

CHANGES IN THE LOAN-DEPOSIT GAP AND IN ITS FUNDING IN THE CURRENT DECADE

## Changes in the loan-deposit gap and in its funding in the current decade

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### **Introduction**

In recent years various factors have influenced the difference between the loans extended by credit institutions and the funds received by them in deposits. Some have assisted the strong growth of the funding received (such as the marked buoyancy of economic activity, the notable momentum of the real estate sector and the low cost of borrowing), while others have limited the expansion of funds from customers (such as the increased competition from other alternative financial products and the decline in national saving). Spanish financial institutions had been covering this gap mainly by issuing fixed-income securities on the international markets, taking advantage of the conditions created by Spain's membership of the euro area. This situation has, however, been altered recently by the serious international financial tensions of the last year-and-a-half.

This article describes the recent behaviour of the gap between loans and deposits and of its funding, and discusses some implications for financial intermediaries and for the Spanish economy. The article consists of this introduction and three other sections. The following section addresses the factors which have led to this behaviour, the third section summarises the changes in the liability structure of institutions and the fourth sets out the main conclusions.

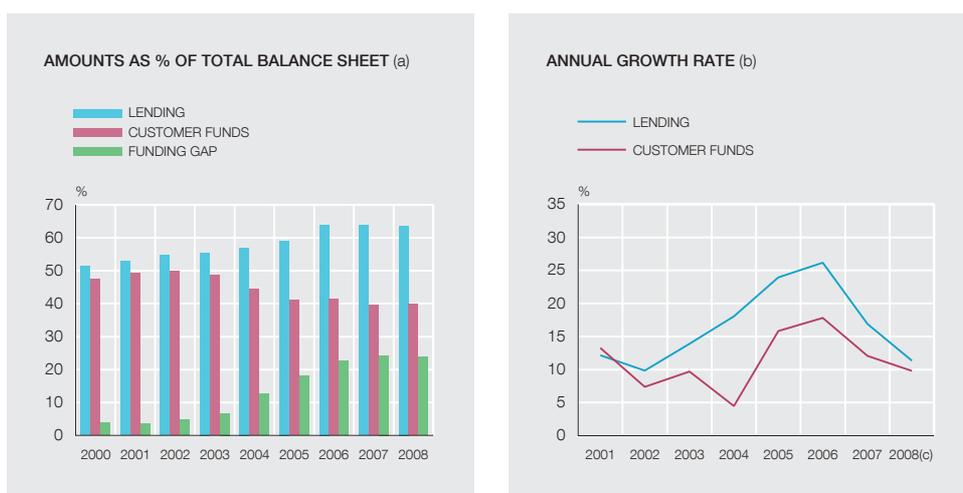
### **Changes in the funding gap**

As shown in Chart 1 (which depicts the developments in lending and in funds obtained via customer deposits<sup>1</sup> for all credit institutions according to their individual balance sheets), during a large part of this decade lending by these intermediaries was enormously vigorous, with average annual growth of 18% and rates exceeding 20% in 2005 and 2006. This extraordinary expansion was driven, on the demand side, by the increase in expectations of future income and of returns on assets, partly associated with Spain's membership of the euro area, against a background of highly favourable financing conditions. On the supply side, the readier access to international markets, aided, among other factors, by the introduction of the euro, enabled institutions to meet their customers' requests for loans on favourable terms. This meant that, in addition to low interest rates, credit standards continued to be easy.<sup>2</sup> As a result of these developments, lending went from 51% of the balance sheet in 2000 to 64% in 2008 Q2.

Meanwhile, deposits, although they showed appreciable growth rates (12% on average in the period considered), always expanded more slowly than lending (except in 2001) and the total balance sheet, so their relative weight in the latter decreased from 48% in 2000 to 40% in 2008 Q2. Other factors, apart from the fall in net financial saving of the non-financial private sector of the national economy, may have contributed to this, such as the competition from other alterna-

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1. Comprising deposits from the public sector, other resident sectors and non-residents, excluding repurchase agreements and funds received in securitisations reflected in institutions' liabilities, which in the individual financial statements are accounted for as deposits. Asset-backed securities are not issued directly by credit institutions, but by securitisation special purpose entities which acquire the loans and other assets as consideration for those instruments. For this reason, the funds received by institutions in this way are not included in institutions' liabilities as securities issued, but rather as deposits provided that the loans are not removed from the balance sheet (which, since the entry into force of Circular 4/2004, occurs when the associated risks are not substantially all transferred to third parties) and that the transaction entails the receipt of funds. The latter does not occur in the case of securitisations retained by the originators of the transaction. 2. For more details on the factors which stimulated lending in this period, see Marqués, Nieto and del Río (2005) and Nieto (2007).



