

# Non-performing loans in Italy: an overview

Thomas Humblot

*Non-performing loans are an inherent part of the financing activities of banks. Fluctuations in non-performing loans over the course of an economic cycle are not worrisome as long as they remain within reasonable proportions. In Italy, after two years of recession (2012 and 2013), a year of flat growth (2014) and two years of sluggish growth of less than 1% (2015 and 2016), non-performing loans have reached a level that hampers the bank lending channel. Experience in other countries shows that it is crucial to deal effectively with non-performing loans to reactivate bank lending.*

In 2016, non-performing loans outstanding<sup>1</sup> held by Italian banks (EUR 329 billion at 30 September<sup>2</sup>) accounted for a third of the total for eurozone banks (EUR 1,062 billion in Q2 2016, EBA, 2016), even though Italian bank assets account for only 13% of the eurozone total. Non-performing loans as a share of total loans to customers of Italian banks has increased by 80% since 2011 to peak at 17.2% at 30 September 2015<sup>3</sup> (see chart 1). The ratio of non-performing loans has since eased to 16.4% of total loans outstanding at 30 June 2016, thanks to an increase in total loans outstanding and the decline in the absolute level of non-performing loans. Total loans outstanding contracted in Q3 2016, bringing this virtuous circle to a halt. Even so, non-performing loans continued to decline at a quarterly rate of 0.5% (-4.5% year-on-year). Yet this trend must be kept in perspective given the rise in bad debts (the deliquescent part of the portfolio) in Q2 and Q3 2016, which increased at a quarterly rate of 0.6% and 0.5%, respectively (but -1% year-on-year). To date, Italy has the highest non-performing loan ratio of the main developed countries. In comparison, according to the OECD, the ratios for Spain and France were 9% and 4.5%, respectively, in Q3 2016.

Since 2010-2011, the profitability of Italian banks has been hard hit by the rising cost of risk. In June 2016, the weighted average return on equity (ROE) was 2.2%, compared to an average of 5.7% for the banks of the European Union as a whole (EBA, 2016).

Although the management of non-performing loans (via write-offs, write-downs, etc.) is straining and will continue to strain bank profitability in the short term, efforts are critically needed to clean up bank balance sheets. The banks have set up plans to sell off non-performing loans and/or to recapitalise, while the Italian government is adopting measures to help banks clean up their balance sheets, notably through bankruptcy law and tax reforms.

The deterioration of the cyclical environment appears to be both the cause and effect of the accumulation of non-performing loans in Italy.

**Breakdown of non-performing bank loans by category (as a share of bank loans outstanding)**

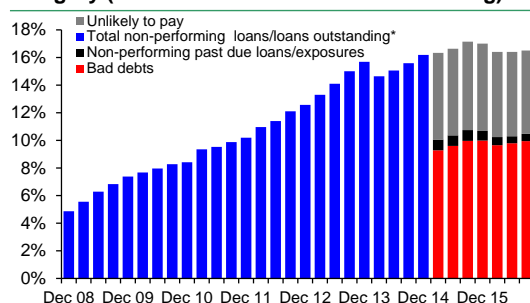


Chart 1

Sources: Bank of Italy, BNP Paribas calculations

\*: includes the Cassa Depositi e Prestiti as of March 2014. The definitions of bank loans outstanding and non-performing loans were changed in March 2015, and prior data has been retropolated.



## Box

**Definition of non-performing loans**

Since March 2015, the Bank of Italy has applied European Commission regulations concerning the definition of non-performing loans. They are now separated into three categories:

- Bad debts (*sofferenze*): exposure to any debtor that is insolvent (not necessarily recognised by court) or in an equivalent situation, regardless of the amount of loss estimated by the bank.

- Unlikely to pay (*inadempienze probabili*): exposure to any debtor that the bank esteems is unlikely to repay the principle and/or interest charges in full without taking actions like the realisation of collateral, regardless of any past-due amounts.

- Non-performing past due loans/exposures (*esposizioni scadute e/o sconfinanti deteriorate*): any exposure reported on the balance sheet presenting any past-due amounts or unauthorised overdrafts at the close of the balance sheet. They must not be classified in the other categories.

The results of our empirical estimates suggest that non-performing loans are straining the growth of bank lending. Several initiatives have been taken to accelerate the clean-up of bank balance sheets. These initiatives are based on solutions that have proven to be effective when adopted by other countries hit by NPL crises.

## Sluggish growth as the cause and effect of non-performing loans

Non-performing loans are not only the consequence of cyclical downturns. Above a certain threshold, they hamper the growth of bank lending by squeezing credit supply and demand. This trend is associated with a slowdown in growth (see chart 2). The reduced availability of bank lending is especially harmful because it mainly hits small and very small enterprises, which traditionally contribute to two thirds of the creation of added value in Italy.

## The solvency of debtors is weakened

Italian growth is lagging behind that of its European partners, and this lag is bound to persist. In 2017, Italian growth is expected to fall a full percentage point short of eurozone growth as a whole (0.6% and 1.6%, respectively<sup>4</sup>). Moreover, Italian public finances are still among the most deteriorated in the eurozone. Gross public debt is at an all-time high and has shown no signs of declining yet. In 2016, it accounted for about 133% of GDP, compared to eurozone average of 89%. The unemployment rate began trending downwards recently (-0.3 percentage points in 2016 to 11.6%, compared to 10% for the eurozone as a whole), and according to the International Monetary Fund (IMF), Italy should be able to bring unemployment below the 10% threshold by 2020 (*World Economic Outlook Update, July 2016*). This beginning of a reversal follows a virtually uninterrupted increase in the unemployment rate since February 2011, which peaked at 13.1% in November 2014<sup>5</sup>.

## Growth and non-performing loans in Italy

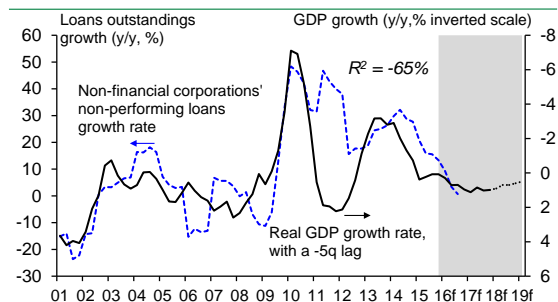


Chart 2 Sources: Datastream, Macrobond, BNPP estimates

The Italian recovery is built on fragile fundamentals, because domestic companies have seen their situations deteriorate during the crisis years. The manufacturing output index dropped sharply, from 122 in early 2008 to 90 in early 2009. After rebounding to 103 in early 2011, the index has been struggling to recover, and has remained close to 95 since early 2012<sup>6</sup>. The downturn in corporate activity triggered an increase in the default rate, which rose from an average of 5.5% in 2007 to 8% in Q2 2013 (CRIF Rating Agency, 2015). Since then, the default rate for Italian companies seems to be declining



again, but it is still higher than 4.5%, compared to 1.7% in France in 2015 (Deloitte, 2016). The deterioration in the quality of bank balance sheets in Italy largely mirrors the corporate situation. Yet the relation between non-performing loans and growth could be modified by the implementation of reforms on bankruptcy laws and taxation.

