

2018.08.22

FRENCH BANKING FEDERATION RESPONSE TO CONSULTATIVE DOCUMENT ON EVALUATION OF THE EFFECTS OF FINANCIAL REGULATORY REFORMS ON INFRASTRUCTURE FINANCE

The French Banking Federation (FBF) represents the interests of the banking industry in France. Its membership is composed of all credit institutions authorised as banks and doing business in France, i.e. more than 390 commercial, cooperative and mutual banks. FBF member banks have more than 38,000 permanent branches in France. They employ 370,000 people in France and around the world, and service 48 million customers.

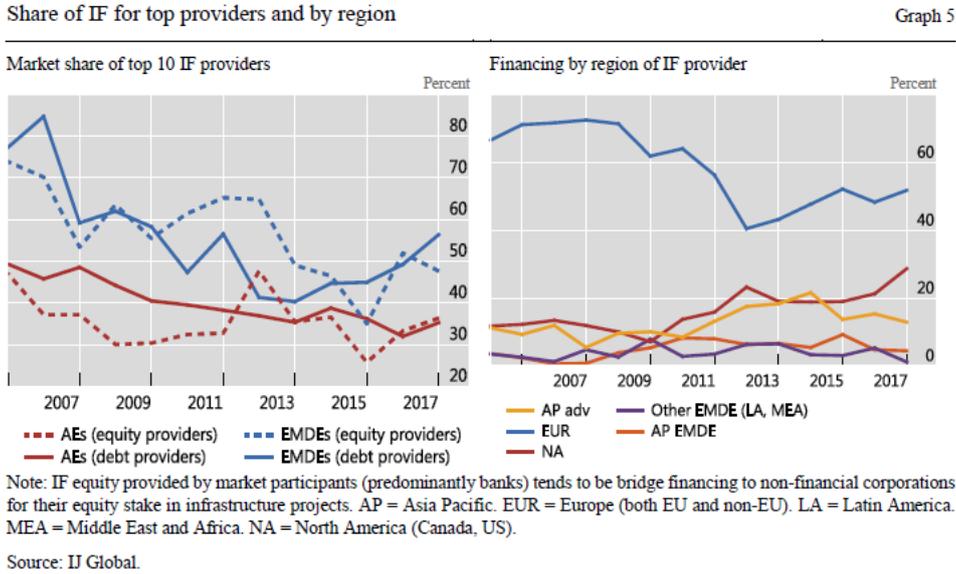
The FBF welcomes the opportunity to share its comments on the FSB consultative document on Evaluation of the effects of financial regulatory reforms on infrastructure finance. This answer leverages the long standing experience of French banks in Infrastructure financing where they have developed over time a global expertise that puts four of them in the top ten of Global Infrastructure Finance Lead Arrangers (Source: IJGlobal)¹.

Global Infrastructure Finance League Table

MLAs (Mandated Lead Arrangers)									
Deal Count					Value				
Rank		Deal count			Rank		Value (\$m)		
2016	2015				2016	2015	2016	2015	
1	1	Mitsubishi UFJ FG	164	153	1	1	Mitsubishi UFJ FG	15 806	19 091
2	4	Sumitomo Mitsui FG	127	138	2	2	Sumitomo Mitsui FG	13 588	14 992
3	2	ING Group	92	150	3	N/A	Chevron	9 000	N/A
4	5	Crédit Agricole Group	79	119	4	3	ING Group	8 730	14 367
5	7	Société Générale	72	99	5	6	Mizuho FG	7 691	10 347
=	6	BNP Paribas	72	112	6	9	Société Générale	7543	9107
7	8	Mizuho FG	69	91	7	4	BNP Paribas	7150	12653
8	11	Natixis	64	62	8	5	HSBC	6672	10705
=	3	Santander	64	139	9	8	Crédit Agricole Group	6526	10140
10	15	NordLB	61	54	10	13	Natixis	6003	5581

¹ Covering project, corporate and non-commercial infrastructure finance (including Oil and Gas, Power, Transport, Social and Defence etc.).