SOURCE: Banco de España.

- a. For 2000-2003 the balance sheet data used are those resulting from application of CBE 4/1991; for the rest of the period, those calculated according to CBE 4/2004 are used.  
 b. In the period 2001-2004 the growth rates are calculated using the balances resulting from application of CBE 4/1991; from 2004 to June 2008 the data used are those obtained in accordance with CBE 4/2004. This is done to correct the effect of breaks in the growth rate time series.  
 c. Data as at June.

tive products, some of which enjoyed advantageous tax treatment during most of this stage.<sup>3</sup>

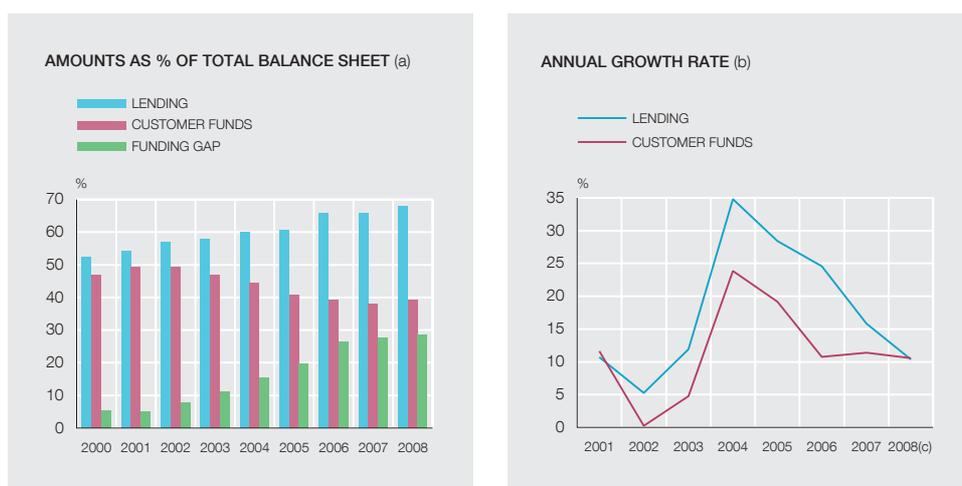
As a result of these developments, the difference between lending to customers and deposits from them, hereafter referred to as “the funding gap”, widened significantly from around 4% of the balance sheet in 2000 to roughly 25% in 2007.

Recent quarters have seen a significant change in these trends. Thus the downward revision of expectations of future income and asset price appreciation associated with the change in the cyclical position of the economy, along with the rising cost of funds, have prompted a fall in the demand for funding and thus curtailed the expansion of lending. According to the latest bank lending surveys, the supply of credit has also diminished, mainly as a result of the worsening economic outlook (which has prompted a rise in risk levels) and also, albeit to a lesser extent, because of the greater difficulty in raising funds on the international markets due to the financial tensions first seen in summer 2007.<sup>4</sup>

This has meant that in recent months the funding gap has tended to stabilise. Thus analysis of recent flows shows that the ratio between the increase in liabilities other than customer deposits and the change in lending is getting smaller (24% in 2008 Q1, compared with 49% in the same period of 2007).

From the standpoint of the implications of these developments for credit institutions, it is undoubtedly more relevant to analyse the funding gap using consolidated financial statements, since these reflect the overall activity of groups, including resident and non-resident subsidiar-

3. The latest personal income tax reform (Law 35/2006 of 28 November 2006 on personal income tax and partially amending the corporate income tax, non-resident income tax and wealth tax law), which came into force in 2007, eliminated many of the differences in tax treatment between investment instruments. 4. See Martínez Pagés (2008).



