Information about Capital Adequacy and Risk Management 2010 Basel Regulations, Pillar 3





The Swedish Housing Finance Corporation, SBAB

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1. Introduction

The aim of the regulations governing capital adequacy and large exposures is to increase stability in the international banking sector. The rules are structured under three pillars. Under Pillar 1, the minimum capital requirement for credit risk, market risk and operational risk are calculated on the basis of established regulations. Under Pillar 2, the company determines the capital requirement for measurable risks based on the results of its internal models. The results are supplemented with an assessment based on the outcome of stress tests and of other risks. Pillar 3 regulates the information that must be disclosed to the market.

Regulations governing capital adequacy and large exposures (Basel II) entail the following:

- New measurement methods have been developed for credit risk, operational risk and market risk.
- The capital requirement is linked to a greater extent to the actual risk in the credit agency's operations.
- The process for assessing equity in relation to the company's risk profile and the strategy for maintaining a certain level of capital have been developed.
- The risk classification system now constitutes an integrated component of the company's control, credit process, risk management and internal allocation of capital.
- Banks and credit agencies are to submit comparable information to the market regarding risk management and capital adequacy.

The transitional regulations, which were originally intended to apply until year-end 2009, will apply until at least year-end 2011. Future decisions concerning transitional regulations are highly pertinent to the SBAB Group (referred to as SBAB below) since these currently double the capital base and Tier 1 capital requirements. Much of the substance discussed ahead of Basel II never materialised in the regulatory framework but was instead deferred to a later date. The financial crisis subsequently imposed further requirements on the tightening of capital adequacy regulations. These discussions resulted in new proposals for regulations. Not all elements of the proposals have been definitively addressed to date, which is why it remains difficult to gain an overall assessment of the total effects of the new regulatory framework. For Swedish agencies, the key matters are primarily the formulation of regulations concerning leverage ratio, liquidity ratios and capital base.

The amendments will impose requirements for an increased capital base and higher capital requirements compared with the current regulations. The first amendments became effective as of 31 December 2010. New regulations are subsequently planned in 2011 and 2012. However, the full impact of these regulations will take effect a few years later as the regulations are being implemented incrementally.

1.1 Report contents

This report applies to the financial corporate group SBAB and to the conditions prevailing on 31 December 2010, unless otherwise specified. The report was published on www.sbab.se in conjunction with the publication of the company's Annual Report.

In this document, SBAB presents information about capital adequacy and risk management in 2010 based on the Swedish Financial Supervisory Authority's Regulatory Code (FFFS 2007:5). The collective risk in the business is divided into:

- 오 Credit risk
- 오 Market risk
- Liquidity risk
- Refinancing risk
- Operational risk
- 오 Business risk

Other risks, such as reputational risk, strategic risk and political risk, are not addressed in this document since these are not quantified and are only subject to more cursory analysis.

2. Corporate group SBAB

The corporate group SBAB comprises the Swedish Housing Finance Corporation, SBAB, the Swedish Covered Bond Corporation and FriSpar Bolån AB. The Swedish Covered Bond Corporation issues covered bonds in the Swedish and international capital markets.

The principal activity of all of these companies is to provide mortgage loans for residential properties and units in tenant-owner associations against collateral in the form of mortgage deeds and tenant-owner rights and, to a limited extent, the funding of commercial properties. However, the Swedish Covered Bond Corporation (hereinafter SCBC) does not conduct any proprietary new loan operations instead it aquires loans from the Parent Company on regular basis or as needed. The purpose of securing credits is for them to be included, in full or in part, in the cover pool that comprises collateral for holders of SCBC's covered bonds, which are issued in the Swedish and international markets. SCBC's operations are conducted by employees of the Parent Company.

SBAB conducts its operations in three business areas. Corporate Clients and Consumer focus on loans, while Finance focuses on funding and financial risk management.

In recent years, the Parent Company's operations have been expanded to include deposits from private individuals and companies, as well as to grant smaller unsecured loans to residential mortgage borrowers in the Consumer business area, the aim of which is to further expand the product range.

Table 1. Companies included in SBAB

Company	Corp. Reg. No	Ownership share	Consolidation method for auditing	Consolidation method for capital adequacy
The Swedish Housing Finance Corporation, SBAB	556253-7513	Parent Company	-	-
The Swedish Covered Bond Corporation	556645-9755	100%	Acquisition method	Acquisition method
FriSpar Bolån AB	556248-3338	51%	Proportional consolidation method *	Acquisition method *

* The differences in the selection of method are the result of various regulations concerning the definition of Group affiliation in the Capital Adequacy and Large Exposures Act and FFFS 2007:1, which govern how capital adequacy should be reported, and the International Financial Reporting Standards (IFRS), which regulate the company's accounting.



3. Risk management and risk organisation

A broad definition of risk is "the volatility in future income that is dependent on changes in the value of assets and liabilities." Risk is a natural element in a business and one that must be managed. For SBAB, risk arises primarily in the lending operations in the form of credit risk, although risks must also be managed in other activities. The recent financial crisis exemplifies the importance of efficient liquidity risk management.

For SBAB, risk management requires, in each individual transaction, that the company is able to measure the value generated by the transaction with regard to risk-adjusted return and the optimal level of capital. Specifically, this means that SBAB engages in continuous discussions concerning the following questions:

- What are the various risks generated in SBAB's operations, and how can these be measured consistently to create comparability?
- How can SBAB organise its risk management and integrate it into business management so that all employees understand the value of correct risk management in the operations?
- Does SBAB have sufficient capital to offset the company's risks?

SBAB's goal is that the strategy adopted for the lending operations will, with respect to management and pricing, consider the risks that arise in the operations and the capital needed to cover these risks.

3.1 Overall aims for risk management

- SBAB's risk management must support the company's business operations and rating targets.
- Risk-taking must be low (balanced), which will be achieved by ensuring that the total risk in the company is kept at a level that is compatible with SBAB's long-term financial objectives for return, the size of risk capital and target rating.
- SBAB's business control process must ensure that allocation of capital be based on the desired risk level and earnings capacity within the company's various business areas. SBAB's capitalisation is to be deter-

mined on the basis of an assessment of the organisation's collective risk level and be expressed in the form of an operationally defined capital target.

- SBAB's risk management must be transparent and thus easily presented to and understood by external parties.
- SBAB must maintain an effective risk management organisation, whereby the distribution of responsibility and the requirements imposed on the various SBAB functions are clear. The organisation must stimulate an open management of risk matters, whereby individual employees are encouraged to take responsibility for the identification and control of risks, and to propose improvements for risk management.
- The collective risk in the operation is divided into credit risk, market risk, liquidity risk, refinancing risk, operational risk and business risk. The relevant risks must be identified, measured, regulated and controlled.

3.2 Risk tolerance

Risk is an integrated part of all activities conducted by SBAB. Given the company's strategy of generating income primarily by taking credit risks, it is important to know how much risk is actually desirable, both at an aggregated level and in relation to various segments and individual customers, which is known as risk tolerance. This can be defined as "the impact on earnings that a company can accept to support a particular strategy."

The basis for SBAB's risk tolerance against various risk types is that expected losses for each risk must be covered by the day-to-day earnings capacity and unexpected losses must be covered by the company's capital base. The ability to minimise unwanted risks through an effective organisation must also be taken into consideration. The scope of the acceptable risk must be clearly linked to how important the prevailing risk is to SBAB's business concept and the positive effects that are expected to be achieved in the form of expected revenues, cost savings or reductions of other risk.

SBAB divides risks into wanted, necessary, unwanted and risks to which SBAB must not be exposed.

Wanted risks comprise those directly related to the business concept. The capital base is primarily to be used for unexpected losses caused by such risks. Other risks must be maintained at a level at which both expected and unexpected losses can be covered by the day-to-day earnings capacity.

- Necessary risks are those arising from activities that are regarded as a direct prerequisite for being able to materialise the business concept in an efficient and competitive manner, whereby a certain level of risk is accepted to achieve these positive effects for the operations within the business concept. The scope of the accepted risk must be clearly motivated by the positive effects that are expected to be achieved in the form of expected revenues, cost savings or reductions of other risks.
- Unwanted risks are those that may well be avoidable in terms of exposure, but which for various reasons are deemed to be damaging enough to warrant their minimisation, although this could entail significant costs. With a high degree of probability, both expected and unexpected losses must be covered by day-to-day earnings. For the risks for which capital requirements cannot be quantified, the unwanted risk level must be estimated and compared with the cost required to achieve this level.
- Exposure to the risks to which the Board has decided that the Group should not be exposed must be avoided.



Figure 2. Categorisation of various risks

SBAB's risk tolerance is to be expressed in the individual business decisions, in the assessment of overall risk for each risk type and in the consideration between overall risk assumption and assessed capital requirement. As a rule, each business decision changes SBAB's exposure to various risk types. Accordingly, SBAB's governance model should be designed to reflect risk tolerance and each business decision should be based on a healthy balance between the estimated impact on earnings and changes in risk exposure. The Parent Company's Board establishes the risk that SBAB is prepared to take based on the chosen strategy, day-to-day earnings and risk capital. In this context, the cause of various risks and the size of each risk as a percentage of overall risk should be clear.

SBAB's risk tolerance is expressed as follows:

- Return on equity must exceed the return on five-year government bonds by five percentage points after tax, viewed over a business cycle.
- The capital quotient must exceed 1.25 (taking into account the transitional rules).
- The Tier 1 capital ratio must not be less than 7% (taking into account the transitional rules).
- Economic capital must not exceed 85% of the capital base.
- The liquidity reserve must be able to handle flows for a minimum of 20 days, with a target of 30 days.
- The tolerance level for operational risk amounts to SEK 7.5 million.

Earnings should be based primarily on credit risk and interest-rate risk.

All of these objectives were achieved. Return on equity exceeded the target by 0.3 percentage points and economic capital corresponded to 39% of the capital base at 31 December 2010. The capital quotient and Tier 1 capital ratio are presented in Chapter 4. The liquidity reserve handled flows for 63 days and the result of operational risks was SEK 1.2 million below the tolerance level.

To follow up the results of risk in relation to the approved risk tolerance, the results of the aforementioned parameters are reported to management and the Board on a monthly basis.

3.3 Risk organisation

The Board of Directors has ultimate responsibility for risk management and makes decisions on risk strategy, risk tolerance, risk policy and instructions for managing and measuring risk.

The "Asset and Liability Management Committee" (ALCO) handles matters relating to risk and capital planning, which are then addressed by executive management or the Board. ALCO presents risk reports on a quarterly basis and stress tests of a "downturn scenario" and a normal scenario, including an in-depth impact assessment, are reported on a six-month basis. The Chief Executive Officer is the chairman of the ALCO. Other committee members are the managers of each of the business areas, the Chief Credit Officer, the Head of Accounting and Controlling Department and the Head of the Risk Department.

