CONJONCTURE

November 2018: n°8

The impacts of IFRS 9 first-time adoption on southern European banks

The adoption of IFRS 9 on 1 January 2018 has changed the impairment model for financial assets, which is now based on the recognition of expected credit losses. A more granular analysis of the quality of performing assets, specifically the introduction of an intermediate category, has resulted in significant additional provisioning, curtailing bank equity. Given the already high level of provisions and the mediocre quality of their lending books (although this has since improved), the cost of transition to IFRS 9 raised further questions for southern European banks. Our analysis shows that the costs can be covered, but that they will be proportionately higher for Italian banks than for their Spanish and Portuguese peers. Such differentials suggest that a discrepancy exists between the processes of cleaning up of bank balance sheets.

Thomas Humblot

p.2

A more forward-looking model for recognition and valuation of credit losses

p.8

Cost of change in accounting standard is close to the estimated figures

Eco CONJONCTURE

ECONOMIC RESEARCH DEPARTMENT

BNP PARIBAS

The bank for a changing world

The impacts of IFRS 9 first-time adoption on southern European banks

Thomas Humblot

The adoption of IFRS 9 on 1 January 2018 has changed the impairment model for financial assets, which is now based on the recognition of expected credit losses. A more granular analysis of the quality of performing assets, specifically the introduction of an intermediate category, has resulted in significant additional provisioning, curtailing bank equity. Given the already high level of provisions and the mediocre quality of their lending books (although this has since improved), the cost of transition to IFRS 9 raised further questions for southern European banks. Our analysis shows that the costs can be covered, but that they will be proportionately higher for Italian banks than for their Spanish and Portuguese peers. Such differentials suggest that a discrepancy exists between the processes of cleaning up of bank balance sheets.

IFRS[1] 9 *Financial Instruments*[2], which is applied for annual periods beginning on or after 1 January 2018, has profoundly changed the principles on which banks and other listed companies prepare their financial statements[3]. The new standard has in particular changed the impairment model for financial instruments[4] purchased or originated, which is now based on the recognition of expected credit losses. As a result, banks will need to use all the quantitative and qualitative information in their possession relating to past, present and future events in order to measure the book value of their financial instruments.

Under the new standard, banks must record provisions for impairment from the moment of initial recognition of a financial asset. Subsequently, any significant increase in credit risk on this asset requires the recognition (at each reporting date) of additional provisions for impairment, even in the absence of a credit event. This represents a fundamental shift from the previous standard, IAS 39 *Financial Instruments: recognition and measurement*. The impairment model in the latter only recognised incurred credit losses and was based solely on historical quantitative information. Impairment of financial assets was therefore conditional on the occurrence of an objective evidence of impairment (one or more 'loss events'[5]) such as a default, for example. The approach to impairment in IFRS 9 is therefore more forward looking than in IAS 39 and leaves a margin of appreciation, notably in the definition of a significant increase in credit risk. This new impairment model might, however, reinforce the pro-cyclical nature of accounting provisions and to penalise, via the relationship between provisions and equity, the financing of the economy in the event of an economic downturn.

The application of IFRS 9 is retrospective[6] and it therefore applies to the stock of financial assets already held by banks. In practice, this change to the accounting standard resulted in the recognition at 1 January 2018 of additional provisions for impairment on a portfolio whose quality was unchanged relative to 31 December 2017 (1). This adjustment curtailed banks' equity. For all European Union banks the cost of IFRS 9 first-time adoption was generally estimated *ex ante* to be between 30 and 50 basis points of the fully loaded Common Equity Tier 1 (CET1) ratio. This estimate was in line with the effective impact for the major Spanish and Portuguese banks. The cost for the major Italian banks was, however, significantly higher (2).

A more forward-looking model for recognition and valuation of credit losses

IFRS 9 has replaced IAS 39, which came into force on 1 January 2005. Published in the Official Journal of the European Union on 22 November 2016, the final version of this new accounting standard incorporates several earlier partial versions, the oldest of which date back to 2009. As well as the impairment model, IFRS 9 has brought changes to rules for classification and valuation of financial assets and to hedge accounting (microhedging).

[1] *International Financial Reporting Standards*

[2] Commission Regulation (EU) 2016/2067 of 22 November 2016. Regulations are directly applicable in domestic law and, unlike directives, do not require transposition.

[3] Adoption and application of international accounting standards in the European Union are governed by Regulation (EC) No 1606/2002 of 19 July 2002. Application of IAS/IFRS standards has been mandatory for the consolidated financial statements of listed companies for all financial years starting since 1 January 2005. In France, unlisted companies may also elect to use IAS/IFRS for their consolidated financial statements. For insurance companies, application of IFRS 9 has been deferred to 1 January 2021 (by amendment of IFRS 4 dated 3 November 2017).

[4] *"Any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity."* Commission Regulation (EC) No 1126/2008 of 3 November 2008, IAS 32 *Financial instruments: presentation*

[5] Paragraph 58 of Commission Regulation (EC) No 1126/2008 of 3 November 2008, IAS 39 *Financial instruments: recognition and measurement*

[6] Article 7.2 Transitional measures

From incurred losses to expected credit losses

The aim of international organisations and bodies has been to increase banks' ability to absorb a deterioration in the quality of their portfolios using their own resources. This objective was set out by representatives of the G20 nations at the London summit in April 2009. They took the view that former accounting standards led to recognition of losses during the 2007-2008 crisis being 'too little, too late'. The proposed changes in accounting standards aimed to help strengthen the long-term stability of the banking system, thus complementing developments in prudential regulation. In the USA, the Financial Accounting Standards Board developed in 2016 the concept of current expected credit losses, which will come into force in 2020.

The introduction of IFRS 9 has profoundly changed the impairment model for financial assets. For example, banks are now required to record provisions for impairment as soon as a loan is made or a debt purchased. Subsequently, a change in the loss allowance must be recognised (resulting, where necessary, in additional provisions for impairment) if the credit risk on a financial asset has increased significantly since its initial recognition. These subsequent valuations must take place at each reporting date[7]. The bank will then have to apply the rules regarding impairment of financial assets measured at amortised cost or fair value through other comprehensive income[8]. Banks' provisions are therefore likely to rise very sharply as soon as there are the first signs of an economic downturn, and even more sharply during the downturn itself.

The impairment model is based on the recognition of expected credit losses, and no longer solely on incurred losses. IFRS 9 replaces a rules-based approach with a principles-based approach, which leaves a margin of appreciation. This fundamental change is likely to have a particular effect on banks, due to their activities of risk management and risk transformation.

This change in accounting standard will have no effect on banks' non-performing exposure ratios as it does not change their definition[9]. For a balance sheet of identical quality, however, the cost of risk will rise. Provisions for impairment will be made, even for assets that will never be subject to a credit event that would lead to their impairment. This change does not, therefore, represent a simple inter-temporal trade-off under which provisions for impairment already made will reduce those needing to be made when a financial asset is impaired. This increase in the cost of risk will therefore reduce the ability of banks to generate capital internally.

This said, the increase in banks' loss absorbing capacity will not necessarily be reduced, as expected credit losses will be more fully covered by outstanding provisions for impairment. Observers will therefore need to take account of the substitution of regulatory capital for provisions for impairment as a result of IFRS 9 when considering the banks' ability to withstand shocks.