SOURCE: Banco de España.

- a. For 2000-2003 the balance sheet data used are those resulting from application of CBE 4/1991; for the rest of the period, those calculated according to CBE 4/2004 are used.  
 b. In the period 2001-2004 the growth rates are calculated using the balances resulting from application of CBE 4/1991; from 2004 to June 2008 the data used are those obtained in accordance with CBE 4/2004. This is done to correct the effect of breaks in the growth rate time series.  
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ies. This level of aggregation also enables more insight into how this gap is financed, since, for example, some intermediaries use subsidiaries to issue securities the proceeds of which revert to the parent, instead of direct issuance by the parent. For this reason, the rest of this article focuses mainly on such information.

Chart 2 shows the behaviour of lending to and deposits from customers and the difference between these variables, which are calculated from the consolidated financial statements of credit institutions. The picture is similar to that noted above for individual data, although in this case the increase in the gap is slightly larger, from 5% to 28% in the stage in question.

### **Changes in the funding structure of credit institutions**

BEHAVIOUR UP TO JUNE 2007

The sharp credit expansion outpaced the growth of funds taken from customers and gave rise to major changes in the funding structure of credit institutions. To get an idea of the scale of these changes, Table 1 shows the changes in the composition of banking system liabilities, considering the main instruments used. There is a decrease in the relative weight of deposits and repo transactions with customers, which declined overall by nearly 19 percentage points (pp) between 2000 and 2007 Q2. This decline was approximately offset by the increase in the relative size of the amounts associated with fixed-income securities issuance, including securitisations not recorded in consolidated balance sheets as securities<sup>5</sup> and subordinated debt, which rose by around 24 pp in the period analysed. The other items underwent smaller movements. Thus, the percentage shares of net interbank loans and own funds decreased by 1.4 pp and 2.1 pp, respectively, while the net funding from central banks<sup>6</sup> increased by 0.3 pp. To assess the possible consequences of this loss of weight of the more traditional sources (such as deposits and repo transactions), where the funds come directly from customers, relative to

5. Included under this heading in Table 1 are securitisations reflected in asset and liability accounts in institutions' balance sheets but not consolidated and securitisations of covered bonds. It therefore excludes those in which the loans have been removed from the balance sheet and the asset securitisations retained by institutions. However, it does include retained securitisations which are backed by multi-issuer covered bonds. 6. Excluding balances held in cash.

**CREDIT INSTITUTION FUNDING STRUCTURE.  
CONSOLIDATED BALANCE SHEETS (a)**

TABLE 1

Funding structure (b)	DEC 2000		DEC 2001		DEC 2002		DEC 2003		DEC 2004		DEC 2005		DEC 2006		JUN 2007		JUN 2008	
	bn	%	bn	%	bn	%	bn	%	bn	%	bn	%	bn	%	bn	%	bn	%
Payables (c)	590	62.0	658	64.1	660	63.4	691	59.5	868	56.8	1,035	52.0	1,146	49.4	1,211	48.6	1,336	49.0
Private-sector repos, net	80	8.4	98	9.5	96	9.3	87	7.5	101	6.6	71	3.6	80	3.5	74	3.0	83	3.1
CIs, net	67	7.0	52	5.1	44	4.3	72	6.2	52	3.4	158	7.9	143	6.1	139	5.6	151	5.5
Central banks (d)	-5	-0.6	-19	-1.9	-4	-0.4	5	0.5	13	0.9	22	1.1	7	0.3	-6	-0.3	21	0.8
Securities issued	102	10.8	103	10.0	106	10.2	149	12.8	250	16.4	387	19.4	555	23.9	643	25.8	668	24.5
Securitisations not recorded in securities (e)	0	0	5	0.4	8	0.8	21	1.8	50	3.3	93	4.6	129	5.6	155	6.2	177	6.5
Subordinated debt	22	2.4	30	2.9	30	2.9	33	2.8	58	3.8	64	3.2	73	3.1	78	3.1	85	3.1
Equity	95	10.0	101	9.8	100	9.6	105	9.0	133	8.7	162	8.1	187	8.0	196	7.9	207	7.6
<b>TOTAL</b>	<b>951</b>	<b>100.0</b>	<b>1,027</b>	<b>100.0</b>	<b>1,041</b>	<b>100.0</b>	<b>1,162</b>	<b>100.0</b>	<b>1,497</b>	<b>100.0</b>	<b>1,932</b>	<b>100.0</b>	<b>2,223</b>	<b>100.0</b>	<b>2,371</b>	<b>100.0</b>	<b>2,619</b>	<b>100.0</b>
<b>MEMORANDUM ITEM:</b>																		
Total issuance of fixed-income securities (f)	125	13.1	137	13.4	145	13.9	202	17.4	358	24.0	543	28.1	757	34.1	875	36.9	930	35.5

