CEPS POLICY BRIEF
Thinking ahead for Europe

A radical cure for Italy's banking problems: A combination of good banks and soft bail-in

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Key points for policy-makers

Italian banks are in a precarious situation, burdened by non-performing loans (NPLs) that are almost of the same magnitude as their capital and provisions. The gradual approach of dealing with NPLs via more provisioning and some sales has yielded little results. The political crisis now gives an opening to the authorities to take radical steps to put the Italian banking system on a sound footing.

Policy Recommendations

- The balance sheets of Italian banks should be cleaned-up. The quickest way to achieve this would be to transfer non-performing exposures to an asset-management vehicle.
- The losses resulting from the transfer could be covered by capital, obtained via soft (conversion of debt instruments into equity) or hard bail-in (loss absorption). The hard bail-in of creditors would amount approximately to only €5 billion.
- The Italian government should clearly explain to its citizens the difference between 'hard' and 'soft' bail-in, in order to facilitate the acceptance of the inevitable. Only a hard bail-in leads to a total loss. In a soft bail-in, investors participate in the upside from a cleaned-up banking system.
- Government intervention is needed only to extent that one wants to protect some investors from losses for political reasons.
- The Italian banking sector does not have many foreign creditors. It is not necessary to enlist the involvement of the pan-euro-area institutions, such as the Single Resolution Fund and the European Stability Mechanism, which could in any event only cover part of the losses.

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The problem is by now well known.[1] Italy's banks are drowning in a large pool of non-performing loans (NPLs), limiting their ability to lend to the real economy. The 15 largest Italian banks, i.e. those included in the transparency exercise conducted by the European Banking Authority (EBA), had a total non-performing exposures of €292 billion at the end of June 2016. This sum is in the same order of magnitude as the regulatory capital and provisions of these banks, thereby putting them in a precarious situation. In order to make the Italian banking sector work again, the banks should be liberated from this burden. But, in the absence of state aid, this will require some bail-in of creditors. We argue in this policy brief that one needs to distinguish between two types of bail-in: 'hard' and 'soft'.

A 'hard' bail-in occurs when the holders of (usually subordinated) debt instruments lose everything. In a 'soft' bail-in the creditors receive a participation in the capital at book value. In this case the loss could be much lower as it will depend on the market-to-book value of the bank concerned.

We find that most of the bail-in required even for a transfer of all NPLs away from the banks would be of the soft kind. The Italian authorities should urgently inform the public about the difference between 'soft' and 'hard' bail-in to reduce the sense of total loss associated with the term and thereby facilitate a rapid restructuring of the most distressed banks.

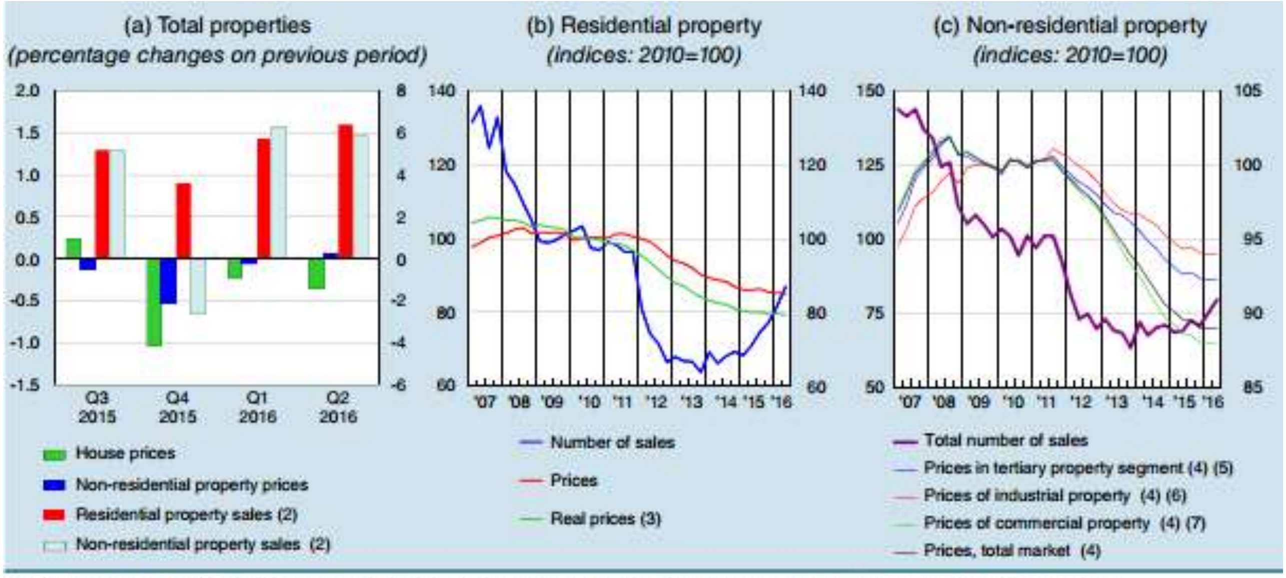
What value in non-performing loans?