Besides Graph 5 of the FSB Report stresses the overwhelming predominance of the European funding source (see below)



1. General Comments

The FBF reiterates its support for a stable and resilient global financial system, while facilitating economic growth. However, the FSB paper is focused on the impact of existing regulation and we believe that Basel 3 reform (a/o dec 2017) raises some major concerns for infrastructure financing that need to be addressed by the FSB. Indeed, on the one hand, by construction historical data used by the FSB cannot capture the effects of this regulation which is not yet implemented but is nevertheless part of the post-crisis financial regulatory reforms the G20 asked the FSB to analyse the effects; and, on the other hand, when the FSB mentions this new regulation it neglects some key issues which question (very negatively) the impact of this regulation on banks infrastructure financing... when banks loans make up the bulk of infrastructure financing. Therefore we urge the FSB to not draw definitive conclusion on the Basel 3 impact before the BCBS Monitoring Report is published (March 2019).

Financial market can support infrastructures in various ways. However the challenge of mobilizing greater private sector financing for infrastructure, which is one of the main G20 goals, implies a better understanding of the relationship between the participants in infrastructure financing.

Infrastructure projects are normally financed predominantly by debt, which in the past has been provided mainly by the banking sector. However, there is a growing appetite from institutional investors to access this area of the market given the post-crisis retrenchment of the banking sector, especially in European banks that were global players, as the overall interest rate environment encourages investors to search for yield.

In the concept of "Infrastructure as an asset class" there is an implicit assumption that an infrastructure financing keeps the same risk profile throughout the life of the project. It is not the case: construction (greenfield) and operating (brownfield) phases' risks are very different. Therefore there is a need to

better match banks vs investors risk appetite with project phases specificities. Banks are better placed to finance construction risk when insurers and pension funds are the most natural holders of long term liabilities. Indeed preparation and construction phase typically requires technical expertise and time horizons to put money at work which may not be compatible with institutional investors asset allocation constraints, while the less risky and very long term financing of the operating phase may be better suited for a broad range of institutional investors. However it may not be available to them given a lack of solutions (notably securitisation) to transfer risks (from banks to institutional investors) at portfolio level.

The implementation of new regulation required banks to double their lending portfolios' CET1 capital ratio (at constant risk weighted assets). This resulted in an increased market concentration on banks having dedicated teams of experts in structuration and loans syndication. A new balance has been found where leading banks have developed their advisory activities while reducing their final takes in order to maintain their return on capital. Tier 2 banks, which had not developed similar technical expertise and were participants in syndication, have been driven out of the syndication market as they had no access to structuring fees and return on capital became unviable. However this balance would be called into question. Indeed regulatory reform (notably Basel 3 package dated December 2017) will lead banks to further reduce their Infrastructure Financing activities despite the fact that the final Basel accord allows Advanced IRB models to be maintained. Most observers, including the FSB, would draw the conclusion that the RW would remain stable or even reduced by the 1.06 IRB multiplier deletion (For instance, see Box 2 - page 27 - of the Consultative Document). Unfortunately this not the case (See section 3 below).

Indeed, although Specialized Lending is a low risk asset class, with roughly loss rates twice lower than unsecured corporate exposures, the revised Basel 3 framework gives no value in the standardized approach to the asset in security, and denies the observed good recovery data and the comprehensive security package (which allows the lenders to pro actively monitor the risk and anticipate potential payment difficulties well ahead of a default) from which Specialized Lending lenders benefit in the IRB approach.

This will result in a significant increase in Project Finance Risk-Weighted-Assets (RWA). The best transactions and most of the good ones will be highly penalized.

