Implicit subsidies for a sample of EU banks in 2013

This study was commissioned by the Greens/EFA group in the European Parliament
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Outline

Based on sample of 57 EU banks from 15 countries, this report finds that implicit subsidies remain significant in 2013 at 86.046 Billion €.

Even with declining credit spreads and the resulting declining cost of funding implicit subsidies remain sizeable.

The average rating uplift of 3.3 notches is in line with previous studies in the literature. The implication of this significant uplift is that despite regulatory reforms, rating agencies have not modified their assessment of the risk differential between banks on a standalone basis and the actual situation which includes the implicit state guarantee. It shows that the rating agencies still expect governments to intervene with state support in the EU in a situation of financial distress.

The bulk of these implicit subsidies are beneficial to banks in the EU core countries. The average rating uplift in the core countries is 4.5, much higher than the average uplift in the periphery of 1.7.

We conclude that our data supports the view that banks in strong (core) countries can benefit more from implicit state support than banks in weaker (peripheral) countries.

This report shows that implicit subsidies in the EU banking sector persist in 2013. The intertwining problem of implicit subsidies and too-big-too-fail has not been solved. It supports the call for providing information about implicit subsidies to the wider public on a granular bank level and on a recurring basis.

Purpose of the study

The main purpose of this study is to provide granular bank level data about implicit subsidies for a representative sample of EU banks in 2013. The vast majority of institutional or academic studies do not provide granular data. In order to bring transparency at this level we publish results per bank. The purpose has not been to improve the methodology for calculating implicit subsidies.

Description of the data sample

The dataset consists of a sample of 57 of the largest banks in the European Union. The sample was composed based on the listed banks that are subject to the AQR (Asset Quality Review). This list was then completed with a sample of the largest non-listed banks in each EU country.

Table 1 in appendix A provides the list of 57 banks, including their respective home country, total on-balance liabilities on a consolidated basis, the long term rating, the rating source, the long term rating expressed in notches and the rating uplift (the difference between the long term rating and the standalone rating expressed in notches).

The sum of total liabilities in the sample amounts to 27,961 € Billion. Figures from the ECB[1] show that on a total of 35,471 Billion € of assets in the EU banking sector large domestic credit institutions account for 26,288 Billion €. These figures indicate that this sample is representative for the large banks in the EU.

In table 2 in appendix A the total liabilities and risk sensitive liabilities are reported on a country basis. The total liabilities are concentrated in countries with large banking sectors. The UK, France and Germany account for about two thirds of all liabilities.

The average of the ratio of risk sensitive liabilities to liabilities equals to 20%. 13% of liabilities are composed of long term debt and 7% are related to bank deposits or interbank funding.

Table 3 in appendix A provides averages of long term rating, standalone rating and the difference between the two which is the average rating uplift, all expressed in rating notches on a country by country basis. We refer to appendix B for a mapping table between ratings and rating notches. On average the peripheral countries such as Italy, Spain, Greece, Portugal and Ireland have a lower rating uplift than core countries such as France, the UK, Germany, Austria, Netherlands, Belgium, Sweden and Denmark.

[1] See http://www.ecb.europa.eu/stats/money/consolidated/html/index.en.html

Methodology and data sources

Methodologically the funding advantage ratings based (FARB) approach was applied to calculate implicit subsidies in this report. The FARB approach is the most widespread method in the literature.

The balance sheet data and rating data were obtained from Reuters for the listed banks. In some cases this data was completed with annual report data. All the data for the non-listed banks were obtained from annual reports.

Bank ratings were obtained from the rating agencies Moody's and Fitch. Priority has been given to Moody's ratings. If Moody's ratings were not available then Fitch ratings have been used. Moody's rating data is also often used in literature on implicit subsidies.

The risk sensitive liabilities have been determined as the sum of two specific balance sheet items on the liabilities side; long term debt and deposits from banks. Long term debt can often be found in annual reports under the item "debt securities" and is also called as such in Reuters. Deposits from banks were not available in our Reuters extract and they have therefore been captured from annual reports.

It should be noted that the methodological choice underpinning the calculation of risk sensitive liabilities that has been applied in this report will rather underestimate than overestimate implicit subsidies. The methodology is similar to the approach taken by the European Commission[2]. This is in opposition to the approach for example taken by the IMF[3] which state: "For the ratings-based approach, the subsidy values in dollars are computed by multiplying the funding cost advantage in basis points by *the sum of total liabilities (net of equity)* of G-SIBs in each country, depending on the availability of balance sheet information." There is at least a factor of 5 differences between the average 19% of liabilities used here and the total liabilities withheld for calculation by the IMF.