### Restoring bank financing is crucial for small and very small enterprises

The downturn in the situation of small and very small enterprises has resulted in a sharp increase in non-performing loans. At 31 July 2016, non-financial companies (NFC) accounted for 73% of total non-performing loans outstanding in the non-financial private sector (NFPS), up from 66% at 31 December 2010. At the same dates, NFC accounted for 56% and 59%, respectively, of bank loans outstanding in the NFPS. According to the EBA (2016), non-performing loans accounted for 30% of total loans outstanding to small and very small enterprises, 21% of loans to large enterprises and 13% of household loans. Moreover, 82% of the total number of non-performing loans (all debtors combined) were for amounts of less than EUR 125,000 at 30 June 2016. Yet these small loans accounted for only about 11% of total non-performing loans outstanding (see chart 3). In other words, most of these non-performing loans involve small debtors for small amounts accounting for a small share of total loans outstandings.

Although Italian small and very small enterprises are overrepresented among debtors in default (more in terms of the number of debtors rather than the amount of outstandings), they cannot escape the consequences this situation has on bank lending. Small businesses lack alternative sources of financing at a viable economic cost (Garrido et al., 2016), notably due to the very high fixed cost of issuing debt on the market. In the only national regulated bond market (*Mercato telematico delle obbligazioni* or MOT), initial bond offerings are only accepted above a minimum of EUR 15 million. This minimum is significantly higher than in the other European countries<sup>7</sup>. It is also much higher than the average unit

amount of bank loans to Italian small and very small enterprises, which averaged less than the threshold of EUR 100,000 in 2016 (Barometro CRIF).

### Breakdown of non-performing loans by amount and number of debtors at 30 June 2016

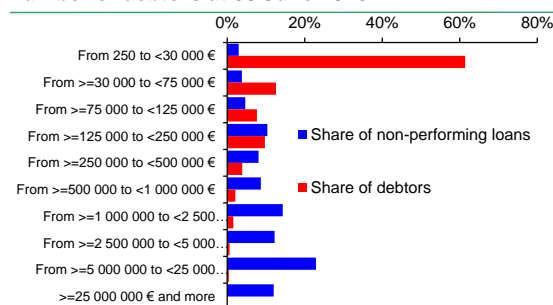


Chart 3

Source: Bank of Italy

Yet Italy has a vital interest in the financing of small and very small enterprises. Growth depends essentially on domestic demand, and the health of these companies plays a key role in the intensification of the recovery. Small and very small enterprises account for 99.9% of Italian companies (95% of which are very small enterprises). They employ 79.6% of the labour force and create 67.3% of national value added. This shows why estimate the impact of non-performing loans on bank lending is so important in Italy.

### Non-performing loans significantly reduce bank lending

There is a theoretical consensus that non-performing loans have a negative impact on bank lending (Aiyar et al., 2015; Jassaud and Kang, 2016). In this article, we propose to empirically evaluate this impact.

The dependent variable is the growth rate of gross loans outstanding of 22 Italian banks<sup>8</sup>, which accounted for 42% of the national banking sector in terms of assets in 2015<sup>9</sup>. The observation period runs from Q3 2008 through Q1 2016, using biannual data (Q1 and Q3), i.e. a total of 15 periods. For each bank, we evaluate the impact of their non-performing loans outstanding on the growth of their gross loans outstanding<sup>10</sup>. We expect the sign to be negative, which would prove that an increase in non-performing loans leads to a reduced growth of bank lending.



We introduce control variables<sup>11</sup> specific to each bank: the return on equity (Beck et al., 2009; Capinelli et al., 2016), the cost-income ratio (operating expenses/operating income), the interest margin which reflects the interest rate environment and the bank's competitive environment. Macroeconomic control variables were also added: business confidence index for the manufacturing sector<sup>12</sup>, the yield spread between Italian and German 10-year government bonds, which takes into account the perception of public finances, and to a certain extent, risk aversion<sup>13</sup> (Jeanneau and Micu, 2002; Ferrucci et al., 2004). Lastly, the harmonised consumer price index gives an idea of the country's macroeconomic environment<sup>14</sup> (Broto et al., 2011). Theoretically, more dynamic credit growth should fuel higher inflation. During the recent period, however, inflation has mainly been driven by imported commodity prices (including oil) and has tended to strain credit demand. Consequently, the expected sign is ambiguous<sup>15</sup>.

Following the usual specification tests, we use a pooled OLS model (ordinary least squares) including time dummy variables with the following specification<sup>16</sup>:

$$y_{-}(i,t)=\alpha+\beta'x_{-}(i,t)+\epsilon_{-}(i,t)$$

Table 1 presents the results of our model and the results of alternative specifications used as robustness checks (*Pooled OLS* without dummy variables, *MCO* with and without dummy variables).

As expected, our results suggest that non-performing loans have a significant negative impact on bank lending<sup>18</sup>. Such deteriorated assets hamper credit supply and/or reduce loan demand. To be more precise, a 1 percentage point (pp) increase in non-performing loans leads to a 1.03 pp reduction in the growth rate of bank loans outstanding. In other words,

a 10% increase in non-performing loans would lower the growth rate of bank lending by 9% ( $([1.1]^{\beta}=[1.1]^{-1.0344})=0.91$ ).

To measure the impact of non-performing loans on Italian bank lending as a whole, the results obtained using our representative sample of 22 banks are extended to the entire national banking system. For a 1 percentage point increase in non-performing loans, the annual growth in Italian bank loans outstanding would drop from -1.02% to -1.11%<sup>19</sup>. This would result in an additional decline in bank loans outstanding of EUR 1.9 billion, or 0.1% of total loans outstanding. Incidentally, depending on our specification, a decline in the cost-income ratio, an increase in intermediation margins and higher inflation would strengthen the growth of bank lending. In contrast, bank profitability, risk aversion and the manufacturing sector's cyclical position would not affect the growth of bank lending.

In the light of these factors, reducing non-performing loans should ease the constraints they place on bank financing, notably for small and very small enterprises, which would help eliminate one of the dampers on the recovery.