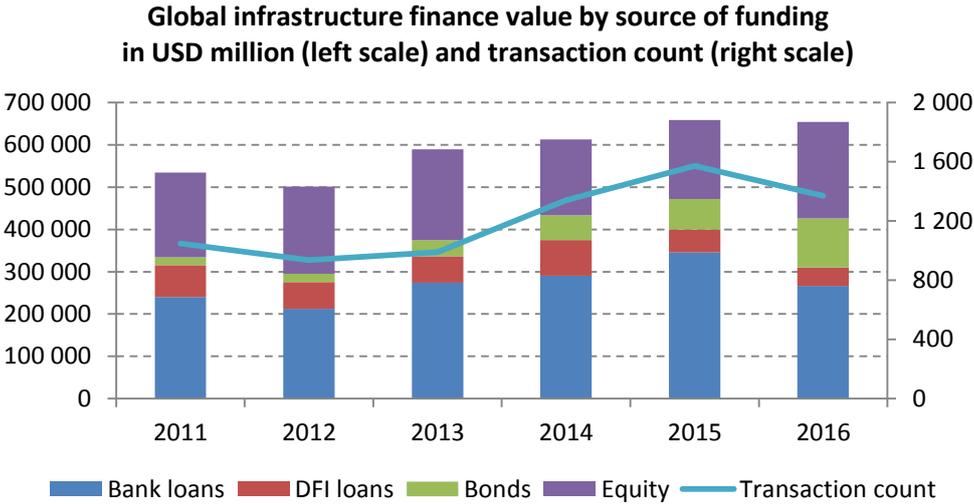
Yet, RWA is a key parameter in the allocation of their resources by banks. The strong increase in RWA for project finance would force banks to allocate much more capital against those exposures, which could only be achieved through a combination of massive rises in pricing conditions and degradation of loan parameters (e.g. lower advance rates, shorter tenors):

- It will imply a strong increase in the cost of financing for clients and beyond by increasing the debt service, it will penalize the final payer (public entities or consumers)
- Adequacy of the level of cost of financing bearable by the client and minimum return for the banks for these financings will be difficult to achieve given too high RWA required.

Finally, banks management might challenge these activities implying a strong reduction of the volumes of loans granted with a detrimental effect on infrastructure financing and the G20 objectives.

2. Banks’ specific role in infrastructure financing

In its draft report², the FSB highlights that “A greater diversity of IF providers may contribute to the stability of IF over time. The analysis points to some substitution in recent years of bank financing by market-based financing in AEs, particularly during later stages of the investment life cycle. [...] Such a shift, in addition to providing diversity in financing, might contribute to a better alignment of providers and users of finance based on their respective investment horizons and risk-bearing capacity”.



We will demonstrate hereafter that even if insurers and pension funds are the most natural holders of long term liabilities, banks are better placed to finance construction risk.

Indeed construction risks assessment requires teams of expert engineers specialized per asset class, not to say sub-asset class. To put their money at work, asset owners must also put in place a selection process, select the bidders... Banks meet these needs. They usually have dedicated project finance teams in charge of advising and arranging such financings, which also requires a specific monitoring during the drawing period (several drawdowns, waivers, etc.). However to be profitable there must be a critical mass of projects diversified enough to cover the bank’s fixed operating costs.

Infrastructure assets have intrinsic risks that are specific to each project (technical, political etc.) notably in the construction phase. This does not fit well with standardization expected by institutional investors. In addition to specific expertise mentioned above, such risks require introduction in the documentation of mitigation strategies on a case by case basis, making them more suitable for MDBs and banks with dedicated expertise.

Main constraints to develop a fully standardized approach for the financing documentation (desired by institutional investors) in relation to long term infrastructure financing (i.e. PPP financing) are:

1. Each country has its own specificities and government entities do not have the same creditworthiness;
2. Differences between applicable regulations;

² Executive summary

3. Diversity of the sponsors ready to undertake the construction of the infra projects and diversity of the structure of the project documents (multi sourcing, EPC contractors, etc.);
4. Different level of complexity depending on the underlying project and the operations that are to be covered by the PPP (e.g. an hospital would always be more complex than toll roads);
5. Political vision of the authority varies, depending on what is to be outsourced to the contractors (for instance, expropriation could be dealt with by the sponsors in certain countries, while this would be dealt with by the State or its governing bodies for others).

Given the complexity embedded in the financing of greenfield projects, this is mainly a bank market for the time being, although institutional investors are more and more keen on participating in their refinancing post completion (eg current examples in the market with bank and longer term institutional tranche) while leaving the refinancing risk at banks' level. Of note, the overwhelming liquidity in today's markets and its consequences on the pricings of such refinancing, might impact the investor appetite in the mid-term in the absence of a correction of such markets.

Furthermore, banks offer comfort to other long-term investors. Due to their role at the early stage of infrastructure projects, banks are in a natural position of structurer and lender. This dual role brings safety for other long term lenders. Indeed it helps to assure the alignment of banks' interests with those of other stakeholders. It can be seen as making banks putting 'skin in the game' (similar to sponsor/originator's retention in a securitization), which brings considerable comfort to (and is in fact a usual requirement of) investors.

