

Contingent convertible bonds and subordinated debt of euro area credit institutions

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The progressive entry into force of the new bank capital accord, known as Basel III, and the approval of the new regulations on the recovery and resolution of credit institutions in the European Union are increasing the need for credit institutions to have a sufficient capital buffer to absorb potential losses. In order to meet these legal requirements, European banks have, in recent years, issued contingent convertible bonds and subordinated debt. This article analyses the main characteristics of these hybrid instruments. It first presents the information available on the volumes and the numbers of issues and issuing institutions, and then analyses issuance costs and market prices of outstanding issues, paying particular attention to Spanish institutions' issues.

CONTINGENT CONVERTIBLE BONDS AND SUBORDINATED DEBT OF EURO AREA CREDIT INSTITUTIONS

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Introduction

Hybrid instruments are financial assets that have a dual nature, combining fixed-income characteristics – such as the payment of regular interest to the investor – with other capital features, since under certain circumstances (relating, for instance, to an impairment of the issuer’s solvency) they may be converted into shares or redeemed in order to cover losses.

The progressive application of the new capital accord, known as “Basel III”, which was introduced into the EU by Directive 2013/36/EU and Regulation EU 575/2013¹, along with the approval of the new regulations of the recovery and resolution of credit institutions², is substantially increasing the need for institutions – in particular those classified as systemic – to have a sufficient buffer of instruments issued with loss-absorbing capacity. As a result, there is a growing resort to capital markets, with abundant ordinary share issues and capital increases (including dividends in the form of payment with shares) so as to comply with the requirements of the most demanding capital category (known as CET 1). Moreover, however, institutions have resorted to the issuance of other hybrid instruments, such as contingent convertible bonds (“CoCos”) or subordinated debt, so as to have sufficient resources to cover all legal requirements, seeking to take advantage of the favourable current situation on the financial markets and attempting to reduce, as far as possible, the cost of these resources which, given their riskier characteristics, is higher than that of ordinary debt liabilities.

This article analyses the main characteristics of issues by euro area credit institutions of hybrid instruments eligible as own funds (specifically, of CoCos), that form part of additional Tier 1 capital (AT 1), and of subordinated debt bonds, which form part of Tier 2 capital (T 2). The article comprises three sections, in addition to this introduction. The second section describes the minimum capital requirements, their distribution by tier according to the characteristics of the instruments and the conditions they must meet to be considered as eligible. The third section analyses the characteristics of outstanding issues of CoCos and of subordinated debt. Finally, the fourth section focuses on the analysis of issuance costs and market prices.

Capital regulations and requirements governing hybrid instruments

The regulations on credit institutions’ capital establishes minimum requirements, calculated on the basis of risk-weighted assets and divided into several tiers depending on the maturity of the instruments and on their loss-absorption capacity. Tier 1 solely includes instruments whose loss-absorption capacity is greater. This tier is divided in turn into two sub-tiers: CET 1, which can only be covered with ordinary shares and with the institution’s accumulated reserves, and AT 1, which includes hybrid instruments on which high demands are made so as to ensure their loss-absorption capacity, as is the case for instance with CoCos. The second tier (T 2) can be covered by other instruments on which lesser demands are made, such as subordinated debt bonds,

¹ <https://www.boe.es/doue/2013/176/L00338-00436.pdf> y <https://www.boe.es/doue/2013/176/L00001-00337.pdf>.

² For example, in Spain, see <http://www.boe.es/boe/dias/2015/06/19/pdfs/BOE-A-2015-6789.pdf>.

provided that they can be redeemed or converted into capital in the event of the institution's non-viability.³ CET 1 capital must amount, at least, to 4.5% of risk-weighted assets. Moreover, the sum of CET 1 and AT 1 should total 6%, and, on adding T 2-type issues, the aggregate of the three categories should amount to at least 8%.

CoCos are hybrid instruments with debt and capital characteristics, since they pay interest to the investor but, at the same time, they are convertible into CET 1 instruments under certain conditions. If, moreover, they comply with a series of requirements (see Table 1), then they may be eligible as AT 1 capital, up to a limit of 1.5% of risk-weighted assets. The key requirements are their mandatory conversion or redemption should the level of CET 1 capital fall below a specific level (trigger event), the suspension of coupons if their payment were to compromise the maintenance of minimum capital levels and the absence of a pre-set maturity date.

