

# Internal Capital Adequacy Assessment 2013

Danske  
Bank  
Group

Danske Bank

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*Internal Capital Adequacy Assessment is a translation of the original report in the Danish language  
(Individuelt solvensbehov). In case of discrepancies, the Danish version prevails.*

## 1. Introduction

The objective of this report on the internal capital adequacy assessment is to address the disclosure requirements stipulated by section 5-10 in annex 20 to the Danish Executive Order of 16 December 2011 on Capital Adequacy and the Danish Financial Business Act. The report concerns the Danske Bank Group and the legal entities Danske Bank A/S, the sub-group Realkredit Danmark Group and Realkredit Danmark A/S.

This report is a supplement to the Danske Bank Group's annual risk management report, which contains further details. This document includes the following:

- a description of the process and method for calculating the solvency need
- a calculation of the solvency need and solvency need ratio
- definitions of the main risk types
- a description of the stress test method and assumptions

The Danske Bank Group monitors its risks through the coordinated efforts of the credit and risk departments at both Danske Bank A/S and Realkredit Danmark A/S. Realkredit Danmark A/S is a subsidiary of Danske Bank A/S and is included in the report on the Danske Bank Group in accordance with section 60(7) of the Danish executive order on capital adequacy. The present report, including description of the process and method used in the calculation of the solvency need and the solvency need ratio, covers the companies mentioned above and is published on the companies' websites.

### Conclusion

At the end of December 2013, the Danske Bank Group's solvency need was calculated according to the capital need in relation to Pillar I+. The solvency need amounted to DKK 88.3 billion, or 10.4% of risk-weighted assets (RWA). With a capital base of DKK 182.0 billion and a total capital ratio of 21.4%, the Group had a capital buffer of DKK 93.7 billion.

The internally estimated solvency need was 8.1% of RWA, or 2.3 percentage points lower than the solvency need based on Pillar I+.

## 2. Process for determining the solvency need

### 2.1 The basis for capital management

The Group's capital management policies and practices support the Group's business strategy and ensure that the Group is sufficiently capitalised to withstand severe macroeconomic downturns.

Credit institutions assume risks as a normal part of their business, and sometimes financial losses occur. The first line of defence against such losses is the institution's earnings. In a given year, if the earnings are not sufficient to cover the losses, the losses are covered by the capital buffer, that is, that part of the capital that exceeds the bank's solvency need.

The Group's capital management policies and practices ensure that the Group has sufficient capital to cover the risks associated with its activities. The Group uses advanced approaches for all significant risk types in combination with adjustments based on expert assessments, if necessary.

The Group has developed its capital management framework over time, comparing it with international guidelines and best-practice recommendations on an ongoing basis. The Group monitors national and international measures that may influence its capital position and its capital management framework.

The Group's capital management is based on the internal capital adequacy assessment process (ICAAP). The Group's ICAAP, including the ICAAP for its subsidiaries, helps to provide a clear picture of the Group's capital and the risks throughout the entire Group.

The regulatory framework for the Group's capital management practices is rooted in the Capital Requirements Directive (CRD),<sup>1</sup> which consists of three pillars:

- **Pillar I** contains a set of mathematical formulas for the calculation of RWA for credit risk, market risk and operational risk. That capital requirement is 8% of RWA
- **Pillar II** contains the framework for the contents of the ICAAP, including the identification of a credit institution's risks, the calculation of the capital need and stress testing. It also includes the supervisory review and evaluation process (SREP), which is a dialogue between an institution and the financial supervisory authority on the institution's ICAAP
- **Pillar III** deals with market discipline and sets forth disclosure requirements for risk and capital management

While Pillar I entails the calculation of risks and the capital requirement on the basis of uniform rules for all banks, the ICAAP in Pillar II takes into account the individual characteristics of a given bank and covers all relevant risk types, including risks not addressed in Pillar I.

As part of the ICAAP, management identifies the risks the Group is exposed to for the purpose of assessing its risk profile. After the risks have been identified, the Group determines the means by which they will be mitigated, which are usually business procedures, contingency plans and other measures. Finally, the Group determines what risks will be covered by capital. In the ICAAP, the Group also determines its solvency need on the basis of internal models for economic capital and other means, and it conducts stress tests that make certain it always has sufficient capital to support its chosen business strategy.

### 2.2 Risk identification

The Group is involved in a number of business activities. These activities can be divided roughly into five segments: banking, market, asset management, insurance and group-wide activities. The latter category covers management activities that are not specific to any of the first four business activities but broadly support them all. Each of these activities entails various risks, which fall into the seven main categories of the Group's risk management framework.

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<sup>1</sup> The CRD is an EU directive that sets forth the rules for capital adequacy at credit institutions. The directive was based on Basel II, which is a set of international guidelines for credit institutions' capital adequacy.