The rating yield spread curve is based on index data provided by Merrill Lynch Bank of America. The option adjusted spread was provided by the following indices; "EMU Corporate Large Cap AAA Rated Index 5-7 Yrs (Financials)", "EMU Corporate Large Cap AA Rated Index 5-7 Yrs (Financials)", "EMU Corporate Large Cap A Rated Index 5-7 Yrs (Financials)", "EMU Corporate Large Cap B Rated Index 5-7 Yrs (Financials)". The four data points provided by these indices were extrapolated using an exponential function in order to obtain the rating yield curve (see table 8 in appendix B).

[2] see European Commission 2014, p.107

[3] See IMF (2014), p. 114

Analysis of results

We estimate the implicit subsidies to banks in this sample to amount to 86,046 € Billion. When expressing this amount as a proportion of total assets this corresponds to 31 basis points. This figure is lower than the estimate of 89 basis points obtained from a distillation from literature performed in a previous study[4]. Nevertheless it falls within a range of plausible outcomes, e.g. consider the results of the European Commission published in January 2014 which report that the implicit subsidy is in the range of EUR 72-95 billion and EUR 59-82 billion in 2011 and 2012, respectively. Consider also the results of the IMF which fall in the range of 90-100 $ Billion with the ratings based approach[5] and above 300 $ Billion using a contingent claims approach.

The average rating uplift of 3.3 in this sample (see table 3) is also in line with prior analysis about the rating uplift in the literature which confirm that this is a plausible outcome. E.g. Noss and Sowerbutts (2012) find an average rating uplift of 3.9 in 2010 and 2011, Haldane (2010) finds an average rating uplift of 3.37 for large banks and Bijlsma & Mocking (2012) report an average uplift of 3.6 (2010) on a sample of 151 EU banks.

The implication of this sizeable uplift is that despite on-going regulatory reforms, rating agencies Moody's and Fitch have not modified their assessment of the risk differential between banks on a standalone basis and the real situation in which they are supported by an implicit state guarantee. It shows that the rating agencies still expects governments to intervene in the EU in a situation of financial distress.

In summary, we find that the rating uplift remains significant but that the implicit subsidies have decreased somewhat in 2013 compared to our previous analysis. This decrease is essentially caused by a diminished price of risk via a decrease in credit spreads and not by a decrease of the rating uplift or the implicit state support.

When using the funding advantage ratings based approach for calculating implicit subsidies, the evolution of the price of risk needs to be taken into account in order to evaluate results. The price of risk and credit spreads has decreased substantially since July 2012, when ECB president Draghi announced that "the ECB is ready to do whatever it takes to preserve the euro"[6]. A paper by De Grauwe and Li (2014), takes a closer look at the evolution of the spreads on sovereign debt in the Eurozone during the crisis. De Grauwe and Li conclude that spreads move in a way that economic fundamentals such as debt/GDP, current account imbalances or GDP growth alone cannot explain. The analysis suggests that a significant part of the spreads in the periphery can only be explained by negative market sentiments whereby investors exaggerate the default risks. On the contrary, since 2012 investors have underestimated risks, meaning that the price of risk is low compared to the economic fundamentals. One could argue that we would need to correct the measure of implicit subsidies for an overly optimistic market sentiment. It is beyond the scope of this report to perform this kind of analysis. However, by following the reasoning of De Grauwe and Li (2014), we can conclude that the estimates provided in this report rather underestimate than overestimate implicit subsidies due to an optimistic market sentiment in 2013.

[4] See Kloeck, A. (2014)

[5] See IMF (2014), p. 19

[6] See http://www.ecb.europa.eu/press/key/date/2012/html/sp120726.en.html

The ranking of implicit subsidies by country in table is in line with expectations. The top four countries are France, Germany, Italy and the UK. With the exception of Italy, these are also the countries with largest banking sectors (see table 4).

