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Project FINO: defining a framework to understand market prices and analysing the main drivers

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Introduction and executive summary

On 13 December 2016 the UniCredit Group announced that an agreement had been reached to sell to PIMCO and FORTRESS (the Investors) a bad loan portfolio relating to Italian firms for a gross book value (GBV) of €17.7 billion (Project FINO). In order to prepare the pro forma statements for the capital increase prospectus, an average price of approximately 13% of the gross book value was assumed. This value is much lower than the average recovery rate of Italian banks' bad loans reported in recent papers published by the Bank of Italy[1)]. According to Ciocchetta et al. (2016), the average recovery rate for all bad loans written off by all Italian banks in the decade 2006-15 is 43% of GBV. The rate falls to 34.7% in 2014-15, partly due to an increase in the value of positions sold on the market (selling prices are typically much lower than recovery rates on positions worked off internally).

The purpose of this note is to examine the specific features of the FINO operation to see whether they can explain the difference between the selling price and these average recovery rates. The analysis finds that most of the difference can be justified by a number of factors: the bank's decision to sell the

1) F. Ciocchetta, F.M. Conti, R. De Luca, I. Guida, A. Rendina, G. Santini (2016), 'Bad loan recovery rates', Banca d'Italia, Notes on financial stability and supervision, 7, January 2017.

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portfolio on the market; the fall in market-wide recovery rates in 2014-15; the specific features of the FINO portfolio (it consists entirely of exposures to firms; the positions are less collateralized and have a higher vintage than average). A quantification of these effects is provided. Other specific features of FINO, which cannot be quantified, also played a role. Specifically, UniCredit retains an upside in the operation. Other things being equal, this probably persuaded the bank to accept a lower upfront price.

These results have two main implications. First, the price of the FINO operation broadly confirms the available evidence on bad loan recovery rates in Italy. Second, the operation illustrates the bespoke nature of transactions in this market. Owing to these specific features of FINO, its average price cannot be deemed 'representative' of the bad loan market and be automatically applied to other securitizations of NPLs by other banks.

1 Explaining the difference between average recovery rates for Italian banks and the FINO price

The price gap can be justified on the basis of quantitative factors

In this section the FINO price is compared with the average recovery rates for the Italian banking system reported in Ciocchetta et al. (2016). Considering that the FINO transaction closed recently, the analysis focuses on the system-wide average recovery rate for 2014-15, which is equal to 34.7%.

1.1 Adjusting the data to ensure comparability

The prices assumed in the prospectus for the FINO portfolio have been calculated with reference to the gross book value (GBV) at June 2016. These values cannot be compared with those in Ciocchetta et al. (2016) as the latter i) consider the GBV at the date when the position was classified as a bad loan, in line with standard market practice; and ii) take into account all the recoveries made by banks, from classification as bad loan to final closure of the position.

Therefore, it is necessary to calculate the adjusted recovery rates of the FINO portfolio. These rates/prices ensure comparability with the available benchmark but, more importantly, they are a better measure of the actual recovery rate as they take into account the discounted price received by the third party investor as well as the discounted sums recovered by the bank prior to the sale.

Based on calculated estimates, the 'adjusted' FINO average price is 1.9 percentage points higher than the price officially reported in the prospectus.

1.2 The 'firm' effect

The portfolio, consisting only of firms, accounts for 1.3%

In the course of Capital Market Day on 13 December 2016, UniCredit presented its strategic plan for 2017-19 including the main features of the FINO transaction. It pointed out that FINO consists only of exposures to firms with the following breakdown: i) €9.8 billion of corporate loans, ii) €3.0 billion of small business loans, and iii) €4.9 billion of old vintage, namely exposures classified as bad loans before 2009.

By contrast, the recovery rates in Ciocchetta et al. (2016) are a nation-wide average reflecting positions pertaining to firms as well as households. On average, recovery rates for firms are lower than those for households. Table 1 gives a breakdown of the data in Ciocchetta et al., showing that the average recovery rate of 34.7% for 2014-15 is the result of 38.5% for households and 33.4% for enterprises (see the figures in the shaded cells). Therefore, the 'firm effect' accounts for 1.3 percentage points of the price gap.

