA level the average impact of removing the SA on the SCR is -1% in 2018. The impact of removing the Volatility Adjustment would have be +3% and the Matching Adjustment +5% (increases of capital requirements).

4. Scope of the review

The Long-Term Guarantees elements of Solvency II Directive must be reviewed by the Commission in 2020. However, the fundamental principles of the Solvency II Directive (including the confidence level underlying the calibration of capital requirements and the market-consistent valuation) are not subject to review. Yet, the 2020 review is expected by the Commission to allow a holistic and thorough assessment of the framework.

Market participants expect that on the occasion of the review, some excessive regulatory constraints to insurance companies wanting to invest in certain asset classes will be attenuated, though maintaining the necessary prudence.

In addition to recent evolutions some advocate also amending the capital charges regarding the investment in unrated bonds and unlisted equities. Strategic participations by insurance companies are also raising much interest in Europe.

It is also considered as essential that insurance undertakings, as long-term investors, integrate environmental, social and corporate governance factors in their investments and product design and disclose such risks to the public. But it is also essential from a prudential point of view that sustainable and green investment be covered by the appropriate requirements reflecting their specific risks.

Regarding the LTG, one issue to address is the fact that these measures have had an impact on solvency positions that has varied greatly according to the country in which they have been applied.

5. Beyond the current scope of the review

Existing LTG measures mainly seek to reduce the volatility of capital requirements stemming from market volatility.

However, the package does not address the possible over estimation of asset risks resulting from this short-term volatility factored in the calibration of the related capital charges and which have not been taken into account although when the assets are held on the long term, they do not need to be sold rapidly on any conditions.

Neither does the package substitute a longer term for assessing the risk of the assets, which should be consistent with the maturity of liabilities. It only relies on possible market (short term) shocks on the market value of these assets, which badly account for the effective risk, which an undertaking is facing in such a case, which mainly stems from the uncertainty regarding the cashflows of the asset.

An area for reflection is also to consider the progress made and the main issues observed in the single market regarding the supervision of EU insurance undertakings e.g. consistency of national supervisory practices, supervision of LPS insurance activities, etc. ■

4. DEVELOPING EU CAPITAL MARKETS

CMU and Banking Union: complementary or antagonistic?

Two major policy initiatives aimed at strengthening and further integrating the EU financial sector

Despite the commonality of certain of the objectives of the Banking Union (BU) and of the Capital Markets Union (CMU) related to the further integration of financial markets and the improvement of risk sharing across the EU[1], these projects were structured separately and are conducted in parallel. This can be explained notably by the different circumstances that led to their inception (the Eurozone sovereign debt crisis for the BU and insufficient economic growth and investment in the EU for the CMU)[2].

The complementarities between bank and capital markets could however be better capitalized on, to the mutual benefit of both initiatives. In addition, since banks and capital markets compete for the financing of certain opportunities, there is a risk that financing may not be fully optimized if all possible instruments are not considered. There have been calls for a "financing union" combining the two initiatives (and possibly other EU programmes such as InvestEU). This holistic approach to the financing of the EU economy seems an appropriate way forward, but its practical implications still remain spelling out in greater detail.

Better capitalizing on the complementarities between banks and capital markets could enhance financing and investment

Banks and capital markets are complementary. Banks are important players in capital markets (e.g. as intermediaries in the issuance and sales of securities, market-makers, investment advisors...) and may support their further development at the domestic and cross-border levels[3]. Conversely, capital market instruments (notably equity) can finance innovation and immaterial assets more adequately than banks because they do not require the same guarantees, collateral, credit history and regularity of cash flows as bank credit and can help to provide long term resources that banks can no longer offer, due to higher prudential requirements. Other instruments such as securitisation can also strengthen the capacity of banks to support the economy, hence the framework established in the context of the CMU regarding simple, transparent and standardised (STS) securitisation[4].

Further capitalizing on these complementarities in the BU and CMU projects would help to ensure that uncovered financing or investment needs are fulfilled with the most appropriate instruments - bank or capital market based – depending on the characteristics of the project to fund[5] and the maturity of the financial sector in the jurisdiction concerned[6]. This is particularly relevant for

[1] The objective of the Banking Union (BU) is to ensure that Eurozone banks are robust and to reduce the sovereign-bank loop and market fragmentation in the monetary Union. The Capital Markets Union (CMU) aims to diversify the financing of the EU economy and increase investment opportunities with a greater role for capital markets. Both initiatives should also contribute to improving the allocation of risks and financing across EU Member States, thus enhancing the resilience of the EU financial system and economy.

[2] The CMU was launched in 2014 to stimulate investment in the EU economy and create jobs in a context where the contribution of investment to growth remained low and the investment rate was still below pre-crisis levels, whereas the Banking Union was initiated in 2012 as a response to the sovereign debt crisis aiming to strengthen banks and break the bank-sovereign debt loop.