SBAB's Risk Department is a unit within the credit division. The Head of the Risk Department is appointed by the CEO and has overall responsibility for developing and ensuring that SBAB's risk-taking strategies comply with the Board's intentions and that policies, instructions and processes support relevant follow-ups. The Risk Department analyses and reports SBAB's collective risks, excluding operational risks and information safety risks. In particular credit risk, which is SBAB's most significant risk, shall be controlled and analysed. The Risk Department is also responsible for the formulation, implementation, reliability and monitoring of SBAB's risk-classification systems and for models for economic capital.

Middle Office in the Finance business area is responsible for compiling reports and analyses of SBAB's financial risks (market, refinancing and liquidity risks). Middle Office submits reports and analyses on these matters to the Head of the Risk Department, who, on a daily basis, monitors risk levels and ensures that established limits are not exceeded.

The Chief Security Officer is responsible for risks concerning information security, and there is a specifically appointed supervisor for operational risks. The risk of errors in financial reports is compiled and reported by the Accountant Officer. The company's Accounts Department is also responsible for internal capital assessments.

The overall risk scenario, combined with the prevailing capital quotient, Tier 1 capital ratio and the Core Tier 1 capital ratio as well as a description from the Accounts Department of the performance of risk-adjusted returns, is reported to the Board, CEO and senior executives at SBAB on a monthly basis. The Board and CEO also receive an indepth risk analysis on a quarterly basis.



Figure 3. Reporting of risks

4. Capital adequacy

In the wake of the latest financial crisis and concerns over the impact of new, forthcoming crises, more stringent demands are being imposed on capital requirements and on Tier 1 capital contributions for credit institutions. The aim of the new requirements is to build confidence in the institutions' ability to endure new crises. The institution must prove to rating agencies and the investors who purchase securities from banks, as well as new and existing customers that it has an adequate capital situation. Under Basel II, without taking the transitional regulations into account, SBAB's capital adequacy ratio according to Pillar 1 is 22.4% and the Tier 1 capital ratio is 19.1%.

4.1 Capital requirements

The size of SBAB's capital requirements depends on laws and regulations (Pillar 1 of the Basel regulations), the company's internal assessment based on approved strategies (Pillar 2 of the Basel regulations), the assessments of investors and rating agencies and the evaluations of shareholders and executive management.

Capital in accordance with Pillar 1 refers to the minimum amount of capital that SBAB is to have in accordance with the Capital Adequacy and Large Exposures Act (2006:1371), the Capital Adequacy and Large Exposures Ordinance (2006:1533) and the Swedish Financial Supervisory Authority's Regulatory Code (FFFS 2007:1). These provisions also include transitional regulations that apply through 2011.

4.2 Capital base

SBAB's capital base comprises equity, Tier 1 capital contributions and subordinated debentures. SBAB's capital base amounted to SEK 13,510 million at 31 December 2010.

When calculating Tier 1 capital, subordinated loans can be included if certain prerequisites are met in accordance with Chapter 7, Section 15 of FFFS 2007:1 and consent has been obtained from the Swedish Financial Supervisory Authority (SFSA). SBAB has been granted such consent and has classified SEK 2,994 million as Tier 1 capital (subordinated debentures SEK 2, 3 and 5 in table 2), of which SEK 994 million comprised step-up incentives. All capital contributions included in Tier 1 capital were issued before 31 December 2010 and are subject to the transitional rules ahead of FFFS 2010:10. Subordinate debentures are subordinated to the Parent Company's other liabilities and the subordinated debentures included in Tier 1 capital are subordinated to other subordinated debentures.

In accordance with Chapter 7, Section 9, second paragraph of FFFS 2007:1, changes in the value of equity that are attributable to loan receivables and accounts receivable that are classified as assets available-for-sale are excluded so as not to have an impact on the size of equity. An adjustment of SEK 80 million was made at 31 December 2010. Unrealised accumulated changes in the value of loan receivables and accounts receivable that have been classified as available-for-sale financial assets under the same paragraph may not impact the size of the capital base except in relation to changes in value that are recognised as impairment losses or reversals of impairment losses in profit and loss. An adjustment of SEK 1 million was made at 31 December 2010.

Deductions from Tier 1 capital are made for intangible fixed assets in accordance with Chapter 3, Section 2 of the Capital Adequacy Act. In accordance with Chapter 9, Section 11 of FFFS 2007:1, the difference between the expected loss (EL) and the actual provision is also deducted from Tier 1 capital. The remaining amount is deducted from Tier 2 capital.

There are no ongoing or anticipated tangible obstacles

Table 2. Subordinated debentures

Loan designation	Currency	Nominal amount	Outstanding nominal amount	First possible date for redemption	Interest rate 31 Dec 2010	Interest rate after first possible date for redemption	Due date	Recognised in capital base
Debenture JPY 2	2 JPY	10,000,000,000	10,000,000,000	-	5.23%	5.23%	2015-11-16	608,352,000
Debenture SEK 1	1 SEK	500,000,000	500,000,000	2011-06-14	3.60%	3 m stibor+1.71%	2016-06-14	499,430,000
Debenture SEK 2	2 SEK	700,000,000	700,000,000	2016-06-30	5.22%	3 m stibor+1.93%	Perpetual	694,000,000
Debenture SEK 3	3 SEK	300,000,000	300,000,000	2016-06-30	3 m stibor+0.93%	3 m stibor+1.93%	Perpetual	300,000,000
Debenture SEK 4	4 SEK	1,000,000,000	1,000,000,000	2013-04-25	7.32%	3 m stibor+4.10%	2018-04-25	1,000,000,000
Debenture SEK 5	5 SEK	2,000,000,000	2,000,000,000	2015-06-08	7.16%	3 m stibor+4.50%	Perpetual	2,000,000,000

Table 3. Capital base

Group

SEK million	2010	2009
Core Tier 1 capital		
Equity	8,014	7,377
Unrealised changes in value of loan receivables and accounts receivable that were previously classified as available-for-sale assets	80	136
Change in value attributable to derivative instruments included in cash-flow hedges	1	4
Non-controlling interest	565	492
Intangible fixed assets	-34	-39
Half of difference between provisions and anticipated loss for exposures recognised		
in accordance with IRB	-109	-116
Core Tier 1 capital	8,517	7,854
Tier 1 capital contribution		
Tier 1 capital contribution without redemption incentives ¹⁾	2,000	-
Tier 1 capital contribution with redemption incentives $^{\scriptscriptstyle 1\!$	994	994
Tier 1 capital	11,511	8,848
Tier 2 capital		
Perpetual subordinated debentures	-	-
Time-limited subordinated debentures	2,108	2,260
Half of difference between provisions and anticipated loss for exposures recognised in		
ccordance with IRB	-109	-115
Tier 2 capital	1,999	2,145
Expanded part of capital base	-	-
Deduction from entire capital base	-	-
Amount for capital base net after		
deductible items and limit value	13,510	10,993

¹⁾ Encompassed by the transitional rules to FFFS 2010:10.

or legal obstacles to a rapid transfer of funds from the capital base other than those that ensue from the terms for the subordinated debentures (see Note 30 in the SBAB Group's 2010 Annual Report) or what generally arises from the Swedish Companies Act (2005:551).

The starting capital required for the Parent Company in accordance with the Act on Banking and Financing Activities (2004:297) totalled SEK 45,650,000. The corresponding capital requirement for FriSpar Bolån AB (referred to as FriSpar below) was SEK 44,300,000 and SEK 47,000,000 for SCBC.

4.3 Capital requirements

When calculating capital requirements, each exposure is allocated to an exposure class, either using the standardised approach or the IRB approach. Table 4 shows the individual exposure amounts distributed by exposure class.

Table 4. Capital requirements and risk-weighted assets Group

SEK million	20	010	2009		
	Capital require-		Capital require-		
	ments	RWA	ments	RWA	
Credit risk recognised in accordance with IRB approach					
Corporate exposures	2,317	28,962	2,014	25,171	
Retail exposures	838	10,475	889	11,115	
Total credit risk recognised in accordance with IRB approach	3,155	39,437	2,903	36,286	
Credit risk recognised in accordance with standardised approach					
Exposures to governments	0	0	0	0	
Exposures to municipalities	U	U	U	0	
and comparable associations	0	0	0	0	
Institutional exposures	178	2,226	188	2,345	
Corporate exposures	1,068	13,354	1,044	13,051	
Retail exposures	17	212	23	287	
Unregulated items	1	9	1	12	
Other items	6	77	5	70	
Total exposure in accordance with standardised approach	1,270	15,878	1,261	15,765	
Risks in the commercial portfolio	214	2.673	158	1.975	
Operational risk	183	2,290	140	1.750	
Currency risk	_	-	_	-	
Raw material risk	-	-	-	-	
Total minimum capital requirement	4,822	60,278	4,462	55,776	
Addition according to transitional rules	5,769	72,110	5,120	64,000	
Total capital requirements and RWA according to transitional rules	10,591	132,388	9,582	119,776	

Figure 4. Capital requirement in accordance with Pillar 1, with and without the transitional regulations, and in accordance with Pillar 2



Table 5	5. Ca	pital a	adeq	uacy
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	SBAB Group		Parent Company		FriSpar		SCBC	
SEK million	2010	2009	2010	2009	2010	2009	2010	2009
Core Tier 1 capital	8,517	7,854	7,653	7,653	1,142	992	10,240	8,993
Tier 1 capital	11,511	8,848	10,647	8,647	1,142	992	10,240	8,993
Total capital	13,510	10,993	12,711	10,855	1,142	992	10,240	8,993
Without transitional regulations								
Risk-weighted assets	60,279	55,780	26,891	29,147	843	791	33,425	27,172
Core Tier 1 capital ratio	14.1%	14.1%	28.5%	26.3%	135.6%	125.4%	30.6%	33.1%
Tier 1 capital ratio	19.1%	15.9%	39.6%	29.7%	135.6%	125.4%	30.6%	33.1%
Capital adequacy ratio	22.4%	19.7%	47.3%	37.2%	135.6%	125.4%	30.6%	33.1%
Capital quotient	2.80	2.46	5.91	4.66	16.95	15.68	3.83	4.14
With transitional regulations								
Risk-weighted assets	132,388	119,776	28,876	35,311	4,122	3,790	99,355	80,760
Core Tier 1 capital ratio	6.4%	6.6%	26.5%	21.7%	27.7%	26.2%	10.3%	11.1%
Tier 1 capital ratio	8.7%	7.4%	36.9%	24.5%	27.7%	26.2%	10.3%	11.1%
Capital adequacy ratio	10.2%	9.2%	44.0%	30.7%	27.7%	26.2%	10.3%	11.1%
Capital quotient	1.28	1.15	5.50	3.84	3.46	3.27	1.29	1.3

Without taking into account the transitional regulations, SBAB's capital quotient at 31 December 2010 was 2.80, the capital adequacy ratio was 22.4%, the Tier 1 capital ratio was 19.1% and the Core Tier 1 capital ratio was 14.1%. Earnings for the period are included in the calculation of the capital base and Tier 1 capital. The figures do not include the dividend paid to shareholders, which was in line with the Board of Directors' proposal for the appropriation of profits.