The key issue concerning non-performing loans in Italy is not how large they are, but how much they are worth. But the residual value of NPLs is particularly difficult to evaluate as the vast majority of the NPLs, especially the most doubtful ones, are towards corporate entities, not households. This is important since the recovery rates on commercial loans that go into default tend to be rather low. On paper there are enough guarantees and collateral to cover the remaining book value of all the NPS, but the collateral for commercial loans usually consists of machinery and commercial real estate (most often basic structures called 'capannoni'). The machinery and industrial structures tend to have little value if the firm that used them no longer exists. The book value of the collateral and guarantees is thus a poor indicator of the actual value of NPLs.

By contrast, recovery rates on household debt can be much higher if secured by real estate. However, the recovery process can take longer, as it is typically even more difficult for a bank to be able to close in on the primary residence. House prices have fallen in Italy by about 20% since the crisis – and can be expected to fall further by the time any authority can close in on today's non-performing loans. But even so, the market value of real estate in private used (essentially apartments and houses) tends to be more stable than that of commercial structures, which might fall in value by much more than 20-30% when no longer used. Figure 1, taken from a study by the Banca d'Italia, shows that real estate prices have fallen and volumes had collapsed after the crisis. There is evidence now of a partial recovery in volumes, which should make it easier to evaluate the market value of real estate guarantees.

[1] Gros argued several years ago that the Italian banking system was heading for a large NPL problem, as the productivity of investment in Italy had been too low for long time. See "What is holding Italy back?", VoxEU, 9 November 2011 and "Quella bassa produttività del capitale in Italia", Lavoce.info, 29 January 2013.

Figure 1. Property market in Italy

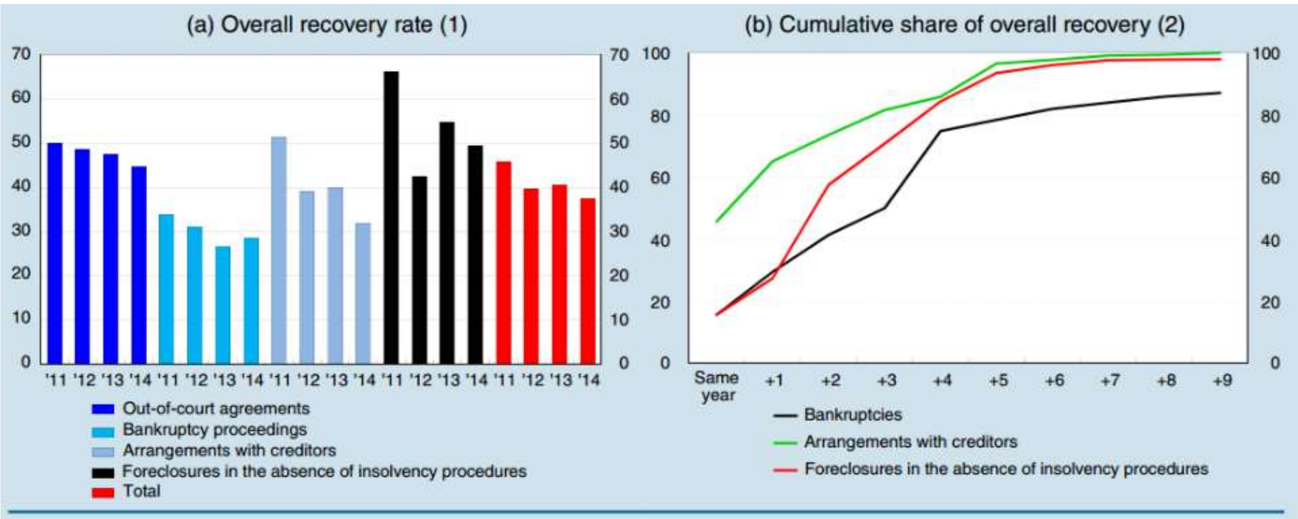


Sources: Based on data from the Bank of Italy, Istat, Osservatorio del Mercato Immobiliare (OMI), Nomisma and Scenari Immobiliari.
(1) Data adjusted for seasonal and calendar effects. – (2) Right-hand scale. – (3) Data deflated using the change in consumer prices. – (4) Right-hand scale. This experimental price indicator uses data drawn from transactions actually concluded on the market. – (5) The tertiary segment comprises office buildings and banks. – (6) Industrial property consists of buildings for industrial use. – (7) Commercial property comprises shops, shopping centres and hotels.