[3] Transnational banks covering several EU jurisdictions may also facilitate the growth of capital markets across Member States.

[4] Other complementarities between banks and capital markets include the following aspects: The further integration of capital markets would also alleviate the costs of banks that currently need to support multiple local markets across the Union and may offer additional opportunities for banks to market certain assets (e.g. NPLs) or raise capital in different EU markets. Banks rely on liquid securities markets to manage the asset and liability side of their balance sheet dynamically e.g. in order to raise equity capital, obtain funding through wholesale debt markets or hedge exposures using financial derivatives.

[5] Bank loans and bond financing can complement ech other, since they involve e.g. different contracting and governance requirements, but they are also close substitutes, since they are both debt instruments. This substitution has been observed since the crisis. On average across the euro area, bond financing accounted for over 20% of NFCs' external funding in Q2 2017, up by 10% since 2008. Therefore an optimal choice of instruments should also include equity financing which has different characteristics from bank credit and bonds.

[6] Research findings demonstrate that, as economies develop, the marginal contribution of banks to economic growth declines while that of capital markets increases, notably because market finance is better at promoting innovation and productivity and financing new sources of growth (Source: ECB – Financial integration in Europe – May 2018).

SMEs. For most of them, bank financing is the main external source of financing in the EU, because capital market financing is relatively costly and complex for small enterprises and requires governance changes and transparency enhancement that they are not ready to make. However, for some of them - the most innovative and fast-growing ones and those investing in immaterial projects - capital market funding and notably equity financing (provided by VCs, private equity or IPOs) - is essential. This also requires the development of active local capital market ecosystems in which banks play a key role alongside other market participants and securities infrastructures.

Retail investment is a second area where the combination of bank and capital market activities is particularly relevant. Encouraging retail investors to engage more in the capital markets indeed requires an appropriate combination of investment products and order execution services provided by capital market players and the provision of investor information and advice and intermediation services mostly offered by banks at present in the EU.

A more explicit connection between the BU and the CMU would also facilitate the identification of the most appropriate drivers for improving risk and capital allocation across the EU

Cross-border capital flows are necessary to ensure an appropriate allocation of capital and risks across the EU. However investors' and banks' portfolios have increasingly become national following the Eurozone sovereign debt crisis.

At present cross-border banking activities (loans, deposits...) in the euro area are limited to a 7 to 8% share[7]. This fragmentation hinders the effective allocation of financial resources and risks across the Eurozone via the banking channel. Initial assessments show that it is unlikely that the BU will foster much progress in this respect, despite the implementation of a common supervision of the main banks of the Eurozone. Two main proposals have been put forward by the Commission for completing the BU (a common backstop for the SRF and the implementation of EDIS), but neither of these seems likely to alleviate completely the concerns of host countries at the root of the current regulatory fragmentation across the Eurozone (e.g. local add ons, ring-fencing policies...)[8]. In addition the progress made so far on the EDIS proposal is relatively limited. This would instead require tackling certain remaining risks (e.g. finishing the resolution of NPLs, diminishing the sovereign-bank loop), progressing towards a European approach to the liquidation of transnational banking groups, which does not exist at present, and making the commitment by parent bank companies to support their subsidiaries more explicit in some cases.

If progress in terms of integration and consolidation is not achievable in a reasonable timeframe in the banking sector, more integrated capital markets will be necessary for improving the allocation of risks and capital across the EU and increasing the capacity of the Union to absorb asymmetric shocks. However, the current level of integration of EU capital markets is also limited demonstrated e.g. by a relatively strong home bias in the detention of securities[9]. Much progress has been made thanks to the implementation of EU capital market regulations and TARGET2-Securities, but efforts are still needed in several areas notably to improve the consistency of the single rule book (e.g. investment fund distribution, securities post-trading...) and enhance supervisory convergence.

A further challenge is that efforts to further integrate EU capital markets should not be to the detriment of other important objectives of the CMU such as diversifying sources of financing via the development of local market ecosystems and of equity financing, in a workplan that has already been considerably widened (e.g. with the sustainable finance and fintech agendas).