4.4 Capital requirements under Basel III

The changes that are discussed in the regulatory framework (Basel III) will impose requirements for an increased capital base and more stringent capital requirements compared with the current regulations. During the third quarter, the proposed regulatory framework for Basel III was further clarified. The table below presents the capital requirements that are planned for implementation in 2019 and the corresponding value for SBAB at 31 December 2010. The table presents the considerable impact of the transitional ordinances on SBAB's capital adequacy ratio and that, at year-end, the company comfortably exceeded the forthcoming limits. However, the positive effect that the planned phase-out of the transition ordinances will have on the capital adequacy ratio will primarily be offset by the implementation of the non-risk-adjusted leverage ratio measurement.

Table 6. Capital adequacy ratio compared with Basel III requirements

	- Minimum limit under Basel III	Capital adequacy ratio under Pillar 1 without transitional regulations	Capital adequacy ratio under Pillar 1 with transitional regulations	Capital adequacy ratio under Pillar 2
Core Tier 1 capital ratio	4.5%	14.1%	6.4%	10.5%
Core Tier 1 capital ratio plus CCB ¹⁾	7.0%	14.1%	6.4%	10.5%
Core Tier 1 capital ratio incl				
CCB + max counter-cyclical buffer	9.5%	14.1%	6.4%	10.5%
Tier 1 capital ratio	6.0%	19.1%	8.7%	14.2%
Tier 1 capital ratio incl CCB	8.5%	19.1%	8.7%	14.2%
Tier 1 capital ratio incl CCB				
+ max counter-cyclical buffer	11.0%	19.1%	8.7%	14.2%
Capital adequacy ratio	8.0%	22.4%	10.2%	16.7%
Capital adequacy ratio incl CCB	10.5%	22.4%	10.2%	16.7%
Capital adequacy ratio incl CCB				
+ max counter-cyclical buffer	13.0%	22.4%	10.2%	16.7%

1) CCB - Capital Conservation Buffer

5. Internal model for calculating capital requirements

In accordance with Pillar 2 of the Basel regulations, the aim of SBAB's internal capital evaluation is to ensure that SBAB has sufficient capital to deal with any financial problems that arise. The Board and executive management are responsible for the internal capital evaluation. In relation to strategic decisions, business planning and changes in the operating environment, SBAB conducts an assessment of how the capital requirement has changed based on risk. SBAB uses an economic capital model as the basis for its assessment of the company's capital requirement within the framework of the internal capital evaluation process.

5.1 Internal capital evaluation, Pillar 2 of the Basel regulations

The business conducted by SBAB affects the extent of the risk taken by the company, which in turn impacts the size of the capital required. The size of the capital in turn affects the price of individual transactions for customers. The better the risk can be assessed by the company, the better the assessment of the size of the capital requirement that is utilised in the individual transaction. In addition, the risk-adjusted return can also be assessed. SBAB's assessment of the capital requirement in accordance with Pillar 2 is based on economic capital, under which capital for concentration risk in included. In combination with capital based on stress tests and capital for further risk, this comprises SBAB's assessment of the appropriate size of risk capital. Under Pillar 2, the capital requirement may not be less than the capital standard per risk type in accordance with Pillar 1. In such a case, the capital requirement in Pillar 2 is adjusted.

Economic capital is based on SBAB's own relatively advanced models in which quantifiable risks are summarised as a single entity. This is also an important component in the company's pricing and financial control.

When determining the size of risk capital, assessments of investors and rating agencies regarding the company's capital requirements compared with the capital held by the company are also taken into account. The views of rating agencies are reflected in SBAB's rating, which directly impacts the company's funding cost.

The quality and utilisation of risk information are essential to SBAB's long-term competitiveness in the market. The purpose of the internal capital evaluation process is to ensure that the company identifies, measures, secures and manages the risks to which SBAB is exposed and that SBAB has risk capital that is compatible with the selected risk tolerance. The process is revised annually to capture changes in the operating environment that continuously affect the company's performance.







Figure 6. Comprehensive process for calculation of economic capital

5.2 Process for internal calculation of capital requirements

SBAB's process for establishing internally calculated capital requirements is shown in the diagram in Figure 5. First, the risks generated in the operations are identified. The Risk Department is responsible for the quantification of all risks except those in the funding operations. Middle Office in the Finance Department is responsible for the identification, quantification and analysis of financial risks, which are reported to the Risk Department. Various models are used depending on what type of risk is to be measured.

The model for economic capital is used to calculate capital requirements for quantifiable risks. The results are reviewed and analysed. Stress tests of the capital requirements for quantifiable risks are conducted using several scenarios with varying degrees of stress. The results of capital requirement and stress tests are reported to the Accounting and Controlling Department.

In addition to economic capital, a capital buffer is provisioned for non-quantifiable risks and extraordinary events. The outcomes of the stress tests and scenario analyses also give rise to a capital buffer. The collective internally calculated capital requirements are calculated by the Accounting and Controlling Department. The results are reviewed and analysed, in the short and long term, in relation to capital planning and forecasts. The combined results of the internal capital assessment are reported to the Asset and Liability Management Committee (ALCO), which prepares the matter prior to being addressed by the Board. Finally, the Board adopts the process and results of the company's internal capital assessment.

5.3 Economic capital

The capital requirements for credit risk, market risk, operational risks and business risk are quantified in SBAB's model for economic capital. The calculation of capital requirements for credit risks are largely based on the results of the Group's IRB models. Economic capital is defined as the amount of capital needed to ensure solvency over a one-year period, given a predetermined confidence interval. The confidence interval is chosen to reflect the company's target rating. In SBAB's case, the level of confidence is 99.97%, which corresponds to the long-term AA- target rating (under Standard & Poor's ratings scale). When calculating economic capital, diversification effects are also taken into account, meaning that risk has been reduced by considering the probability of several risks being realised simultaneously. The overall process for the calculation of economic capital is presented in figure 6.

Capital requirements for operational risk and business risk are calculated using standards based on the business areas' operating income and operating expenses, while market risk is calculated using Value at Risk (VaR) models. In addition to comprising an assessment of the combined capital requirement to counter the risks in the company's operations, the economic capital is also used to monitor profitability in the company's operations, for economic control and for strategic considerations.

Economic capital comprises most of the capital that, according to SBAB's assessment, is required to cover unexpected losses during the coming year. Expected losses must be covered by earnings from operating activities. As shown in Table 8, credit risk is the dominant risk in SBAB's operations.

5.4 Concentration risk

In terms of concentration risk, SBAB is assessed to primarily be exposed to credit-risk-related concentration risk in lending operations. The method for calculating capital requirements for concentration risk was developed in autumn 2009. In 2010, a gradual implementation occurred of the approach for the allocation of capital to the various parts of the lending operations. The entire capital requirement for concentration risk is included in economic capital for credit risk.

SBAB's capital requirement calculations for credit-riskrelated concentration risk is based on the method described in the Swedish Financial Supervisory Authority's Memo on Credit Related Concentration Risks (IRB approach Description) from 31 March 2009 and the Assessment of Capital Requirements for Concentration Risks from 1 October 2009. SBAB calculates the concentration risk as divided into name concentration, industry concentration and sector concentration (geographic concentration). In the calculation made at 31 December 2010, the internally calculated capital requirement for credit-related concentration risk amounts to SEK 943 million.

5.5 Stress tests

Capital planning represents a basic scenario that reflects the most likely development for operations based on internal forecasts. As a complement, stress tests and scenario analyses are also conducted, in which the development of the loan portfolio and the capital requirement are evaluated during a sharp economic downturn. Stress tests are conducted on a six-month basis.

In the stressed scenario, the Swedish economy is struck by several major disruptions at the same time. A combination of external and internal factors further exacerbates the situation and leads to recession, inflation and problems in the banking sector. This scenario is of the magnitude that it can be estimated to occur with a periodicity of 20 to 25 years. In the scenario, the economy declines sharply in the first years to subsequently experience a slight recovery in the final year.

The scenario can be described as follows: A combination of a decline in general demand, escalating commodity prices, bottleneck problems among companies and a high level of debt among households sparks a decrease in GDP, which in turn has an adverse impact on employment and incomes. At the same time, the economy is subject to an upturn in inflation. Commodity prices and a weaker swedish currency, combined with a substandard wage structure lead to an inflation spiral. The Riksbank (Sweden's Central Bank) attempts to maintain the inflation target through the use of forceful interest-rate hikes, which further dampens the economy. Prices in the housing market and the property markets decline sharply. Public financing deteriorates. The parliamentary scenario (a minority government) contributes to a weakening of confidence in economic policy, which leads to all risk premiums rising. The banking system comes under pressure.

Table 7. Value under a stressed scenario is prepared for the following macro parameters in the current and coming three years

Demand	Prices	Interest rates
GDP growth (real)	Consumer prices	STIBOR, 3 months
Income (real)	Prices of single- family dwellings	Government bond rate, 10 years
Employment	Prices of tenant- owner rights	STIBOR Government bond exchange
Unemployment	Property prices (residences)	Mortgage-backed bonds Government bonds, 5 years
		Government bonds Sweden-Germany, 10 years

Stress tests are conducted so that the macroeconomic scenario that forms the basis of the stress translates into the effects it has on SBAB's risk models. A change in the credit rating for individual loans is simulated by a change in most of the parameters in SBAB's IRB models. A negative stress on PD variables simulates the deteriorated payment capacity among customers due to factors including higher interest rates, while the declining market value of underlying collateral results in higher LGD.

SBAB's LGD models are based on the loan to value (LTV), which explains why the sharply declining market values in the stress generate a clearly proportional effect on LGD. Some of the variables in the PD models are directly impacted by the macroeconomic variables in a similar manner, while the impact on certain variables has to be deduced.

To evaluate the effect of the stress test, a calculation is made of the change in SBAB's economic capital and expected losses for the loan portfolio resulting from the change in its composition and credit quality. In the marked



Figure 7. Result of economic capital and expected loss in stress test

economic decline reflected in the stress scenario, both economic capital and the anticipated losses increase sharply, albeit from very low levels. In the first year of the stress scenario, economic capital increases by slightly more than SEK 600 million and loan losses increase by nearly SEK 40 million, to increase further in the second year and recover somewhat in the final year. The increase in both economic capital and anticipated losses is largely due to the simulation of declining market values since they have an impact on both the PD and LGD dimensions.

Based on the results of the stress tests, a buffer of SEK 600 million has been allocated to address the increase in economic capital in the first year of the stressed scenario. The increase in economic capital in the other years is adequately covered by the Group's equity and earnings, which substantially exceed the lowest level corresponding to the minimum capital requirement pursuant to the regulations.

Calculation of internal capital requirements for the various risk types are aggregated and comprise the basis for the collective internally calculated capital requirement, combined with the buffer for stress tests and non-quantifiable risks.