Subordinated debt bonds susceptible to be eligible as capital are also hybrid instruments, since they have loss-absorption capacity if the issuing institution were to reach a "point of non-viability"⁴, in which case they should be fully and permanently cancelled or converted in full into CET 1 capital instruments. Like CoCos, for them to be included in T 2 capital and thus complement CET 1 and AT 1 capital in compliance with minimum total capital requirements⁵, they should meet a series of pre-requisites (see Table 1).

Given their characteristics, CoCos are riskier than subordinated bonds, since they may be redeemed or converted into capital at an earlier point than subordinated bonds, even if the institution were not to have reached the "point of non-viability". Further, generally subordinated debt bonds do not usually include coupon payment suspension clauses in the event of impaired profitability or solvency; accordingly, as long as the "point of non-viability" is not determined, investors will continue to receive interest.⁶ Finally, subordinated bonds have a maturity after which investors recoup their principal, while CoCos, like shares, have no maturity.

Issuance volume of CoCos and of subordinated debt

As at end-September 2017, the outstanding balance of euro-denominated subordinated bond issues eligible as capital in the euro area countries amounted to €156,503 million, corresponding to 1,217 issues by 228 institutions. Owing to their riskier characteristics and their later emergence on the scene⁷, the CoCos market is much smaller. Thus, at

3 In addition to these requirements, there are others which must be covered by ordinary shares and which relate to three categories: the capital conservation buffer, which will rise to 2.5% of risk-weighted assets in 2019; the countercyclical buffer, set by the supervisory authorities and which may rise to a ceiling of 2.5%; and the systemic risk buffer, also set by supervisors up to a maximum of 1%, but which may be higher at global or national systemically important institutions. Further, there is a series of provisions regulating the progressive elimination as constituent elements of AT 1 and T 2 capital of certain instruments that were previously considered as eligible. Lastly, there is also a progressive calendar of deductions in respect of certain constituent elements of CET 1 that would cease to be part thereof.

4 This point is reached when one or more of the following circumstances arise: i) the supervisory authorities rule that the institution's instruments must be redeemed if it is to remain viable; or ii) it is decided to inject public capital to ensure its viability.

5 Total admissible capital as from 2017 comprises T 1 and T 2 capital, which may attain a maximum amount of up to one-third of T 1 capital.

6 Some subordinated bond issues may include coupon payment suspension clauses if their disbursement were to compromise the institution's capital requirement. Even so, they would continue to be included under Tier 2 capital, as they do not comply with the other criteria for being considered AT 1 assets. As greater guarantees are provided to maintaining solvency, this is no impediment to a higher percentage of securities issued with these characteristics having a positive bearing on the issuing institution's rating.

7 CoCos issues only began to be made in the initial years of the crisis, as a new means of reinforcing credit institutions' capital.

Requirements for inclusion of CoCos in AT 1	Requirements for inclusion of subordinated debt in T 2
a) They shall be perpetual instruments, have no redemption date and have been paid in full.	a) They shall have been issued and paid in full.
b) The clauses shall authorise the bank to cancel coupon payments without accumulating unpaid amounts and without the suspension being deemed to be a default event.	b) They shall not have been acquired by the issuer or its subsidiaries, or by a company in which the issuer holds more than 20% of the voting rights or capital.
c) Additionally, clauses shall be included requiring that if a trigger event arises, the nominal amount of the securities be redeemed on a temporary or permanent basis (reducing in the redemption amount the reimbursement rights on the principal and the interest accrued by the bondholder) or be mandatorily converted into ordinary shares (CET 1).	c) Their acquisition shall not have been funded directly or indirectly by the issuer.
d) Activation of the situations addressed in paragraph b) will be determined based on the sufficiency of the issuing institution's income and reserves to pay the coupons, on the supervisory authority's decision if it considers that such payment could impair the institution's solvency and on the issuing institution's discretion in the cases envisaged in the prospectus. Suspension of coupons may be total or partial.	d) The claim on the principal amount of the securities issued shall be wholly subordinated to claims of all non-subordinated creditors.
e) Activation of the situations addressed in paragraph c) is usually associated with the level of CET 1 capital falling below certain levels. The level established by the Regulation is 5.125%, although the issuing institutions may establish a higher level in the instrument's clauses.	e) There may be no security or guarantees or any other kind of agreement that enhances the seniority of claims in the event of insolvency or liquidation.
f) If a trigger event occurs, a conversion rate, a cap on the amount and an interval shall be established within which they shall be converted into common equity (CET 1) instruments.	f) The original maturity shall be at least five years, and there may be no incentives for the institution to repurchase or reimburse the principal prior to maturity; also, in the remaining five years before maturity, the issue amount qualifying as capital shall be amortised on a straight-line basis.
g) The bonds may be purchased or redeemed by the issuing institution provided five years have elapsed since the issue date and that they have been authorised to do so by the supervisory authority.	g) If the securities include purchase options before final maturity, these may be exercised at the sole discretion of the issuer, may not be exercised before five years have elapsed since they were issued and the institution must prove that its capital position after exercising the option amply exceeds the minimum capital requirements established by the supervisory authority.
	h) The securities may not include provisions authorising the issuer to accelerate future payments of interest or alter the level of distributions according to the credit standing of the institution.