A combined BU and CMU approach would facilitate the prioritization, based on their potential impact and feasibility, of the main actions in the banking and capital markets areas that may help to improve the allocation of risk and capital across the EU. However, this needs to be done in a European perspective since many of the obstacles that require tackling result from domestic decisions of Member States. This is nonetheless difficult to achieve without effective progress in the application of the Stability and Growth Pact rules in all parts of the Union. ■

[7] The share of cross-border loans to NFCs and households has slowly increased but is limited to 8% of total loans. The share of cross-border deposits amounts to 6% and is on a decreasing trend (source ECB).
[8] See Eurofi note on « Optimising the Banking Union" April 2018
[9] The EU fund market is still predominantly organized along national lines despite UCITS and AIFMD passports, which reduces competition and choice for investors. Although about 80% of UCITS funds and 40% of AIFs benefit from a passport, the proportion of funds actively marketed across borders is significantly lower. 70% of the total AuM are held by investment funds registered for sale only in their domestic market. Moreover only 37% of UCITS and about 3% of AIFs are registered for sale in more than 3 Member States (Source European Commission). Another indicator is that investment funds hold on average less than 30% of holdings from other euro area countries for equity funds and 40% for debt securities (Source ECB Financial integration in Europe May 2018). Moreover there is a strong home bias in equity detention with over 50% of domestic origin (source Bruegel - Making a reality of Europe's Capital Markets Union – April 2018)

Addressing the financing and investment gap in the CEE region

On-going changes in the growth model of the Central and Eastern Europe (CEE) region

The CEE economies have recovered from the 2008 financial crisis and are enjoying relative economic stability. However potential growth forecasts in the region are deteriorating and the timeline for the completion of the economic convergence process is spreading out. In addition there is a persistent investment gap in the region in terms of quantity (approximately 4% of GDP)[1] and composition. This gap is more pronounced for NFCs (Non-Financial Companies) because EU funds tend to target mainly the public sector and infrastructure investments at present.

This means that the growth and financing model of the region will need to evolve in the coming years. The pre-crisis model involved a great deal of foreign investment going into labour-intensive industries and infrastructures, as well as portfolio capital coming into foreign-owned banks, both of which are expected to diminish in the future. Financing infrastructure and manufacturing plants will remain necessary, but there will be a need to place a greater emphasis on domestically driven productivity growth (requiring further investment of NFCs, particularly in the service sector, into new equipment and ICT i.e. information and communications technology) and the financing of more innovative, technology-intensive and high-growth industries. This will require developing workforce skills and a higher capacity to invest in intangible assets.

A rebalancing in the CEE region in favour of more capital market financing is necessary, but challenging

The financing model needs to be progressively diversified in the CEE region as a consequence of the economic evolutions mentioned above, with a greater role for capital markets, supported by a stronger local investor base with a long term perspective (pension funds, life insurance...). Capital market instruments and particularly equity are indeed more suitable than bank credit for financing innovative projects and intangible assets, because they have a longer term perspective and do not require the same guarantees, collateral, credit history or regularity of cash flows. In addition, compliance with applicable prudential requirements might restrict the availability of bank financing over time.

Several supply and demand-related issues need to be addressed. Banks finance at present 90% of the economy in CEE, which is higher than the EU average of 75%, and they focus mainly on traditional business such as loans and savings products. That said, a growing number of CEE banks have issued more innovative products such as covered bonds, which has helped local capital market development and expanded the product range available to local investors. This notwithstanding, local capital markets lack the scale[2] and capabilities that are needed to attract foreign investors and support larger issuers.

Companies in the region are mostly small and prefer debt financing. Their managers have limited experience of capital markets and perceive them as complex and costly to use. They are also reluctant to make the changes required in terms of governance and transparency. Retail investors based in the CEE region also generally do not participate in financial markets and mostly use cash holdings and bank deposits for their savings, all of which does not generate enough return for wealth to develop significantly. In addition the expansion of local institutional investors such as capital-funded Pillar 2 retirement systems may be hindered by decisions made by several CEE countries to revert to the traditional 'pay-as-you-go' system.

In this context, banks will continue to be by far the main source of financing in CEE in the short term, requiring credit conditions and the potential underlying factors (bank deleveraging, NPL issues, compliance with prudential requirements and local tax measures, etc.) to be closely monitored in these countries, and possibly additional measures to facilitate bank lending for innovative companies and infrastructure investment.

The actions that are underway at the EU and regional levels to develop capital markets and local financing resources need pursuing and expanding

The actions initiated at the EU level to foster the development of capital markets should be beneficial for the CEE region. Firstly, the efforts made to implement the EU capital market rulebook throughout the EU should provide the CEE countries with a consistent set of rules. This should facilitate the development of appropriate investment offerings across the multiple and relatively small CEE markets and also facilitate investment into the CEE region from other parts of the EU and third-countries. Actions proposed in the context

[1] Maintaining the current capital to output levels would require the closure of a 4% of GDP investment gap according to estimates

[2] Capital markets account for less than 80% of GDP in the CEE region, compared to more than 300% in the UK and US. The CEE region represents 8% of the EU's GDP but only 2.5% of its total capital market activity.

of the Capital Markets Union (CMU) should further support the development of capital markets in the region, however the progress made so far with this initiative is still limited. Secondly actions are being conducted under the aegis of the EU Commission in the context of the Structural Reform Support Programme (SRSP) to support the development and integration of local capital markets. Projects in CEE countries range from capital markets diagnostics and strategies, through SME equity listing support instruments and pre-listing support programs, to reforming the legal and regulatory framework for covered bonds and securitization, and improving the investment environment for institutional investors.