In addition, as banks are not required to restate figures for earlier reporting periods, the possibilities for comparison between years are limited.

Asset classification and measurement simplified

Under IAS 39, financial assets were divided into four categories: financial assets at fair value through profit or loss, held-to-maturity investments, loans and receivables and available-for-sale financial assets.

Under IFRS 9, financial assets will now be placed in one of just three categories: assets measured at amortised cost, assets measured at fair value through profit or loss and assets measured at fair value through other comprehensive income (sometimes referred to as 'through equity'[1]). This classification, which is needed for the subsequent measurement of financial assets, is determined on the basis of the business model under which assets are managed and the contractual characteristics of the cash flows they produce.

The business model is determined by bank executives, at a higher level than the asset itself. A bank can, however, adopt several business models and even subdivide a portfolio in order to give a better reflection of the level at which the financial assets it contains are managed.

By default, an asset should be measured at its fair value through profit or loss (see Figure 1). If it will significantly reduce an accounting mismatch (or recognition inconsistency) and enable financial statements to provide more relevant information of the position of a bank, the latter may make an irrevocable election to designate, at initial recognition, a financial asset as measured at fair value through profit or loss.

A financial asset must be measured at amortised cost if the business model governing it is to hold the asset in order to collect the cash flows from it at specified dates and according to predetermined contractual terms. These cash flows must correspond solely to payments of principal and interest on the principal amount outstanding. Interest payments are received in compensation for the time value of money, credit risk and other factors (liquidity risk, administrative costs, etc.). This class of financial assets corresponds to loans and receivables under IAS 39.

A financial asset must be measured at fair value through other comprehensive income if the business model governing it is to sell the asset as well as to hold the asset in order to collect the cash flows from it at specified dates and according to predetermined contractual terms.

[1] Comprehensive income includes net income together with other income and costs ('other comprehensive income'), the inclusion of which helps to give a more accurate picture of the situation of a bank. Such items can affect the bank's equity, without showing up in the income statement (as is the case for certain changes in value).

[7] *"Financial statements shall be presented at least annually."* Paragraph 49 of Commission Regulation (EC) No 1126/2008 of 3 November 2008, IAS 1 *Presentation of financial statements*

[8] See Box 1

[9] See '*Guidance to banks on non-performing loans*' published by the European Central Bank in March 2017.

Classification of assets under IFRS 9

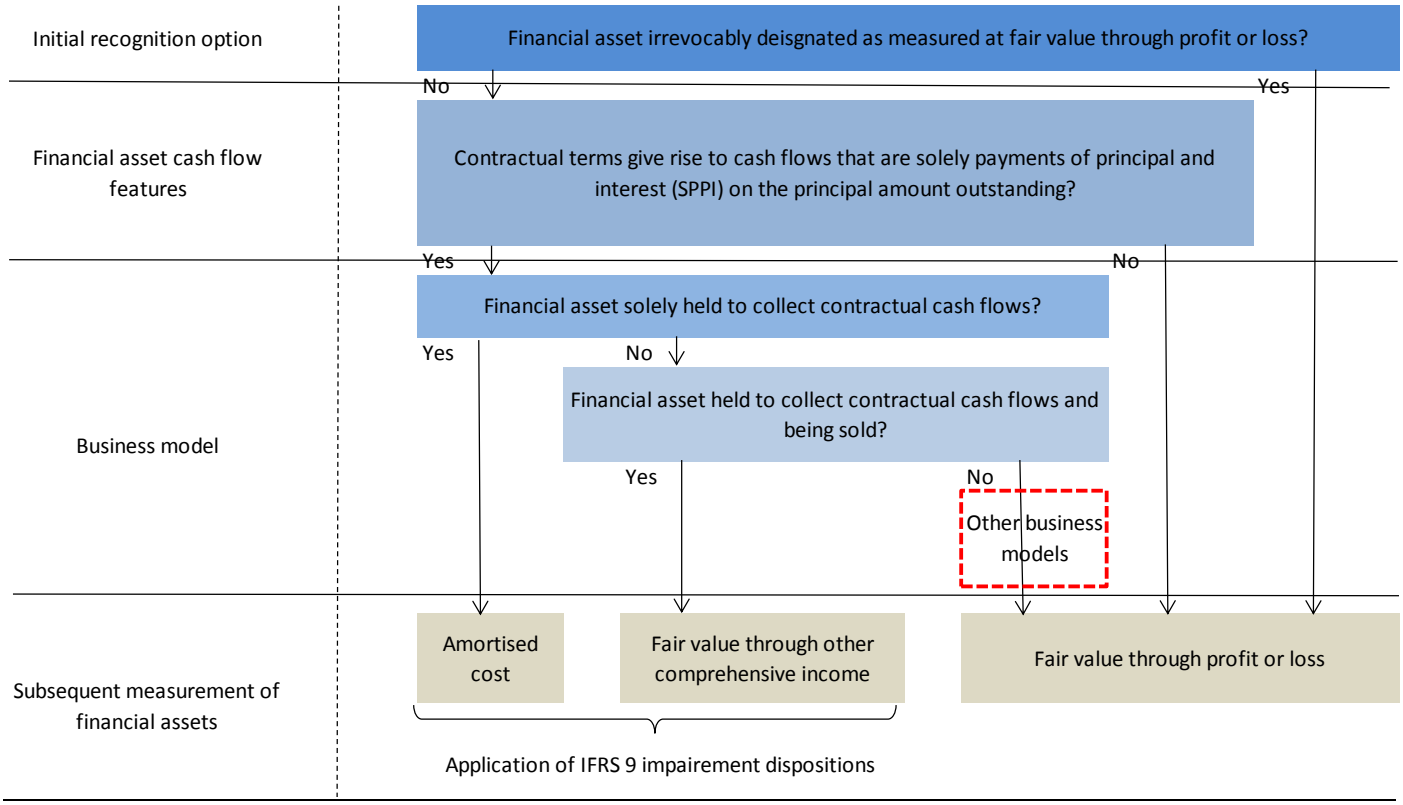


Figure1 Source: BNP Paribas

Assessing a significant increase in credit risk

For annual periods beginning on or after 1 January 2018, banks must assess, at each reporting date, whether the credit risk on a financial instrument has increased significantly since its initial recognition. This assessment must be in line with the internal credit risk management and is therefore based on a significant change in the risk that "one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation"[10]. The bank must determine, on the basis of a multi-factorial analysis, whether the risk of default on a financial instrument, across its entire expected lifetime, has increased significantly since its initial recognition.

All information available to a bank that is likely to convey the credit risk of a financial instrument must be used for the purposes of this assessment. The information used must be reasonable, supportable and the costs and efforts required to collect it must not be excessive. It could, amongst other things, include significant changes in prices or interest rates, substantial movements in market indicators or sizeable changes in the value of financial instruments with similar characteristics to the instrument in question. However, it could be limited to financial information about the debtor that is available to the bank. Thus, an assessment of a significant increase in credit risk is based simultaneously on both individual and collective information.

IFRS 9 allows the use of qualitative information to supplement the assessment of default risk, provided that this is relevant. This represents another difference from IAS 39, which only recognised quantitative information. The inclusion of qualitative information strengthens the forward-looking nature of the new standard as it can include elements that would not be included using quantitative information alone. This also gives the banks some margin of appreciation, allowing them to record in their financial statements values that are closer to those that they really attribute to a financial asset.