RISK IDENTIFICATION ACROSS ACTIVITIES	Danske Bank Group's risks						
	Credit risk	Market risk	Operational risk	Pension risk	Insurance risk	Business risk	Liquidity risk
Banking activities	√	√	√			√	√
Market activities	√	√	√			√	√
Asset management			√			√	
Insurance (Danica)					√		
Group-wide activities			√	√		√	√

The regulatory framework for Pillar II<sup>2</sup> includes 17 risk items that must be assessed in the ICAAP, according to Danish legislation. The table below shows the relation between these 17 regulatory items (the rows in the table) and the Group's seven risk categories (the columns in the table) and also shows which of the 17 regulatory items are treated in the Group's stress tests.

RISK ITEMS ASSESSED IN THE ICAAP	Danske Bank Group's risks							
	Credit risk	Market risk	Operational risk	Pension risk	Insurance risk	Business risk	Liquidity risk	Stress test
General including strategic plans	√	√	√	√	√	√	√	√
Earnings		√			√	√		√
Growth								√
Credit risk	√							√
Market risk		√		√	√			√
Concentration risk	√	√					√	√
Group risk					√			√
Liquidity risk							√	√
Operational risk			√		√			√
Control risk			√					√
Business risk			√					√
Settlement risk	√		√					√
Strategic risk						√		√
Reputational risk			√			√		√
Interest rate risk on assets outside the trading book		√						√
External risks			√			√		√
Other	√			√			√	√

### 2.3 Danske Bank's internal assessment of its solvency need

The ICAAP in Pillar II entails the Group's calculation of its solvency need. The process is adjusted to address the conditions at the individual bank, and it covers all material risks.

An important part of the process of determining the solvency need is evaluating whether the calculation takes into account all material risks to which the Group is exposed. The Group makes this evaluation in relation to both Pillar I+ and economic capital. The Group uses add-ons to the solvency need if the result of the model calculations appears not to be sufficiently conservative, for example, if the Group believes there is a need for a more conservative approach than what is indicated by the Pillar I approach or economic capital. It has established a process in which the add-ons are quantified on the basis of input from internal experts. The capital add-ons are additive, although they may overlap one another, and the process thus represents a conservative and careful assessment of the Group's solvency need.

The Group does not set aside capital for liquidity risk but rather mitigates it by stress test analyses, contingency plans and other measures. The Group recognises that a strong capital position is necessary for maintaining a strong liquidity position.

<sup>2</sup> See the Danish Executive Order on Capital Adequacy, annex 1.

The Group assesses the overall capital need on the basis of internal models and ensures that it is using the proper risk management systems. The ICAAP also includes capital planning to ensure that the Group always has sufficient capital to support its chosen business strategy. Stress testing is used in capital planning.

The Group complies with approved risk limits and risk monitoring through a defined cycle of reporting to the Board of Directors and executive management regarding changes in risk objectives. An expanded ICAAP report is submitted to the Board of Directors and executive management for approval once a year, and they also receive quarterly ICAAP reports, as well as quarterly reporting on the fulfilment of capital position decisions. As part of the ICAAP, the Board of Directors evaluates an annual report that describes the Group's risk profile. At quarterly board meetings, Danske Bank's Board of Directors also reviews reporting on the solvency need and capital adequacy.

## 2.4 The solvency need

According to Danish law, all credit institutions must disclose their solvency need. For the Group, this requirement applies to Danske Bank A/S and Realkredit Danmark A/S.

The solvency need is the capital base of the size, type and composition needed to cover the risks to which an institution is exposed. Danske Bank calculates the need as the highest of the following measures:

- **The capital requirement according to the Group's internal economic capital model:**  
Economic capital is the Group's internal method for measuring the capital need during the next 12 months. Economic capital plays a key role in the Group's stress testing methodology. It is also used for risk-based pricing and for the allocation of capital on the basis of the Group's current capital level. Economic capital is calculated on the basis of internal models and, if needed, add-ons based on qualitative assessment.  
  