SOURCE: Banco de España.

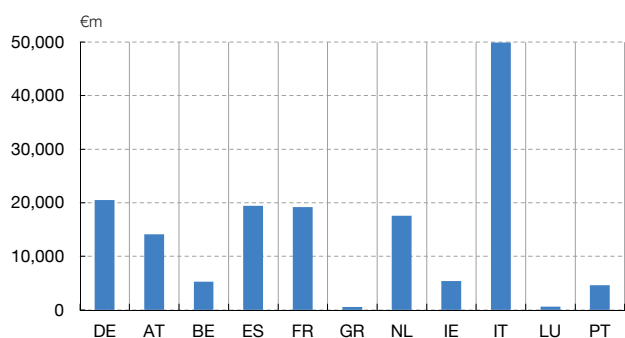
a As established by Articles 52 to 55 and 61 to 70 of Regulation EU 575/2013.

the same date, the outstanding balance was €36.6 billion, corresponding to 57 issues by 35 institutions.

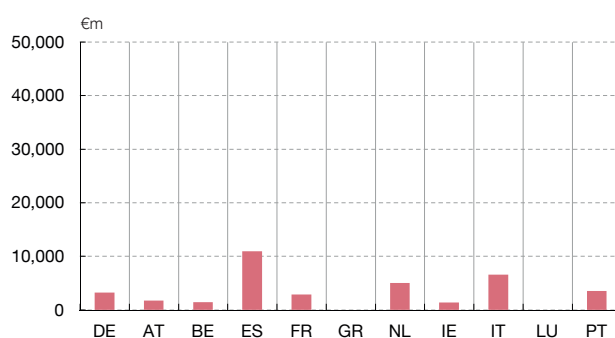
Charts 1.1 and 1.2 show the distribution by country of issues of these instruments. In all cases, the outstanding balance of subordinated debt issues is higher than that of CoCos. By some distance, Italy is the country in which banks have issued the biggest volume of subordinated debt, with an amount close to €50 billion, followed by Germany, Spain and France, with amounts of around €20 billion in each case. As regards CoCos, the main issuers are Spanish institutions, with an amount close to €11 billion, followed by Italian banks, with €6.5 billion.

As can be seen in Charts 1.5 and 1.6, market activity in terms of the number of outstanding issues and of issuing institutions is also much greater in the case of subordinated bonds. Moreover, the number of subordinated debt issues per institution is also higher, with an average figure for the euro area as a whole of 5.3, against 1.6 in the case of CoCos. Conversely, the average amount both per issue and per issuer of these instruments is generally higher in AT 1-type instruments than in subordinated debt-type ones. This is essentially the result of the