## Banks in contrasting situations

The big Italian banks rank among the eurozone's mid-sized banks. Only Unicredit and Intesa Sanpaolo report balance sheets of more than EUR 600 billion. Banco BPM, Italy's third largest commercial bank, created from the merger of Banco Popolare and Banca Popolare di Milano on 1 January 2017, only had assets of EUR 173 billion at 30 September 2016. With the notable exception of Unicredit (32% of assets in Italy), their portfolios seem to be relatively concentrated in their country of origin, which naturally exposes them to the Italian economic cycle.



## Impact of non-performing loans on the growth of bank lending

Variable	Expected sign	Pooled OLS with dummies	Pooled OLS without dummies	OLS with dummies	OLS without dummies
Non-performing loans	-	-1.0344*** -0.2837	-1.0187*** -0.3372	-1.0578*** -0.2834	-0.9892*** -0.3105
Profitability	+	-0.0107 -0.1052	0.1267 -0.1174	-0.0219 -0.1104	0.1098 -0.1183
Cost-income ratio	-	-7.6755*** -2.5525	-0.447 -2.7519	-7.6251*** -2.5811	-1.1568 -2.6173
Interest rate margin	+	3.3734* -2.0364	6.482*** -2.2739	3.6215* -2.0581	6.4043*** -2.162
Manufacturing confidence index	+	-9.27 -49.6472	-7.4884 -9.5337	-8.3186 -52.997	-8.5254 -9.7601
Risk aversion	-	0.1923 -4.987	-0.0586 -1.1563	0.2374 -5.3242	-0.1683 -1.1904
Inflation	+/-	1600** -635.3555	-100 -111.158	1600* -675.6021	-100 -114.7984
Constant		-11000*** -4200	769.7789 -725.6299	-11000** (4500)	779.4054 -748.9781
R2				0.3653	0.1634
Chi2		100.955	32.31		

Logged variables<sup>17</sup>. \*\*\*, \*\* and \* represent significance level at 1%, 5% and 10%, respectively. The standard deviation is indicated in parentheses.

Table 1

Source: BNP Paribas

The problem of non-performing loans and their impact on profitability and solvency concerns the entire Italian banking system, albeit to different degrees depending on the bank (see chart 4). Of the five big Italian banks, only Intesa Sanpaolo reported profitability of more than 0.5% in 2016 (ROE of 6.5%). Inversely, the results of Monte dei Paschi di Siena (MPS), UniCredit and Unione di Banche Italiane (UBI) have deteriorated significantly, but they are nonetheless temporary and exceptional in magnitude (ROE of -35%, -22% and -9%, respectively). UniCredit's results were particularly hard hit by the accelerated clean-up of its balance sheet. Non-performing loans outstanding (in the broad sense of the term) dropped from EUR 50 billion in 2015 to EUR 32 billion in 2016, which accounted for 164% of a net loss of EUR 11 billion. Inversely, MPS and UBI reported an increase in non-performing loans outstanding. Under these conditions, the solvency ratios also followed contrasted trends. BPER's CET 1 ratio increased from 11% to 14% between 2015 and 2016. Over the same period, CET 1 ratios contracted for MPS (from 12% to 8%), UniCredit (from 11% to 8%, before the February 2017 capital increase) and UBI (from 12% to 11%). In the light of these differentials, we can see that the banks have very unequal capacities to absorb the cost of any eventual write-offs or write-downs of their non-performing loan portfolios.

## Banks in contrasting situations

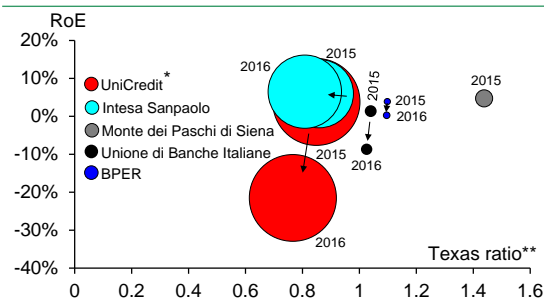


Chart 4

Source: SNL

\*: The diameter of the circle is proportional to total assets; \*\*: Texas ratio = Non-performing loans/(Equity capital + Provisions)

## Italian banks need to restore the quality of their balance sheets

The recovery is too sluggish to allow Italian banks to restore the quality of their balance sheets, and measures will have to be taken to accelerate the handling of non-performing loans. The Italian government took inspiration from solutions used by other countries which have

proven to be effective in the past to make a suitable response. These time-tested measures include the acceleration of bankruptcy procedures and fiscal reforms.

### Acceleration of bankruptcy procedures

In the light of international experiences, reducing the time necessary to handle ailing companies increases the recovery rate for creditors. This can be done by streamlining corporate bankruptcy procedures<sup>20</sup> and using out-of-court procedures.

The introduction of pre-pack<sup>21</sup> bankruptcy procedures reduces the timeframe for bankruptcy and enforcement proceedings. Very generally speaking, this type of procedure allows lenders and borrowers to reach an agreement on debt restructuring or asset disposals prior to the judge's intervention. The court then validates the compromise reached as part of streamlined procedures. Pre-packaged procedures are more transparent for creditors and offer a higher recovery rate than traditional ad hoc procedures (Ciavoliello et al., 2016).

So-called "out-of-court" procedures, such as mediation and arbitration, tend to be faster and less costly than a judge's intervention (Aiyar et al., 2015). They proved to be effective when implemented in South Korea, Indonesia, Malaysia and Thailand following the Southeast Asian crisis in the late 1990s. In this same spirit, the governments of Iceland (2010)<sup>22</sup>, Latvia (2009)<sup>23</sup>, Romania (2010) and Portugal (2012)<sup>24</sup> published recommendations concerning the application of extra-judicial procedures. The aim was to strengthen the effectiveness of these procedures: in these four countries, the final recovery rate for non-performing loans increased by an average of 5.3 percentage points between 2007 and 2012<sup>25</sup>.

With the excessive duration of bankruptcy procedures contributing to the accumulation of non-performing loans in Italy, Matteo Renzi's government has worked to reform bankruptcy laws. Italian bankruptcy procedures are complex, long, and costly (Garrido, 2016; Garrido et al., 2016; Jobst and Weber, 2016; Pascuzzi et al., 2016). According to the Italian ministry of justice, the overall

average duration of bankruptcy procedures is estimated at 7.5 years, which is much longer than in most other European countries. Consequently, the recovery cost of non-performing loans is much higher in Italy (23% of the amount of the debt) than in France, Germany, Greece or Portugal (which averages 16% for these four countries).