3. Basel 3 – phase 2

Regarding banks infrastructure financing, the current situation is critical. Indeed banking regulation, notably the December 2017 BCBS package, will increase capital required for infrastructure and other specialized lending activities leading commercial banks to further reduce their activities.

Such a new wave of bank deleveraging would be a disaster for the financing of the infrastructure needs and the economy at large, with Emerging and Developing countries the first to be hit by banks risk aversion when market capacity will grow only gradually and will remain scarce for greenfield projects (construction stage).

Properly risk-managed and diversified infrastructure debts demonstrate also a low risk profile at portfolio level which unfortunately is not recognized in financial regulations (notably banking regulation).

3.1. Internal Model

In its draft report the FSB assumes that the second phase of Basel 3 will have a negligible impact on RWA for IRB Banks. Due to the deletion of the 1.06 IRB multiplier, the FSB considers that the RWA should even slightly decrease.

We disagree with such an assumption. On the contrary, new collateral eligibility criteria as well as LGD floors will have a negative impact on the best quality transactions and RWA will increase significantly on Project Finance portfolios for IRB banks.

3.1.1. Collateral eligibility

Infrastructure financing, which are secured transactions, should be treated as such in the regulatory framework. For this to be the case, additional specific eligibility criteria have to be fulfilled, notably in terms of liquidity and price quotation with the objective of ensuring a quick sale of the collateral. Moreover, a 40% haircut could be applied to the value of an eligible collateral, which aims to take into account the difficulty to sell quickly and at a good price this collateral.

Requirements for recognition of physical collateral other than financial collateral and CRE/RRE in the December 2017 Basel Agreement

According to the new accord, in order to receive recognition for physical collateral other than CRE/RRE, the bank must meet specific requirements (set in §295) as well as the operational requirements set for eligible CRE/RRE (§283 and §284), with a few exceptions specified in §296.

Specific requirements (§295 and §296)

295. Supervisors may allow for recognition of the credit risk mitigating effect of certain other physical collateral when the following conditions are met:

- **The bank demonstrates to the satisfaction of the supervisor that there are liquid markets for disposal of collateral in an expeditious and economically efficient manner.** Banks must carry out a reassessment of this condition both periodically and when information indicates material changes in the market.
- **The bank demonstrates to the satisfaction of the supervisor that there are well established, publicly available market prices for the collateral.** Banks must also demonstrate that the amount they receive when collateral is realised does not deviate significantly from these market prices.

296. In order for a given bank to receive recognition for additional physical collateral, it must meet all the standards in paragraphs 283 and 284, subject to the following modifications.

[...]

- **Bank credit policies with regard to the transaction structure must address appropriate collateral requirements relative to the exposure amount, the ability to liquidate the collateral readily, the ability to establish objectively a price or market value, the frequency with which the value can readily be obtained (including a professional appraisal or valuation), and the volatility of the value of the collateral. The periodic revaluation process must pay particular attention to “fashion-sensitive” collateral to ensure that valuations are appropriately adjusted downward of fashion, or model-year, obsolescence as well as physical obsolescence or deterioration.**

Operational requirements set for eligible CRE/RRE (§283 and §284)

283. Subject to meeting the definition above, CRE and RRE will be eligible for recognition as collateral for corporate claims only if all of the following operational requirements are met:

- **Legal enforceability:** any claim on collateral taken must be legally enforceable in all relevant jurisdictions, and any claim on collateral must be properly filed on a timely basis. Collateral interests must reflect a perfected lien (ie all legal requirements for establishing the claim have been fulfilled). Furthermore, the collateral agreement and the legal process underpinning it must be such that they provide for the bank to realise the value of the collateral within a reasonable timeframe.
- **Objective market value of collateral:** the collateral must be valued at or less than the current fair value under which the property could be sold under private contract between a willing seller and an arm’s-length buyer on the date of valuation.
- **Frequent revaluation:** the bank is expected to monitor the value of the collateral on a frequent basis and at a minimum once every year. More frequent monitoring is suggested where the market is subject to significant changes in conditions. Statistical methods of evaluation (eg reference to house price indices, sampling) may be used to update estimates or to identify collateral that may have declined in value and that may need re-appraisal. A qualified professional must evaluate the property when information indicates that the value of the collateral may have declined materially relative to general market prices or when a credit event, such as default, occurs. [...]