[10] Appendix A of Commission Regulation (EC) No 1126/2008 of 3 November 2008, IFRS 7 *Financial instruments: disclosures*

Schematic presentation of IFRS 9

	Stage 1	Stage 2	Stage 3
Introduced by IFRS 9	Yes		No
Financial instrument quality	Performing	Deteriorated	Non-performing
Credit risk increase	Not significant	Significant	
			Objective evidence of impairment
Impairment recognition	12-month expected credit losses	Lifetime expected credit losses	
Effective interest	Gross book value		Net book value

Table 1 Source: BNP Paribas

Let us take as an example a loan that a bank made in 2016 and that it plans to retain until its maturity in 2036. On 1 January 2018, with the introduction of IFRS 9, the bank will have to record provisions for impairment as if this were the initial recognition of this financial instrument even if its quality has not deteriorated. Bank's CET1 capital will be reduced by the same amount. At the reporting date for 2022, as in every year following the adoption of IFRS 9, the bank will have to assess whether the credit risk on this financial instrument has increased significantly since its initial recognition. To do this, a bank will have to apply all the information available to it on the asset in question and also on other similar assets. As a function of the outcome of this assessment, the bank may be required to recognise a loss allowance. It may therefore have to record provisions for impairment over and above those made for the adoption of IFRS 9 from 1 January 2018.

If credit risk has not increased significantly

If a bank assesses that the credit risk on a financial instrument has not increased significantly since its initial recognition, the loss allowance to be recorded is equal to the expected credit losses on this financial instrument over the following 12 months[11]. This amount corresponds to the credit losses that would result from all default events to which a financial instrument could be subject over its lifetime, weighted by the probability that such a default will occur over the following 12-month period.

Credit losses are measured as a weighted average, the result of a number of scenarios to each of which is attached a probability that it will occur (within a confidence interval). As a minimum, one credit loss scenario and one no credit loss scenario must be tested. In practice, some financial instruments will have to be subject to individual measurements, whilst for others a historical average of credit losses on a portfolio of financial instruments having similar characteristics could, for example, be used. This probabilistic approach represents a new departure from IAS 39, which only took the most likely valuation of the amount of loss from a range of possible losses, in cases where there was no single valuation. Incidentally, a bank may consider that the credit risk on a financial instrument has not increased significantly since its initial recognition if the borrower is in a position to meet its obligations.

For financial instruments measured at amortised cost or fair value through other comprehensive income, credit losses correspond to the present value of the difference between the total cash flows due to the bank and the total cash flows it expects to receive. The total of the present value of any shortfall, weighted by the probability of occurrence, as obtained from the various scenarios, is then recognised in the bank's net income as loss allowance for expected credit losses on a financial asset.

In our earlier example, the bank will measure at each reporting date a number of plausible scenarios, including that of default, even if it assesses that the credit risk on a loan has not increased significantly since its initial recognition. For each scenario, the bank will have to measure the present value of any shortfall by computing the difference between what it was contractually entitled to receive and what it estimates it would be in a position to recover. The results of these various scenarios will then be weighted by the probability of their occurrence and summed in order to produce a figure for the provisions for impairment that the bank must record. If the bank assesses that the credit risk on a financial instrument has not increased significantly, it will not have to record any provisions over and above those already recorded at 1 January 2018 on the adoption of IFRS 9.

A financial instrument that shows no objective and/or subjective sign of a significant deterioration of quality is said to be in 'Stage 1 of IFRS 9' (see Table 1).

If credit risk has increased significantly

If a bank assesses that the credit risk on a financial instrument has increased significantly since its initial recognition, the loss allowance to be recorded is equal to the expected credit losses over the entire expected lifetime of the financial instrument[12], rather than just the following 12 months. If necessary, the financial asset then enters into Stage 2 of IFRS 9, and the bank must record provisions for impairment in addition to those made when the asset was in Stage 1.

It was the stock of financial assets immediately classified in Stage 2 at 1 January 2018 which caused the bulk of the cost of the change of

[11] Article 5 (5) (5) of Commission Regulation (EU) 2016/2067 of 22 November 2016, IFRS 9 *Financial instruments*

[12] Article 5 (5) (3) of Commission Regulation (EU) 2016/2067 of 22 November 2016, IFRS 9 *Financial instruments*

accounting standard (see in particular Cohen and Edwards, 2017[13], as well as financial reports from the banks). Indeed, it was more particularly this introduction of Stage 2 that resulted in banks recording additional provisions for impairment. The increase in provisions for impairment relating to the introduction of Stage 1 resulted in only a relative modest cost. In addition, it is during Stage 2 that banks will see the largest increases in provisions for impairment at the first signs of an economic downturn and during the downturn itself.

In the event of the materialisation of an objective evidence of impairment, the financial instrument concerned is impaired, with some exceptions (see below). It then moves into Stage 3 of IFRS 9 which is equivalent to the situation for impaired assets under IAS 39. Provisions for impairment made during Stage 2 reduce by the same amount those that need to be made during Stage 3.

In the example of the loan used earlier, this could mean that the bank has observed a significant increase in the default rate amongst borrowers similar to the borrower in question or that the asset has been past due by a number of days on several occasions (Stage 2). If the payments are more than 90 days past due, the loan must be impaired (Stage 3).

Effective interest rates and interest income

Cash flows from financial instruments measured at amortised cost must be discounted using the effective interest rate method (EIR). For financial assets that are not impaired on initial recognition, this interest rate must be the initial interest rate on the financial asset.

More generally, the EIR (which includes certain commission payments) corresponds to the discount rate that equalises the sum of future discounted cash flows on the one hand, and the initial value of the financial asset on the other[14]. This rate is then used, for each preparation of financial statements, to discount future cash flows to be received or paid, the sum of which gives the amortised cost to be recorded on the balance sheet, without taking account of credit losses.

During Stages 1 and 2, interest income is calculated by applying the effective interest rate to the gross book value of the financial asset, which is to say its initial value. During Stage 3, interest income is calculated on the basis of the net book value of the financial asset, that is to say its value after impairment, which is a similar approach to that used by IAS 39. The interest income recorded is therefore calculated on the basis of what the bank expects to receive rather than what it is contractually entitled to (without impairment), which no doubt gives a picture closer to the income it will actually receive. Purchased or originated credit-impaired financial assets from their initial recognition have the effective interest rate, adjusted for credit quality, applied to their amortised cost.

To return to our example: in Stages 1 and 2, interest income will be calculated on the basis of the gross book value of the loan, which we have set at 100 for the purposes of our example. During Stage 3, the net book value of this loan is measured at 60 by the bank. Interest income is therefore calculated on the basis of the impaired value of the asset (60) rather than on the initial value (100) as in the two previous Stages.

The rebuttable presumption

The assessment of a significant increase in credit risk is based on a set of principles, but also on factors that *a priori* would require that the stage of a financial asset is changed, unless this presumption is rebuttable. Thus the credit risk relating to a financial asset is presumed to have increased significantly if the associated contractual payments are more than 30 days past due[15]. This loss event, which does not in and of itself constitute an objective evidence of impairment, can indicate a deterioration of the quality of a financial instrument. IFRS 9 establishes this as the final stage before a financial asset suffers a significant increase in credit risk and moves into Stage 2.