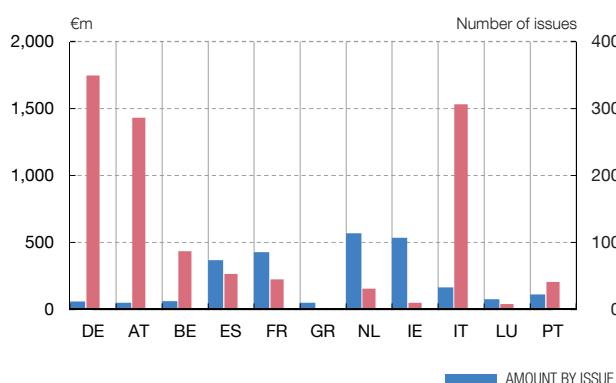
1 SUBORDINATED DEBT: OUTSTANDING BALANCE BY COUNTRY



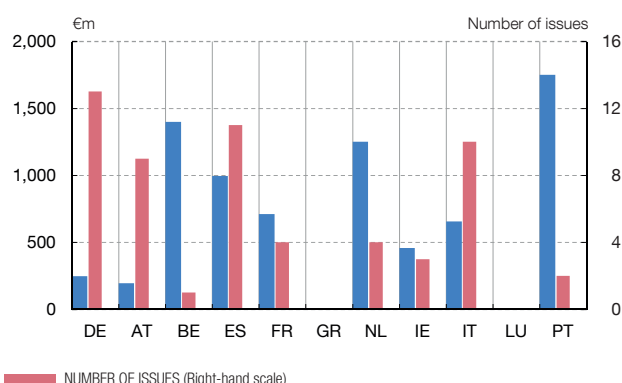
2 COCOS: OUTSTANDING BALANCE BY COUNTRY



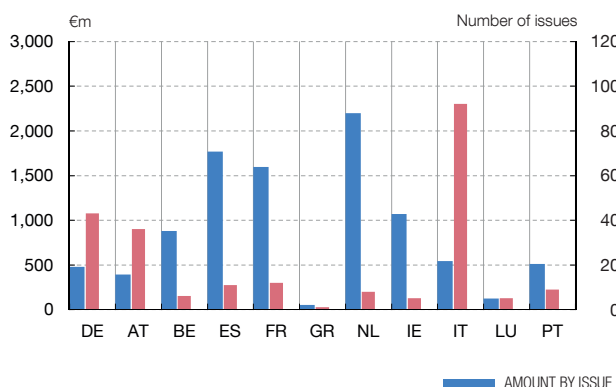
3 SUBORDINATED DEBT: BREAKDOWN BY ISSUE



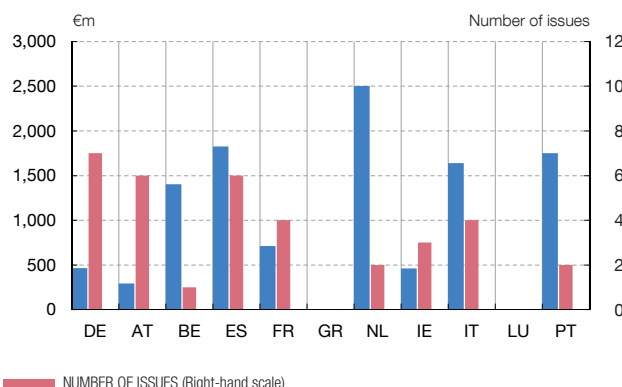
4 COCOS: BREAKDOWN BY ISSUE



5 SUBORDINATED DEBT: BREAKDOWN BY ISSUE



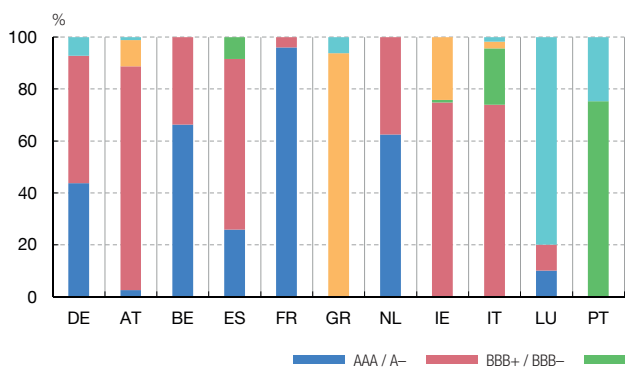
6 COCOS: BREAKDOWN BY ISSUE



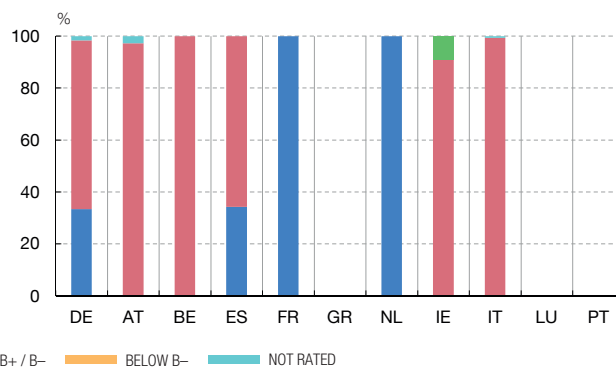
SOURCE: Banco de España.

greater relative size of the institutions which, for now, are issuing CoCos. In Spain there are fewer differences than in other countries regarding activity between the respective market segments, with 53 subordinated debt issues, placing this instrument in fifth place, and 11 CoCos issues, with these in second position, all issues arising from 11 and 6 institutions, respectively. As regards the average amount per issuer and per issue, Spain stands above the euro area average both for subordinated debt and for CoCos (€1,767 million and €1,825 million for Spain, against €688 million and €1,045 million for the euro area in the average amount per issuer; and €367 million and €995 million against €129 million and €642 million for the euro area in terms of the average amount per issue).