Economic capital is a point-in-time (PIT) estimate and thus reflects the Group's current risk, unlike the regulatory capital requirement, which is based on through-the-cycle (TTC) parameters, which reflect an average over a business cycle, and downturn parameters. Economic capital therefore tends to react more sharply to changes in the business cycle than the regulatory requirement under Pillar I. PIT PD parameters<sup>3</sup> are lower than TTC PDs<sup>4</sup> in periods of macroeconomic recovery and higher than TTC PDs during macroeconomic downturns.
- **The capital requirement under Pillar I plus a supplement to address the risks that are not covered by Pillar I (that is, Pillar I+):**  
Pillar I+ is based on Pillar I but also takes into account other risks besides those included under Pillar I, including pension risk and business risk, as well as specific credit risks in the current economic cycle. While determining the capital requirement under Pillar I+ and economic capital, if the results of the model calculations are not sufficiently conservative, the Group evaluates whether there is a need for capital add-ons and undertakes ongoing qualitative assessments of whether the capital is adequate to cover the Group's risks.
- **The capital requirement under the transitional rules of the CRD (based on Basel I):**  
Banks opting for the advanced approaches for credit risk are subject to limits on the reduction of their capital requirements. Such reductions were introduced gradually until the end of 2011. The transitional rules will apply in Denmark until the end of 2017. The maximum reduction allowed under the Basel I transitional rules is 20% of the capital requirement under Basel I. The revision of the CRD (CRD IV) contains a proposal to maintain the transitional rules for an additional number of years.

The Group assesses whether its capital level is sufficiently conservative on an ongoing basis.

The regulatory framework provides some discretionary leeway for the selection of ICAAP calculation method. The Group believes that it has adopted a sufficiently conservative approach:

- Capital is added to the capital requirement under Pillar I to reflect risks not captured by Pillar I
- The Group takes account of the uncertainty of the risk models and makes qualitative adequacy assessments of the capital level on an ongoing basis

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<sup>3</sup> Point-in-time probability of default represents the probability that a customer will default on a loan within the next 12 months.

<sup>4</sup> Through-the-cycle probability of default is PIT PD converted to a steady-state parameter, that is, to an average over the business cycle.

The solvency need can be broken down into capital for the most important risk types. The Group has chosen to base the breakdown on its economic capital requirement at a 99.9% confidence level.

## Danske Bank Group and Danske Bank A/S

### BREAKDOWN OF DANSKE BANK'S SOLVENCY NEED

At 31 December 2013	Danske Bank Group		Danske Bank A/S	
	(DKK billions)	(% of RWA)	(DKK billions)	(% of RWA)
Credit risk	48.7	5.7	48.7	7.4
Market risk	7.7	0.9	7.7	1.2
Operational risk	5.7	0.7	5.7	0.9
Other risks	6.6	0.8	6.6	0.9
Internally estimated solvency need and ratio	68.7	8.1	68.7	10.4
Shortfall in relation to Pillar I+	19.6	2.3	4.1	0.7
Shortfall in relation to transitional rules	0.0	0.0	0.0	0.0
Solvency need and solvency need ratio	88.3	10.4	72.8	11.1
Capital base	182.0	21.4	179.0	27.2
Capital buffer	93.7	11.0	106.2	16.1

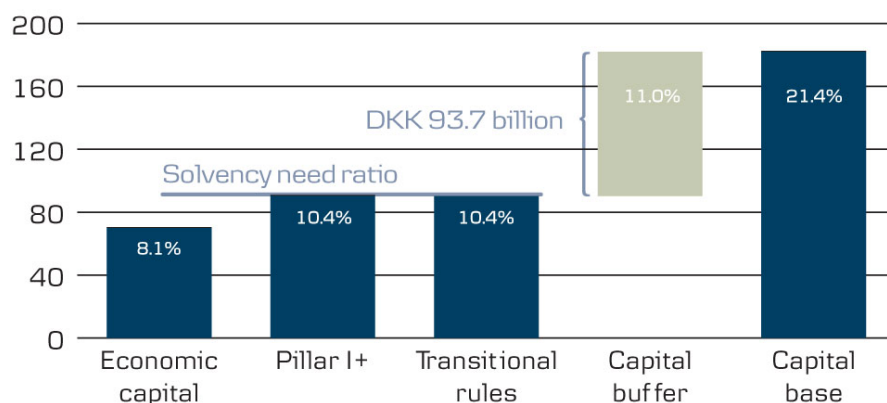
At the end of December 2013, the Danske Bank Group's solvency need was calculated according to the capital need in relation to Pillar I+. The solvency need amounted to DKK 88.3 billion, or 10.4% of risk-weighted assets (RWA). With a capital base of DKK 182.0 billion and a total capital ratio of 21.4%, the Group had a capital buffer of DKK 93.7 billion.

The internally estimated solvency need was 8.1% of RWA, or 2.3 percentage points lower than the solvency need based on Pillar I+.

The Danske Bank Group's internally estimated solvency need is based on the Group's economic capital. At 5.7%, credit risk represented by far the largest component of the individual risks covered by economic capital, which total 8.1%. Market risk and operational risk combined represented 1.6%. The Other risks category, which represents 0.8% of RWA, includes pension risk, business risk and other components such as any qualitative additions.