Multiple initiatives are also underway at the regional level, with the support of IFIs (international financial institutions such as the EIB and the EBRD), to develop and interconnect local capital markets. Work is under way to establish a Pan-Baltic framework for covered bonds, and an additional project aiming to obtain a single Frontier market classification jointly for the three Baltic countries to enhance the attractiveness of these combined equity markets to institutional investors. The SEE link project, also supported by the EBRD, aims to create a regional capital markets infrastructure by connecting the stock exchanges of 7 countries including Bulgaria, Croatia, Slovenia and N. Macedonia. A follow-up project is being implemented to connect securities clearing, settlement and depositary infrastructures at the regional level for the SEE Link markets. Local initiatives have been moreover put in place in Romania or Bulgaria for example[3]. Actions are also being conducted by the EIB through the EIF Investment Facility to support the development of venture capital and private equity in CEE, investing in funds that operate in the region and also providing investment expertise.

The IFIs moreover provide local banks with support, aiming to increase their lending capacity in the region. The EIB is supporting new securitisations and providing local banks with new risk-sharing mechanisms (through the SME initiative) that enable them to lend to innovative SMEs in an uncollateralized way. This includes providing banks with a first-loss guarantee on portfolios of loans to growing SMEs and innovative firms, which should help them to take more risks notably regarding intangible investments. The EBRD has helped implement covered bond reforms in several CEE jurisdictions, including Romania, Poland and Slovakia, with work ongoing in the Baltics and Croatia, bringing national regulatory frameworks in line with EU and international standards and providing these markets with renewed momentum in CEE[4]. ■

Paper based on the output of the Eurofi Vienna Forum (September 2018) and input from the EBRD

[3] For example, in Bulgaria a strategy has been implemented since 2016 for the development of capital markets through a Council for the Development of the Capital Market. Romania is also conducting actions to improve its position in the field of capital markets. Romania aims to be close to 30% stock market capitalisation out of GDP by 2023 (compared to 19% on average in CEE at present and 45% in the Eurozone), helped by new listings of private and state enterprises and obtaining an emerging market status in order to increase the visibility of the Romanian capital market to, in particular, international investors.

[4] The first AAA-rated transaction in the region was issued by a Slovak bank in 2018.

Benchmark regulation: implementation challenges

Benchmark interest rates are used across a large range of financial market instruments. Consequently, benchmark rates are also important for the assessment of monetary policies given their interconnectedness with the financial system but also because benchmark interest rates underpin a substantial part of retail borrowing in the euro area.

Yet attempted market manipulation and the false reporting of global reference rates, together with the post-crisis decline in liquidity in interbank unsecured funding markets have led to a significant drop in underlying transaction volumes as well as the stronger role of non-banks in managing liquidity, and have undermined confidence in the reliability and robustness of existing interbank benchmark interest rates.

To address these issues international supervisory and standard setting bodies undertook a fundamental review and reform of major interest notably regarding benchmark designs and their governance. Eventually, the FSB endorsed the IOSCO Principles for Financial Benchmarks. Furthermore, a Market Participant Group recommended the strengthening of existing IBORs by underpinning them to the greatest extent possible with transaction data and finally to developing alternative, nearly risk-free reference (RFR) rates that better suit certain financial transactions, including many derivatives transactions. In the EU, these efforts have resulted in the adoption of the EU Benchmark Regulation.

In this context, EONIA and EURIBOR which have both been designated as "critical benchmarks", do not currently comply with these requirements, and may be prohibited use, at least in new contracts. It is also uncertain whether their use in legacy contracts will be permissible. The volume of legacy contracts with maturities beyond 2019 is substantial. Notably a quarter of outstanding interest rate derivatives using EONIA and more than half using EURIBOR have maturities in 2020 or later. 80% of floating-

rate debt securities using EURIBOR – worth almost €1.5 trillion – also extend beyond 2019[1].

Therefore, in September 2017, the ECB, the Belgian Financial Services and Markets Authority (as lead supervisor of both EONIA and EURIBOR), the European Securities and Markets Authority and the European Commission launched a new private sector working group. The group was entrusted with the identification and adoption of risk-free rates to serve as a basis for an alternative to the current benchmarks. This group recommended ESTER -to be produced by the ECB - reflecting euro area banks' borrowing costs in the wholesale unsecured overnight market - as the euro risk-free rate to replace EONIA.