5.6 Extraordinary events

An assessment is also performed of the capital requirements for non-quantifiable risks. Examples of such risks include reputational risk, strategic risk and political risk. SBAB has posted provisions of SEK 527 million to offset these risks.

Table 8. internally calculated capital requirements and economic capital by risk type

SEK million Risk type	Economic capital	Adjustment for higher capital requirements by risk type in Pillar 1	Capital requirements for other risks	Results from stress test	Internally calculated capital requirements
Credit risk	4,760			600	5,360
Of which, concentration risk	943				943
Market risk	170	44			214
Business risk	179				179
Operational risk	162	21			183
Other risks			527		527
Total	5,271	65	527	600	6,463

The model for economic capital has been adjusted compared with the preceding year which had a negative impact of SEK 418 million on the carrying amount at 31 December 2009.

6. Credit risk in the lending operations

SBAB conducts customer-oriented credit operations in which guiding principles such as professionalism, simplicity and quality create the conditions for favourable profitability and long-term customer relations. This means that the credit operations are to be characterised by high credit quality, efficient decision-making processes, respect for and understanding of the customer's situation, straightforward conduct, language and procedures, balanced risk-taking in the portfolio and in each individual transaction, and risk-based pricing.

6.1 Credit risk in the lending portfolio

Credit risk is the single largest risk in SBAB and accounts for 92% of the risk-weighted assets according to Pillar 1. Credit risk is defined as the risk of loss due to the customer or counterparty's inability to make interest payments and amortisation or otherwise fulfil the loan agreement. Credit risk arises in conjunction with loans and loan promises, and also in connection with impairment of the value of pledged assets entailing that these no longer cover the Group's receivables.

Credit risk in individual transactions is first monitored by the business area, then by the credit division. Credit risk is then monitored through portfolio management by the Risk Department, which is also responsible for analysing credit risk. The practical management of risks is dealt with by each business area.

Credit risk in the lending operations is restricted by limits determined for the customer or customer group. The credit risk is also managed in the credit granting process by analysing the potential borrowers' ability to make their interest and amortisation payments. For example, new retail loans are granted only to borrowers who are expected to be able to pay interest and amortisation in an interest-rate situation that comfortably exceeds today's levels. Furthermore, risk classification based on the IRB approach is used in the analysis of the credit risk for new and existing customers in the loan portfolios.

Large exposures, meaning those amounting to 10% or more of the capital base, are managed based on the credit directives and finance directives. The exposures concerned are identified, checked and monitored to ensure that they fall within set limits and the statutory framework for large exposures.

In order to grant credit, adequate collateral is required, which can be provided in the form of real property or a unit in a tenant-owner association. Adequate collateral usually means mortgage deeds in a property or a tenant-owner right up to 75-85% of the market value. The 85% ratio applies provided that collateral can be obtained with priority right and that the customer has risk class R1-R4 for retail customers and C1-C4 for corporate customers. In other cases, a loan to value of 75% applies. (If collateral was supplemented with "Låneskydd Trygg"¹, it was possible until early 2010 to provide loans to private customers at up to 95% of market value subject to the requirement that it be amortised down to 85% within 10 years). In 2010, SBAB also began to grant smaller unsecured loans to residential mortgage borrowers in the household segment.

In addition to collateral in real property or a unit in a tenant-owner association, it is possible to grant credit for, inter alia, collateral in the form of a state credit guarantee, a municipal guarantee, securities, bank guarantees and deposits in a Swedish bank. To a limited extent, equities corresponding to up to 85% of the market value in the underlying property can be approved as collateral. SBAB does not hold any collateral which has been taken over to protect a receivable.

The information in this chapter dates from 31 December 2010, but differs in the following respects from the information presented in the 2010 Annual Report:

- Exposure amounts including accrued interest are reported instead of the capital receivable.
- FriSpar's loan portfolio is included at 100%.

6.2 Risk classification system

For each individual exposure to corporate or retail customers with tenant-owner rights or residential property as collateral, as is the case for 93% of SBAB's total lending, the credit risk is assessed using the Group's credit risk models. For other types of exposures, the standardised approach is used for measurement of credit risk. For cases in which external ratings are used, the lowest rating from Moody's or Standard & Poor's is selected. In credit risk models, an assessment is made of the probability of default², loss given default and the proportion of the loan

¹⁾ Unemployment and sickness insurance with no life insurance component.

promises utilised in the event of default. On the basis of these parameters, together with EAD, customers can be ranked according to credit risk and the expected and unexpected loss can be estimated. After assessment, the exposure is referred to one of eight risk classes for corporate and retail loans, of which the eighth class comprises customers in default. Customers in high risk classes are monitored thoroughly and, when necessary, the exposure is managed actively by credit monitoring personnel.

The IRB models are used throughout SBAB's operations for tasks such as granting of credit, pricing, portfolio analysis and performance monitoring per business area. The models produced are validated annually by the Risk Department, and all deviations from the quantitatively calculated risk class are analysed. During the year, all PD models were reviewed. Adjustments resulting from the review will be implemented in 2011. The preceding year's planned implementation of the model for corporate credits was postponed a year to be coordinated with the changes in other PD models.

A system-oriented qualitative assessment on the basis of the rules and regulations for loans complements the quantitative assessment process for the customers' risk classes in the corporate market for customer segments for which current financial accounts are available (see Figure 8). This ensures greater uniformity in the assessment and facilitates handling of supporting documentation. For other customer segments in the corporate market, credit analysts add their assessment of risk class and an explanatory statement to the supporting material for assessment of risk class in the decision-processing system.

6.3 Risk classification method

For the purpose of capital adequacy and risk classification, exposures are categorised in exposure classes.

The IRB approach is applied for corporate exposures and retail exposures³⁾ with residential property as collateral. For central government, institutional, corporate and other exposures that do not pertain to residential properties or for which collateral other than a mortgage deed or tenantowner right has been received, the standardised approach is applied. The portion of the loan for which a municipality or guarantee from the Swedish National Housing Credit Guarantee Board (BKN) has provided collateral is attributed to central government exposure. The distribution of capital requirements by exposure classes and risk-weighted assets is shown in Table 4, Capital requirements.

With regard to exposures that are assessed using the

²⁾ An exposure is considered to be in default if the claim is more than 60 days past due or if the assessment has been made that the customer will probably not pay the agreed interest or amortisation.

³⁾ Retail exposures refer to loans to private individuals for funding of single-family dwellings, holiday homes and tenant-owner rights to the extent that the loan does not relate to letting activity. Corporate exposures refer to loans to legal entities and private individuals for multi-family dwellings or loans for letting of housing.



Figure 8. SBAB's internal rating process for corporate clients

IRB approach, SBAB has opted to use a scoring method for risk classification of counterparties in the PD dimension. The statistical method used to estimate the probability of default is logistic regression. This statistical method is chosen on the basis of the factor that is to be analysed, meaning default, and on the basis of the existing available data. In its choice of method, SBAB also considered the method's ability to generate reliable predictions so that future defaults can be anticipated.

The data on which the scoring models are based was obtained from both internal and external sources. Internal data consists of customer information, loan information, default outcomes and internal payment records. Data obtained externally includes financial accounts, external payment records, property data, and municipal and parish data. PD estimates for corporate exposures are based on data originating in December 1996, and PD estimates for retail exposures are based on data originating in September 2001. The distinction drawn between retail exposures and corporate exposures is shown in Table 9.

Table 9. Loan portfolios and exposure classes for which the IRB approach is applied

Portfolio	Property	Exposure class	PD model
Retail	Single-family dwellings and holiday homes Tenant-owner rights	Retail exposure	Retail
Corporate	Private properties, Tenant-owner associations	Corporate exposure	Corporate

For off-balance sheet retail exposures, SBAB has developed its own estimates of the credit conversion factor (CCF). Two different methods were used to calculate CCF, depending on where each individual loan was located in the SBAB credit-granting process. For a large proportion of the offbalance sheet retail exposures, a scoring method was used to estimate the probability that the exposure would end up on SBAB's balance sheet. For the exposures not covered by the scoring method, SBAB estimated this probability based on the location of the individual loan in the credit-granting process and on whether or not the counterparty was an existing SBAB customer. The estimated probability was used to allocate each exposure into one of eight CCF risk classes. The CCF estimate for each risk class is then calculated as the realised average proportion of total off-balance sheet exposures that leads to a commitment by SBAB. To avoid underestimation, safety margins were added.

In terms of funding, SBAB has a limited number of

counterparties, and these are mainly institutions. All counterparties are to be approved and limited in a specific order before transactions may be carried out.

6.4 Swedish Financial Supervisory Authority (SFSA)

SFSA's decision in March 2007 allows SBAB to use the IRB approach to calculate risk-weighted exposure amounts for credit risk. At the same time, SBAB was granted:

- the right to calculate exposure amounts in relation to the Swedish Government, the Riksbank and Swedish municipalities in accordance with the standardised approach for credit risk,
- a time-limited licence to apply the standardised approach for credit risk for portfolios of insignificant size, and
- the right to apply the standardised approach to all institutional exposures.

Since SBAB implements changes in all PD models and models for the calculation of CCF, SFSA has announced that SBAB will need to apply for a new permit for model changes for two PD models and one CCF model, based on the information concerning changes that SFSA received from SBAB.

6.5 Exposure amounts by exposure class

SBAB uses the IRB approach for corporate and retail exposures with collateral in a residential property or a tenant-owner right. Without taking credit risk protection into account, the total amount for all credit risk exposures was SEK 312,427 million (see Table 10). Corporate exposures comprised only 33% of total exposures for which the IRB approach is used, but due to the higher average risk weight, the exposures account for 73% of the total capital adequacy requirement when the IRB approach is applied.

The average exposure amount, calculated on the basis of the exposure amount in the loan portfolios at the end of each month in the past year, amounted to SEK 246,657 million, of which 59% comprised retail exposures. Loan promises and other credit-related commitments totalled SEK 30,217 million which, after the credit conversion factor was taken into account, amounted to SEK 4,756 million.