Net present value

Another factor that tends to reduce the market value of NPLs is that the main potential buyers of NPLs tend to apply rather substantial discount factors or risk premia. Differences in the time value of money can become crucial when, as is the case in Italy, one has to factor in five years for any recovery process. The importance of the discount factor is illustrated in the table below, taking the concrete example of an NPL whose expected recovery value is assumed to be 40 cents on the euro. If recovery takes five years, the present value would be around 31 cents with a risk premium of 5%, but only 20 cents with a risk premium of 15%, as is often applied by the hedge funds. Figure 2 shows that five years seems to be indeed the average time required for recovery.

Figure 2. Recovery rates on liquidation procedures



(1) Recovery rates of the procedures closed in the period 2011-14. – (2) Procedures concluded in 2014.

More 'patient' longer-term investors would value NPLs at a higher price. However, patient investors such as life insurers and pension funds also tend to be very risk averse and are thus not likely to consider this type of investment. Moreover, NPLs constitute a very illiquid assets, which further reduces their attractiveness to many investors, thus driving up the risk premium. A high-risk premium naturally also reduces the present value of collateral, which usually can be foreclosed only after a long legal process. Even with a risk premium of 10%, the recovery value is halved after seven years. With a risk premium of 15% this happens already after five years. Any valuation of NPLs should thus discount the collateral strongly on this account, even apart from the doubts of its effective value mentioned above.

Table 1. Present value of recovery of NPLs

Assuming eventual recovery of 40 cents on the euro

	Risk premium			
Years to recovery	**5%**	**10%**	**15%**	**20%**
0	40.0	40.0	40.0	40.0
1	38.1	36.4	34.8	33.3
2	36.3	33.1	30.2	27.8
3	34.6	30.1	26.3	23.1
4	32.9	27.3	22.9	19.3
5	31.3	24.8	19.9	16.1
6	29.8	22.6	17.3	13.4
7	28.4	20.5	15.0	11.2
8	27.1	18.7	13.1	9.3
9	25.8	17.0	11.4	7.8
10	24.6	15.4	9.9	6.5

The role of the government

In an ideal world, the government would recognise the costs of inefficient insolvency and recovery procedures. The Renzi government had earlier this year introduced a number of changes designed to accelerate the recovery process. But it remains to be seen how effective this package will be (given also that many of these changes will mainly affect new loans). It is not the first time an Italian government has promised to accelerate judicial processes in Italy. But none of the previous reforms has had a noticeable impact.[2] One can thus not count on a sudden acceleration of the judiciary apparatus to resolve the NPL problem.

Making the most of the existing NPL will continue to require patience. The most patient investor could of course be the government. This is one reason why there might be a legitimate difference in the valuation of NPLs. The government can re-finance itself at about 2% and does not need to worry about liquidity. In this sense, the government would naturally attach a higher value to NPLs than would a private investor. (This is apart from the fact that the supervisory authorities tend to condone the use of low-risk premia in the valuation models of the banks.)

Recent research suggests that in the case of Italy both elements contribute about equally to the discrepancy between the book value and their market price (or rather the prices quoted on the few transactions which actually take place). This implies that the government could expect to break even if it took over the NPLs at a price somewhere half way between their book and their market values. But buying NPLs at a value above market price would of course constitute state aid.

Who needs the ESM?

Cleaning up the Italian banking system does not require resources from abroad, like the Single Resolution Fund (see box below) or loans from the European Stability Mechanism (ESM), given that Italian banks have few foreign creditors. The only question is how the economic losses embedded in the NPLs are distributed among Italian residents. With a bail-in, Italian investors lose; with a bail-out, the Italian taxpayer carries the losses. The

[2] See Fabio Schiantarelli, Massimiliano Stacchini, Philip E. Strahan (2016), "Judicial efficiency and banks' fragility: Evidence from Italy", VoxEU, 13 August 2016.

domestic nature of the problem is also the reason why the current banking problems in Italy have little impact outside the country. The purpose of the ESM is to safeguard the stability of the euro-area financial system. Any ESM loans would require first of all a visible threat to the stability of the system. But this is not apparent at present.