However, progress towards the development of alternatives for longer tenures is expected. As far as EURIBOR is concerned, the European Money Markets Institute (EMMI) is working out the features of a new compliant benchmark, based on a hybrid methodology using actual transactions whenever available, and relying on other related market prices when required, which should still entail expert judgement in order to sustain daily benchmark publications on longer tenures. However, ECB would not be well placed to produce term rates (as opposed to overnight rates), as the central bank may not have the same overview of the prevailing market conditions and funding costs as banks.

Even producing ESTER which requires building the infrastructure, defining processes and governance, and testing operations, has proved challenging notably due to a very tight timeframe. An early release of the new rate should allow market participants to be better prepared for and understand the properties of ESTER. But too fast a publication which reduces the testing period, might entail operational risk. Robust business continuity and contingency plans must also be developed. Consequently, the ECB should be in a position to publish ESTER by October 2019, although the usage of EONIA will, should be restricted as from 1 January 2020. However, a pre-ESTER will be provided for market participants.

Finally, an extension of the transition period in the European Benchmark Regulation (BMR), is expected, potentially for a further two years – taking it to a new end date of 31 December 2021.

The ICMA together with AFME, ISDA, SIFMA and SIFMA AMG published in June 2018 the IBOR Global Benchmark Transition Report.

Three workstreams have been respectively focused on (i) identifying and recommending a term structure on the RFR; (ii) contractual robustness for legacy and new contracts; and (iii) transition from EONIA to ESTER.

On 20 December, the working group called on to comment on its technical analysis of the paths available for transitioning from EONIA to ESTER, as well as on its recommendation of the preferred transition option. These recommendations advise that EMMI, as the administrator of EONIA, should modify the current EONIA methodology (EONIA-ESTER spread approach) and define a transition period which should last until the end of 2021, before discontinuing the publication of EONIA that ensures firms can achieve transition to ESTER in a smooth manner. The working group also recommends that market participants should gradually replace EONIA with ESTER as a reference rate for all products and contracts. Finally, the working group encourages market participants to make all reasonable efforts to replace EONIA with ESTER as a basis for collateral interest for both legacy and new trades with each of its counterparties.

Regarding the EURIBOR, a hybrid methodology has been designed. By Q2 2019 panel banks will move from the current EURIBOR methodology to the hybrid methodology – with a view to finishing the process before the end of 2019. This will allow EURIBOR to become a BMR compliant benchmark but does not solve longer-term concerns – that there are relatively few actual transactions in each tenure on a daily basis and that panel banks could prove reluctant to have to continue submitting rates. Pressure to transition away from EURIBOR use should be expected. Mid-February, EMMI stressed the fact that its hybrid methodology to calculate EURIBOR, received broad support in the consultation it undertook, and consequently announced its intention to file for an authorization to the Belgian Financial Service and Market Authority by Q2 2019.

Ensuring that there are robust fall-back rates identified and that documentation references to such fall-back rates are indispensable. A consultation ended 1 February on alternative ESTER-based term structure methodologies (probably both backward-looking and forward-looking to address cash flow forecasting needs and for managing interest rate risk) that can serve as a fall-back for EURIBOR-linked contracts. Assessing such risk-free term rates necessitates a successful transition from EONIA to ESTER with a significant transfer of liquidity to ESTER OIS markets as well as a transparent and regulated underlying derivatives market and sufficient sources of data to capture the majority of market activity. However, the working group expressed beforehand a preference for the OIS quote-based methodology. An assessment of the success factors of a broad market adoption of the recommended term RFR (Risk Free Reference) is also necessary.

Finally, key points of attention are the legal risks and impact of embedding fallback provisions referencing newly defined RFRs, the replacement of references to EONIA and EURIBOR with references to newly defined RFRs in legacy contracts, and to define solutions to embed fallback replacements where appropriate, for EONIA and EURIBOR, as well as measures to enhance the legal soundness of references to newly defined RFRs.

Information relating to the current legal frameworks and market practices in relation to EONIA and EURIBOR references, in contracts for cash products and guiding principles for more robust fall-back clause is expected. ■

[1] Benoît Coeuré 25 Septembre 2018 https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp180925.en.html

Solvency II and STS securitisation: an unfinished business

In December 2017, the STS Regulation was published in the Official Journal. It saw the creation of a new category of simple, transparent and standardized (STS) securitisations that avoided the structural weaknesses that had allowed some highly rated securitisations to collapse during the 2007/2008 crisis. This regulation was the product of four years of work by the European authorities and co-legislators.

In April 2018, the Commission laid down a level 2 amendment to Solvency II that substantially lowered the capital charges for senior tranches of securitisations that met the new STS standard.

These amendments were welcome and produced for senior tranches a sensible level of capital compared to other potential investments by insurance companies. However, the reductions to the capital requirements for non-senior tranches of STS securitisations are small and maintain a large regulatory capital cliff between senior and junior STS tranches. This is unlikely to stimulate the interest of the insurance companies in such investments.