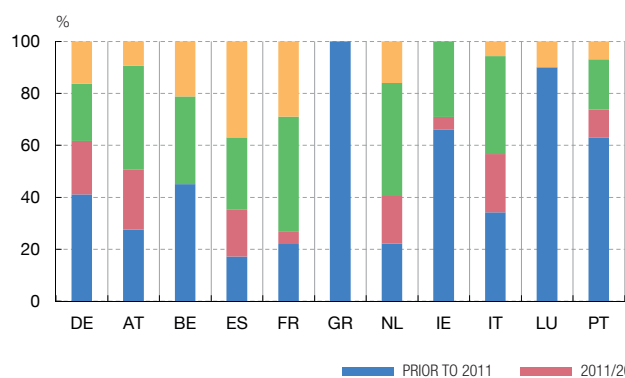
1 SUBORDINATED DEBT. AMOUNT BY ISSUER RATING, AS A % OF TOTAL (b)



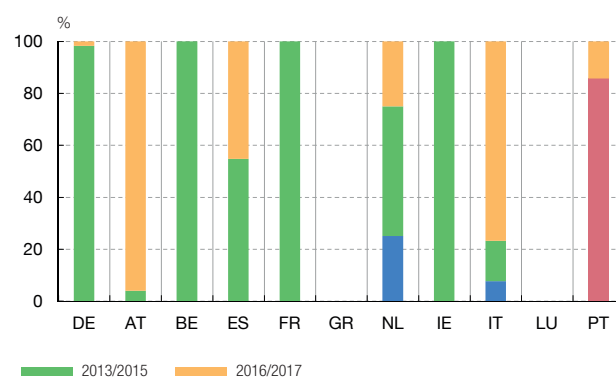
2 COCOS. AMOUNT BY ISSUER RATING, AS A % OF TOTAL (b)



3 SUBORDINATED DEBT. AMOUNTS BY ISSUE DATE, AS A % OF TOTAL



4 COCOS. VOLUME BY ISSUE DATE, AS A % OF TOTAL



SOURCE: Banco de España.

- a Euro-denominated subordinated debt issues outstanding as at 29 September 2017 with a nominal amount in excess of €50 million in the countries considered and all those existing in Spain. In CoCos, all euro-denominated issues outstanding across all the countries have been included.
- b The lowest credit ratings assigned by Moody's, Fitch and Standard & Poors are applied to long-term senior debt issues.

Charts 2.1 and 2.2 offer information on the distribution of outstanding subordinated debt issues (left-hand side) and CoCos (right-hand side) according to the credit rating of the issuing institution for long-term senior debt. The level of risk of investments in AT 1 and T 2-type instruments is higher than that for senior debt, whereby these ratings should not be understood as applicable to these instruments, although the credit quality of senior debt may influence investors' valuation of a single institution's hybrid instruments, insofar as the senior debt ratings contain information on the financial position of the issuing institution. It is seen how, in the case of subordinated bonds, there is greater heterogeneity in the credit quality of issuers compared with CoCos, a fact no doubt related to the greater number and diversity of institutions that are active in the former market. It is also detected how, in the subordinated debt market, a higher percentage of issuers do not attain investment grade.⁸ That probably reflects the greater difficulty that institutions with these ratings have in issuing CoCos.

⁸ Investment grade encompasses the levels ranging from AAA+ to BBB-. The rest would be issuers with ratings between BB+ and CCC- or those that do not have a rating.

Chart 2.3 and 2.4 show the distribution of issues according to the issuance date. In the case of subordinated debt (see Chart 2.3), it is seen how, on average, almost one-third of the outstanding balance of the instruments in circulation was issued before 2011. New issues, corresponding to the last two years, account for 16% of the total and there appears to be a growing trend in the volume issued since 2014. Spain shows a differentiated distribution compared with the European average, with a greater proportion of recent issues than in the other countries (37% of the total balance was issued in the 2016-2017 period, while issues prior to 2011 only account for 17%).