Contribution from the Single Resolution Fund

Although foreign support would in this case not strictly be necessary, part of the losses/recapitalisation could be eligible for financial support from the Single Resolution Fund. The contributions of the SRF are conditional and capped. At least 8% of the total liabilities plus own funds need to be bailed-in before the SRF can contribute up to 5% of total liabilities to the resolution of the Italian banks. Using the total assets as of 31 December 2015 as a proxy for total liabilities plus own funds, the SRF would be allowed to contribute a maximum of €23.3 billion to the loss-absorption and recapitalisation. The funds that the SRF has collected and is allowed to use for the Italian banks during the transition are, however, insufficient to contribute this amount. Moreover, the Single Resolution Board that is responsible for the SRF has already indicated that it would like to use the fund only in exceptional circumstances and thus fully use the bail-in first (MREL).

For more information, see W.P. de Groen and D. Gros (2015), "Estimating the Bridge Financing Needs of the Single Resolution Fund: How expensive is it to resolve a bank?", In-Depth Analysis, prepared for the Economic and Monetary Affairs Committee, European Parliament, Brussels, 20 November 2015.

Whether or not a bail-in creates the danger of a general bank run and thus a danger to systemic stability in Italy is also the key issue under European regulations. At present, there is little indication of any systemic instability. One of the largest Italian banks is actually proceeding with a very large share issuance to increase its capital, which indicates that not all Italian banks have lost market access.

Who is afraid of a bail-in?

It depends of course of what kind of bail-in is being contemplated. But until now, the concept has been used without qualification, with many arguing that any bail-in would be destabilising. But this no longer necessarily seems to be the case.

There are several reasons why a bail-in (de facto mostly of Italian investors) is not as harmful as often argued. First, a large part of the losses have already been anticipated, which limits the potential for negative spill-over effects on other banks or financial institutions within and outside Italy. The market values of shares and (subordinated) debt instruments of Italian banks with large portfolios of NPLs have already for quite some time remained well below the book values, and these lower valuations must by now have been reflected in the books (and the expectations) of the institutional investors. Even retail investors should by now have realised that they might to have to bear some losses.

Second, a (soft) bail-in does not mean a total loss. Most of the bailed-in creditors will receive shares (at book value) in the resolved/restructured bank in return for their debt. These shares might initially quote well below the book value, but they will not be worthless. At present, major banks quote at between 30-50% of book. The immediate paper loss for creditors would thus be in this order of magnitude. Moreover the value of the 'good banks' that remain (without NPLs) is likely to recover along with the recovery of the economy, the cost-cutting and the ongoing slight increase in interest rates.

Third, the government can manage the political problems by buying some of the retail instruments from poorer households, or those with excessive exposure, at close to par and then let itself be bailed in. This would result in a de facto nationalisation even under a 'private solution'.

The combination of these factors can explain the relative calm in the market, despite the fact that some form of bail-in – e.g. the conversion of subordinated debt in equity of Monte dei Paschi di Siena (MPS) – is now clearly unavoidable.

Liberating banks of the NPL burden: The numbers

Simple back-of-the-envelope calculations show that most of the book losses that would arise from a transfer of the NPLs, for example to an asset management company, could be absorbed by a combination of existing excess capital and bail-in. The bail-in does not need to involve large losses as it would be a conversion of debt into equity. Only a small minority of the creditors would need to lose outright.

We start by looking at the seven banks whose NPLs are larger than the capital (technically, a 'Texas ratio' in excess of 1). Table A1 in the Annex shows that for four of these banks the likely losses (under our assumptions) are larger than the sum of provisions and capital, making a 'hard' bail-in inevitable, as no investor will be willing to invest in a bank whose book value becomes negative under any realistic valuation of its NPL book. However, the total amount of 'hard' bail would only be about €5 billion. This is equivalent to €100 per each Italian citizen and represents only a small fraction of the overall banking system or the overall wealth of Italian households. However, the losses are likely to be concentrated, given that the banks had convinced their own customers to concentrate their personal investments in these instruments. The political pressure that will be placed on the Government by 100,000 bondholders, each of whom stand to lose €50,000 on average, will thus be immense. The 50 million taxpayers will thus in the end agree to compensate the 100,000, but this a question of social equity, not of efficiency and there are no European rules that would hinder the Italian government from compensating those who have lost their lifetime savings.

After receiving the €5 billion of 'hard' bail-in, the banks would need to be recapitalised. We assume that a capital ratio of 9-10% would then be sufficient, since what would remain are 'good' banks without any NPL risks on their balance sheets. Our calculations show that about €19 billion would be needed for recapitalisation. These funds could come in the form of either new equity or 'soft' bail-in. Given that the stronger banks (those that are not distressed) will also be on the market for bank capital, even good banks might struggle to find investors. It is thus likely that a large part of the €19 billion will have to take the form of 'soft' bail in.