(As an aside, no changes in the regulatory capital for non-STS securitisations were made or proposed, thus creating an even bigger regulatory capital cliff between STS and non-STS securitisations.)

This, in our view, is inconsistent and difficult to justify from both a logical and a regulatory point of view. In particular, it leaves open an unfortunate regulatory arbitrage that will continue to push European insurance companies into investing in less liquid, riskier products when safer alternatives are available.

To understand this regulatory arbitrage, one needs to remind oneself of a number of defects in the original design of Solvency II and in the incorporation of the STS regulation into the existing design.

Broadly, the capital calibrations of the original Solvency II regulation distinguish between capital market instruments and loans such as residential mortgages. Because capital market instruments are considered liquid instruments, it was decided that the capital to be set against them by insurers should be based on the volatility of their market price. Since mortgage loans cannot be readily sold, the capital required by an insurance company to hold them is based on their underlying credit risk. Furthermore, a duration multiplier is applied only to the former and not the latter.

At first blush, this may seem logical. If something has a market price, use that to value it. If it does not, you need to look at something else, such as its credit performance. However, this surface logic leads to illogical consequences. The capital for a highly rated, tradeable and liquid instrument (such as RMBS, auto ABS and SME ABS) is many times higher than the capital for non-rated, non-tradeable and illiquid instruments (such as residential mortgages, auto loans and SME loans).

It is clearly more prudent for an insurance company to hold investments that it can readily sell. But, as prices can fluctuate in turbulent markets, this means that for high quality/low risk assets, the capital required for holding them can be much higher than their underlying credit performance warrants.

This problem was exacerbated for securitisations by the choice of the period for which statistics were gathered to measure market volatility. The market volatility of various instruments available to insurance companies was calculated by the Commission based on performance during the 2007/2008 crisis; in other words, during a liquidity crisis of EU securitisation. As was pointed out at the time, this unfairly treated this one instrument compared to all others: corporate bonds during a corporate bond crisis (eg Enron) or sovereign bonds during a sovereign crisis (eg Greece) or covered bonds during a banking and sovereign crisis (eg 2010-12) will all suffer greater volatility than other comparable instruments.

The result of this was that if an insurance company purchased low credit risk but illiquid loans the capital, calculated on underlying credit risk, would be no greater – and in some cases, substantially less- than the capital required to purchase exactly the same asset risk but (a) in liquid form and (b) with credit protection layers. Put simply, insurance companies were required to set aside less capital if they bought more risk in an illiquid form (ie raw mortgage loans) than less risk in liquid form (ie the senior or mezzanine tranches of the same mortgage loans in a securitisation bond format). For example, taking into account the application of the duration multiplier, there is a lower capital requirement to hold a 30-year mortgage pool than a five-year senior or mezzanine tranche of an MBS based on the same mortgage pool.

But what about the price volatility of bonds? We must remember that liquidity illustrates an option. There is no obligation on an insurance company to sell a bond when its price falls. If, like the vast majority of European securitisations, the investment is of a high credit quality, the insurance company can hold on to that investment to maturity. It is not good prudential policy to punish regulated entities for giving themselves more options.

The result of the original design to Solvency II is that European insurance companies have withdrawn from the securitisation market but are aggressively purchasing whole loan pools. These are illiquid pools of loans without the credit protection that securitisation tranching

provides, involving also substantial operational risk. The legislation, as designed, is therefore (i) constraining the supply of European capital market instruments thus weighing down any progress of the CMU, (ii) pushing insurance companies to purchase less liquid and more risky assets thus lowering rather than increasing prudential stability, (iii) limiting the issuance of high quality STS securitisations thus limiting the diversification of funding for banks and reducing therefore the macro-stability of the European banking sector, and (iv) reducing the possibility to distribute risk across the financial system by preventing insurance companies from investing in mezzanine tranches of STS ABS, for which they are uniquely qualified to analyse, price and hold, and which offer diversification and yield enhancement opportunities for their portfolios.

Since Solvency II's original design two developments have taken place. First, despite the original concerns over European securitisation that emerged with the problems suffered by US sub-prime mortgage products in 2007/2008, traditional European securitisations performed spectacularly well throughout the crisis. Investment grade traches (senior and mezzanine) of securitisations in the traditional asset classes (mortgages, consumer and SME loans) suffered no losses at all, notwithstanding some extreme economic and credit conditions (eg. Spain and Greece).

Secondly, deep analysis of the crisis by academics and authorities such as the EBA allowed us to understand the precise characteristics of the flawed securitisation instruments that performed catastrophically during the crisis. This understanding was incorporated in the criteria defining the new STS asset class.

Reflecting these developments, the Commission modified the capital requirements for STS securitisations but the recalibration was inadequate especially for the non-senior STS tranches. This strikes us as a missed opportunity to remedy inconsistencies and irrationalities in the current set up.