Banks in the core countries receive the bulk, i.e. 78% of implicit subsidies in the EU (see table 5). In addition, the average rating uplift in the core is 4.5, much higher than the average uplift in the periphery of 1.7. These observations are in accordance with the view stating that banks in strong countries can benefit more from implicit state support than banks in weaker countries[7]. On the other hand, a first reading of the results indicates that in relative terms implicit subsidies in the periphery (37 bp) are higher than in the core (29 bp) (see table 5). However it should be pointed out that this difference can largely be explained by a difference in funding structure between core banks and peripheral banks, which becomes clear whilst analysing the funding mix. Banks in core countries have lower risk sensitive liabilities (17%) than banks in the peripheral countries (23%) because they use less long term debt and deposits from bank in their funding mix. This does not mean that core banks have less debt than peripheral banks; on the contrary they have less equity[8] and are more indebted but they are funded with relatively more short term debt and secured funding than unsecured long term debt.

This reveals a paradox in the calculation method of implicit subsidies used in this report, as a large proportion of long term debt points to a stable funding base and is favoured under Basel III by liquidity measures such as the net stable funding ratio. On the other hand a large proportion of long term debt compared to short term debt, increases the implicit subsidy.

After a simple correction for this paradox - by assuming that all banks have the same funding structure of 20% risk sensitive liabilities (which is the average of the sample) - we find that banks in the core countries take 82% of all implicit subsidies and have a comparable implicit subsidy in relative terms (28 bp) than banks in the periphery (30 bp). We conclude that our data supports the view that banks in strong (core) countries can benefit more from implicit state support than banks in weaker (peripheral) countries.

[7] See e.g. Schich (2012)

[8] See De Grauwe, Li (2013)

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Appendix A

Name	Country	Total Liabilities (in €)	Long Term Rating	Rating Agency	LTR in notches	Uplift
Erste Bank	Austria	200,968,691,000	A3	Moody's	7	-4
RZB AG	Austria	147,324,090,000	A	Fitch	6	-5
Österreichische Volksbanken-AG Austria	Austria	26,541,230,000	Baa3	Moody's	10	-9
Dexia	Belgium	354,358,000,000	A	Fitch	6	-11
KBC Group	Belgium	241,287,000,000	Baa1	Moody's	8	-3
Belfius	Belgium	229,234,000,000	Baa1	Moody's	6	-5
Danske Bank	Denmark	413,061,670,000	Baa1	Moody's	8	-1
BNP Paribas	France	1,712,548,000,000	A2	Moody's	6	-3
Crédit Agricole Group	France	1,494,579,000,000	A2	Moody's	6	-6
Société Générale	France	1,184,300,000,000	A2	Moody's	6	-3
BPCE Groupe	France	1,123,520,000,000	A2	Moody's	6	-6
Credit Mutuel	France	606,799,000,000	Aa3	Moody's	4	-5
La Banque Postal	France	193,214,305,000	A+	Fitch	3	-5
Deutsche Bank	Germany	1,611,400,000,000	A2	Moody's	6	-3
Commerzbank	Germany	609,732,000,000	Baa1	Moody's	8	-3
DZ Bank	Germany	386,978,000,000	A1	Moody's	5	-4
Landesbank B-W	Germany	326,025,000,000	Aaa	Moody's	1	-10
Bayerische Landesbank	Germany	225,873,000,000	A3	Moody's	7	-5
NORD/LB Norddeutsche Landesbank Girozentrale	Germany	200,845,000,000	A3	Moody's	7	-5
Landesbank Hessen-Thüringen Girozentrale	Germany	178,083,000,000	A2	Moody's	6	-5
Hypo Real Estate Holding AG	Germany	122,454,000,000	Baa2	Moody's	9	-7
National Bank of Greece SA	Greece	68,585,000,000	Caa1	Moody's	17	0
Piraeus Bank SA	Greece	57,744,172,000	Caa1	Moody's	17	0
Eurobank Ergasias SA	Greece	106,928,268,000	Caa2	Moody's	17	0
Alpha Bank AE	Greece	72,850,130,000	Caa1	Moody's	17	0
Bank of Ireland	Ireland	139,555,000,000	Ba3	Moody's	13	-5
UniCredit SpA	Italy	864,043,392,000	Baa2	Moody's	9	-2
Intesa Sanpaolo SpA	Italy	623,859,000,000	Baa2	Moody's	9	-2
Banca Monte dei P.S.	Italy	210,205,953,090	B2	Moody's	15	-4
Banco Popolare Società Cooperativa	Italy	122,695,820,000	Ba3	Moody's	13	-1
Unione di Banche Italiane SCpA	Italy	45,727,613,000	Baa3	Moody's	10	-2
Banca Popolare di Milano Scarl	Italy	45,717,815,000	B1	Moody's	14	-3
Banca Carige SpA - Cassa di Risparmio di Genova e Imperia	Italy	30,479,201,000	B3	Moody's	16	-3