In the light of these factors, Law 119/2016 of 30 June 2016 extends the "Marcian Pact" to include corporate debt guaranteed by real-estate assets. Henceforth, it is possible to transfer the property used as a guarantee to the creditor, assuming the contract provides for it and up to the amount to be recovered, without a prior legal ruling. A digital register for pending procedures was also created to make the NPL market more transparent. Lastly, the rules were amended for the execution of legal decisions, including the use of digital tools, reduction in the minimum sales price for debt security, and the simplification of the transfer of ownership of an asset between companies and creditors.

In the same spirit, Law 132/2015 of 20 August 2015 reforms the rules for insolvency administrators and specifies their mandate. Liquidation plans must be submitted within a period of 180 days, and executed within two years. The realisation of security is accelerated by lowering the minimum selling price and by imposing a maximum duration for the disposal process.

The aforementioned law of 2016 also favours corporate financing, including ailing companies, by broadening the range of eligible securities. A non-possessory security interest was introduced, which allows the debtor to maintain control over the asset used as guarantee. Moreover, the non-possessory pledge can be enforced without going before a court, and can become part of a leasing contract (the payments of which are deducted from the debt) or can be seized by the creditor (when the value of the seized asset exceeds the amount guaranteed, the creditor must reimburse the difference to the company).

On the whole, these new laws streamline, simplify and accelerate bankruptcy and enforcement proceedings. They address one of the problems behind the





accumulation of non-performing loans in Italy. In addition, they boost the value of non-performing loans and facilitate disposals. All of these changes were necessary and have made current procedures faster and more effective.

## Simplifying corporate turnarounds

Facilitating judicial restructuring or receivership and the rescue of ailing companies also increases the recovery rate of non-performing loans. First, it is indispensable to identify viable companies using objective differentiation criteria. This offers the double advantage of reducing the management costs of non-performing loans and optimising the conditions for pursuing the business<sup>26</sup>.

In 1994, the Swedish government required banks to use forward-looking indicators, such as the corporate leverage ratio or interest coverage ratio (which measures their capacity to meet interest charges). The goal was to effectively distinguish between companies that could be turned around from those that should be liquidated. Iceland's commercial banks adopted this principle in 2008, and together established common criteria for identifying viable companies. In 2013, more than 80% of requests for corporate debt restructuring were handled.

So far, the Italian government has not obliged the banks to set up identification criteria for viable companies, but the turnaround of ailing companies is facilitated by Law 132/2015. The holdout problem is addressed by reducing the capacity of some creditors to block any out-of-court debt restructuring procedures. Moreover, the "prevention arrangement" (*Concordato preventivo*) now allows creditors to present a different restructuring plan from the one proposed by the company. Outside investors are also invited to present alternative plans to the one proposed by the company<sup>27</sup>. These new procedures not only increase the amount recovered by creditors, they also aim at preserving jobs.

## Creation of specialised asset management companies

Sometimes banks prefer to transfer their non-performing loan portfolios rather than set up debt collection procedures. This accelerates the clean-up of bank

balance sheets, but at the cost of bigger losses. Special purpose vehicles, commonly known as "bad banks", designate a special category of asset management companies that help stabilise the banking sector (Medina Cas and Peresa, 2016) by "separating the wheat from the chaff". These public and/or private structures purchase the bank's non-performing loans at a discount (called a haircut). These assets are then revalued via a debt recovery plan and/or market disposals, sometimes after securitising them.

With the bursting of the financial bubble in 1991, the Japanese government created a public structure, the Resolution and Collection Corporation (RCC), which was responsible for purchasing non-performing loan portfolios that the banks had failed to restructure or sell on the market. Between 1999 and 2002, RCC acquired JPY 1,300 billion in debt (about EUR 12 billion) at 4% of face value. This represented about 4% of the amount of Japan's total non-performing loans outstanding, which averaged at an estimated JPY 35,000 billion between 1999 and 2002. This structure helped slash Japan's non-performing loans outstanding by a factor of five between 2002 and 2007 (Jassau and Kang, 2015). Similarly, Sweden created several specialised asset management companies in 1992. Securum, the largest, liquidated or sold off 70% of the companies facing default in 1994. In 1998, South Korea set up the Korea Asset Management Company (KAMCO), which values non-performing loans based on uniform, objective criteria. Korea's fiscal framework and bank regulations encouraged the creation of specialised asset management companies, this time in the private sector. These entities were not only mandated to purchase non-performing loans, but also to assist with the restructuring of ailing companies<sup>28</sup>.

In Italy, like in the European Union as a whole, the development of public specialised asset management companies must comply with the EU state aid rules. Aiyar et al. (2015) recommend that these entities purchase non-performing loans at market prices, that preference is given to public-private partnerships and that banks sell their non-performing loans to specialised asset management companies on a voluntary basis. In January 2017, Andrea Enria, president of the European



Banking Authority (EBA), presented a proposal for a public-private specialised asset management company at the EU level. Given the deteriorated state of its public finances, Italy is not able to mobilise sufficient public funds to meet the enormous stock of non-performing loans. The EU-wide entity proposed by EBA would aim at purchasing EUR 200 to 250 billion in non-performing assets without mutualising losses between countries, while complying with state aid rules. The proposal might be discussed at the informal meeting of the EU economic and finance ministers (ECOFIN) in Malta on 7 and 8 April 2017. For the moment, the concept has been welcomed by Klaus Regling, managing director of the European Stability Mechanism. According to Vitor Constancio, vice-president of the European Central Bank, this type of structure is the only way to rapidly clean up bank balance sheets, as long as they respect the rules and regulations in effect <sup>29</sup>.

### Facilitating the disposal of non-performing loans

On 8 April 2016, the Italian government set up a public guarantee schema covering the sale of bad debts. Called GACS for *Garanzia Cartolarizzazione Sofferenze*, Law 49/2016 received priori approval by the European Commission. To be eligible for the guarantee, the law stipulates that non-performing loans must first be securitised and purchased at market price by a Special Purpose Vehicle (SPV) that is not dependent on the originating bank. At this stage, a guarantee covering the senior tranches<sup>30</sup> can be request against payment of a fee to the Italian Treasury at market price. The asset must receive an investment grade rating by an independent rating agency. These conditions make the GACS compatible with European Union state aid rules, and should make it easier to sell the banks' non-performing loans on the market.