Risk-weighted assets for credit exposures amounted to SEK 55,315 million, of which SEK 39,437 million was recognised in accordance with the IRB approach and SEK 15,878 million under the standardised approach. The average riskweight for exposures, which are recognised in accordance

Table 10. Exposure amount per exposure class

Total	312,427	30,217	286,478	4,756	246,656	55,315	4,425	19.3%				
Total credit risk in accordance with standardised approach	39,373	-	46,115	514	18,675	15,878	1,270	34.4%				
Other items	111	-	111	-	-	77	6	69.5%				
Unregulated items	-	-	6	-	1	9	1	150.0%				
Retail exposures	379	-	379	121	345	212	17	55.8%				
Corporate exposures	25,155	-	25,155	195	10,290	13,354	1,068	53.1%				
Institutional exposures	12,990	-	12,990	198	0	2,226	178	17.1%				
Exposures to municipalities and similar associations	734	-	7 470	-	8,039	0	0	0.0%				
Exposures to states and central banks	4	_	4	_	_	0	0	0.0%				
Credit risk recognised in accordance with standardised approach												
Total credit risk in accordance with IRB approach	273,054	30,217	240,363	4,242	227,981	39,437	3,155	16.4%	299	517		
Tenant-owner rights	73,596	16,245	59,428	2,078	55,039	5,012	401	8.4%	101	88	0.67%	11.94%
Of which, Single-family dwellings and holiday homes	109,296	13,253	97,033	1,445	93,236	5,463	437	5.6%	104	100	0.66%	8.87%
Retail exposures	182,892	29,498	156,461	3,523	148,275	10,475	838	6.7%	205	188	0.66%	10.03%
Credit risk recognised in accordance with IRB approach Corporate exposures	90,162	719	83,902	719	79,706	28,962	2,317	34.5%	94	329	1.27%	31.27%
SEK million	Exposure	Of which, off-balance sheet items beforeCCF	Exposure after CCF ¹	Of which, off-balance items 1) after CCF	value of exposures in lending portfolio ²³) RWA	Capital require- ment	Average risk weight	Pro- vision	Expec- ted loss	Average PD per coun- terparty	Exposure- weighted LGD
		Of which		Of which	Average							

¹⁾ For exposures after inflows and outflows, adjustments have been made of amounts to be recognised and covered by capital in an exposure class other than the original one. ²⁾ Off-balance sheet exposures have been excluded.

with the IRB approach, was 16.4%, and 34.4% for exposures that are recognised in accordance with the standardised approach. Average PD per counterparty for IRB exposures amounted to 1.27% for corporate exposures and 0.66% for retail exposures. LGD indicates how large the loss will be in the event of default. The exposure-weighted LGD for corporate exposures was 31.27% and exposure-weighted LGD for retail exposures was 10.03%. The exposure-weighted amount for LGD is controlled by the limitation rule, which entails a lowest total level for LGD of 10% for exposures

covered by the advanced IRB approach assuming that collateral consists of a tenant-owner right, a mortgage in a residential property or the site leasehold of such a property.

6.6 Geographical distribution of exposure amounts

The SBAB Group's portfolio is mainly secured by housing in the Stockholm area (48%) and the Öresund region (23%). Only 3% of the underlying collateral derives from weak regions (see Table 11).

Table 11. Geographical distribution of exposure amounts

	Greater Stockholm	Greater Gothenburg	Öresund region	University and growth regions	Weak regions	Other regions
IRB exposures					-	_
Retail exposures	78,432	11,365	42,609	7,302	3,787	9,444
Corporate exposures	35,335	9,678	15,232	10,597	2,171	10,170
Standardised exposures						
Corporate exposures	5,536	468	983	1,635	708	694
Retail exposures	175	22	36	9	7	10
Municipal exposures	2,323	692	465	446	1,433	2,110
Unregulated exposures	1	2	1	0	0	1
Total	121,802	22,227	59,326	19,989	8,106	22,429

The division of Sweden comprises:

- Greater Stockholm: Stockholm's labour market region according to Statistics Sweden (SCB) (2004).
- Greater Gothenburg: Gothenburg's labour market region according to SCB (2004).
- Öresund Region: Labour market regions in Malmö and Helsingborg according to SCB (2004).
- University and growth regions: Municipalities with universities and municipalities with especially buoyant growth according to analyses by SBAB⁴⁾.
- Weak regions: Municipalities with very weak or negative growth according to analyses by SBAB⁴).
- Other regions: Municipalities that are not allocated to any other category.

6.7 Exposure amounts distributed according to the next stipulated term of expiry⁵⁾

A large proportion (60%) of the portfolio has less than one year left until the next stipulated term of expiry. The group with a remaining term of between one and five years accounts for 37% of the outstanding loans (see Table 12).

Table 12. Exposure amounts distributed according to the next stipulated term of expiry

SEK million	<1 year	1-5 years	>5 years
IRB exposures			
Retail exposures	107,805	41,990	3,144
Corporate exposures	36,753	41,942	4,487
Standardised exposures			
Corporate exposures	3,808	6,156	60
Retail exposures	248	8	1
Municipal exposures	3,844	3,466	160
Unregulated exposures	4	3	0
Total	152,462	93,565	7,852

6.8 Exposure amounts distributed according to type of property

The largest exposure amounts derive from lending for single-family dwellings and holiday homes (38%), tenantowner rights (23%) and tenant-owner associations (22%). Lending for municipal and commercial properties accounts for a smaller proportion (3% and 4%, respectively) of the loan portfolio (see Table 13). Loans without collateral account for less than 1% of the total exposure amount.

6.9 Past due exposures and exposures subject to impairment requirements

Past due exposures refer to total claims where any part is more than five days past due. SBAB has elected to use this method so that the result of the analysis is not distorted when payments are delayed because the payment date coincided with a public holiday. Exposures subject to impairment requirements refer to doubtful exposures whereby individual provisions have been posted for commitments relating to corporate loans or retail loans, meaning that in SBAB's assessment, future payments are exposed to risk and the collateral does not cover the amount of the claim.

The selection of provisions comprises all corporate customers where there is objective evidence of impairment and individual private customers where special reasons for impairment exist. All exposures in risk class C8 are reviewed monthly and assessed for risk. The size of the individual provision is assessed by comparing the agreed

⁵⁾ The stipulated term of expiry refers to the day for confirmation of the conditions that are to apply for the loan during the coming new term. These conditions are to be supported by the terms of the original loan agreement.

Table 13. Exposure amounts distributed according to type of property

SEK million	Single-family dwellings and holiday homes	Tenant-owner rights	Tenant-owner associations	Private multi- family dwellings	Municipal multi- family dwellings	Commercial properties	Without collateral
IRB exposures							
Retail exposures	95,588	57,350	-	-	-	-	-
Corporate exposures	21	3	52,701	27,459	2,998	-	-
Standardised exposure	es						
Corporate exposures	0	-	589	520	18	8,897	-
Retail exposures	104	87	-	-	-	-	67
Municipal exposures	456	-	2,086	532	4,375	21	-
Unregulated exposures	3	1	-	3	-	-	-
Total	96,172	57,441	55,376	28,514	7,391	8,918	67

⁴⁾ This analysis is based on SCB statistics, including short and long-term population growth, the proportion of the population that is older than 64 years of age, average income and the vacancy rate in public housing, and on the local knowledge of SBAB analysts.

Table 14	Exposures	with nast du	e amounts and	l individual	nrovisions
	LAPOSUICS	ωπη μασι αι	e amounts and	a muraiuuai	provisions

SEK million	Total exposure amount in the loan portfolio	Exposure amounts with past due receivables	Exposure amounts for exposures with individual provisions	Individual provisions	Total exposure amount in the loan portfolio after individual provisions
Single-family dwellings and					
holiday homes	96,172	438	4	3	96,169
Tenant-owner rights	57,441	232	14	12	57,430
Tenant-owner associations	55,376	15	66	44	55,332
Private multi-family dwellings	28,514	56	22	15	28,498
Municipal multi-family dwellings	7,391	-	-	-	7,391
Commercial properties	8,918	-	-	-	8,918
Without collateral	67	1	-	-	67
Total	253,879	742	106	74	253,805

payment flow from the customer with the expected future payment capacity, whereby an analysis of the property's cash flow is included as an important parameter in combination with a valuation of the underlying collateral. Customers in risk class R8 are covered by the individual provision, in special cases after individual assessment. The individual provision amounted to 10% of the total exposure amount for past due exposures (refer to Table 14).

6.10 Geographical distribution of past due exposures and exposures subject to impairment requirements

Individual provisions accounted for a total of 0.03% of the total exposure amount (see Table 15). Other regions accounted for the largest share (0.2%) of individual provisions in relation to the total exposure amount.

6.11 Exposures per risk class in the PD dimension

The quality of the portfolio is favourable. A total of 97% of corporate exposures and 96% of retail exposures in the balance sheet derives from the four best risk classes (C1-C4 and R1-R4, respectively). See Figures 9-12.

Figure 9. Corporate exposures under IRB approach per PD risk class



Figure 10. Retail exposures under IRB approach per PD risk class



Table 15. Geographical distribution of exposures with past due amounts and individual provisions

SEK million	Total exposure amount in the loan portfolio	Exposure amounts with past due receivables	Exposure amounts for exposures with individual provisions	Individual provisions	Total exposure amount in the loan portfolio after individual provisions
Greater Stockholm	121,802	281	30	18	121,783
Greater Gothenburg	22,227	61	7	7	22,221
Öresund region	59,326	233	-	-	59,326
University and growth regions	19,989	33	6	3	19,986
Weak regions	8,106	71	1	1	8,105
Other regions	22,429	63	62	45	22,384
Total	253,879	742	106	74	253,805



Figure 11. Retail exposures under IRB approach against

Figure 12. Retail exposures under IRB approach against collateral in tenant-owner rights per PD risk class



6.12 Realised outcome in the PD and LGD dimensions

Table 16 shows the PD and LGD estimate as of 31 December 2009 and the outcome in 2009 and 2010. The estimated outcome for the corporate model significantly exceeds the actual outcome, which indicates that, in the prevailing economic conditions, the PD models overestimate the risk of default. The number of default outcomes

Table 16. Realised outcome in the PD and LGD dimensions

Default outcome	PD estimate	Realised outcome 1)	LGD estimate	Realised outcome ²⁾
Corporate exposures Retail exposures	2.1% 0.7%	0.3% 0.4%	10.1% ³⁾	3.0% ³⁾

¹⁾ An exposure is considered to be in default if the claim is more than 60 days past due or if the assessment has been made that the customer will probably not pay the agreed interest or amortisation.

 $^{2)}$ Realised outcome has been calculated on default loans where the default was concluded during the year.

³⁾ The results are exposure-weighted.

estimated by the model is much closer to the number of actual outcomes for retail exposures than it is for corporate exposures.

The exposure-weighted amount for LGD is controlled by the above-mentioned limitation rule, which entails that the lowest total level for LGD is 10% for exposures covered by the advanced IRB approach and where collateral comprises a tenant-owner right, a mortgage in a residential property or the site leasehold of such a property.

6.13 Comparison of expected loss and outcome

In a comparison of expected loss (EL) according to the internal IRB approach (Foundation and Advanced) in 2009 and 2010 (see Table 17), it can be noted that EL increased for corporate loans for which the Foundation IRB approach was used, while a certain decrease was noted for loans for which the Advanced approach was applied. For retail exposures, EL increased for both groups. A significant reason for this increase is the growth of the loan portfolio during the comparative period.

The market values of properties were updated for all exposures, which at an aggregated level contributed to a decline in LGD. Accordingly, the increase in EL was primarily attributable to the PD dimension.