The issuance dates for CoCos are usually more recent in general, with a 92% proportion of the total outstanding balance for issues as from 2014 and 47% for those relating to the 2016-2017 period. In this case, too, Spain evidences a greater percentage of issues made in the last two-year period (58% of the total), although in other countries the weight of issues made during this period is even higher (Austria, 96%; Italy, 80%).

Issuance costs and market prices of CoCos and of subordinated debt

Charts 3.1 and 3.2 include information on the interest rates on subordinated debt issues (see Chart 3.1) and CoCos (Chart 3.2), which measure the average costs for issuing institutions. The average cost of Spanish institutions' subordinated debt can be seen to be below the average value of the sample, and that of CoCos to be very close to the euro area average.

The average issuance costs of euro area institutions, in terms of the annual return demanded on average by the purchasers of these instruments, is 4.5% for subordinated debt and 6.9% for CoCos. As might be expected, these figures are above those relating to senior bonds, but below the capital cost demanded by investors for ordinary shares, which in the main euro area countries is estimated to be between 8% and 10%.⁹ The attractiveness of these issues for banks is precisely the fact that they help them attain minimum capital requirements under the new regulations at a lower cost than would be the case were they to cover them exclusively with share issues. The higher cost of AT 1 instruments compared with T 2 instruments, which is seen in all the countries analysed, is also consistent with the greater risk associated with CoCos (longer maturity, remuneration susceptible to be suspended and greater seniority in the event of the assumption of losses). Nonetheless, these differences in average cost can also include other factors such as, for instance, the different point in time at which different assets have been issued and the greatly differing credit quality of their issues, as well as possible differences in the degree of relative liquidity of these assets.

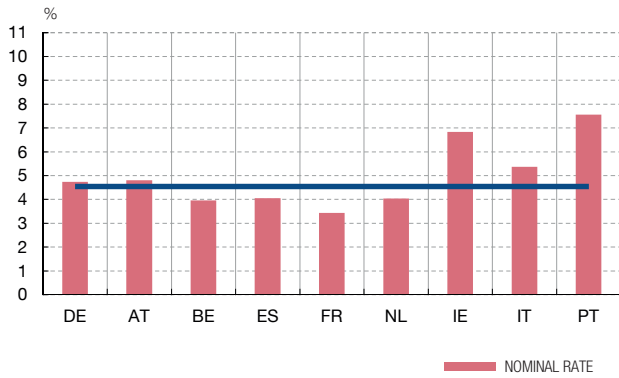
Charts 3.3 and 3.4 (subordinated debt on the left-hand side and CoCos on the right) show information on average market returns at end-September 2017, which may differ from the rate of interest on the issue.¹⁰ For each country, three bars are shown: the first includes all the issues while the other two differ according to the credit rating of the issuing institution. The average return on Spanish institutions' issues stood at that date close to the related average for the euro area (as in the case of subordinated bonds with a credit rating below investment grade) or slightly above it (in the case of subordinated debt and CoCos, whose issuer has an investment grade rating).

Charts 3.5 and 3.6 show the average market returns on subordinated debt (see Chart 3.5) and CoCos (Chart 3.6) at end-September 2017, on the basis of the issuers' credit rating.

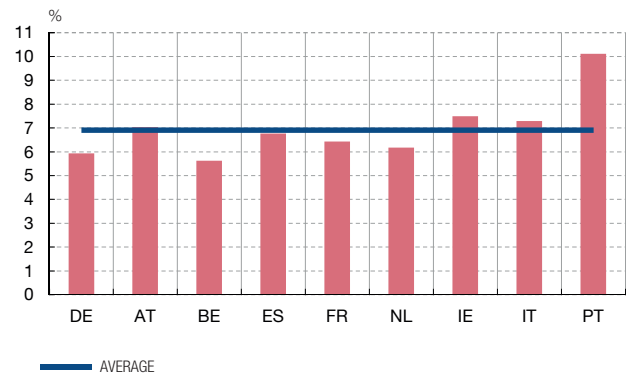
⁹ See *Financial Stability Report (May 2016)*, pp. 38-39). https://www.bde.es/f/webbde/Secciones/Publicaciones/InformesBoletinesRevistas/InformesEstabilidadFinancera/16/IEFMayo2016_Ingles.pdf.

¹⁰ The interest rate on the issue depends, in addition to the issuer's characteristics, on market conditions on the day of the issue. The market return evolves over time in terms of the changes in market conditions.