This presumption can however be rebutted as the bank has the option of not classifying an asset in Stage 2 if it can show that the credit risk has not increased significantly since initial recognition despite more than 30 days past due payments. The payments could be past due, for instance, as a result of an error.

Similarly, after being more than 90 days past due, a financial asset is assumed to be in default, unless the presumption can be rebutted, and must therefore be classified in Stage 3. This same criterion also forms the basis of the harmonised supervisory definition of non-performing exposures[16]. In any case, the moment at which a financial asset must be considered as having seen a significant increase in credit risk comes before the moment at which it is considered to be in default.

A symmetrical approach to risk

In cases where a bank believes that a financial instrument previously classified in Stages 2 or 3 has seen a significant reduction in its credit risk, it will be possible to reclassify it in Stage 1 or 2 respectively. Thus IFRS 9 takes a symmetrical approach to risk, with assets able to move in either direction between stages. This mechanism was already included in IAS 39, notably through reversals or adjustments to the allowance account in the case of assets recorded at amortised cost having seen a reduction in the impairment loss. If the loan examined in our earlier example saw a significant decrease in its credit risk at a point when it was in Stage 3, it would be moved to Stage 2.

The extent of expected credit losses would still be calculated across its lifetime, but interest income would once again be calculated on the basis of its gross book value. If this significant reduction in credit risk continues, the loan may return to Stage 1, whilst if the risk increases again it will be placed back into Stage 3.

[13] Cohen, B. H. and Edwards, G.A. Jr, 2017, *The new era of expected credit loss provisioning*, BIS quarterly report, March 2017.
[14] Annex A of Commission Regulation (EU) 2016/2067 of 22 November 2016, IFRS 9 *Financial instruments*
[15] "A financial asset is past due when a counterparty has failed to make a payment when contractually due", Commission Regulation (EC) No 1126/2008 of 3 November 2008, IFRS 7 *Financial instruments: disclosures*
[16] See '*Guidance to banks on non-performing loans*', European Central Bank, March 2017.

A summary review of the literature on the effects of the adoption of IFRS 9

Source	Estimated first time adoption impact on CET1 ratio	Methodology
Bank of Italy (2017)*	38bp (37-47bp depending on the size)	Survey
Barclays (2017)	50bp (10-15bp with transitional period)	Authors calculation
BOAML (2017)**	<<45bp	Financial reports
Deloitte (2016)	50bp	Survey
EBA (2016)	59bp (75bp for 79% of the respondents)	Survey
EBA (2017)	45bp (75bp for 90% of the respondents)	Survey
ECB/SSM (2017)	40-59bp (depending on the size)	Survey
EY (2017)	0-25bp	Survey
J.P. Morgan Cazenove (2017)**	30bp	Financial reports
Moody's (2017a)	50-60bp	Authors calculation
Moody's (2017b)**	<45bp	Financial reports

**for Italian banks only ** for Spanish banks only*

Table 2 Source: various, BNP Paribas

The impact on CET 1 capital of the initial adoption of IFRS 9 at major southern European banks

Name	Country	Estimated first time adoption impact on fully loaded CET1 ratio (bp)	Estimation date	Effective first time adoption impact on fully loaded CET1 ratio (bp)	Observation date	Share of standardised approach in total risk exposure amount (consolidated data, EBA EU-wide transparency exercise 2017)
ABANCA Corporación Bancaria, SA	Spain	24	Q4 2017	18	Q1 2018	100%
Banco Bilbao Vizcaya Argentaria, SA	Spain	31	Q4 2017	31	Q2 2018	68%
Banco de Sabadell, SA	Spain	50-60	Q2 2017	78	Q1 2018	49%
Bankia, SA	Spain	20	Q4 2017	20	Q1 2018	35%
Banco Santander, SA	Spain	20	Q4 2017	27	Q2 2018	56%
Ibercaja Banco, SA	Spain	53	Q4 2017	53	Q2 2018	100%
CaixaBank, SA	Spain	15	Q4 2017	15	Q2 2018	43%
Banca Carige SpA - Cassa di Risparmio di Genova e Imperia	Italy	210	Q4 2017	174	Q2 2018	100%
Banca Monte dei Paschi di Siena SpA	Italy	190	Q3 2017	225	Q1 2018	39%
Banco BPM SpA	Italy	175	Q4 2017	182	Q2 2018	73%
BPER Banca SpA	Italy	NA		333	Q2 2018	52%
Credito Emiliano Holding SpA	Italy	10	Q4 2017	14	Q2 2018	28%
Intesa Sanpaolo SpA	Italy	100	Q4 2017	102	Q2 2018	45%
Mediobanca - Banca di Credito Finanziario SpA	Italy	~15	Q4 2017	20	Q2 2018	100%
UniCredit SpA	Italy	75	Q4 2017	99	Q2 2018	51%
Unione di Banche Italiane SpA	Italy	12	Q4 2017	12	Q2 2018	51%
Banco Comercial Português, SA	Portugal	36	Q4 2017	35	Q1 2018	26%
Caixa Geral de Depósitos, SA	Portugal	20	Q4 2017	25	Q2 2018	100%
Novo Banco, SA	Portugal	29	Q4 2017	29	Q4 2017	26%

Table 3 Source: financial reports, BNP Paribas

Impairment model coincides with the regulatory approach (?)

The impairment model of IFRS 9 is based on a set of principles that lay out a general framework intended for adaptation by each bank affected by the new accounting standard. In practice, banks using the Internal Rating Based (IRB) approach to evaluate their regulatory capital requirements will generally use the same risk evaluation methods for Stages 1 and 2, with the notable addition of qualitative information. The calculation of expected credit losses would therefore depend, in this case, on the discounted product of the probability of default, the exposure at default and the loss given default on the financial asset. For financial assets in Stage 3, the same banks will use the net present value of any shortfall.

Given recent developments in prudential regulation, with the 'finalisation of Basel 3' [17] and the more limited use of internal ratings-based approaches, this increase in the complexity of accounting standard seem to be moving in the opposite direction to prudential regulation, or at least to be lagging behind it. Similarly, the European Commission's proposals on the introduction of minimum coverage levels for new loans that would potentially become non-performing and the expectations of the European Central Bank in the area of prudential provisions, are based on rules that are more 'trivial' than those used in the IFRS 9 impairment model. This accretion of various rules and standards is likely to complicate the management of risk by banks and makes it harder for third parties to understand the position, which would clearly be contrary to the initial objectives of the leaders of the G20 nations.

To be or not to be procyclical

The shift to impairment models based on recognition of expected credit losses is linked to a desire amongst leaders of the G20 nations to reduce the procyclical nature of IAS 39. During previous economic downturns, banks had to wait for an objective evidence of impairment for each financial asset before they could record provisions for impairment. This approach was perceived as allowing the principle of accrual accounting to be respected. However, by preventing banks from recording provisions for impairment in a forward-looking manner, the 'delayed' recognition of losses often seemed to exacerbate their troubles.