Currently, the rules still leave non-senior securitisations in an anomalous position. For example, the capital charges range for single-A non-senior STS tranche with a duration of up to 5 years (4.6%-23%) is comparable with a BB rated corporate of similar duration (4.5% - 22.5%). This incentivises still an insurance company to buy, in this case, a non-investment grade concentrated single name risk over a good investment grade tranche of securitisation of diversified portfolio of say European SME loans.

STS was also designed to focus on the whole securitisation, not the senior tranche only. So, all the advantages in terms of transparency, structural resilience and stability of STS apply to all the tranches of an STS securitisation.

This issue matters because high investment grade mezzanine tranches of securitisations offer comparatively good returns to insurance companies, especially when set against the low risk of STS securitisations and are safer than many of the more lowly rated products they are incentivised to purchase by the current regulatory capital structure.

By not extending adequate capital treatment to non-senior STS securitisations in the context of Solvency II capital requirements, the Commission left open a regulatory arbitrage that incentives sub-optimal prudential outcomes, did not follow through on the logic of its own and the co-legislators new regulatory architecture, and provided an unjustified brake to its own CMU program realisation. ■

This paper was drafted by Ian Bell - Head of the PCS Secretariat

5. DATA CHALLENGES

Data protection, fairness and sharing

An introduction to data protection, fairness and sharing

When considering the building blocks of a discussion regarding Data Protection, Fairness, and Sharing, it is useful to identify three key players, and how the stakes and challenges of these players intertwine.

As the player from whom the data originates, it seems natural to begin with the consumer, also referred to as the data subject. In the first stage of the data lifecycle, and in what is probably the most basic instance of sharing data, consumers provide their data to corporations in various ways. Only in more recent years have the interests of consumers, such as the protection and ownership of their data, come to the forefront of the debate on data. This, in turn, can come into conflict with the interests of the second player- the corporation that uses this data, which may be referred to as a data controller or a data processor. Ultimately this user strives to derive value from this data, for instance a financial gain or a strategic advantage.

As the data economy has grown and developed, a gross imbalance of power has arisen between consumers and corporations, and the regulator has stepped in as a key player to mitigate this. However, the regulator also recognises the benefits of leveraging data for both players. Therefore, their mandate is twofold, pledging to both protect the consumer, while enabling and encouraging the free movement of data. As such the third player plays a vital role in harmonising the interests of the other two players.

This paper explores the opportunity for financial institutions in the era of big data. It addresses the risks that are likely to arise, and the responsibilities of the regulator and of financial institutions themselves to alleviate these risks, thus allowing financial institutions to fully realise the power of their data and the technologies that can be applied to it.

A call to action

In the age of big data lies a fruitful opportunity for the financial sector. With this opportunity comes a call to action for the industry- to confront the reality that the industry is hoarding a goldmine of data that is far from reaching its potential.

While other sectors have seen enormous benefits of utilising data, the financial sector still lags behind. Meanwhile, in just over a decade, 'Data Giants' such as Facebook and Google have turned data into a commodity that is surpassing the value of oil. If we consider the intelligence that an organisation such as Amazon reaps from customer insights generated by data analytics tools, and thus contemplate the potential knowledge that financial institutions could gain about their customers from financial data, we are pressed to ask ourselves why the financial industry is not doing a lot more with their data.

Perhaps what sets the Data Giants apart is the innovative and modern mindset that they maintain towards data. They also have the advantage of being incumbents in relatively new industries where there is either a zero-tolerance policy towards legacy solutions, or where antiquated systems simply do not exist.

An unnerving element of this call to action, is that given the surge of the importance of data for the financial industry, combined with how accomplished these 'Tech Giants' have become in mastering the art of data, a threat arises that these corporations may emerge as competitors in the financial industry. This leads us to question why the financial sector has fallen so far behind, and what is it that the Tech Giants are doing that the financial industry is not?

Having access to large amounts of data is a definite strength of the financial industry. However, this advantage comes with the caveat that if this data is not refined and converted into a manageable format, then its value cannot be exploited. This is why implementing data standards is critical for the industry.

The history of poor data management for the financial industry is quite an unforgiving one. For example, if a common data format for mortgages had existed in 2007, banks could have seen growing risks in mortgage-backed securities more readily instead of just relying on top-level ratings. Unfortunately, ten years after the crisis, much of the financial data in the industry remains trapped in black box, legacy systems in either a non-existent or non-extractable format. It follows that the big data problems of financial institutions can largely be solved by releasing this data through the implementation of data standards.

The necessity of better data standards has come to light for many industry players, including the regulator. Data standards can also play an important role in addressing the various risks that arise while utilising data in conjunction with modern technologies, which both the regulator and financial institutions ought to be aware of.