Table 17. Comparison of expected loss between outcome and model, and individual provision

SEK million Exposure class	EL-IRB/IRB foundation 31 Dec 2009	EL-IRB/IRB foundation 31 Dec 2008	EL-IRB/IRB advanced 31 Dec 2009	EL-IRB/IRB advanced 31 Dec 2008	Realised outcome 2010	Realised outcome 2009	Individual provision 2010	Individual provision 2009
Corporate exposures	290	267	136	141	1	9	59	60
Retail exposures			203	154	24	18	15	15
Of which, single-family								
dwellings and holiday homes			108	108	13	13	3	8
Of which, tenant-owner rights			95	46	11	5	12	7
Total	290	267	339	295	25	27	74	75

Realised outcome was substantially lower than the outcome estimated by the models, which indicates that the models overestimated the size of EL in the prevailing state of the economy. The relatively minor confirmed losses that arose during the year occurred partly in cases where borrowers failed to pay interest and amortisation and partly in cases where the market value of the collateral provided was less than the value of SBAB's receivable.

Unregulated claims older than five days declined from SEK 1,010 million to SEK 649 million compared with the preceding year. This was reflected in a decline of SEK 20 million in the individual provision. Despite this, a certain increase in EL was noted for borrowers for single-family dwellings and tenant-owner rights, which resulted in the collective provision for retail exposures rising from SEK 135 million to SEK 230 million before deductions for guarantees (see SBAB's 2010 Annual Report).

6.14 Credit protection

A guarantee from the Swedish National Housing Credit Guarantee Board (BKN) is utilised to reduce the capital requirement. The receivable of SEK 517 million covered by the credit insurance from BKN was weighted by 0% in the calculation of the capital qoutient. Approximately SEK 7.5 billion of the lending was to Swedish municipalities or was secured by a municipal guarantee. When calculating capital quotient, this lending was weighted at 0%. SBAB has also received loan loss guarantees totalling SEK 182 million from business partners, although these were not utilised in the calculation of the capital quotient.

In addition, the Parent Company and SCBC previously had joint credit insurance from Genworth Financial Mortgage Insurance Limited (Genworth) that was not used in the calculation of the capital quotient. The credit insurance covers the portion of the Ioan amount that exceeds 85% of the value of pledged collateral. The total insured Ioan amount is SEK 915 million. The insurance agreement was terminated as of 1 January 2009 and cannot be utilised for new Ioans. For existing Ioans, however, the insurance applies as before. Genworth has a rating of BBB (Standard & Poor's) and Baa3 (Moody's). As of early 2010, borrowers are instead required to take SBAB's "Låneskydd Trygg" for corresponding Ioans, including a requirement that Ioan amounts exceeding 85% of the market value be amortised within not more than ten years.

7. Funding

The SBAB Group's operations are financed primarily through funding in the capital and money markets. Funding takes place in SBAB and SCBC, with funding in SCBC occurring through the issuance of covered bonds. The company's funding operations use Swedish and international funding programmes. Funding takes place in both public and private markets and is mainly targeted toward major institutional investors. While international funding is primarily intended for European investors, the SBAB Group also attracts investors in the US, the Middle East, Africa, Japan and other areas of Asia.

7.1 Medium and long-term funding

Unsecured funding

SBAB has a regular programme for medium and longterm funding, the Euro Medium Term Note Programme (EMTN programme), which is used for both Swedish and international funding. The EMTN programme has a limit of EUR 13 billion. The programme grants investors the right to demand premature repayment of a bond in the event that the Swedish Government no longer has the right to exercise at least 51% of the voting rights for the shares in the company. This right is subject to the condition that the Swedish Government has not previously guaranteed SBAB's obligations under the bonds, in which case the right to premature repayment expires. In all other cases, the terms of the EMTN programme are in line with market practice for similar programmes and entitle investors to premature repayment of the bonds if, for example, SBAB fails to pay the interest or capital amount on time, if SBAB breaks other terms of the programme (with consideration given to certain healing periods) or if SBAB enters into bankruptcy or liquidation. Under the EMTN programme, SBAB can choose between various types of interest structures, including floating and fixed rates, and issue bonds in several currencies and denominations. Under the terms of the EMTN programme, SBAB can issue both non-subordinated loans and dated or perpetual subordinated loans, which with SFSA's permission may qualify as Tier 1 or Tier 2 capital.

Secured funding

SCBC has two funding programmes for issuing covered bonds: a Swedish covered mortgage bond programme with no fixed limit and an international Euro Medium Term Covered Note Programme (EMTCN programme) with a limit of EUR 10 billion. The terms of these programmes for the issuance of covered bonds are in line with market practice for similar programmes and entail, for example, that investors are not entitled to premature repayment of the bonds. The terms also stipulate that SCBC can choose between various types of interest structures, including floating and fixed rates, and issue bonds through these two programmes in several currencies and denominations.

7.2 Short-term funding

SBAB manages its short-term funding primarily through three commercial paper programmes:

- A Swedish commercial paper programme with a limit of SEK 25 billion,
- A European commercial paper programme with a limit of USD 2 billion, and
- A US commercial paper programme with a limit of USD 4 billion.

The terms of these commercial paper programmes are in line with market practice for similar programmes and include limited opportunities for an investor to demand premature repayment. Issuances are performed through issuing houses, and through these three programmes, SBAB is able to issue commercial paper in several currencies and denominations in both the Swedish and the international market. The commercial paper mainly comprises "discount paper," which means it does not have floating or fixed coupon rates, but rather is issued in an amount that is less than the nominal amount, and when it falls due, the nominal amount is repaid.

7.3 Funding strategy

The size of the funding portfolio is adjusted based on the volume of the outstanding loans and the composition of the assets, taking into consideration such factors as liquidity risk.

Funding must be well-diversified. The long-term goal of SBAB is for approximately half of funding to comprise securities issued in Sweden and the remainder securities issued outside Sweden. The portfolio must have an effective distribution between secured and unsecured funding with evenly distributed maturity dates, meaning that there should be no periods with large concentrations of debt maturities.

The portfolio must also comprise funding in several currencies with a diversified investor base. Funding must take place through several leading banks and through public and private placements. Interest-rate risk and currency risk associated with funding are managed through the use of derivatives, primarily interest-rate swaps and currency swaps. Short-term funding under SBAB's commercial paper programme must be adjusted based on market conditions, but must always constitute a limited share of the portfolio. SBAB's assets are to be used efficiently through secured funding. Secured funding is primarily utilised for long durations. The funding mix between SCBC and SBAB must be well-balanced taking into account the companies' ratings and total long-term funding cost.

Both SBAB and SCBC must have an active market presence, with favourable and frequent relationships with investors in each investor segment. SBAB's loans are marketed to investors who invest in non-covered loans in credit institutions and SCBC's loans to investors who invest in covered bonds.

8. Credit risk in the finance operations

In the finance operations, credit risk arises in the form of counterparty risks for the derivative contracts entered into by SBAB to manage the company's interest-rate and currency risks and as a result of investments, primarily in the form of investments in the liquidity portfolio.

In accordance with the finance directives established by the Board of Directors, the credit-risk limit is established by SBAB's Finance Committee for all counterparties, with the exception of the Government of Sweden and companies included in the SBAB Group, for which no limits are placed on exposure. The exposure amount for the counterparty risk is calculated in accordance with the "market valuation method" and "agreements on netting of derivative contracts".

The credit-risk limit may be established for a period of no longer than one year, following which a new assessment must be conducted. Decisions on the credit-risk limit that are taken by the Finance Committee must be reported to the Parent Company's Board of Directors at the following Board meeting.

The Capital Adequacy and Large Exposures Act (2006:1371) limits large individual exposures to a maximum of 25% of the capital base. Individual limits for investment and counterparty exposure (excluding money market limits) may, as a main rule, not exceed 15% of the capital base. Certain Nordic counterparties are exempted from these rules; for such counterparties, the maximum limit can amount to the equivalent of 20% of the capital base. Current ratings for individual counterparties, as issued by Moody's or Standard & Poor's, constitute an additional restriction on the establishment of individual credit risk limits. The higher the counterparty's rating class, the greater the exposure that may be permitted in relation to SBAB's capital base.

8.1 Counterparty risk

To limit the potential counterparty risk associated with derivative transactions involving non-standardised derivative instruments that are not cleared by clearing organisations approved by SFSA (in accordance with FFFS 2007:1),

Table 18. Derivative instruments

Total	510,717	12,665	-12,576
>1 year Currency-related	101,710	6,366	-6,405
<1 year Currency-related	51,962	1,287	-1,855
>1 year Interest-rate-related	291,956	4,067	-3,622
<1 year Interest-rate-related	65,089	944	-695
SEK million	nominal amount	market values	market values
31 Dec 2010	Total	Positive	Negative

Table 19. Derivative instruments distributed according to rating

31 Dec 2010	Net market	Positive market	Negative market
SEK million	value	values	values
A	-1,188	4,190	-5,378
A-	-36	26	-62
A+	1,816	4,429	-2,613
AA-	-1,086	3,344	-4,429
AA	582	677	-94
Total	88	12,665	-12,576
Collateral			3,154
Netting gains			8,932

standard agreements covering "netting in bankruptcy" have been entered into with the counterparty. These agreements, known as ISDA Master Agreements, or similar agreements, have in particular cases been supplemented with associated collateral agreements, known as Credit Support Annexes (CSAs). When SCBC enters into derivative agreements, it must always draft an associated CSA. The ISDA Master Agreement entails, inter alia, that netting is regulated in the event of bankruptcy. A CSA means that the parties have agreed in advance to transfer assets if the exposure exceeds a certain "threshold amount." The threshold amount and the lowest amount to be transferred to or from the counterparty can vary depending on the parties' ratings. Tables 18 and 19 provide an overview of the distribution of the market value of individual derivative instrument transactions by various maturities and ratings, respectively.

To limit the counterparty risk associated with repo transactions, GMRAs (Global Master Repurchase Agreement) are used. The agreements control aspects such as the transfer of collaterals to or from the counterparty.

8.2 Money market investments

SBAB has separate limits for money market investments, meaning investments that extend over a maximum of one week forward. Individual money market limits may not exceed the higher of SEK 500 million or 5.75% of the capital base.

8.3 Credit risk in the liquidity portfolio

SBAB's liquidity portfolio is a liquidity reserve which is intended to supply the company with cash and cash equivalents during periods of severe disruptions in the capital markets. The credit risk in the liquidity portfolio is quantified in accordance with the standardised approach. The portfolio's holdings are long-term and amounted to SEK 39.0 billion at 31 December 2010, with an average duration of 2.9 years. At the same date, 96% of the portfolio had an Aaa rating from Moody's, alternatively an AAA rating from Standard & Poor's. Derivative contracts have been entered into to manage the interest-rate risk and currency risk in the liquidity portfolio.