### Consolidating Italy's banking system

Italy did not participate in the consolidation movements that swept the European banking systems in the 1990s and again following the crisis of 2007/08 and the sovereign debt crisis of 2011. Confronted with this lag, the Italian government starts to encourage the consolidation of its banking system with the goal of making it more efficient. Previously, this type of policy, which was often

adopted in the midst of banking crises, could take the form of the temporary nationalisation of banks, as was the case in Sweden and Norway in the early 1990s. This is no longer an option for Sweden, after it joined the European Union in 1995 and adopted the European Parliament's Bank Recovery and Resolution Directive (BRRD) in 2014<sup>31</sup>. This directive also makes it hard to imagine that Italy could adopt this solution. The only option would be to evoke the exceptions provided under the principle of bail-in, and to launch a precautionary recapitalisation, as was the case with Monte dei Paschi di Siena (see below). This was an exceptional, temporary measure that does not imply the bank's resolution. It consists of the public authorities making a capital injection into a bank that the ECB recognises as being solvent *"when this is necessary to remedy a serious disturbance in the economy of a Member State and preserve financial stability"* (ECB, 27 December 2016).

Consolidation should pave the way for banks to generate economies of scale, streamline management, improve governance and diversify their portfolios. Law 49/2016 of 8 April 2016 transformed 367 Italian cooperative banks into a single entity, making it the third largest national bank. It is held by a joint stock company (essentially held by co-operative banks). Moreover, Law 33/2015 of 24 March 2015 reformed the management of cooperative banks (*banche di credito cooperativo*), and ten of them were transformed into joint stock companies<sup>32</sup>.

As Mario Draghi points out, this concentration moment in the banking sector helps reduce Italy's "overbanking", which strains bank profitability<sup>33</sup>. Yet without suitable support measures, merging small ailing banks will not reduce the amount of non-performing loans outstanding.

### Fiscal incentives for loan loss provisions and loss recognition

Before the reforms of 2013<sup>34</sup>, and especially those of 2015<sup>35</sup>, Italy's fiscal framework did not provide many incentives for banks to build up large provisions to write-down non-performing loans or to accelerate loss recognition via write-offs (Aiyar et al., 2015; Garrido et al., 2016).





Before the reforms, loan loss provisions could only be deducted from taxable income up to a limit of 0.3% of bank loans outstanding for the year. The share of provisions not deducted from the taxable base were assimilated as a tax credit in the following fiscal years. To be more precise, they were treated as deferred tax assets deducted from the fiscal charge of future years by equal instalments over 18 years. Until 2007, banks were able to deduct 90% of provisions from their taxable income (De Vincenzo and Ricotti, 2014). However, the spread between the stock of deductible provisions and the total stock of provisions widened as provisions accumulated and loans outstanding contracted. For banks, the charge associated with loan loss provisions increased as they were unable to immediately deduct a growing share from taxable income. Since the reforms, provisions are deductible in full in just one year, which should strengthen the banks' capacity to manage their non-performing loan portfolios. This difference can be assimilated with a zero-rate loan granted by banks to the tax administration, the opportunity cost of which is estimated at EUR 100 million a year for the Italian banking system (De Vincenzo and Ricotti, 2014). Moreover, net banking income is calculated on the basis of gross income minus taxes, which in turn is reduced by deferred income assets. These assets artificially swell bank earnings. Since 2015, losses on bad debts are also deductible from taxable income in a single year (vs five years previously). This should accelerate loss recognition and the clean-up of bank balance sheets.

## The Atlante fund

Launched on 11 April 2016 on the initiative of the Italian government, the "Atlante" fund (to be distinguished from Atlante II, which has different objectives) is comprised of public and private capital. Its originality lies in the juxtaposition of several solutions applied to previous crises involving non-performing loans. The fund is intended to participate in bank recapitalisations as well as in the disposal of securitised non-performing assets. Placed under the asset management company Quaestio Capital Management SGR S.p.A, the Atlante fund has EUR 4.3 billion provided on a voluntary basis by 67 national and international institutions, including Cassa Depositi e Prestiti (in which the Italian state has a majority shareholding).

According to several public sources, the fund would purchase non-performing loans at 30% of gross book value<sup>37</sup>. This price is in line with the 33% proposed for part of the non-performing loan portfolios of Monte dei Paschi di Siena in late 2016<sup>38</sup> as well as the 34% calculated by the fund for a theoretical portfolio (Quaestio, 2016). This price is much higher than the 20% proposed by the market<sup>39</sup>. According to the fund's management, this differential is possible thanks to the securitisation of non-performing loans, the contribution of public guarantees and the reform of bankruptcy laws (in addition to a lower target for returns). Yet the amount of non-performing loans of the three banks in the greatest difficulty (EUR 77 billion at 30 September 2016) exceeds the fund's capacity: EUR 11.3 billion for Banca Popolare dell'Emilia Romagna, EUR 20.1 billion for Banco Popolare, and EUR 45.6 billion for Monte dei Paschi di Siena. Atlante's support could nonetheless serve as an impulse for the rest of the market. It would also help reduce the amount of equity capital the banks still need to raise in order to totally clean up their balance sheets. Roughly speaking, if BPER, Banco Popolare and MPS sold off all of their non-performing loans at 20% of face value, after deducting provisions, they would have to build up additional equity capital of EUR 4.1 billion, EUR 9.5 billion, and EUR 13.4 billion, respectively, to cover their losses. This amount would be reduced by EUR 1.1 billion, EUR 2 billion and EUR 4.6 billion, respectively, if the non-performing loans were purchased solely by Atlante (see chart 5). The real need for additional equity capital probably lies somewhere between these two extremes. In other words, Atlante cannot be the sole solution. Nonetheless, it can participate in the clean-up of bank balance sheets.

## Additional equity capital needs

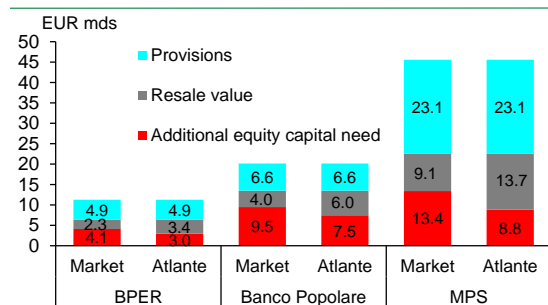


Chart 5

Sources: Bank financial statements, BNPP calculations



## MPS recovery plan (EUR billions)

	Before plan	After plan, without rebuilding provisions		After plan, including rebuilding provisions	
		Market	Atlante	Market	Atlante
Gross book value	45.6	17.9		17.9	
Loan loss provisions	23.1	5.4		9.1	
Net book value	22.5	12.5		8.8	
Equity capital due to sale=(20%*27.7) ou (30%*27.7)		5.5	8.3	5.5	8.3
Equity capital due to recapitalisation		5	5	5	5
<i>o/w equity capital due to conversion</i>		2	2	2	2
Theoretical equity capital needs after sale and recapitalisation		2.0	-0.8	-1.7	-4.5

Table 2

Sources: Bank financial statements, BNP Paribas calculations

## The example of the MPS recovery plan

Mirroring the objectives of the Atlante fund, the recovery plans for Italian banks generally combine the disposal of non-performing loans with bank recapitalisation. In this respect, the initial plan for MPS – before it was abandoned on 22 December 2016 due to the failure of recapitalisation – is instructive because it gives us a picture of the different components of a recovery plan. It was comprised of three interdependent sections: the conversion of bonds into shares, private recapitalisation and the disposal of non-performing loans.