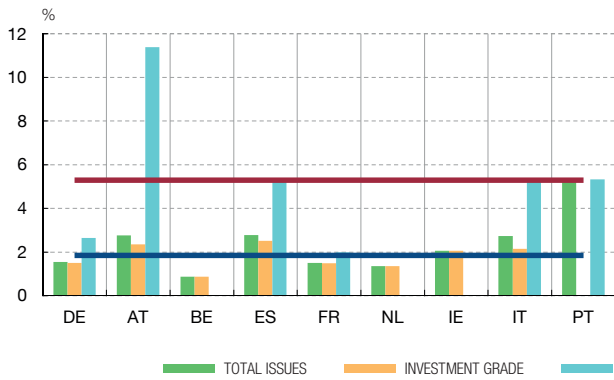
1 SUBORDINATED DEBT: AVERAGE RATE ON ISSUE, BY COUNTRY



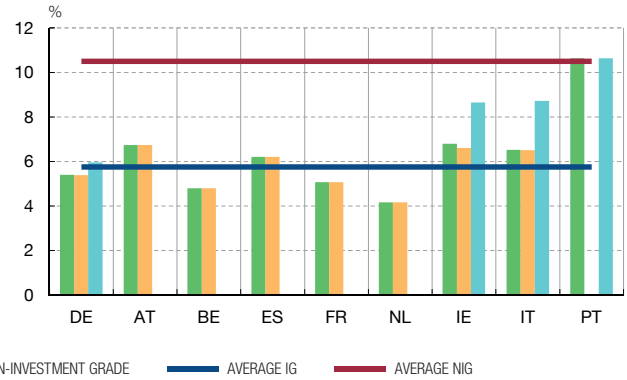
2 COCOS: AVERAGE RATE ON ISSUE, BY COUNTRY



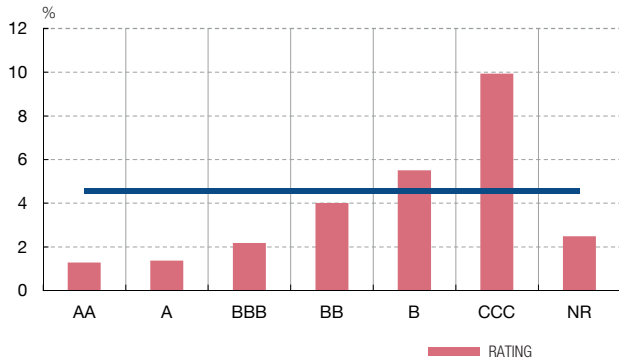
3 SUBORDINATED DEBT: MARKET INTEREST RATE, BY COUNTRY



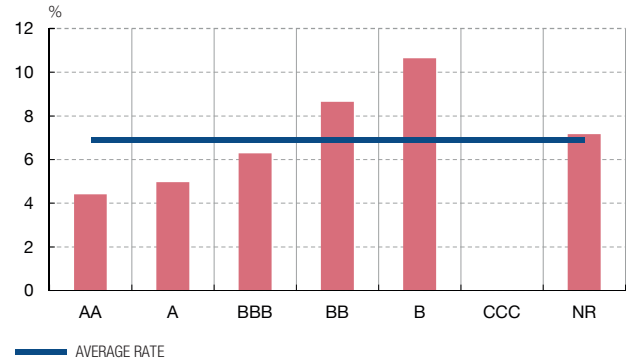
4 COCOS: MARKET INTEREST RATES, BY COUNTRY