The various asset types in the portfolio are:

- Securities issued by or guaranteed by central governments
- Securities issued by public sector entities (PSEs)
- European covered bonds
- European and Australian residential mortgage-backed securities (RMBS)

Government bonds (SEK 4.8 billion), securities guaranteed by central governments (SEK 1.7 billion), securities issued by PSEs (SEK 1.1 billion) and covered bonds (SEK 16.5 billion) were classified as "Financial assets at fair value through profit or loss", while the RMBS portion of the portfolio (SEK 14.9 billion) has been classified as "Loans and receivables." This entails that the assets must be recognised at their accrued cost. Credit risk assessment will take place on the basis of assessed future cash flows and the market value of the collateral. All exposures in the RMBS portfolio are already ranked according to loan to value (LTV) and age (date originated) in three risk classes. Two new models are used for the calculation of credit risk in the RMBS portfolio. The first is based on factors such as arrears statistics and credit support per transaction. Using this model, all transactions in the RMBS portfolio have been analysed. The second model is based on information such as actual and expected cash flow, underlying borrower statistics and macro-variables. This model has been used for a few carefully selected transactions with an assessed elevated risk. The model assesses the magnitude of a possible deficit for each separate transaction and whether this deficit will affect the holder of AAA tranches in the form of forthcoming losses or whether any deficit will be covered by subordinated securities and the statutory reserves. Overall, the models show that the portfolio is not subject to any need for provisions.

9. Market risk

Market risk is the risk that unfavourable market fluctuations could negatively affect the company's earnings. SBAB aims to be characterised by low risk-taking, and the company's Board decides ultimately on methods for risk measurement and limits. Market risk is monitored at the Group level and, through daily reporting, the Risk Department monitors current risk levels and compliance with limits.

Interest-rate risk arises primarily when the interest-rate structure between the company's funding and lending, or Asset and Liability Management risk (ALM risk), is not fully matched. Currency risk refers to the risk of changes in the SEK exchange rate in relation to other currencies leading to deteriorating profitability. Basis-swap risk is a term for the risk that arises when funding in a foreign currency is swapped on a different period to maturity than the period to maturity in the underlying lending.

9.1 Interest-rate risk for positions not included in the trading portfolio

The main principle for SBAB's handling of its ALM risk is to limit the exposure through direct funding and the use of derivatives, and to create added value through active management within the limits set by the Board. The limits on interest-rate risk set by the Board consist of an operational and a strategic component. The risks are measured daily and add up to SBAB's total interest-rate risk exposure. The exposure is quantified by calculating the impact that a parallel shift in SBAB's yield curve upward by one percentage point would have on net present value at a given point in time. The calculation takes into account all contracted transaction flows affecting lending, the liability book and derivatives.

Operational interest-rate risk arises in the SBAB Group's current lending and funding activities, including the deposit operations. SBAB's operational interest-rate risk is calculated for each currency and then aggregated. The operational interest-rate risk is limited to 1% of SBAB's capital base.



Figure 13. Interest-rate risk in the event of a parallel shift of the yield curve upward by one



by time buckets in the event of a parallel shift of the yield curve upward by one percentage point, was SEK 8.0 million.





The strategic interest-rate risk is the reinvestment risk that arises when SBAB's equity and "flow" are invested. The flow arises because interest payments for lending and funding have different payment frequencies. SBAB's equity is to be used primarily to fund lending operations. The benchmark for the investment of equity is defined as a series of durations with even fixed-interest maturities every year from one to 10 years. The flow is invested on the basis of the flow's aggregated duration. The interestrate risk associated with equity is the interest-rate risk on the deviation from the benchmark. The strategic interestrate risk is limited to +/- SEK 20 million.

The interest-rate risk is also quantified by measuring VaR. The VaR model used is a parametric model with risk measures based on an assumption of normally distributed standard deviations, calculated by variance/covariance



Figure 15. Interest-rate risk distributed according to currencies in the event of a parallel shift of the yield curve upward by one percentage point

matrices for the risk factors included. A unilateral 99.97% confidence interval and a risk-settlement period of one year are applied. The change in the value of the portfolio resulting from a parallel shift in the yield curve is used for setting and following up limits, while the VaR result is included in the model for economic capital. The calculation takes into account all contracted transaction flows affecting lending, the liability book and derivatives.

At 31 December 2010, the interest-rate risk for positions not included in the trading portfolio amounted to SEK 8.0 million. See Figures 13-15.

9.2 Interest-rate risk for positions included in the trading portfolio

The trading portfolio predominantly comprises investments in SBAB's liquidity portfolio⁶⁾. The liquidity portfolio is subject to a minimised interest-rate risk. The risk in the liquidity portfolio primarily derives from credit risk.

Interest-rate risk arising from the trading portfolio is managed as an integrated part of the balance sheet, together with other operations, and the risk is limited in accordance with the finance instruction. Interest-rate risk in the trading portfolio is included as part of the limit for operational interest-rate risks that have been delegated to the Finance business area.

⁶⁾ SBAB's liquidity portfolio, excluding RMBS, is included in the trading portfolio.

9.3 Currency risk

As a main rule, SBAB should not be exposed to exchange-rate fluctuations. Accordingly, funding in international currency must be immediately hedged or invested in matching currencies. Investments are currency hedged through funding in the corresponding currency or by entering into currency swap contracts. Since certain currency risks can arise because interest-rate flows are not completely matched, a limited deviation from the main rule may be accepted.

The currency risk, excluding the liquidity portfolio, is calculated as the effect on the present value of all contracted liquid flows given a change in the exchange rate of +/- ten percentage points per corresponding exchange rate. Currency exposure at 31 December 2010 was SEK 6.8 million. Total currency exposure may not exceed the equivalent of SEK 10 million.

The liquidity portfolio is also hedged through funding in the corresponding currency or through currency swap contracts. Calculated per currency, the portfolio is to be hedged to between 99.5% and 100.5%.

Currency options may only be used for the purpose of hedging, and no open exposures are permitted.

9.4 Basis-swap risk

Basis-swap risk arises when lending in a foreign currency is swapped on a different period to maturity than the period to maturity in the underlying lending. The risk is calculated as the effect of the present value of a parallel shift of the basis swap curve from currency to SEK. The risk in the event of a spread change of +/-0.25 percentage points may not exceed SEK 50 million.

10. Liquidity risk

Liquidity risk is defined as the risk that SBAB will not be able to meet its payment obligations in connection with due dates without the related cost increasing significantly.

SBAB has long understood the importance of a wellfunctioning and proactive liquidity-risk management. The company's liquidity-risk management is based on the following principles:

Expansive and diversified funding

Because SBAB has maintained an active presence in the international capital market since 1989, its brand is well-established. Funding takes place on a global basis on short-term, mid-term and long-term. Moreover, through SCBC, SBAB has access to the covered bond market in Sweden and internationally.

Liquidity reserves

To ensure access to funds in times when the normal sources of funding do not function, SBAB keeps a liquidity portfolio available to ensure access to liquidity. The portfolio comprises liquid securities with high ratings of which 88% is eligible assets for repos with the Riksbank or another central bank.

- At 31 December 2010, SBAB had the following reserves:
- SEK 2.0 billion loan facility at the Swedish National Debt Office (which is reduced by SEK 1 billion per year)

Accumulated maturity profile of outstanding assets

- SEK 1.5 billion in bank facilities, and
- SEK 37.1 billion in liquid securities.

When calculating the value of the securities included in the liquidity portfolio, SBAB applies the valuation deductions issued by the Riksbank, in accordance with the Riksbank's Guidelines for Collateral Management in the Riksbank's regulatory framework for RIX and monetary policy instruments. In addition to the above reserves, unutilised issuing capacity for covered bonds constitutes a highly liquid reserve.

A liquid balance sheet

SBAB's assets consist primarily of lending against collateral in property and tenant-owner rights. SCBC was established in 2006 with the purpose of issuing covered bonds, which has also resulted in increased liquidity in SBAB's balance sheet.

Continuous monitoring of the liquidity risk

Active debt management, the liquidity of the balance sheet and the size of SBAB's liquidity reserves are key factors in SBAB's liquidity risk management. By viewing funding activities as a natural part of both operations and strategic planning of liquidity risk, concentrations of excessively large funding maturities are avoided. Another important part of the continuous liquidity risk management is constantly monitoring and testing the practical liquidity value of the liquidity portfolio on the private market.

Contingency plan

SBAB has a contingency plan for the management of liquidity crises. The contingency plan contains a clear delegation of responsibility for the personnel concerned, as well as instructions as to how the company can rectify potential liquidity deficits.



Figure 16. Future surplus liquidity in SBAB, one year and onward

Assets and liabilities plus equity from one year and onward, as at 31 December 2010. The graph shows that SBAB has longer liabilities and equity than assets and therefore has future funding for existing assets. In the graph, mortgage assets expire on the stipulated date of expiry.

The plan stipulates suitable actions to handle the implications of various types of crisis scenarios and contains definitions of events that cause and escalate the contingency plan. The contingency plan must be regularly tested and updated based on the stress test results, for example.

10.1 Liquidity-risk measurements

SBAB measures and stress-tests its liquidity risk by totalling the maximum conceivable need for liquidity for every day during the coming 365 days. This measure of liquidity risk is referred to as Maximum Cumulative Outflow (MCO) and is limited. The MCO calculations are based on a crisis scenario in which all loans are extended on maturity, meaning that no liquidity is added through loan redemption and that no funding is available. In this way, the maximum need for liquidity can be identified for every given future period and the necessary liquidity reserve can be established.

Moreover, unutilised issuing capacity for covered bonds is an additional reserve that is not included in the calculation of MCO.

New stipulations for liquidity risk

In the wake of the financial crisis and its implications, a major international review and extensive efforts were launched to assess the regulations for the management of the liquidity risks of banks and credit institutions. The objective of the new regulations, which are still being formulated, is to increase the resilience of banks to serious disruptions on the capital market and to achieve greater harmonisation in the view of liquidity risk at international level.

In order to set minimum levels for the liquidity of banks, the new regulations focus on two key ratios or standard measurements called the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR). LCR aims to maintain an adequate amount of unutilised cash and cash equivalents that, when necessary, can be converted to liquid funds that cover a 30-day forecast liquidity requirement, while NSFR aims to indicate how stable the Group's funding is by comparing the stability of assets and liabilities.

10.2 Stress tests for liquidity risk

A new model for liquidity risk stress test was developed during the year. The stress tests are based on assumptions concerning the development of liquidity under various stress scenarios, whereby the degree and duration of the stress are varied. The scenarios are evaluated separately and in combination, and cover market-encompassing and company-specific stress.

The assumptions encompass the following situations:

- Weaker payment capacity among SBAB's customers leads to the loss of a portion of future anticipated cash flows from interest and amortisation payments.
- Declining market values for properties cause a decrease in the portion of SBAB's assets that can be used for secured funding.
- Weaker access to unsecured funding.
- Weaker access to funding through the commercial paper market.
- Elements of the liquidity reserve cannot be converted to cash and cash equivalents.
- Significant withdrawals in unrestricted deposit funds from the public.
- SBAB's rating is downgraded three steps.

The assumptions forming the basis of the stress test scenarios used are regularly reviewed to ensure relevance.