Yet these haircuts and eligibility criteria were not designed for Project Finance:

- One the strength of Project Finance is the capacity to reschedule the repayment profile and postpone the maturity, in case of difficulties of the borrower. As the loan generally has a maturity shorter than the asset life, lenders don't necessarily have to sell the asset in case of default. They can reschedule the repayment profile and postpone the maturity. There is no emergency for selling the asset which can be operated and the loan can be rescheduled over a longer maturity thanks to the residual asset life. Therefore, applying a 40% haircut corresponding to a liquidity risk does not make sense.
- Moreover, for project finance, there is no market to assess project values. The haircut to an asset value cannot be applied. Yet projects value should be recognized as the future cash flows enabling to repay the debt and provide flexibility notably in case of restructuring. Projects generate sustainable cash flows over their long asset lives. It is difficult to value them as an asset value or as the sum of the values of the collaterals pledged to the lenders. If the effect of the collateral improves the recovery rate of the transaction, its effect cannot be solely measured.

Therefore, under the proposed framework,

- it is not excluded that the 40% LGD for unsecured transactions apply to project finance under F-IRB approach, would the collateral not be considered as eligible under revised Basel 3 criteria, although Project Finance are clearly secured transactions.
- the consequences for LGD models eligibility under A-IRB should be carefully assessed. At least it is worth noting that LGD input floors are derived from F-IRB framework. Therefore it is possible that an unsecured corporate input floor would apply to project finance transactions.

3.1.2. Input floor for A-IRB banks

We welcome the decision to maintain internal models on Specialized Lending portfolios. However, the revised framework deals only partially with the IRB framework, leaving room for unintended consequences.

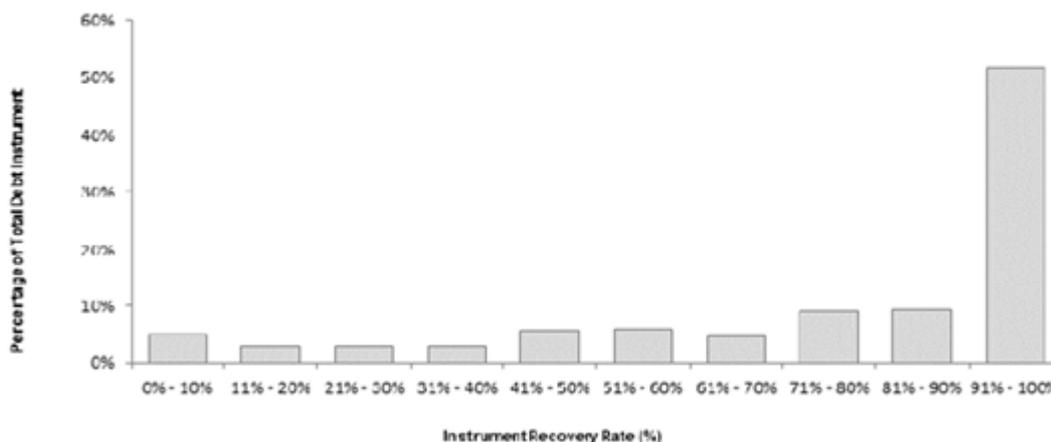
Since Specialized lending transactions are part of the Corporate asset class, the input floors calibrated for corporate transactions will apply and the minimum LGD will be included in the range [15% ; 25 %] i.e. 15% for a fully secured transaction; 25% for an unsecured transaction.

As mentioned above, due to the revised collateral eligibility criteria, it is likely that the 25% LGD floor for unsecured transactions would apply to project finance transactions.

Given the discounted recovery rates observed on project finance, the proposed LGD input floor (designed for unsecured corporate exposure) seems overly conservative. Indeed, the Annual Global Project Finance Default and Recovery Study published in December 2015 by S&P shows that for 52% of all resolved loans that defaulted, the LGD is comprised between 0% and 9%. The average LGD is of 23.6%, stable over time. Given this data, the input floor of 25% seems in line with observed average but will penalise the better half of the market where observed LGD is below 10%.

The data includes 429 projects that have emerged from default, with 1659 loans in total, covering a deep period (1987-2016). Data are discounted using the loan rate, i.e. including the margin rate which is conservative.