Table 1 – Recovery rates on bad loans for Italian banks

	Households			Enterprises			Total		
	Secured	Unsecured	Total	Secured	Unsecured	Total	Secured	Unsecured	Total
2006	76.6%	49.5%	59.2%	55.5%	38.0%	43.7%	61.6%	41.1%	48.0%
2007	74.2%	48.7%	58.2%	54.2%	36.8%	41.8%	60.3%	39.6%	46.0%
2008	74.7%	42.8%	55.9%	50.0%	34.1%	40.8%	55.7%	36.2%	44.4%
2009	74.2%	51.8%	62.6%	55.6%	36.8%	44.9%	60.6%	40.3%	49.3%
2010	75.4%	39.3%	55.8%	52.2%	43.2%	46.5%	58.6%	42.4%	48.6%
2011	74.1%	49.1%	60.7%	50.4%	35.9%	41.9%	55.2%	38.2%	45.4%
2012	78.7%	50.6%	64.5%	53.2%	39.0%	44.6%	60.0%	41.2%	49.0%
2013	73.1%	47.9%	61.2%	51.1%	35.3%	41.0%	57.6%	37.5%	45.5%
2014	50.6%	28.7%	37.9%	43.5%	25.3%	32.5%	45.6%	26.2%	34.0%
2015	52.2%	30.0%	39.4%	42.8%	28.9%	34.3%	45.1%	29.2%	35.4%
Total	**67.7%**	**41.6%**	**52.9%**	**49.7%**	**34.4%**	**40.1%**	**54.5%**	**36.0%**	**43.2%**
Average 2014-15	*51.3%*	*29.3%*	*38.5%*	*43.2%*	*27.2%*	*33.4%*	*45.3%*	*27.7%*	*34.7%*

1.3 The 'market sale' effect

The market sale effect accounts for 12.4%

As already described, FINO involves a disposal to third party investors. As the proceeds from market sales are typically much lower than recoveries obtained via internal work-out[2)], the 'market sale' effect has a strong impact on the price gap. Table 2 breaks down the data in Ciocchetta et al. along the internal work-out versus market sale dimension, focusing on firms. The (weighted) average recovery rate of 33.4% in 2014-15, reported in Table 1, is the result of a 41.0% recovery rate achieved through internal work-out and 21.0% via disposal on the market (see the figures in the shaded cells).

Therefore, the 'market effect' accounts on average for 12.4 percentage points of the price gap. Along this line, the average recovery rate achieved by market disposal of bad loans to firms in the last two years (21.0%) is the target against which the specific features of FINO are further assessed in the following paragraphs.

2) This gap is the result of the following elements: i) the different risk appetite of investors, which translates into a request for a higher internal rate of return; ii) the efficiency of judicial procedures and uncertainty as to recovery times, which in Italy are longer than the European average; and iii) the limited development of the NPL secondary market, which leads to high bid-ask spreads. For a more extensive discussion of the main drivers of the gap between market price and book value see L. G. Ciavoliello, F. Ciocchetta, F. M. Conti, I. Guida, A. Rendina, G. Santini, 'What's the value of NPLs?', Banca d'Italia, Notes on financial stability and supervision, 3, April 2016.

Table 2 – Recovery rates on bad loans to firms

	Workout			Disposal			Total		
	Secured	Unsecured	Total	Secured	Unsecured	Total	Secured	Unsecured	Total
2006	55.6%	38.3%	44.0%	47.4%	25.1%	31.8%	55.5%	38.0%	43.7%
2007	54.6%	41.6%	45.8%	44.8%	18.4%	20.5%	54.2%	36.8%	41.8%
2008	50.4%	34.4%	40.9%	46.1%	23.1%	39.0%	50.0%	34.1%	40.8%
2009	55.7%	37.2%	45.3%	37.8%	25.7%	27.3%	55.6%	36.8%	44.9%
2010	53.2%	43.5%	47.0%	25.6%	25.7%	25.6%	52.2%	43.2%	46.5%
2011	50.8%	36.3%	42.4%	32.6%	18.8%	24.5%	50.4%	35.9%	41.9%
2012	54.6%	43.7%	48.0%	46.1%	17.0%	27.6%	53.2%	39.0%	44.6%
2013	51.9%	36.4%	42.0%	39.0%	13.7%	24.6%	51.1%	35.3%	41.0%
2014	50.3%	29.7%	37.9%	30.5%	16.9%	22.3%	43.5%	25.3%	32.5%
2015	50.4%	39.8%	44.3%	29.0%	15.6%	20.0%	42.8%	28.9%	34.3%
Total	**52.5%**	**37.9%**	**43.5%**	**33.0%**	**16.9%**	**22.4%**	**49.7%**	**34.4%**	**40.1%**
Average 2014-15	*50.4%*	*34.4%*	*41.0%*	*29.7%*	*16.2%*	*21.0%*	*43.2%*	*27.2%*	*33.4%*