SOURCE: Banco de España.

a. For 2000-2003 the data used are those resulting from application of CBE 4/1991; for the rest of the period, those calculated according to CBE 4/2004 are used.

b. Expressed as a percentage of total funding.

c. Excluding the "funds received under financial asset transfers" account and securitisations of multi-issuer covered bonds.

d. Net balance, not including balances held in cash.

e. Including non-consolidated asset securitisations and covered bond securitisations, which in balance sheets are recorded as payables. The latter figure is obtained from market data contained in financial market statistics, since it cannot be obtained from consolidated balance sheets. It does not include retained securitisations except for those backed by multi-issuer covered bonds.

f. Including all issued securities recorded in the consolidated balance sheet plus securitisations not recorded in securities.

others based on the placement of securities on financial markets, it is important to have a more detailed knowledge of the composition by instrument of these issues, their term structure and the distribution across securityholders.

Table 2 is a breakdown by instrument of the fixed-income securities issued by credit institutions and their subsidiaries and by securitisation special purpose entities, for which detailed information is available from the securities markets.<sup>7</sup> Analysis of the changes between December 2004 and June 2007 shows, first, how asset-backed securities became the main fund-raising vehicle, their total outstanding balance rising by €148 billion to approximately €217 billion, considering only those reflected in the liabilities of financial institutions. Also notable is that most issues related to assets with medium- and long-term maturities, which, in addition to asset-backed securities, included non-convertible bonds and debentures, mortgage and territorial covered bonds, subordinated bonds and preference shares. Thus, in mid-2007 the weight of these products in terms of outstanding balance, exceeded 88%. Moreover, as seen in Table 3, the average residual maturity of most of these instruments was relatively high.<sup>8</sup>

Lastly, Table 4 shows the distribution by securityholder of the fixed-income securities issued by resident financial institutions, which include, apart from credit institutions, other financial

7. In June 2007 these amounts accounted for more than 90% of direct and indirect funding (via securitisations) received from fixed-income security issuance. The rest of the funds are mainly issues by subsidiaries abroad, on which a breakdown by instrument is not available. 8. The average residual maturity of asset-backed securities is calculated on the basis of the final maturity date. It therefore does not take into account the partial repayments during the term of these instruments, which tends to cause upward bias in the average maturity data.

	DEC 2004		JUN 2007		JUN 2008	
	Balance	%	Balance	%	Balance	%
<b>ISSUES BY PARENTS</b>	180,170	55.2	412,278	51.7	442,688	49.8
Commercial paper	43,200	13.2	83,667	10.5	104,803	11.8
Medium- and long-term bonds	52,864	16.2	131,379	16.5	128,087	14.4
Mortgage covered bonds	56,084	17.2	152,938	19.2	164,061	18.5
Territorial covered bonds	7,720	2.4	15,495	1.9	17,239	1.9
Subordinated bonds and preference shares	20,302	6.2	28,799	3.6	28,498	3.2
<b>ISSUES BY SUBSIDIARIES</b>	76,999	23.6	167,719	21.0	202,224	22.8
Short-term	2,407	0.7	5,301	0.7	39,973	4.5
Long-term	74,592	22.9	162,418	20.4	162,251	18.3
<b>SECURITISATIONS (b)</b>	69,181	21.2	217,235	27.2	243,292	27.4
<b>Total</b>	<b>326,350</b>	<b>100.0</b>	<b>797,232</b>	<b>100.0</b>	<b>888,204</b>	<b>100.0</b>

SOURCE: Banco de España and AIAF.

a. Balances in millions of euro; structure as % of total.

b. Only those securitisations reflected on the liability side of individual balance sheets. Specifically, asset securitisations recognised in full on the balance sheet, except those retained, and all covered bond securitisations.