As recently pointed out by Francesco Giavazzi,[3] this bail-in would not imply a total loss. The 'mark to market' loss might be 'only' about 50 % if the good banks trade at one-half of their book value. At the level of the system the numbers would be larger. If all non-performing exposures of the largest 15 Italian banks are transferred to a bad bank (i.e. as an asset-relief measure) and if 40 cents on the euro are recovered in five years' time, the total loss would be about €219 billion (assuming a rate of return of 10%). But existing provisions and write-downs cover a large part of this, leaving €90 billion in new losses that would need to be absorbed. But Italian banks have substantial capital buffers, which would no longer be needed if all non-performing exposure has been taken off the balance sheet.

Assuming that Italian banks with a clean balance sheet would need to hold only about 9% (minimum total capital requirement plus 1% buffer) regulatory capital, they can cover €61 billion (of the €90 billion) with excess capital. This would leave only €28 billion of losses to be covered from other sources. Only €5 billion of hard bail-in would then be needed (only for the distressed banks), leaving about €23 billion of remaining losses to be covered from either soft bail-in or new capital. One bank, Unicredit, already intends to raise more than one-half of this sum through new capital. The other banks with NPL problems should find it possible to raise another €10 billion in capital through either new capital or some soft bail-in.

[3] "Banche, gli errori fattie quelli da non fare", *Corriere della Sera*, 13 December 2016.

Conclusions

The financial engineering needed to deal with existing NPL problem in Italy seems manageable, if politically difficult. Taking care of the NPLs in the distressed banks would require a combination of a modest amount (€5 billion) of 'hard' bail-in of some subordinated instruments, whose holders would lose everything. The remainder of the capital for the 'cleaned-up' good banks could be found through a combination of new capital and soft bail-in, under which bond holders would receive an equity stake.

The underlying longer-term problem, however, would not be affected by any cleaning of the balance sheets. The underlying problem is the extremely low profitability of investments in Italy, which started a long time before this recession set in. It would be a delusion to think that the present NPL problem is only a consequence of the very long and deep recession Italy has faced. This recession did not come about for no particular reason. The recession has been so deep and protracted in Italy because its economy experienced a long run with a rather high rate of investment (higher than that of Germany until very recently) but growth had been sub-par for a long time[4] (Gros (2014). The crisis and the ensuing recession laid bare the fact that a large part of this investment had been unproductive.

The key long-term question for Italy is thus whether its banking system will merely continue in its old ways after the present NPLs have been taken off its balance sheets. If the incentive system underlying credit allocation does not change, investment will not become more productive and growth will remain weak. It would then be only a question of time before NPLs become again a problem. Fortunately, it appears that the new management that has been installed in one of the largest banks and nearly all of the other distressed banks will constitute a definite break with the past.

[4] See D. Gros, "Investment as the key to recovery in the euro area?", CEPS Policy Brief No. 326, CEPS, Brussels, 18 November 2014.

Table A1. Loss allocation among distressed Italian banks (€ billion)

Bank	Balance sheet (=Gross carrying amount)	NPLs (nominal)	Estimated Loss (= 75% of nominal)	Allocation of losses			Recapitalisation
				Provisions	Total regulatory capital	Creditors (hard-bail-in)	Creditors (soft-bail-in)
Banca Monte dei Paschi di Siena	209	48	36.0	21.9	11.1	3.0	6.4
Banca Carige	35	8	5.8	3.2	2.6		1.6
Veneto Banca	37	8	6.2	2.9	2.7	0.6	1.9
Banca Popolare di Vicenza	46	10	7.4	4.2	2.8	0.3	2.1
Credito Valtellinese	35	6	4.2	2.0	2.3		1.3
Banca popolare dell'Emilia Romagna	82	12	9.1	5.3	5.0		1.5
Banco Popolare	151	21	15.9	6.7	8.0	1.2	4.0
Total distressed banks	**595**	**112**	**84.5**	**46.3**	**34.5**	**5.1**	**18.8**
Total Italian banks	**2,976**	**292**	**219.1**	**129.5**	**167.8**	**5.1**	**23.2**

Notes: Banks are considered distressed if the total gross non-performing exposures are larger than the capital plus non-performing exposure provisions. The gross carrying amount includes loans, debt securities and off-balance sheet exposures. The expected loss is based on 24.8% recovery. The recapitalisation required is calculated based on 9% of total (remaining) risk-weighted assets. The total for the Italian banks covers all 15 Italian banks that have been subject to the EBA's 2016 transparency exercise. Data as of 30 June 2016.

Source: Authors' elaboration based on EBA (2016), www.eba.europa.eu/risk-analysis-and-data/eu-wide-transparency-exercise/2016/results.

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