Banca Popolare di Sondrio SCpA	Italy	26,990,060,000	BBB	Fitch	8	-1
Credito Emiliano SpA	Italy	123,308,997,000	Baa3	Moody's	10	-3
Bank of Valletta Plc	Malta	6,524,269,000	BBB+	Fitch	8	0
ING Bank	Netherlands	1,112,025,000,000	A2	Moody's	6	-3
Rabobank Group	Netherlands	634,102,000,000	AA-	Fitch	1	-3
Abn Amro Group	Netherlands	427,759,000,000	A2	Moody's	1	-8
Banco Comercial Português SA	Portugal	40,772,200,000	B1	Moody's	14	-5
Banco BPI SA	Portugal	79,423,826,000	Ba3	Moody's	13	-1
Santander	Spain	1,045,050,000,000	Baa2	Moody's	9	0
BBVA	Spain	540,096,298,000	Baa3	Moody's	10	-1
Banco Financiero y de Ahorros SA	Spain	239,847,000,000	B1	Moody's	14	-2
Banco de Sabadell	Spain	153,094,122,000	Ba2	Moody's	12	-1
Banco Popular Español SA	Spain	136,276,268,000	Ba3	Moody's	13	-3
Bankinter SA	Spain	51,732,118,000	Ba1	Moody's	11	0
Liberbank SA	Spain	45,264,000,000	B1	Moody's	14	-2
Handelsbanken	Sweden	268,529,150,100	Aa3	Moody's	4	-3
SEB	Sweden	266,672,058,000	A1	Moody's	5	-4
Swedbank	Sweden	193,202,044,300	A1	Moody's	5	-4
Nordea	Sweden	67,878,528,300	Aa3	Moody's	4	-3
HSBC	UK	3,431,353,549,276	Aa3	Moody's	4	-3
Barclays	UK	1,778,873,880,083	A2	Moody's	6	-3
RBS	UK	1,335,818,056,513	A	Fitch	6	-5
Lloyds Banking Group	UK	1,113,771,192,281	A	Fitch	6	-1
Standard Chartered	UK	865,794,624,397	A	Fitch	6	0

Table 1: The sample of 57 banks

Country	N° Observations	Total Liabilities (in €)	Long Term Debt (in €)	Other Deposits (in €)	LTD / Liabilities	OD / Liabilities	Risk Sens. Liabilities / Total Liabilities
Austria	3	374,834,011,000	53,435,201,000	35,542,128,000	14%	9%	24%
Belgium	3	824,879,000,000	106,012,000,651	93,545,000,000	13%	11%	24%
Denmark	1	413,061,670,000	132,788,991,650		32%	0%	32%
France	6	6,314,960,305,000	818,812,424,000	442,984,992,000	13%	7%	20%
Germany	8	3,661,390,000,000	356,243,000,000	521,383,000,000	10%	14%	24%
Ireland	1	139,555,000,000	25,054,000,000		18%	0%	18%
Italy	9	2,093,027,851,090	351,111,165,000	102,649,185,000	17%	5%	22%
Malta	1	6,524,269,000	120,000,000		2%	0%	2%
Netherlands	3	2,173,886,000,000	475,539,000,000	115,288,000,000	22%	5%	27%
Portugal	1	79,423,826,000	13,772,565,000	48,959,752,000	17%	62%	79%
Spain	7	2,211,359,806,000	364,788,600,000	134,939,172,000	16%	6%	23%
Sweden	4	796,281,780,700	321,256,950,000	132,582,906,000	40%	17%	57%
UK	5	8,525,611,302,550	637,789,110,958	278,790,040,280	7%	3%	11%
Portugal	1	40,772,200,000	3,655,800,000	31,088,300,000	9%	76%	85%
Greece	4	306,107,570,000	643,488,000	57,036,125,000	0%	19%	19%
Total	57	27,961,674,591,340	3,661,022,296,259	1,994,788,600,280	13%	7%	20%

Table 2: Liabilities and risk sensitive liabilities per country

Country	N° Observations	Average long term rating	Average uplift	Average standalone rating
Belgium	3	6.7	-6.3	13.0
Austria	3	7.7	-6	13.7
Germany	8	6.1	-5.3	11.4
Ireland	1	13.0	-5.0	18.0
France	6	5.2	-4.7	9.8
Netherlands	3	2.7	-4.7	7.3
Sweden	4	4.5	-3.5	8.0
Portugal	2	13.5	-3.0	16.5
Italy	9	11.6	-2.3	13.9
UK	5	5.6	-2.0	7.6
Spain	7	11.9	-1.3	13.1
Denmark	1	8.0	-1.0	9.0
Malta	1	8.0	0.0	8.0
Greece	4	17.0	2.0	15.0
Grand Total	57	8.6	-3.1	11.7

Table 3: arithmetic averages of long term rating, uplift and standalone rating per country in the sample, ranked by average rating uplift.