#### MATURITIES OF FIXED-INCOME SECURITIES ISSUES OF CREDIT INSTITUTIONS (a)

TABLE 3

Data as at 30.6.2008	JUN 2007		JUN 2008	
	Outstanding balance (millions of euro)	Average term (years)	Outstanding balance (millions of euro)	Average term (years)
<b>SECURITIES WITH DEFINED MATURITY</b>				
Asset-backed securities	298.341	23,4	394.343	24,5
Mortgage covered bonds	152.938	7,8	164.061	6,8
Medium-term, long-term and territorial covered bonds	146.874	3,2	145.326	2,7
Preference shares and securities governed by Law 19/2003	103.880	3,5	112.847	3,3
Subordinated bonds	24.987	7,6	24.622	6,9
<b>SECURITIES WITH UNDEFINED MATURITY</b>				
Preference shares and securities governed by Law 19/2003	19.087		21.276	
Subordinated bonds	3.811		3.875	
<b>Total</b>	<b>749.918</b>		<b>866.350</b>	

SOURCES: Banco de España and AIAF.

firms consisting of the ICO, insurance companies and securitisation special purpose entities.<sup>9</sup> As can be seen, between December 2000 and June 2007 the securities held by the rest of the world rose from 30% of the total balance to 73%, as a result of the fact that nearly 77% of the net flows in that period (approximately €634 billion) was purchased by non-residents. This information illustrates how funding on the debt markets was one of the main channels by which the Spanish economy raised the necessary funds abroad.

9. The issues attributed to credit institutions, including securitisation issues and those of their resident subsidiaries, account for nearly 95% of the total.

**DISTRIBUTION BY SECURITYHOLDER OF FIXED-INCOME SECURITIES ISSUED BY RESIDENT FINANCIAL INSTITUTIONS**

TABLE 4

€m	DEC 2000		JUN 2007		JUN 2008	
	Balance	%	Balance	%	Balance	%
TOTAL	73,465	100.0	898,569	100.0	1,034,592	100.0
Non-financial corporations	4,937	6.7	15,268	1.7	16,261	1.6
Financial institutions	33,492	45.6	201,475	22.4	344,177	33.3
General government	335	0.5	726	0.1	868	0.1
Households	12,367	16.8	25,110	2.8	33,496	3.2
Rest of the world	22,334	30.4	655,990	73.0	639,788	61.8

SOURCE: Banco de España.

**NET FIXED-INCOME ISSUES OF CREDIT INSTITUTIONS (a)**

TABLE 5

€m	AVERAGE 2004 - 2006	2007				2008	
		Q1	Q2	Q3	Q4	Q1	Q2
ISSUES BY PARENTS	21,907	27,021	29,835	22,611	-3,765	-11,628	23,192
Commercial paper	3,335	8,250	5,539	19,461	381	-6,370	7,664
Medium- and long-term bonds	7,282	9,274	10,982	3,937	-6,480	-5,301	4,552
Mortgage covered bonds	9,614	7,593	12,352	-2,549	2,060	490	11,122
Territorial covered bonds	566	1,450	1,800	1,805	384	-447	2
Subordinated bonds and preference shares	1,110	454	-838	-43	-110	0	-148
ISSUES BY SUBSIDIARIES	8,321	17,410	6,741	5,039	9,191	10,712	9,563
Short-term	249	1,084	-181	7,059	3,409	20,600	3,604
Long-term	8,072	16,326	6,922	-2,020	5,782	-9,888	5,959
SECURITISATION ISSUES	15,523	28,470	27,666	7,101	43,736	15,544	27,247

SOURCES: Banco de España and AIAF.

a. Quarterly change in outstanding balance, in nominal terms. For the period 2004-2006 the average of this quarterly change has been calculated.