1.4 The vintage effect

Higher vintage accounts for 2%

About one quarter of the FINO portfolio in terms of value is composed of old bad loans, called the ’old vintage’ cluster. These exposures, corporate and small business, have on average a 12-year vintage, while the vintage of the other FINO clusters averages 4 years. The recovery rate for bad loans to firms sold in the market that is observed for the longest vintages available in the data underpinning Ciocchetta et al. (entry into bad loan status up to 2005) is on average 7.1 percentage points lower than that observed for the remaining vintages (entry into bad loan status from 2006 onwards). Using this recovery rate as a proxy for the recovery rate of the ‘old vintage’ FINO cluster, it is estimated that the ‘vintage effect’ may justify about 2 percentage points of the price gap.

1.5 The collateralization effect

Lower collateralization accounts for 1%

An additional component to consider in caculating recovery rates is the level of collateralization. As shown in Tables 1 and 2, average recovery rates – and hence market prices – are lower for the unsecured component. The FINO portfolio is mainly unsecured, as pointed out during Capital Markets Day. Specifically, comparison with the system-wide data reported in Ciocchetta et al. reveals a greater share of unsecured exposures in the FINO portfolio. This difference in the level of collateralization explains roughly 1 percentage point of the price gap[3].

1.6 Summary of the quantifiable effects

Table 3 summarizes the determinants of the difference between the FINO market price (13%) and the average recovery rate of Italian banks over the period 2014-15 (34.7%) discussed in the previous paragraphs. The ‘unexplained’ residual is equal to about 3 percentage points.

3) This was estimated by recalculating the average recovery rate under the assumption that the distribution of secured and unsecured positions in FINO is the same observed for the system.

Table 3 – Effects contributing to the difference between FINO and the average recovery rate	
Average recovery rate	34.7%
The 'firm' effect	1.3%
The 'market sale' effect	12.4%
Adjusting the data to ensure comparability	1.9%
The 'vintage' effect	2.0%
The 'collateralization' effect	1.0%
FINO market price	**13.0%**
Residual price gap	3.1%

The 'unexplained' residual arguably lies within a reasonable confidence band of the estimates reported in Ciocchetta et al. (documented in the appendix to that paper). However, the following paragraph illustrates several other specific features of the FINO transaction that may well explain this residual.

2. Other specific features of Project FINO

Other specific features reduced the sale price:

Some additional specific features of the FINO operation clearly contributed to reducing the sale price, although it is not possible to calculate their exact impact.

2.1 Structure of the transaction

the partnership structure of the FINO transaction ...

With Project FINO UniCredit hopes to identify strategic partners for NPL management. The transaction therefore features the transfer of the FINO portfolio to two vehicles, of which UniCredit holds 49.9% while PIMCO and FORTRESS hold the remaining 50.1%. In other words, UniCredit will continue to benefit from future recoveries in proportion to its share in the vehicle, regardless of whether or not the underlying assets are de-recognized. Thus, the transfer price is only partly representative of the final transfer value of the portfolio and, hence, of the overall recovery rate on the positions sold.

2.2 Size of the FINO transaction

... as well as the size and the tight time frame

The FINO transaction, framed within the strategy announced by UniCredit to boost profitability and strengthen capital, is a massive one: it amounts to around 43% of the total bad loans of the bank's Italian perimeter. The number of positions sold is greater than the total number of positions towards firms sold on the market between 2006 and 2015 by all Italian banks: the FINO transaction is the largest ever private bilateral NPL transaction in Italy. In a thin and illiquid NPL secondary market, the magnitude of the transaction is likely to be one of the factors depressing the sale price. Moreover, the tight time frame for completing the transaction – embedded in the recapitalization operation – has further reduced the FINO transfer price.