Exhibit 21
Distribution of Discounted Recovery Rates at Instrument Level (1987 – 2016)



Source: Annual Global Project Finance Default and Recovery Data by S&P Global Market Intelligence. As of 12 December 2017

Therefore, for Project Finance, the 25% input floor corresponds to 100% of the average LGD or more, which seems clearly excessive.

	Observed LGD	IRB LGD Input floor	Floor/ observed LGD
Project finance	23%	25%	109%

Setting a floor at the level of the observed average does not make sense and penalizes the best transactions and most of the good ones:

- This will have the **unintended effect of highly incentivizing banks to choose the most risky transactions** which will be the only ones to generate a margin sufficient to get an acceptable Return on Equity (RoE).
- With such floor, European investments plans in terms of renewable energy would be negatively impacted. Banks management would challenge these activities due to too high RWAs. Volumes financed would be strongly reduced.

Also, the table below illustrates the lack of granularity of revised Basel 3 regulation.

Current IRB-LGD	Current RW	RW revised BIII	Increase in RW
10%	19%	45%	140%
12.50%	24%	45%	90%
15%	28%	45%	60%
17.50%	33%	45%	43%
25%	47%	45%	-6%
50%	94%	89%	-6%

Assumptions:

- Rating : BBB-
- Maturity ≥ 5years

The revised Basel 3 reform will not enable to differentiate the risks between the different transactions. While internal models enable to choose the best transactions, the LGD input floor totally cancels the effect of internal models and incentivize banks to choose the most risky transactions as the “good” transactions won’t have enough margins to bear such levels of RW. High quality projects (with very good sustainability of cash flows) will be highly penalized while the input floor will have no impact on the riskiest transactions

The actual IRB LGD input floor proposed for Project Finance in its final version was actually not tested in the QIS done before the publication of the final text, as only a 15% floor was widely circulated for QIS purposes. This means that the likely impact of the floor was considerably underestimated.

Instead of reinforcing the banks reliability, revised Basel 3 will imply an increase of risks in banks portfolios.

3.2. Standardized approach

The Standardized Approach must also be examined not least because of its connection with the output floor or potential public disclosure requirements.

The secured and structured nature of Specialized Lending transactions, together with the experience of dedicated teams, enables lenders to monitor closely the risk of these deals and benefit from low loss rates. As mentioned above (§3.1), historical losses show that Project Finance is a low risk asset class. However, the revised Standardized Approach (SA) considers Project Finance exposures as unsecured ones or even more risky, whereas pooled data show that they are twice less risky than unsecured corporate exposures and whereas Project Finance lenders benefit from comprehensive security packages. For example:

- Under the revised Standardized Approach, an unsecured exposure to a corporate borrower rated BB+ would have a RW of 100%
- A project finance exposure, with a borrower’s rating of BBB- to BB+ would have 100% RW or even higher 130% in pre-operational phase, ie equal or higher than for an unsecured corporate exposure (100%) whereas project lenders would have a comprehensive security package. Also, the high quality criteria enabling to have a 80% RW are very restrictive at this stage and would apply to very few projects.

It is worth noting that the output floor corresponds to 72,5% of the total risk weighted assets calculated using only the standardized approaches listed in the Basel revised framework. Therefore the revised standardized approach may have unintended consequences by increasing significantly the RWA for all Project Finance transactions (direct impact for banks applying the standardized approach and through the output floor for IRB banks).

As illustrated above, the secured nature of a financing through cash flows and valuable assets is not taken into account and the proposed standardized approach is not granular enough to reflect risk properly. This may ultimately lead to a large reduction in the volume of funds allocated to those activities by affected banks with a detrimental effect on infrastructure financing.

The most impacted asset/exposures classes are the ones which undergo a rather drastic increase of standardized risk weightings and / or the highest difference between IRB approach and the

Standardized approach. In failing to reflect specific aspects of Project Finance transactions in the regulations, the system will operate in reverse, penalising good risk in favour of bad one.

3.3 Consequences on infrastructure financing

Financial stability is supported by having a diversity of credit providers with different risk appetites.