10.3 The liquidity scenario in 2010

In 2010, the liquidity reserve averaged 79 days MCO. At 31 December 2010, the liquidity reserve corresponded to 63 days MCO. During 2010, SBAB's liquidity reserve was never less than the equivalent of 36 days' future liquidity requirements.

11. Refinancing risk

SBAB has the objective of maintaining diversified funding. SBAB also generally endeavours to achieve maturity periods for funding that exceed the duration on the asset side. Refinancing risk is a measure of the deviation between the structure of assets and liabilities.

SBAB's calculation of refinancing risk is based on all contracted capital amounts with a remaining maturity exceeding one year. The calculation thus supplements SBAB's use of the liquidity risk model, which covers the interval up to one year. In the refinancing risk model, equity is assigned a maturity corresponding to SBAB's longest lending assets. Since the second half of 2007, SBAB has adopted a more conservative approach to management of funding. For example, a larger portion of coming maturities has been prefinanced and the portion of short-term funding as a portion of total funding has been reduced. SBAB has actively worked to even out the debt maturities while extending the duration of the debt. Monitoring of upcoming maturities, repurchases, replacements and prefinancing constitutes key elements of practical management efforts aimed at minimising the risk. Refinancing risk is calculated in part as the total of maturing funding within 90-day periods relative to total funding volume, and in part as a theoretical closing cost. The closing cost is the potential cost that could arise in order to achieve a fully maturitymatched balance sheet.

12. Operational risk

Operational risk means the risk of losses due to inappropriate or unsuccessful internal processes, human error, incorrect systems or external events. The definition includes legal risk.

SBAB uses the Opera model to manage operational risk. The model is based on self-evaluation of operational risks and risks associated with financial reporting in existing processes and on incident reporting. The results of the self-evaluation are reported annually and any incidents that occur are reported on a monthly basis to the Board of Directors and senior executives.

SBAB uses the standardised approach to assess capital requirements for operational risk. This approach entails that

the capital requirement is based on 12%, 15% and 18% of the average operating income of the business areas for the past three years. The approach includes requirements for documentation, processes and structures such as

- established control documents
- process for managing operational risks
- contingency plans and continuity plans
- ocumented risk management
- internal reporting structure
- approach for allocating operating revenues among business areas

Capital requirements for operational risk are presented in Table 4. SFSA has reviewed SBAB's approach to measuring and managing operational risk. The approach fulfils the ordinances in SFSA's Regulatory Code and SFSA deems the approach to be reliable.

13. Business risk

Business risk means the risk of declining earnings due to more difficult competitive conditions, strategic mistakes or mistaken decisions.

Business risk also includes margin risk that arises when the interest margin for assets and liabilities has different fixed-rate periods. SBAB is subjected to margin risks, primarily as a result of customers' ability to redeem their loans in advance as opposed to fixed periods for capital market funding, but also due to the difference in actual capital maturity for lending in relation to funding and deposits. Business risk is allocated to two main groups: new business and existing business. New business is usually relatively similar to the business SBAB already has. Changes in the form of new products or new markets may only constitute a small part of SBAB's activities and must be implemented at such a pace that SBAB does not substantially risk its profit level or capital base.

Business risk is managed in conjunction with business planning work. The capital requirement for business risk is quantified in the calculation of economic capital using a standardised approach based on the business areas' operating expenses.

14. Glossary

Chapter 1. Introduction

Basel II • International regulations for capital adequacy and large exposures intended to strengthen the stability of the financial system.

Chapter 3. Risk management and risk organisation

Asset and Liability Management Committee (ALCO) • Body that handles matters relating to risk and capital planning, which are then addressed by executive management or the Board of Directors.

Chapter 4. Capital adequacy

Capital adequacy ratio • Capital base divided by riskweighted assets.

Capital base • The capital base mainly comprises equity (Tier 1 capital) and subordinated loans (Tier 2 capital) and acts as a buffer against unexpected losses.

Capital quotient • Capital base divided by minimum capital requirement.

Fixed-term subordinated loans • Fixed-term subordinated loans may be included in Tier 2 capital at a maximum of 50% of the Tier 1 capital.

Internal ratings-based approach (IRB approach) • The IRB approach is used to calculate the company's statutory capital requirement for credit risk.

Minimum capital requirement • The lowest amount that the company is permitted to have as its capital base in accordance with the Capital Adequacy and Large Exposures Act (2006:1371).

Perpetual subordinated loans • Perpetual subordinated loans have a maturity period that is essentially unlimited, but they can be repurchased if a licence is obtained from SFSA. Perpetual subordinated loans may be included in the capital base at a maximum of the same amount as the Tier 1 capital.

Risk-weighted assets, Basel I • All balance-sheet and off-balance sheet assets are weighted according to risk. Under the regulations of Basel I, this is performed on a standardised basis. Assets are divided into categories based on risk, whereby they are multiplied by a number of pre-established risk weightings, primarily 0%, 20%, 50% and 100% of the nominal amount.

Risk-weighted assets, Basel II • The regulations of Basel II permit the use of the IRB approach, within the framework of Pillar 1, to establish risk-weighted expo-

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sure amounts for balance-sheet and off-balance sheet exposures based on SBAB's own models for credit risk, market risk and operational risk. The risk weightings of other exposures are determined on a standardised basis, in appropriate cases based on the counterparty's rating.

Tier 1 capital • Tier 1 capital mainly comprises equity. To be included in Tier 1 capital, it must have been paid in.

Tier 1 capital contribution • The Tier 1 capital contribution generally comprises perpetual subordinated loans with terms entailing that SFSA has granted permission for them to be included in Tier 1 capital. For 2010, the rule was that the Tier 1 capital contribution may comprise a maximum of 30% of Tier 1 capital. The portion exceeding 30% is included in Tier 2 capital. The European Parliament has decided to introduce new rules as of 31 December 2010, at which time the Tier 1 capital contribution based on securities that are not convertible to shares. However, if the contribution is based on securities that can be converted to shares in an emergency situation, the Tier 1 capital contribution may amount to a maximum of 50% of the Tier 1 capital.

Tier 2 capital • Perpetual and fixed-term subordinated loans may be included in the capital base at an amount that does not exceed Tier 1 capital. If the remaining maturity period is less than five years, a settlement of 20% is applied for each of the remaining years.

Chapter 5. Internal model for calculating capital requirements

Asset-Liability Management (ALM) • ALM handles the risk that arises in conjunction with the matching of assets and liabilities in SBAB's balance sheet.

Capital in accordance with Pillar 1 • Capital in accordance with Pillar 1 refers to the minimum amount of capital that SBAB is to have in accordance with the Capital Adequacy and Large Exposures Act (2006:1371), the Capital Adequacy and Large Exposures Ordinance (2006:1533) and the Swedish Financial Supervisory Authority's Regulatory Code (FFFS 2007:1). These provisions also include transitional regulations that apply at least through 2011.

Capital in accordance with Pillar 2 • Refers to economic capital which, in combination with capital based on stress tests and capital for further risk, comprises SBAB's assessment of the appropriate size of risk capital. In accordance with Pillar 2, the capital requirement may not be less than the capital standard per risk type in accordance with Pillar 1. The objective is for this measurement to comprise

the company's minimum capital requirement when the Pillar 1 transitional regulations cease to apply.

Economic capital • Economic capital is SBAB's own assessment of the appropriate extent for risk capital. In combination with stress tests and potential provisions for further risk, economic capital will replace governmental authority capital as the minimum capital requirement. This requirement may not be less than the capital standard in accordance with Pillar 1. Economic capital is also based on SBAB's own relatively advanced models in which all quantifiable risks are summarised in a single entity. This is also an important component in the company's pricing and financial control.

Process for internal capital valuation • Process for calculating the minimum amount of capital that the company may have in accordance with the Capital Adequacy and Large Exposures Act (2006:1371), the Capital Adequacy and Large Exposures Ordinance (2006:1533) and SFSA's Code of Statutes FFFS 2007:1.

Value at Risk (VaR) • Measure of the maximum expected loss at a given level of security and over a defined time period.

Chapter 6. Credit risk in the lending operations

Credit conversion factor (CCF) • Percentage of an off-balance sheet item that is utilised at the time of a possible future default.

Expected loss (EL) • The calculated expected loss must be covered by earnings from operating activities, while unexpected losses must be covered by the company's equity. EL is arrived at by calculating the risk associated with each individual loan over a long-term period in a statistic model.

EL is measured through the formula EL = PD*LGD*EAD. To calculate the EAD for off-balance sheet item exposures, the unutilised amount is multiplied by a credit conversion factor (CCF).

Exposure at default (EAD) • Exposure at time of default. Loss given default (LGD) • Share of loss in the event of default.

Off-balance sheet item • Commitment, pledged collateral or similar item that is not recognised in the balance sheet because it is unlikely that it will be necessary to realise or utilise it, or because, due to its extent, it cannot

DESIGN & PRODUCTION: WILDECO TRANSLATION: THE BUGLI COMPANY PHOTOGRAPHY: SHUTTERSTOCK be calculated with sufficient reliability. Off-balance sheet items may also comprise potential commitments, meaning it is uncertain whether the commitment exists.

Probability of default (PD) • Probability of default of a customer or counterparty within a year.

Chapter 7. Funding

Euro Medium Term Covered Note Programme (EMTCN)
International funding programme for the issuance of covered bonds.

Euro Medium Term Note Programme (EMTN) • International funding programme for medium and long-term funding.

Chapter 8. Credit risk in the finance operations

Credit Support Annex (CSA) • Supplement to the ISDA Master agreement that regulates the provision of collateral in connection with a derivative transaction.

Global Master Repurchase Agreement (GMRA) • International standard agreement for repurchases.

International swap and derivatives association (ISDA Master Agreement) • Framework agreement that regulates the rights and obligations between the parties to a derivative transaction, primarily the offsetting of debt in the event of bankruptcy.

Loan to Value (LTV) • Extent of a loan in relation to the value of pledged collateral, meaning loan to value.

Residential Mortgage Backed Securities (RMBS) • Securities with collateral in the form of residential mortgages.

Chapter 10. Liquidity risk

Liquidity Coverage Ratio (LCR) • Liquidity measurement requiring a 30-day stressed liquidity requirement.

Maximum Cumulative Outflow (MCO) • MCO is a measurement of liquidity risk entailing the maximum conceivable need for liquidity for every day during the coming 365 days.

Net Stable Funding Ratio (NSFR) • Liquidity measurement of the structural character, which indicates the stability of a group's funding by comparing the stability of assets and liabilities.

www.sbab.se +46-771-45 30 00



The Swedish Housing Finance Corporation, SBAB

Visiting address: Löjtnantsgatan 21 • Postal address: Box 27308, SE-102 54 Stockholm • Tel: +46-771-45 30 00 • Fax: +46-8-611 46 00 Internet: www.sbab.se • E-mail: kundcenter@sbab.se

Corp. reg. no. 556253-7513