6 COCOS: MARKET INTEREST RATES, BY RATING

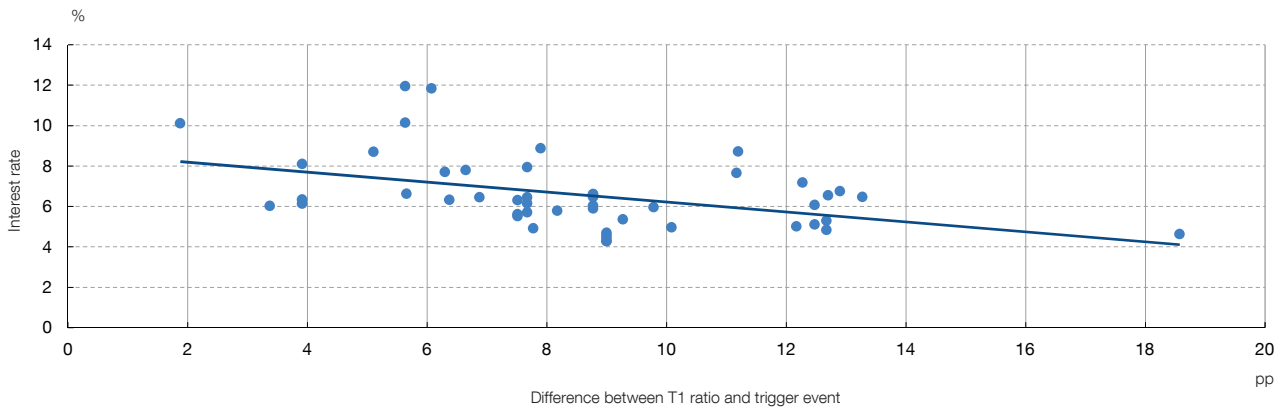


6 COCOS: MARKET INTEREST RATES, BY RATING



SOURCE: Banco de España.

a Measurements obtained by weighting Bloomberg issuance rate and market interest rate data at 29.9.2017 by the balances in each country or rating classification for the total sample of issues considered. Issues of banks wound down and of resolution entities were discarded from the sample. IG = Investment grade (up to BBB-); NIG = Non-investment grade (below BBB-); NR = Not rated.



SOURCE: Banco de España.

a The trigger event is the minimum capital ratio level which triggers conversion into shares or redemption.

As was to be expected, it can be seen in both cases how the return tends to be higher as the credit rating worsens. This relationship becomes more marked in the lowest notches (those below investment grade) and, moreover, appears to be more marked in subordinated bonds than in CoCos.

Chart 4 shows how the return on CoCos also depends on the difference between the institution's capital ratio and the capital threshold defining the trigger event which would entail their conversion into shares and/or redemption, since this difference is inversely related to the instrument's risk. Specifically, a negative and statistically significant relationship is observed between the return on the instruments and the difference in question, which reflects the fact that investors demand a higher return on riskier instruments.

Chart 5 plots the price indices for different types of bank assets (senior debt, subordinated debt, CoCos and ordinary shares) for 2016 and 2017. The indices are constructed on the basis of the averages (weighted by balances) of the prices of each asset, homogenised using the data taken at 31.12.2015 with a base of 100. Specifically, the related indices for Spain, Italy and the euro area are presented.¹¹ It is broadly seen how the course of the price of the four financial instruments over these past two years is relatively similar, albeit with a widely differing range of price changes. As was to be expected, this range tends to be higher the greater the risk of the instrument. Hence, the biggest ranges are in the case of shares, and the smallest in that of senior debt, with subordinated debt and CoCos in an intermediate position.

The price of these assets is determined by various factors, both general (such as the macroeconomic outlook and the level of risk-free interest rates) and specific, pertaining to the banking sector as a whole and to the particular situation of different institutions.

¹¹ In the case of the euro area, only the issues of France, Germany, Spain and Italy have been used. For each country and for the euro area average, the weighting is based on outstanding balances at each date.

1 SENIOR DEBT



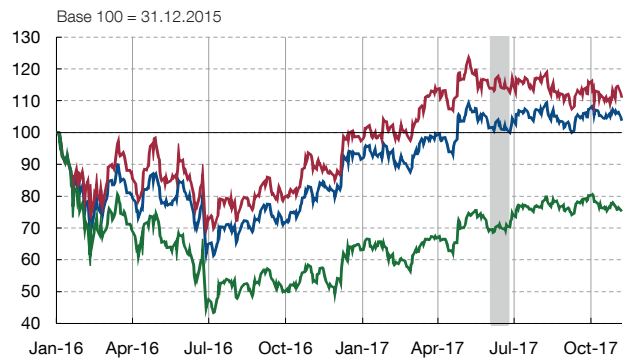
2 SUBORDINATED DEBT



3 COCOS



4 BANK STOCK EXCHANGE INDICES



— EURO AREA — SPAIN — ITALY

SOURCE: Banco de España.

a National average prices for each bank weighted by volume of hybrid instruments issued. The shaded area represents the period between 2.6.2017 and 24.6.2017, when the redemption clauses relating to subordinated debt and CoCos were activated during the resolution processes of three banks (one Spanish and two Italian).

An event that could potentially have affected the valuation of these instruments was the resolution of a Spanish bank and the winding-up of two Italian banks, in June and July 2017, insofar as it entailed the total loss of the investment by certain holders of the hybrid debt issued by the banks concerned. However, the shaded area of the chart shows how this event had a limited and temporary effect on the average market prices of the various instruments, regaining and even exceeding in a few short days the levels prior to these events.

23.11.2017.