However, far from reducing the potentially procyclical nature of accounting standard, IFRS 9, and more specifically the application of Stage 2, is likely to increase it (see in particular Abad & Suarez, 2017[18]). What is more, the new impairment model could exacerbate economic downturns as banks are now required to record an increase in their cost of risk as soon as the first signs of an economic downturn emerge. This will automatically reduce net income for the banks and thus accentuate the negative effects of the slowdown. Thus the economy is likely to slow more rapidly, in turn having a negative effect on the banking system.

[17] Basel Committee on Banking Supervision, 2017, *Basel 3: Finalising post-crisis reforms*

[18] Abad, J. and Suarez, J., 2017, *Assessing the cyclical implications of IFRS 9 – a recursive model*, ESRB Occasional Paper Series n°12.

Cost of change in accounting standard is close to the estimated figures

The introduction of a new impairment model for financial assets is, to a very large extent, responsible for the cost of the move from IAS 39 to IFRS 9. The operational costs of compliance with the new standard have been fairly low by comparison. Banks had to make additional provisions for impairment at 1 January 2018 without there being any corresponding deterioration in the quality of their asset portfolios. This automatically resulted in a reduction in their fully loaded CET1 capital. This effect was widely predicted, with several studies estimating the scale of the fall in bank capital as a result of the change in accounting standard. In the end, the effective cost for the major banks of southern Europe was in line with the figures estimated individually before the event. This said, major Italian banks stood out, with significantly higher costs for the move from IAS 39 to IFRS 9 than seen at their Spanish and Portuguese peers.

A summary review of the literature on the effects of the first-time adoption of IFRS 9

Studies providing *ex ante* estimates of the cost of moving from IAS 39 to IFRS 9 generally came to similar conclusions (see Table 2). The estimated reduction in banks' CET 1 capital was generally put at between 30 and 50 basis points. Given the fully loaded CET 1 level for the fourth quarter of 2017 (14.6% for all European Union banks), the banks were easily able to absorb this cost.

The similarity of the conclusions of the various studies is due to a large extent to their shared methodologies. Although the sample sizes are different, including just a few banks in some cases, most studies covered all European Union banks. Estimates of the effect of IFRS 9 were generally based on the cost of a move from IAS 39 to IFRS 9 on 1 January 2018, with all other things being equal and no transition period. This cost is measured in basis points of the banks' fully loaded CET1 ratio because, under these conditions, the recognition of additional provisions for impairment logically results in a reduction in capital. All aspects of IFRS 9 are considered in these studies, but the bulk of the effect is due to the new impairment model for financial assets, particularly for those assets immediately classified in Stage 2.

Most of the studies are based on banks' own estimates, indicated for example in their financial communication, or through surveys carried out directly with the banks. Such an approach can be explained very simply: to estimate the effect of IFRS 9 requires a comprehensive understanding of the nature of the portfolio of each bank and/or the use of a number of hypotheses that increase the margin of error. The banks themselves were therefore in a better position to estimate the cost of this change in accounting standard.

Cost close to estimates

In practice, individual estimates for a sample of the largest banks in Spain, Italy and Portugal of the cost of the first-time adoption of IFRS 9 proved to be close to the actual costs (see Table 3[19]). The costs for major Italian banks were significantly higher than for their Spanish and Portuguese peers. It follows that they were also higher than for banks across the European Union as a whole.

At first sight it might have been expected that the shift to the new standard would be less favourable for Spanish and Portuguese banks, which made greater use of the Standard Approach (SA) in calculating their regulatory capital. For the major banks under the supervision of the Single Supervisory Mechanism, in the fourth quarter of 2017, 54% of risk-weighted assets were calculated using the Standard Approach in Italy, compared with 63% in Spain and 56% in Portugal[20].

Indeed, IFRS 9 removes the general provisions[21] that banks could include in their Tier 2 Capital under the IAS 39 regime for the part of the portfolio to which they applied the Standard Approach. Conversely, banks still have the option to include in their Tier 2 Capital any provisions that exceed total expected losses under regulatory calculations (to a maximum of 0.6% of risk-weighted assets) for the part of their portfolios to which the Internal Ratings Based approach is applied. Moreover, banks which made greater use of the Standard Approach have had to deploy proportionately greater resources (in terms of personnel, modelling and data processing) than those making greater use of the IRB in order to meet the requirements of the new standard. This would suggest that smaller banks, which make greater use of the Standard Approach, would have seen a greater impact from the change in accounting standard. However, Italian banks, which make less intensive use of the Standard Approach, were the most affected. The difference between the costs of the first-time adoption of IFRS 9 at major Italian banks and at major Spanish and Portuguese banks can not therefore be explained by this factor alone.

The disparities in the cost of IFRS 9 first-time adoption do, however, appear to be better explained by the levels of non-performing exposure ratios in southern European banking systems, and more particularly in the progress made in cleaning up bank balance sheets. Southern European banks were likely to suffer more from the change in accounting standard due to their non-performing exposure ratios, which remain above the weighted average for the whole EU banking system (see Figure 1). Although the non-performing exposure ratios on their own cannot predict the effect of IFRS 9 first-time adoption (Stage 3 is similar to the impaired asset category under IAS 39), they can provide an indication of recent trends in portfolio quality. In addition, persistent concerns over the quality of portfolios at southern European banks warrants particular attention being paid to these banks, as the first-time adoption of IFRS 9 could have resulted in a considerably greater impact on capital levels for them. In the end, the differences between the costs at large banks in Portugal and Italy tend to suggest that the relationship between non-performing exposure ratios and the cost of IFRS 9 first-time adoption is not linear.

The cost differentials can perhaps be more accurately explained by the differing levels of progress made in cleaning up bank balance sheets. Given that Stage 3 of IFRS 9 is similar to the treatment under IAS 39, it is not so much the previous levels of non-performing exposure ratios that is the origin of the cost of the change of accounting standard, so much as the quantity of assets that were moved into Stage 2 at 1 January 2018 (see Figure 2). Incidentally, these higher costs for the change of accounting standard are likely to delay improvements in Italian banks' capacity to absorb losses with their equity.

In Spain, dynamic provisioning has made a (small) contribution to smoothing the cost of IFRS 9

The cost of IFRS 9 first-time adoption for major Spanish banks is much lower than for their Italian peers, but it is similar (albeit slightly lower) to the costs for their neighbours in Portugal. The existence of a so-called "dynamic" provisioning model in Spain since July 2000 has probably helped to reduce the cost of introducing the new standard (quite apart from the recent restructuring of the domestic banking system). The Banco de España required banks under its supervision to record higher provisions for impairment during periods of growth. This approach should serve to cover the gap between average losses on bank lending portfolios through the cycle (assessed using historical data gathered by the Banco de España) and the losses recorded at a point-in-time for the same portfolios. By requiring banks to make "adequate" provisions during periods of growth, the Spanish dynamic provisioning model aims at helping them to cover the effects of a cyclical downturn with their own resources. It is also likely to limit growth in lending by progressively raising the cost of borrowing.

The dynamic provisioning model was changed for a first-time on the occasion of the introduction of IAS/IFRS standards on 1 January 2005. There was then a second change in the fourth quarter of 2008, in order to relax the additional constraint that dynamic provisioning placed on Spanish banks and thus allow them to address more easily the consequences of the 2007-08 crisis.