**RECENT DEVELOPMENTS**

The bout of turmoil initiated in summer 2007 altered the normal functioning of some of the international markets to which Spanish institutions had assiduously resorted in the past, to the point that some of them became completely paralysed, as in the case of securitisations. However, the fact that the debt structure of Spanish intermediaries was slanted towards longer maturities and that the slowdown in lending had begun some months earlier meant that Spanish institutions had considerable leeway to adjust to the new situation.

Against this background, Spanish intermediaries opted to change their funding strategies, using various mechanisms for this purpose. First, they intensified their efforts to attract deposits, using the potential offered by their extensive distribution networks. This has been reflected in a slight increase in the weight of customer funds (see Table 1). Further, they stepped up their use of shorter-term issues, which were less affected by the turmoil. Thus, as shown by Table 2, short-term securities went from 11% of the total balance of securities issued in June 2007 to 16% a year later, as a result of the fact that 61% of the increase in the securities balance in that period related to commercial paper placements. Additionally, as shown by Table 1, a greater role was played by Eurosystem funding, such that in net terms its weight in the total funding on consolidated balance sheets increased by 1.1 pp between mid-2000 and June 2008. However, it should be noted that at the last-mentioned date this volume of funds accounted, in gross terms, for barely 1.2% of the total balance sheet. This was in line with Spain's relative

weight in the euro area as measured by the ratio between the reserve requirements of Spanish banks and those for the euro area as a whole. Also, Table 5, which sets out quarterly changes in the balances of securities issued, shows that Spanish institutions have taken advantage of certain periods of greater stability to launch longer-term issues. Thus, for example, in 2008 Q2, before the turmoil worsened in September, the volume of net long-term issues<sup>10</sup> (excluding securitisations) amounted to €19 billion, thereby partially offsetting the reduction of the preceding months.

The securitisation market continued to record issues of large amount, but the securities were partly retained by the originators in order to raise the volume of collateral available and thus raise their chances of obtaining liquidity in the future.

### **Final comments**

As seen above, in the latest upswing of the Spanish economy, the growth of lending outpaced that of deposits. Credit institutions covered this funding gap by resorting to alternative sources, particularly the issuance of relatively long-term fixed-income securities, which limited refinancing risk.

The turmoil which broke out in summer 2007 has intensified to become a global financial crisis with a significant impact on a large number of markets and institutions. At the outset Spanish institutions were in an extremely sound financial position and unexposed to the negative effects associated with the direct impact of the turmoil (they did not have exposures to toxic assets or commitments to structured vehicles which invested in those assets), but they have been affected by the paralysis of the international markets on which they were raising funds. The favourable maturity structure of their debt (predominantly long-term), which has limited the volume of refinancings, and the slowdown in lending activity, which has curbed the growth of the funding gap, have given institutions some leeway in adjusting to the new situation. In their adaptation they have developed alternative strategies, such as deposit expansion, shorter-term security issues and, occasionally, as the opportunity arises, longer-term issues, albeit with larger interest-rate spreads.

These adaptive efforts enabled Spanish institutions to meet their funding needs during the past year without significant tensions. However, considerable uncertainty persists about access to the necessary sources of funding. On one hand, the worsening of the financial market tensions since mid-September has made it even more difficult to issue securities. But, on the other, the exceptional measures taken by the economic authorities of the major developed countries to support the financial system in view of the seriousness of the crisis have opened the door to new approaches and opportunities. In Spain these measures have consisted of raising the threshold of deposit guarantees to €100,000, setting up the Financial Asset Acquisition Fund, which makes outright and repo purchases of high-quality securities held by these intermediaries with an initial outlay of €30 billion, extendable to €50 billion, and the granting of public guarantees of new debt issues amounting to €100 billion. This set of measures will make for readier access to funds and reduce the risks in place.

11.12.2008.

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<sup>10</sup> Net issues are approximated as changes in the outstanding balance in nominal terms. This procedure is subject to error because some of the changes in the outstanding balance are due to changes in exchange rates in the case of securities denominated in foreign currencies. However, the error would not be expected to be very significant if it is taken into account that the weight of issues in currencies other than the euro is fairly small (in June 2008 it was less than 10% of the outstanding balance, including issues by parents, subsidiaries and securitisation special purpose entities).

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