Acknowledging the risks

You cannot have a conversation about data without acknowledging various concerns with respect to privacy, data protection and the ethical use of data. It is not that data itself is a double-edged sword, but how it is used undoubtedly can be. This prompts us to question how to strike the balance between securing the colossal benefits of data and ensuring that the risks of misuse don't materialise.

The GDPR deserves recognition as a momentous advance in protecting individuals from the harmful effects of data. It has certainly brought the protection of the consumer and their ownership of their personal data into light, and since its adoption consumers have become more aware of how often they share their data.

Given the ongoing pace of technological development, and the assertion that AI and machine learning technologies will replace many functions in the financial sector, the GDPR does not go far enough. AI and machine learning tools essentially learn from the patterns and behaviours of the underlying dataset to which they are applied, and therefore a huge risk emerges if the underlying data is biased, unfairly presented, or even incorrect or inaccurate. Biases can also arise in the interpretation of the dataset (perhaps based on how the data has been presented), and in the AI or machine learning algorithm itself.

With this in mind, controls must be in place to ensure results of using machine learning or AI technologies are explainable and auditable, meaning that they can always be tracked back to a source. A consumer must be able to depend on their bank not to deny them a mortgage on the basis of an AI algorithm that they cannot explain, or of an underlying bias in the bank's data set.

The financial services industry is highly dependent on consumers trusting the system and the institutions that they deal with, and as more customer-focused models are adopted this becomes increasingly important. As financial institutions begin to release the power of their data, they ought to have learned from recent events where misuse of data by Tech Giants has had a damaging effect on consumer trust, as well as on the reputation of these companies.

This is not to say that the financial industry doesn't have its own reputational challenges, as is evident in emerging money laundering investigations. Therefore, procuring the right culture and attitudes internally will be an important factor for financial institutions as data is used more freely. It should be acknowledged that, as financial institutions will probably find themselves eager to implement data strategies and algorithmic tools quickly in order to get ahead and catch up with the capabilities of other industries, quite easily ethical considerations could become an afterthought. This is concerning, considering that the consequences of data misuse could be very severe in the financial industry. To mitigate this, training, education and governance frameworks should be adopted. For example, this could consist of guidelines on how users of data can identify and overcome biases, or that teach users not to put blind faith in algorithms, and instead how a human input can often compliment an algorithmic decision.

The role of governments and regulators

European regulators and public authorities have the responsibility of protecting consumers from the harmful effects of misuse of data, but also to enable the European financial industry to harness the power of data and to remain competitive on a global scale. In many ways, given that post-crisis regulation is demanding financial institutions to report their data more granularly and more frequently, the regulator is encouraging institutions to optimise their data management processes in order to fulfil their regulatory obligations. This also has the intent of protecting consumers from another financial crisis.

Nonetheless, a knowledge gap exists where policy makers don't have a sufficient understanding of what technology developers in the financial sphere can do with data, making it difficult for them to regulate this and create effective guidance on data standards. Governments need to invest in hiring in-house talent with in-depth knowledge of big data, AI and Machine learning so that they can become highly educated about these topics internally.

Upon ascertaining this knowledge, regulatory policy could play an important role by adopting auditing and governance processes. This might involve a future where, in the same way that firms are audited regularly to maintain IT Security certifications such as ISO, the traceability of their algorithmic decision making, and the integrity of their data sets are audited on a frequent basis. The regulator should also have a role in publishing data standards, as well as guidelines on what it means to use data ethically.

Furthermore, naturally, larger data sets mitigate the risk of biases and the government has access to large amounts of data. This sparks the question of whether the government should lead by example by converting data into a shareable, scalable format that can be consumed by the industry and that allows for future disruption.

These are just some of the ways that governments and regulator can ensure that the ethical reality is not lost as the financial industry embraces the era of big data and the revolutionary technologies that come with it.

Embracing the technology

Embracing the latest technologies allows industry players to realise the usability of their data and effectively mine their data resources. For the private sector, at a time where margins are low and competition is high, this is extremely valuable.

Implementing data standards that are technologically digestible allows firms to put technology first. After all, standards such as basic HTML formats and others for sending and receiving data have made software and technology possible. For a standard to be technologically digestible it must be capable of being understood by a developer who knows nothing about finance, thus,

allowing the industry to attract tech-talent by giving developers data that they can work with.

The fact that the financial industry is recognised as a more traditional sector should not prevent it from seizing the opportunities of a technology-led future. Without addressing its big data problems, this opportunity is likely to be missed. The winners in the age of big data will be those that invest in organising their data architecture and unlocking their data, thus realising the rich opportunities of cutting-edge technologies. ■

This paper was drafted by Sarah Murphy, In-House Counsel at Suade Labs. Suade Labs is a RegTech firm with a data driven approach to regulation and with a mission to prevent the next financial crisis by bridging the regulatory gap through modern technology.

Notes

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