Although the objective is similar to that of IFRS 9, the Spanish dynamic provisioning system is notable for the details of its implementation, which are closer to the provisions of IAS 39. It adopts a backward-looking approach that is based only on historical information, in line with a model based on the recognition of incurred losses. To this extent, we believe that "statistical provisioning" would be a more accurate name than "dynamic provisioning". The latter would be better suited to a forward-looking model, similar to IFRS 9, which recognises expected credit losses.

[19] Only those banks under the direct supervision of the Single Supervisory Mechanism (SSM) and the EBA and for which details of the effects of the change in accounting standard were available have been included in Table 3.

[20] ECB Banking Supervision, *Supervisory Banking Statistics*

[21] See definition of European Parliament and Council (EU) Regulation 575/2013, Article 4(1)(95).

The Spanish dynamic provisioning model can be described as follows:

$$General\ provisions_t$$
$$= \text{“}normal\text{”}\ general\ provisions_t + dynamic\ provisions_t$$
$$= \text{“}normal\text{”}\ general\ provisions_t + (statistical\ provisions_t - specific\ provisions_t)$$
$$= \alpha \Delta Loans_t + \left(\beta - \frac{Specific\ provisions_t}{Loans_t}\right) \times Loans_t \quad (1)$$

$Loans_t$ indicates the outstanding amounts of loans at the end of period t; $\Delta Loans_t$, represents the change in the outstanding amounts of loans over the period t; α, is a parameter supplied to the banks by the Banco de España, which reflects the share of latent losses in the portfolio; and β is a second parameter from Banco de España, which corresponds to the historical average of specific provisions over the course of a full cycle.

During periods of growth, the level of specific provisions is low and therefore less than statistical provisions (β x $Loans_t$), with the effect that general provisions capture any increase in losses incurred but not yet identified individually for any specific loan. In periods of cyclical downturns, incurred losses are identified individually, and the level of statistical provisions therefore falls below that of specific provisions. The second part of the equation (dynamic provisions) therefore adds to “normal” general provisions ($\alpha\Delta Loans_t$) in periods of growth and reduce them during downturns.

The distinction between general and specific provisions is included in the Basel 3 prudential regulations. This is a remainder from Basel 1, which took account of the diverse accounting standards in force in 1988. General provisions for credit losses can be broken down into those “held against future, presently unidentified losses” and those “ascribed to identified deterioration of particular assets or known liabilities”[22]. Thus statistical provisions serve to cover future losses that have not yet been identified for any specific asset (a collective assessment of impairment). They are therefore similar in nature to gone-concern capital in that they can be used to cover future losses and are therefore partially included in Tier 2 Capital (except for banks using the Standard Approach since the introduction of IFRS 9). Conversely, specific provisions are not included in regulatory capital as they relate to a specific asset. They are close to the definitions used in IAS/IFRS standards. In future, collective assessments of impairments will only affect assets in Stage 3 of IFRS 9[23].

Trends in non-performing exposure ratios for selected banking systems

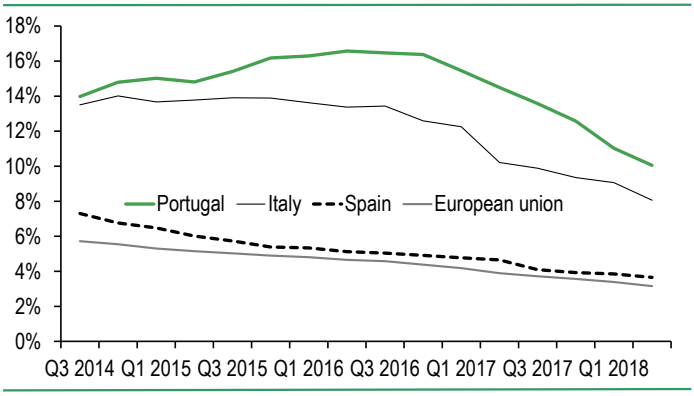


Chart 1 Source: EBA, BNP Paribas

Finally, Saurina (2009) and Saurina & Trucharte (2017)[24] consider that dynamic provisioning helped limit the contraction of lending in Spain following the 2007-08 crisis. It no doubt also contributed to a reduction in lending in the years leading up to the crisis and can be considered to have inspired IFRS 9.

Transition period will help smooth the costs of change in standard

An optional transitional period was approved by the European Parliament on 30 November 2017 (amendment to Article 473.a of Regulation (EU) No 575/2013). This option should help smooth the cost of the move from IAS 39 to IFRS 9 by giving more time to those banks who need it to adjust their assets and liabilities. Many major banks in southern Europe have opted to take advantage of this transition period, which in some cases has meant that the change of accounting standard had a positive effect on capital ratios at 1 January 2018.

During the transition period, banks whose CET 1 capital was reduced by the change of accounting standard at 1 January 2018 have the option of temporarily including part of these new provisions for impairment in their CET 1. The percentage of new provisions for impairment that can be included in CET 1 will gradually decrease. Thus, 90% of new provisions for impairment are eligible in 2018, falling to 80% in 2019, 60% in 2020, 40% in 2021 and lastly 20% in 2022.

Banks making use of this option must nevertheless report the effects on capital, solvency ratios and the regulatory leverage ratio. These requirements are therefore likely to make the transition period less attractive as markets could anticipate the full effects of IFRS 9 at the end of the period, as was the case with the introduction, again spread over a period of time, of the new Basel 3 solvency requirements.

[22] Basel Committee on Banking Supervision, 2010, *Basel 3: A global regulatory framework for more resilient banks and banking systems*, revised version

[23] *Anejo IX, Punto 4, Circular 4/2017, de 27 de noviembre, del Banco de España, a entidades de crédito, sobre normas de información financiera pública y reservada, y modelos de estados financieros.* (BOE de 6 de diciembre de 2017) (Corrección de errores y erratas BOE de 15 de febrero de 2018)

[24] Saurina, J., 2009, *Loan loss provisions in Spain. A working macroprudential tool*, Estabilidad Financiera, Núm 17
Saurina, J. et Trucharte, C., 2017, *Presentation of the book* The countercyclical provisions of the banco de España, 2000-2016, Revista de estabilidad finenciera, núm 33
Cohen, B. H. and Edwards, G.A. Jr, 2017, *The new era of expected credit loss provisioning*, BIS quarterly report, March 2017.

Non-performing loan ratios and cost of IFRS 9 at 1 January 2018 for selected banks