Country	Implicit Subsidy (in €)	Implicit Subsidy / Liabilities (in basis points)
France	23,646,562,598	37
Germany	14,689,843,599	40
Italy	9,295,290,681	44
UK	7,802,330,777	9
Belgium	7,750,890,364	94
Netherlands	6,203,822,589	29
Sweden	4,170,391,657	52
Spain	3,684,427,808	17
Austria	3,051,080,759	81
Portugal	2,600,116,093	638
Ireland	1,874,945,921	134
Portugal	753,458,176	95
Denmark	523,092,395	13
Malta	-	-
Greece	-	-
Total	86,046,253,415	31

Table 4: implicit subsidies per country in absolute numbers and in basis points per assets

	Average Uplift	Total Liabilities (in €)	as %total	Implicit Subsidies(in €)	as %total	Implicit Subsidies / Liab
Core	-4.5	23,084,904,069,250	83%	67,838,014,737	78%	29
Periphery	-1.7	4,876,770,522,090	17%	18,208,238,678	22%	37
Grand Total	-3.3	27,961,674,591,340	100%	86,046,253,415	100%	31

Table 5: implicit subsidies in core and periphery

	Risk Sensitive Liabilities(in €)	RSL / Liabilities	Implicit Subsidies alt. calc. (in €)	Implicit Subsidies alt. calc. / Liabilities
Core	4,521,992,744,539	20%	65,358,231,548	28
Periphery	1,133,818,152,000	23%	14,806,331,254	30
Grand Total	5,655,810,896,539	20%	80,164,562,802	29

Table 6: risk sensitive liabilities and alternative implicit subsidies in core and periphery

Name	Country	Implicit Subsidies (in €)
Erste Bank	Austria	519,874,258
RZB AG	Austria	946,833,515
Österreichische Volksbanken-AG Austria	Austria	1,584,372,986
Dexia	Belgium	5,197,311,665
KBC Group	Belgium	791,223,083
Belfius	Belgium	1,762,355,616
Danske Bank	Denmark	523,092,395
BNP Paribas	France	2,665,744,145
Crédit Agricole Group	France	8,186,622,863
Société Générale	France	2,183,994,637
BPCE Groupe	France	8,272,987,236
Credit Mutuel	France	2,114,751,356
La Banque Postal	France	222,462,360
Deutsche Bank	Germany	2,701,174,495
Commerzbank	Germany	2,430,817,536
DZ Bank	Germany	1,770,397,678
Landesbank B-W	Germany	3,366,496,244
Bayerische Landesbank	Germany	1,747,371,620
NORD/LB Norddeutsche Landesbank Girozentrale	Germany	1,452,588,106
Landesbank Hessen-Thüringen Girozentrale	Germany	695,182,862
Hypo Real Estate Holding AG	Germany	525,815,057
National Bank of Greece SA	Greece	
Piraeus Bank SA	Greece	
Eurobank Ergasias SA	Greece	
Alpha Bank AE	Greece	
Bank of Ireland	Ireland	1,874,945,921
UniCredit SpA	Italy	2,589,637,738
Intesa Sanpaolo SpA	Italy	598,289,009
Banca Monte dei P.S.	Italy	3,959,302,882
Banco Popolare Società Cooperativa	Italy	265,953,208
Unione di Banche Italiane SCpA	Italy	267,765,721
Banca Popolare di Milano Scarl	Italy	733,324,608
Banca Carige SpA - Cassa di Risparmio di Genova e Imperia	Italy	47,920,696