The plan called for EUR 5 billion in recapitalisation, of which EUR 1 billion would ideally be injected by one or more core investors in order to build market confidence. EUR 2 billion had already been raised by the voluntary conversion of bonds into equities: between 28 November 2016 and 2 December 2016, bank bondholders were offered the possibility of converting their bonds into new shares at nominal value. A second conversion plan was held between 16 December and 21 December 2016. It offered junior Tier 2 bondholders the option to convert them at face value, subordinated Tier 1 bondholders to convert at 85% of face value and holders of FRESH (Floating Rate Equity-linked Subordinated Hybrid) to convert them at 23.2% of face value. The conversion would only be effective if the move to raise market funds was a success. The disposal section of the plan called for the sale of EUR 27.7 billion in gross non-performing loans for a book value net of provisions of EUR 10 billion. Table 2 highlights the different components of the plan and their effects assuming that the plan was finalised.

In the end, the amount of non-performing loans remaining to be covered by additional equity capital or provisions might not have exceeded EUR 2 billion. Even better, it would have increased the bank's equity capital by between EUR 0.8 billion and EUR 4.5 billion, depending on whether or not provisions were rebuilt to current proportions, and whether the Atlante fund was the sole participant.

Despite these factors, it appears in retrospect that there was too much uncertainty surrounding MPS's capacity to successfully complete its bailout plan, which cut short investors' appetite. As things now stand, MPS must receive a precautionary recapitalisation of EUR 8.8 billion, of which EUR 6.6 billion will be funded by the Italian state, and the remaining EUR 2.2 billion will have to be provided by "other" investors. Of the funds provided by the Italian government, EUR 2 billion would serve to purchase the equities that the bank's depositors would receive in exchange for the conversion of their subordinated debt instruments into equities during the precautionary recapitalisation. On 15 March 2017, MPS proceeded with a EUR 4 billion bond issue guaranteed by the Italian government (decree 237/2016 amended by the conversion law 15/2017). Moreover, on 17 March 2017, Veneto Banca and Banca Popolare di Vicenza (currently held by Atlante and whose merger plan has been submitted to the supervisor) declared that they had requested precautionary recapitalisation as provided by Law 15/2017. Note that UniCredit's EUR 13 billion recapitalisation plan, carried out between 6 and 23 February 2017, was 99.8% underwritten, proof that investors differentiate between Italian banks and value recovery plans.



## Conclusion

The reduction of non-performing loans and their impact on bank lending will help foster a more sustainable recovery in Italy. It is all the more necessary to pursue the reforms that have been launched so far, because in the absence of growth, even bigger efforts will be required to clean-up bank balance sheets. The measures already in place are a key step towards the steady reduction of non-performing loans, but other initiatives – whether public or private – will undoubtedly be necessary. In this sense, adopting a standard definition for non-performing loans was a step in the right direction (ECB, 2017). Moreover, the banks under direct supervision by the ECB Single Supervisory Mechanism with a “high level of non-performing loan” with regard to the weighted average European ratio as defined by the EBA (higher than 5.5% in June 2016), must submit a credible plan for reducing their non-performing loans to the ECB before 31 March 2017 (or risk facing review), which should help accelerate the clean-up of bank balance sheets.

21 March 2017

*thomas.humblot@bnpparibas.com*

## REFERENCES

- Aiyar, S., Bergthaler, W., Garrido, J. M., Ilyina, A., Jobst, A., Kang, K., Kovtun, D., Liu, Y., Monaghan, D. and Moretti, M. (2015), *A Strategy for Resolving Europe's Problem Loans*, IMF Staff Discussion Note 19, 1-37.
- European Banking Authority (2016), *Risk Assessment of the European Banking System*, 1-72.
- European Central Bank (2016), *Survey on the Access to Finance of Enterprises in the Euro Area*, 1-40.
- European Central Bank (2017), *Guidance to Banks on Non-performing Loans*, 1-131.
- Beck, T., Demirguc-kunt, A. and Levine, R. (2009), *Financial Institutions and Markets Across Countries and Over Time – Data and Analysis*, Policy Research Working Paper 4943, The World Bank, 1-45.
- Broto, C., Diaz-Cassou, J. and Erce, A. (2011), *Measuring and Explaining the Volatility of Capital Flows to Emerging Countries*, Journal of Banking and Finance 35(8), 1941-1953.
- Capinelli, L., Cascarino, G., Giacomelli, S. and Vacca, V. (2016), *The Management of Non-performing Loans: A Survey Among the Main Italian Banks*, *Questioni di Economia e Finanza*, Occasional Papers 311, Bank of Italy, 1-32.
- Ciavoliello, L. G., Ciocchetta, F., Conti, F. M., Guida, I., Rendina, A. and Santini, G. (2016), *What's the Value of NPLs ?*, Notes on Financial Stability and Supervision 3, Bank of Italy, 1-8.
- CRIF Rating Agency (2015), *Analysis and Forecast of Italian Corporates' Default Rates*.
- Deloitte (2016), *L'entreprise en difficulté en France – Gagner plus de lisibilité pour aller de l'avant*, 1-44.
- De Vincenzo, A. and Ricotti, G. (2014), *The use of tax law from a macroprudential perspective: the impact of some recent tax measures on procyclicality and banks' stability*, Notes on Financial Stability and Supervision 1, Bank of Italy, 1-6.
- Ferrucci, G., Herzberg, V., Soussa, F. and Taylor, A. (2004), *Understanding Capital Flows to Emerging Market Economies*, Financial Stability Review (June), 89–97.
- Garrido, J. (2016), *Insolvency and Enforcement Reforms in Italy*, IMF Working Paper 134, 1-20.
- Garrido, J., Kopp, E. and Weber, A. (2016), *Cleaning-up Bank Balance Sheets: Economic, Legal, and Supervisory Measures for Italy*, IMF Working Paper 135, 1-32.
- Hausman, J. A. (1978), *Specification tests in econometrics*, Econometrica 46(6), 1251–1271.
- Hurlin, C. (2004), *L'Econométrie des Données de Panel – Modèles Linéaires Simples*, Séminaire Méthodologique, Université d'Orléans, 1-67.
- Hsiao, C. (1986), *Analysis of Panel Data*, Econometric Society Monographs 11, Cambridge University Press.
- Jassaud, N. and Kang, K. (2015), *A Strategy for Developing a Market for Nonperforming Loans in Italy*, IMF Working Paper 24, 1-31.
- Jeanneau, S. and Micu, M. (2002), *Determinants of International Bank Lending to Emerging Market Countries*, Working Paper 112, Bank for International Settlements, 1-41.
- Jobst, A. and Weber, A. (2016), *Profitability and Balance Sheet Repair of Italian Banks*, IMF Working Paper 175, 1-33.
- Koenker, R. (1982), *Robust Tests for Heteroscedasticity Based on Regression Quantiles*, Econometrica 50(1), 43–61.
- Kremp, E. and Sevestre, P. (2013), *Did the Crisis Induce Credit Rationing for French SMEs?*, Journal of Banking & Finance 37(10), 3757–3772.
- Medina Cas, S. and Peresa, I. (2016), *What Makes a Good 'Bad Bank'? The Irish, Spanish and German Experience*, Discussion Paper 36, 1-48, European Commission.
- Montoro, C. and Rojas-Suarez, L. (2012), *Credit at Times of Stress: Latin American Lessons From the Global Financial Crisis*, BIS Quarterly Review September, 51-60.
- Netti, E. (2016), *Italy's SMEs loans return to pre-recession levels*, *IlSole24ore*, 11 July 2016.
- OCDE (2016), *Global Interim Economic Outlook*, March 2017.
- Pascuzzi, F., Lando, P. and De Vecchi, L. (2016), *The Italian NPL Market – The NPL Volcano is Ready to Erupt*, PwC, 1-28.
- Quaestio Capital Management (2016), *Atlante Fund Presentation*, 29 April 2016.
- Vercellone, A. (2016), *Not yet time to leave the zoo*, *Exane BNP Paribas*, 25 July 2016.