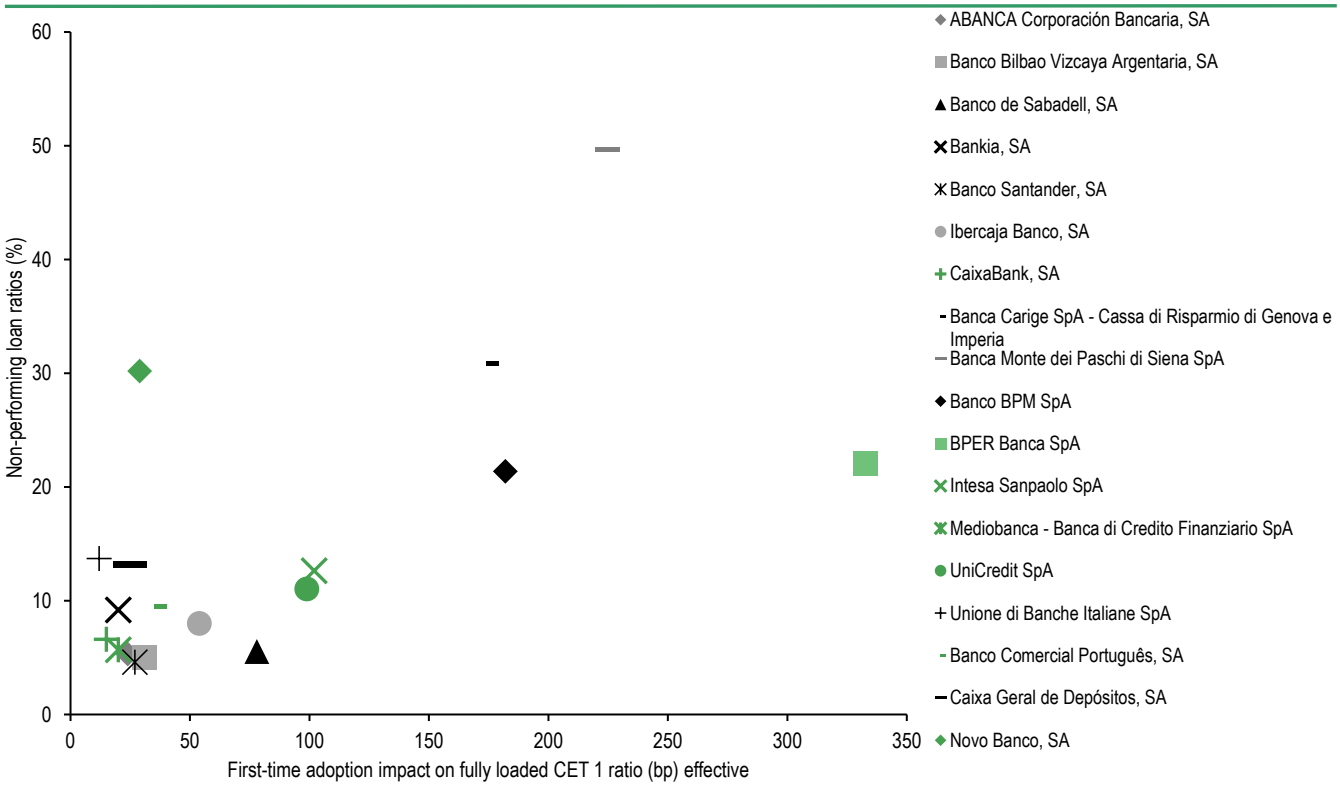


Chart 2 Source: SNL, BNP Paribas

***

The cost of moving from IAS 39 to IFRS 9 for the major Spanish and Portuguese banks has proved to be relatively low given the far-reaching changes involved in introducing the new impairment model for financial assets and the initial level of their capital. By contrast, the major Italian banks were hit harder by this change in accounting standard, suggesting that they still lag behind somewhat in cleaning up their balance sheets. The banks appear to have correctly assessed the impact of the change, as the costs they bore effectively were close to those estimated *ex ante* on an individual basis.

Results of the latest stress tests at the 48 largest banking groups in the European Union and European Economic Area were published on 2 November 2018 by the European Banking Authority[25]. For the first-time, these stress tests required banks to apply IFRS 9. The use of the transition period was left to the discretion of each bank, but the majority of banks elected not to use it. Under these stress tests, the average cost of the first-time adoption of IFRS 9 was estimated at 20 basis points of the average fully-loaded CET 1 ratio for large banks across the European Union as a whole. However, the potentially procyclical nature of the new accounting standard will only really be tested during the next economic downturn. This is because the stress tests simulate a recession, but do not allow banks to adjust their assets and liabilities to the downturn (the EBA takes the view that a 'static balance sheet' approach is required). In the absence of a more dynamic approach, no lessons can be fully drawn about the potentially procyclical nature of IFRS 9 from the stress tests.

Thomas Humblot

Thomas.humblot@bnpparibas.com

[25]The "2018 EBA EU-wide stress test exercise" covers the 48 biggest banks in the European Union, 33 of which are under the direct supervision of the SSM. These banks represent approximately 70% of total banking system assets across the European Union.

GROUP ECONOMIC RESEARCH

- **William DE VIJLDER** — Chief Economist — +33(0)1 55 77 47 31 — william.devijlder@bnpparibas.com

ADVANCED ECONOMIES AND STATISTICS

- **Jean-Luc PROUTAT** — Head — +33.(0)1.58.16.73.32 — jean-luc.proutat@bnpparibas.com
- **Alexandra ESTIOT** — Works coordination - United States - United Kingdom - Globalisation — +33.(0)1.58.16.81.69 — alexandra.estiot@bnpparibas.com
- **Hélène BAUDCHON** — France (short-term outlook and forecasts) - Labour markets — +33.(0)1.58.16.03.63 — helene.baudchon@bnpparibas.com
- **Louis BOISSET** — European central bank watch, Euro area global view, Japan — +33.(0)1.57.43.02.91 — louis.boisset@bnpparibas.com
- **Frédérique CERISIER** — Euro Area (European governance and public finances),Spain, Portugal — +33.(0)1.43.16.95.52 — frederique.cerisier@bnpparibas.com
- **Catherine STEPHAN** — Nordic countries - World trade - Education, health, social conditions — +33.(0)1.55.77.71.89 — catherine.stephan@bnpparibas.com
- **Raymond VAN DER PUTTEN** — Germany, Netherlands, Austria, Switzerland - Energy, climate - Long-term projections — +33.(0)1.42.98.53.99 — raymond.vanderputten@bnpparibas.com
- **Tarik RHARRAB** — Statistics and Modelling — +33.(0)1.43.16.95.56 — tarik.rharrab@bnpparibas.com

BANKING ECONOMICS

- **Laurent QUIGNON** — Head — +33.(0)1.42.98.56.54 — laurent.quignon@bnpparibas.com
- **Laure BAQUERO** — +33.(0)1.43.16.95.50 — laure.baquero@bnpparibas.com
- **Céline CHOULET** — +33.(0)1.43.16.95.54 — celine.choulet@bnpparibas.com
- **Thomas HUMBLOT** — +33.(0)1.40.14.30.77 — thomas.humblot@bnpparibas.com

EMERGING ECONOMIES AND COUNTRY RISK

- **François FAURE** — Head — +33.(0)1 42 98 79 82 — francois.faure@bnpparibas.com
- **Christine PELTIER** — Deputy Head - Greater China, Vietnam, other North Asian countries, South Africa — +33.(0)1.42.98.56.27 — christine.peltier@bnpparibas.com
- **Stéphane ALBY** — Africa (French-speaking countries) — +33.(0)1.42.98.02.04 — stephane.alby@bnpparibas.com
- **Sylvain BELLEFONTAINE** — Turkey, Ukraine, Central European countries — +33.(0)1.42.98.26.77 — sylvain.bellefontaine@bnpparibas.com
- **Sara CONFALONIERI** — Africa (Portuguese & English-speaking countries) — +33.(0)1.42.98.43.86 — sara.confalonieri@bnpparibas.com
- **Pascal DEVAUX** — Middle East, Balkan countries — +33.(0)1.43.16.95.51 — pascal.devaux@bnpparibas.com
- **Hélène DROUOT** — Korea, Thailand, Philippines, Mexico, Andean countries — +33.(0)1.42.98.33.00 — helene.drouot@bnpparibas.com
- **Salim HAMMAD** — Latin America — +33.(0)1.42.98.74.26 — salim.hammad@bnpparibas.com
- **Johanna MELKA** — India, South Asia, Russia, Kazakhstan, CIS — +33.(0)1.58.16.05.84 — johanna.melka@bnpparibas.com

- **Michel BERNARDINI** — Contact Média — +33.(0)1.42.98.05.71 — michel.bernardini@bnpparibas.com

BNP PARIBAS

The bank for a changing world

OUR PUBLICATIONS

CONJONCTURE

Structural or in news flow, two issues analysed in depth

EMERGING

Analyses and forecasts for a selection of emerging economies

PERSPECTIVES

Analyses and forecasts for the main countries, emerging or developed

ECOFLASH

Data releases, major economic events. Our detailed views...