Banks evaluate their activities and allocate capital based on returns on the regulatory requirements which represent their binding constraint. In failing to reflect risk properly, the revised framework can create distortions in pricing decisions and banks' capital allocation to the detriment of customers.

Only risk sensitive approaches are able to select the most suitable lending activities, contributing to the stability of the banking sector. The less risk sensitive the framework is, the more opportunities for regulatory arbitrage are created, incentivising firms to seek higher risk assets as a means of boosting returns.

The Basel II framework has contributed to a better risk sensitive capital framework, especially in Europe. European banks have massively invested in robust risk management framework including internal models. These models are used for capital adequacy purpose but also for the pricing of transactions and for economic capital allocation.

Non risk sensitive measures such as the Output floor and binding input floors will create misguided origination incentives. More specifically if a risk-insensitive indicator emerges as a binding constraint,

- banks will be incentivized to look for assets that will incur no capital penalty but will earn higher spreads (banks could achieve a better return on a riskier asset than on a better-rated asset) .
- and / or the cost will increase for end-user and banks will become uncompetitive for well-rated counterparties.

In such a scenario, all banks converge towards a common average risk weight and the same business model. In Europe, where the level of intermediation is high (above 70%), if banks will face a further significant increase of their capital requirement, this will translate into a further rebalancing of the financing of the economy between bank funding vs capital market funding. In this case the low risk assets will have to be financed by the market and / or institutional investors, as they will attract unjustified capital charge in bank balance sheet. However the financial markets are not enough developed in Europe to provide alternative solutions.

While banks have to change their business model and develop more capital market based transactions, asset managers are obviously prone to fill the gap. However asset managers insist on the liquidity of the local markets as a key criterion to decide to invest. Large asset managers with significant exposures to EM debt must go to the most liquid markets that provide the capacity to step in and out and hedge. Even as long term investors, they need to be able to get out if and when needed' (in contrast with the notion of 'patient capital' promoted by the MDBs).

Asset managers consider that pressure on bank inventories has had already a negative impact on their allocation to EM, translating into:

- higher transaction costs,
- lower ticket size,
- difficulty to hedge notably local currency risks, on longer maturities,
- high correlation implying that liquidity dries up very quickly.

For them, banks are needed to act as time buffers between buyers and sellers and only large and diversified banks with strong balance sheets could play this role, but face undue regulatory burden.

Therefore asset management cannot be the substitute to banks funding.

4. Conclusion

The latest Basel 3 Agreement does not appear having taken into account project finance asset class specificities (strategic nature of the infrastructure assets, structuring features, far better recoveries than the corporate unsecured asset class,...).

We believe that the **Basel Committee should reevaluate the impact of the prudential reform on infrastructure** policy in particular, and on specialized financing in general. This should concern the current standard and IRB approaches, and should also be considered for the coming revision of the slotting methodology.

Considering that Basel 3 reform will require a massive additional risk weight assets quantum, it could challenge viability of this long term financing activity by the bank market and require **alternative financing structures**. Over the last decade (2007-2017), European banks have been arranging more than 20% of the project loans market worldwide out of which more than a third of the European infrastructures loan market (roughly \$630bn of debt raised over the period) . Aside from providing capital, banks also bring critical structuring expertise and risk mitigation capabilities through their experienced project finance teams. They also bring significant comfort to other funders (export credit agencies, institutional investors...) by keeping “skin in the game” over the life of the projects. While project preparation and construction phase typically requires technical expertise and time horizons which may not be compatible with institutional investors asset allocation constraints, the less risky and very long term financing of the operating phase may be better suited for a broad range of institutional investors, however, it may not be available to them. To cope with the banks long term constraints, one alternative might be to build partnerships between banks and insurance companies/institutional investors according to which banks would finance the project until completion, and investors could partially replace the banks post completion (or even fully refinance banks for the least risky projects) when cash flows are generated by the operations of the infrastructure.

Of course, this remains to be fine-tuned but a condition precedent to such arrangement being implemented would be that investors are committed from day one to participate to the financing after completion (or banks can be sufficiently comfortable about the possibility to refinance with investors post-completion).

For this to work, **regulation must foster banks and insurance companies/investors role sharing**.

However there is a lack of solutions to transfer risks (from banks to institutional investors) at portfolio level, in particular in Europe given the lack of workable treatment of securitization on both issuer and investor side.