## NOTES:

<sup>1</sup> "Non-performing loans" is used in the broad sense of the term, including bad debts.

<sup>2</sup> The figure often put forward is EUR 360 billion. The difference is due to trends in non-performing loans and the definition change in March 2015.

<sup>3</sup> Source: Bank of Italy

<sup>4</sup> Source: BNP Paribas, Global Outlook, Q2 2017

<sup>5</sup> Source: Istat, Men and women in the 15-64 age group, seasonally adjusted

<sup>6</sup> Source: Istat, Italy, Manufacturing, total, seasonally adjusted, index, 2010=100

<sup>7</sup> In Spain, the minimum amount is only EUR 100,000 for the MARF (*Mercado Alternativo de Renta Fija*). In France, it is EUR 5 million for *Initial Bond Offerings* on Alternext and EUR 10 million on Euronext. In Germany, the regulatory minimum is EUR 100,000, but it varies depending on the marketplace.

<sup>8</sup> UniCredit SpA, Intesa Sanpaolo, Banca Monte dei Paschi di Siena SpA-Gruppo Monte dei Paschi di Siena, Banco Popolare - Società Cooperativa-Banco Popolare, Unione di Banche Italiane Scpa-UBI Banca, Banca popolare dell'Emilia Romagna, Mediobanca SpA-MEDIOBANCA - Banca di Credito Finanziario Società per Azioni, Banca Popolare di Milano SCaRL, Credito Emiliano SpA-CREDEM, Banca Popolare di Sondrio Società Cooperativa per Azioni, Banca Carige SpA, Fideuram-Intesa Sanpaolo Private Banking Spa, Banca Piccolo Credito Valtellinese-Credito Valtellinese Soc Coop, Banco di Sardegna SpA, Banco di Desio e della Brianza SpA-Banco Desio, Banca Ifis SpA, Azimut Holding SpA, Banca Generali SpA-Generbanca, Banca Intermobiliare di Investimenti e Gestioni, Banca Profilo SpA, Banca Finnat Euramerica SpA and Conafi Prestito SpA

<sup>9</sup> Source: Bankscope®

<sup>10</sup> We also tested the impact of non-performing loans on the growth of bank loans outstanding net of provisions. The variable's sign and significance did not change.

<sup>11</sup> Control variables serve to isolate the effects they encompass and to strengthen the validity of the results. We use control variables that are commonly used in literature and whose influence on the dependent variable is known.

<sup>12</sup> Source: ISTAT, Business Survey, Confidence Climate, manufacturing

<sup>13</sup> Source: Macrobond, Government Benchmark, 10-year yield

<sup>14</sup> Source: Macrobond, Harmonised CPI, total

<sup>15</sup> The quantity of bank loans granted in Italy has depended primarily on supply in the recent period (although it is still higher than growth prospects, ECB, 2016), which explains why this is the main focus of control variables. From a more general perspective, a study of the determinants of credit supply and demand require a particular specification, like the disequilibrium models that use crossed data derived from lenders and borrowers (for more on this question, see Kremp and Sevestre, 2013).

<sup>16</sup> The Hsiao specification test (1986) does not reject the null hypothesis of total panel homogeneity. However, hypotheses on the homogeneity of alphas and betas were tested because the reduction in the number of linear restrictions increases the power of the Fisher test (Hurlin, 2004). Based on these two successive tests, we cannot reject the hypothesis of a panel model with individual effects. The Hausman test (1978) encourages us to retain a fixed effects model, whose results are similar to those presented here. Wald test results argue for the introduction of temporal dummy variables (not reported). They range from Q3 2008 to Q3 2014 to avoid perfect multicollinearity (Montoro and Rojas-Suarez, 2012). The Koenker test (1982) does not reject the hypothesis of the homoscedasticity of residuals.

<sup>17</sup> To be more precise, the variables are pre-multiplied by 1000, and those with an initial value of 0 or less are expressed in absolute terms. A negative sign is applied to the result of the log. This transformation resolves the problems arising for variables of between 0 and 1 during the switch to a logarithm and limits the loss of observations.

<sup>18</sup> Potential endogenous effects of certain variables can be considered negligible with regard to the results obtained as part of a one-step system GMM.

<sup>19</sup> Since the results are based on semi-annual data, we used annualised growth rates.

<sup>20</sup> A company is considered in default (bankruptcy) once insolvency procedures have been opened following a suspension of payments. This situation can lead to several types of bankruptcy procedures: rescue, receivership (possibility of remedying the situation), or court-ordered liquidation (impossible to return to a viable situation). See <https://www.insee.fr/fr/metadonnees/definition/c1617>.