Banca Popolare di Sondrio SCpA	Italy	25,670,726
Credito Emiliano SpA	Italy	807,426,091
Bank of Valletta Plc	Malta	-
ING Bank	Netherlands	2,061,383,193
Rabobank Group	Netherlands	765,961,926
Abn Amro Group	Netherlands	3,376,477,470
Banco Comercial Português SA	Portugal	2,600,116,093
Banco BPI SA	Portugal	753,458,176
Santander	Spain	-
BBVA	Spain	1,018,812,360
Banco Financiero y de Ahorros SA	Spain	792,597,038
Banco de Sabadell	Spain	293,846,327
Banco Popular Español SA	Spain	1,567,258,903
Bankinter SA	Spain	-
Liberbank SA	Spain	11,913,179
Handelsbanken	Sweden	1,539,526,347
SEB	Sweden	1,244,941,245
Swedbank	Sweden	1,182,396,683
Nordea	Sweden	203,527,382
HSBC	UK	1,866,745,427
Barclays	UK	2,166,926,290
RBS	UK	3,381,268,871
Lloyds Banking Group	UK	387,390,189
Standard Chartered	UK	-

Table 7: implicit subsidies on a bank level

Appendix B

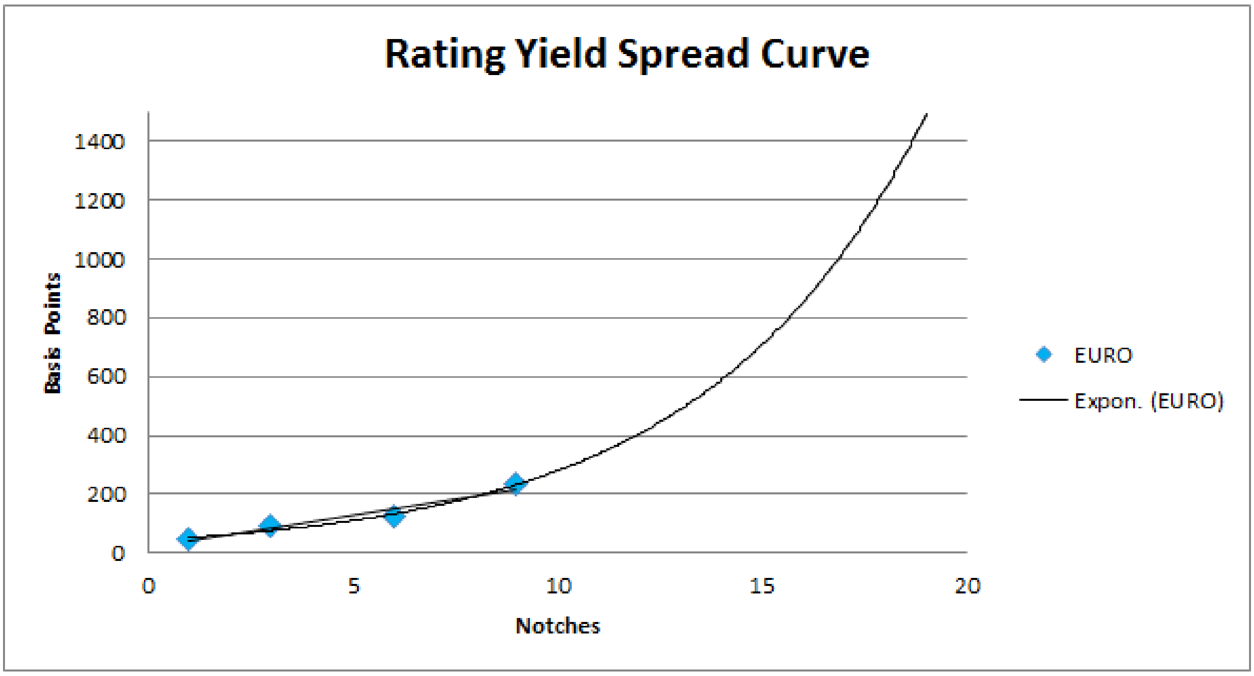

Table 8: Rating Yield Spread Curve

Moodys Bank Financial Strength Rating (BFSR)	Notches	Moodys Global Long-Term Rating Scale	Notches
A	1	Aaa	1
A-	2	Aa1	2
B+	3	Aa2	3
B	4	Aa3	4
B-	5	A1	5
C+	6	A2	6
C	7	A3	7
C-	8	Baa1	8
C-	9	Baa2	9
D+	10	Baa3	10
D+	11	Ba1	11
D	12	Ba2	12
D-	13	Ba3	13
E+	14	B1	14
E+	15	B2	15
E+	16	B3	16
E	17	Caa	17
E	18	Ca	18
E	19	C	19

Table 9: mapping table between ratings and notches for Moodys Bank Financial Strength Rating and Moodys Global Long-Term Rating Scale