ECOWEEK

Weekly economic news and much more...

ECOTV

In this monthly web TV, our economists make sense of economic news

ECOTV WEEK

What is the main event this week? The answer is in your two minutes of economy

The information and opinions contained in this report have been obtained from, or are based on, public sources believed to be reliable, but no representation or warranty, express or implied, is made that such information is accurate, complete or up to date and it should not be relied upon as such. This report does not constitute an offer or solicitation to buy or sell any securities or other investment. It does not constitute investment advice, nor financial research or analysis. Information and opinions contained in the report are not to be relied upon as authoritative or taken in substitution for the exercise of judgement by any recipient; they are subject to change without notice and not intended to provide the sole basis of any evaluation of the instruments discussed herein. Any reference to past performance should not be taken as an indication of future performance. To the fullest extent permitted by law, no BNP Paribas group company accepts any liability whatsoever (including in negligence) for any direct or consequential loss arising from any use of or reliance on material contained in this report. All estimates and opinions included in this report are made as of the date of this report. Unless otherwise indicated in this report there is no intention to update this report. BNP Paribas SA and its affiliates (collectively "BNP Paribas") may make a market in, or may, as principal or agent, buy or sell securities of any issuer or person mentioned in this report or derivatives thereon. BNP Paribas may have a financial interest in any issuer or person mentioned in this report, including a long or short position in their securities and/or options, futures or other derivative instruments based thereon. Prices, yields and other similar information included in this report are included for information purposes. Numerous factors will affect market pricing and there is no certainty that transactions could be executed at these prices. BNP Paribas, including its officers and employees may serve or have served as an officer, director or in an advisory capacity for any person mentioned in this report. BNP Paribas may, from time to time, solicit, perform or have performed investment banking, underwriting or other services (including acting as adviser, manager, underwriter or lender) within the last 12 months for any person referred to in this report. BNP Paribas may be a party to an agreement with any person relating to the production of this report. BNP Paribas, may to the extent permitted by law, have acted upon or used the information contained herein, or the research or analysis on which it was based, before its publication. BNP Paribas may receive or intend to seek compensation for investment banking services in the next three months from or in relation to any person mentioned in this report. Any person mentioned in this report may have been provided with sections of this report prior to its publication in order to verify its factual accuracy.

BNP Paribas is incorporated in France with limited liability. Registered Office 16 Boulevard des Italiens, 75009 Paris. This report was produced by a BNP Paribas group company. This report is for the use of intended recipients and may not be reproduced (in whole or in part) or delivered or transmitted to any other person without the prior written consent of BNP Paribas. By accepting this document you agree to be bound by the foregoing limitations.

Certain countries within the European Economic Area:

This report has been approved for publication in the United Kingdom by BNP Paribas London Branch. BNP Paribas London Branch is authorised and supervised by the Autorité de Contrôle Prudentiel and authorised and subject to limited regulation by the Financial Services Authority. Details of the extent of our authorisation and regulation by the Financial Services Authority are available from us on request.

This report has been approved for publication in France by BNP Paribas SA. BNP Paribas SA is incorporated in France with Limited Liability and is authorised by the Autorité de Contrôle Prudentiel (ACP) and regulated by the Autorité des Marchés Financiers (AMF). Its head office is 16, boulevard des Italiens 75009 Paris, France.

This report is being distributed in Germany either by BNP Paribas London Branch or by BNP Paribas Niederlassung Frankfurt am Main, a branch of BNP Paribas S.A. whose head office is in Paris, France. BNP Paribas S.A. – Niederlassung Frankfurt am Main, Europa Allee 12, 60327 Frankfurt is authorised and supervised by the Autorité de Contrôle Prudentiel and it is authorised and subject to limited regulation by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin).

United States: This report is being distributed to US persons by BNP Paribas Securities Corp., or by a subsidiary or affiliate of BNP Paribas that is not registered as a US broker-dealer. BNP Paribas Securities Corp., a subsidiary of BNP Paribas, is a broker-dealer registered with the U.S. Securities and Exchange Commission and a member of the Financial Industry Regulatory Authority and other principal exchanges. BNP Paribas Securities Corp. accepts responsibility for the content of a report prepared by another non-U.S. affiliate only when distributed to U.S. persons by BNP Paribas Securities Corp.

Japan: This report is being distributed in Japan by BNP Paribas Securities (Japan) Limited or by a subsidiary or affiliate of BNP Paribas not registered as a financial instruments firm in Japan, to certain financial institutions defined by article 17-3, item 1 of the Financial Instruments and Exchange Law Enforcement Order. BNP Paribas Securities (Japan) Limited is a financial instruments firm registered according to the Financial Instruments and Exchange Law of Japan and a member of the Japan Securities Dealers Association and the Financial Futures Association of Japan. BNP Paribas Securities (Japan) Limited accepts responsibility for the content of a report prepared by another non-Japan affiliate only when distributed to Japanese based firms by BNP Paribas Securities (Japan) Limited. Some of the foreign securities stated on this report are not disclosed according to the Financial Instruments and Exchange Law of Japan.

Hong Kong: This report is being distributed in Hong Kong by BNP Paribas Hong Kong Branch, a branch of BNP Paribas whose head office is in Paris, France. BNP Paribas Hong Kong Branch is registered as a Licensed Bank under the Banking Ordinance and regulated by the Hong Kong Monetary Authority. BNP Paribas Hong Kong Branch is also a Registered Institution regulated by the Securities and Futures Commission for the conduct of Regulated Activity Types 1, 4 and 6 under the Securities and Futures Ordinance.

Some or all the information reported in this document may already have been published on https://globalmarkets.bnpparibas.com

© BNP Paribas (2015). All rights reserved.

YOU WANT TO RECEIVE OUR PUBLICATIONS?

SUBSCRIBE ON OUR WEBSITE
http://economic-research.bnpparibas.com

AND

FOLLOW US ON LINKEDIN
https://www.linkedin.com/showcase/bnp-paribas-economic-research/
OR TWITTER
https://twitter.com/EtudesEco_BNPP



© BNP Paribas (2015). All rights reserved.
Prepared by Economic Research – BNP PARIBAS
Registered Office: 16 boulevard des Italiens – 75009 PARIS
Tel: +33 (0) 1.42.98.12.34 – www.group.bnpparibas.com
Publisher: Jean Lemierre. Editor: William De Vijlder

BNP PARIBAS

The bank for a changing world