<sup>21</sup> Can cover but is not limited to "pre-established" or "pre-packaged" disposals as introduced in France by the decree of 12 March 2014.

<sup>22</sup> See the letter of intent addressed by the government of Iceland to the IMF in April 2010: <https://www.imf.org/external/np/loi/2010/isl/040710.pdf>.

<sup>23</sup> See: <http://www.fktk.lv/en/law/general/fcmc-guidelines-and-recommenda/4665-2009-08-21-principles-and-guideline.html>.





<sup>24</sup> *Sistema de Recuperação de Empresas por Via Extrajudicial*, approved by laws 178/2012 and 26/2015

<sup>25</sup> From 52.3% to 57.6% according to World Bank Doing Business, 2017.

<sup>26</sup> Preventive procedures also exist in France, and their success rate is 70% according to Me Huertas (Deloitte, 2016). The chance of success of rescue and receivership procedures is 50% higher when they are preceded by prevention procedures.

<sup>27</sup> The potential investor must be one of the company's creditors and hold at least 10% of its debt. Debt can be purchased after opening the procedure and without any pre-existing commercial link between the investor and the ailing company.

<sup>28</sup> These entities can be broken down into *corporate restructuring funds*, which issue securities to invest in the ailing company and to receive a dividend; *corporate restructuring companies*, which invest in and restructure ailing enterprises in order to resell them; *corporate restructuring vehicles*, which pool together non-performing loans to transfer them towards specialised asset management companies; and lastly *real estate investment funds*, which invest in eponymous assets of the ailing enterprises (Jassaud and Kang, 2015).

<sup>29</sup> Andrea Enria and Klaus Regling, on 30 January 2017 during a European Stability Mechanism (ESM) seminar. Vitor Constancio, on 3 February 2017 during a speech at Bruegel.

<sup>30</sup> The last tranches of the portfolio to be affected if the recovery rate is lower than expected. Source: Italian Treasury Department.

<sup>31</sup> Directive 2014/59/EU of the European Parliament and Council, also known as BRRD

<sup>32</sup> For an example, see UBI Banca:

<https://www.ubibanca.it/contenuti/RigAlle/UBI%20BANCA%20-%20novembre%202015.pdf>

<sup>33</sup> Italy has 92 ATMs per 100,000 adults compared to 77 for all OECD member countries and 81 for eurozone member countries. Yet this figure must be kept in perspective since North America has 222 ATMs per 100,000 adults, Japan has 127 ATMs, and the UK has 130 ATMs (International Monetary Fund, Financial Access Survey, Automated Teller Machines).

<sup>34</sup> Law 147/2013, 27 December 2013

<sup>35</sup> Law 132/2015, 20 August 2015

<sup>36</sup> See Jassaud and Kang (2015) for a numerical demonstration

<sup>37</sup> See for example Vercellone (2016)

<sup>38</sup> See the MPS press release: [http://english.mps.it/media-and-news/press-releases/ComunicatiStampaAllegati/2016/2016\\_10\\_24\\_CS\\_Operazione\\_ENG\\_MKP\\_25\\_10\\_ore\\_7.15.RQdocx.pdf](http://english.mps.it/media-and-news/press-releases/ComunicatiStampaAllegati/2016/2016_10_24_CS_Operazione_ENG_MKP_25_10_ore_7.15.RQdocx.pdf)

<sup>39</sup> This price is based on the 17.5% paid by the market during the rescue of Banca delle Marche, Banca dell'Etruria e del Lazio, Cassa di Risparmio di Chieti and Cassa di Risparmio di Ferrara in November 2015.

# GROUP ECONOMIC RESEARCH

■ **William DE VIJDER**  
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

■ **Frédérique CERISIER**

Euro Area (European governance and public finances), Spain, Portugal

+33(0)1 43 16 95 52

frederique.cerisier@bnpparibas.com

■ **Thibault MERCIER**

Euro Area (short-term outlook and monetary policy), France (structural reforms)

+33(0)1 57 43 02 91

thibault.mercier@bnpparibas.com

■ **Manuel NUNEZ**

Japan, Ireland - Projects

+33(0)1 42 98 27 62

manuel.a.nunez@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

■ **Céline CHOULET**

+33(0)1 43 16 95 54

celine.choulet@bnpparibas.com

■ **Thomas HUMBLLOT**

+33(0)1 40 14 30 77

thomas.humblot@bnpparibas.com

## EMERGING ECONOMIES AND COUNTRY RISK

■ **François FAURE**

Head - South Africa, Argentina - Methodology

+33(0)1 42 98 79 82

francois.faure@bnpparibas.com

■ **Christine PELTIER**

Deputy Head - Greater China, Vietnam, other North Asia countries - Methodology

+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, Brazil, Mexico, Central & South America - Methodology

+33(0)1 42 98 26 77

sylvain.bellefontaine@bnpparibas.com

■ **Pascal DEVAUX**

Middle East, Balkan countries, Nigeria, Angola - Scoring

+33(0)1 43 16 95 51

pascal.deviaux@bnpparibas.com

■ **Anna DORBEC**

CIS, Central European countries

+33(0)1 42 98 48 45

anna.dorbec@bnpparibas.com

■ **Johanna MELKA**

Asia, Russia

+33(0)1 58 16 05 84

johanna.melka@bnpparibas.com

■ **Alexandra WENTZINGER**

Chile, Uruguay, Paraguay

+33(0)1 42 98 74 26

alexandra.wentzinger@bnpparibas.com

■ **Michel BERNARDINI**  
Public Relation Officer

+33(0)1 42 98 05 71

michel.bernardini@bnpparibas.com



**BNP PARIBAS**

The bank for a changing world

# OUR PUBLICATIONS



## CONJUNCTURE

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



## ECOFASH

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 thereof. 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 the 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, to the extent permitted by law, have added 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 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 and authorised and subject to limited regulation 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 SA, whose head office is in Paris, France. BNP Paribas SA - Niederlassung Frankfurt am Main, Europa Allee 12, 60327 Frankfurt is authorised and supervised by the Autorité de Contrôle Prudentiel and 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://economy.bnp-paribas.com>

© BNP Paribas (2015). All rights reserved.

You can read and watch our analyses on Eco News, our iPad and Android application



<http://economic-research.bnpparibas.com>

© 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 – Internet : [www.group.bnpparibas.com](http://www.group.bnpparibas.com)  
Publisher: Jean Lemerle. Editor: William De Vijlder  
Printed in France by: Ateliers J. Hiver SA – March 2017  
ISSN 0224-3288 – Copyright BNP Paribas



# BNP PARIBAS

The bank  
for a changing  
world