## SOLVENCY NEED AND CAPITAL BASE, 31 DECEMBER 2013

(DKK billions)



## Realkredit Danmark Group and Realkredit Danmark A/S

### BREAKDOWN OF REALKREDIT DANMARK'S SOLVENCY NEED

At 31 December 2013	Realkredit Danmark Group		Realkredit Danmark A/S	
	(DKK billions)	(% of RWA)	(DKK billions)	(% of RWA)
Credit risk	12.6	9.4	12.6	9.4
Market risk	0.2	0.2	0.2	0.2
Operational risk	0.8	0.6	0.8	0.6
Other risks	0.3	0.2	0.3	0.2
Internally estimated solvency need and ratio	13.9	10.4	13.9	10.4
Shortfall in relation to Pillar I+	0.0	0.0	0.0	0.0
Shortfall in relation to transitional rules	11.7	8.7	11.7	8.8
Solvency need and solvency need ratio	25.6	19.1	25.6	19.2
Capital base	45.5	34.0	45.5	34.0
Capital buffer	19.9	14.9	19.9	14.8



### 3. Definitions of main risk types

- **Credit risk**

Credit risk is the risk of losses arising because counterparties or debtors fail to meet all or part of their payment obligations to the Group. Credit risk includes the following types of risk:

- Country risk: the risk of losses because an entire country may encounter financial difficulties or because of political decisions regarding such matters as nationalisation, expropriation and debt restructuring.
- Settlement risk: the risk of losses arising when payments are settled, for example payments for currency transactions and trades in financial instruments, including derivatives. The risk arises when the Group remits payment before it can ascertain that the counterparty has fulfilled its obligations.
- Counterparty credit risk: the risk of losses because of customers' default on derivatives contracts.

- **Market risk**

Market risk is the risk of losses caused by changes in the fair value of assets and liabilities resulting from changes in market conditions. It consists of the following:

- Interest rate risk
- Foreign exchange risk
- Equity market risk
- Bond spread risk
- Inflation rate risk
- Commodity risk

- **Operational risk**

Operational risk is the risk of losses resulting from inappropriate or inadequate internal procedures, human or systems errors, or external events. It includes legal risk but not strategic and reputational risks.

- **Other risks**

The Other risks category includes pension risk, business risk and other components such as any qualitative add-ons.

Pension risk is the risk that the Group will be liable for additional contributions to defined benefit pension plans for current and former employees.

Business risk, including strategic and reputational risk, is the risk of losses originating from changes in external or internal circumstances that harm the Group's reputation or profits. This type of risk is driven mainly by factors that are outside the Group's control. Simply put, it is the risk of being in the market.

- **Other add-ons**

In addition to the internally estimated ICAAP result and the solvency need based on Pillar I+, the Group has included add-ons required under applicable Basel I transitional rules.

Risk Management 2013, available at [www.danskebank.com/ir](http://www.danskebank.com/ir), provides more information about the individual components.

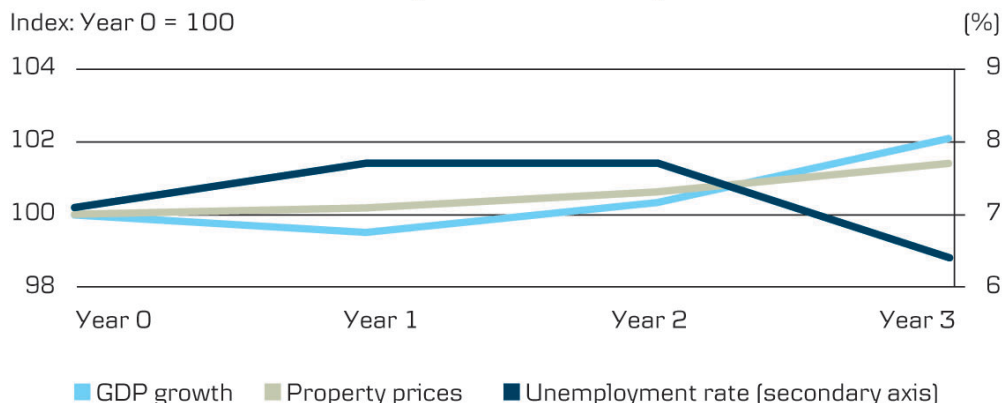
#### 4. Stress test method and assumptions

Stress testing is part of the ICAAP and is an important means of analysing the Group's risk profile since it gives management a better understanding of how the Group's portfolios are affected by macroeconomic changes, including the effects of negative events on the Group's capital. Stress testing is also part of the internal capital planning process.

When calculating its ICAAP result, the Group uses a mild recession scenario in accordance with statutory obligations. In its internal capital planning, the Group uses a number of stress test scenarios that are more severe than a mild recession.

##### STRESS TEST ASSUMPTIONS (MILD RECESSION)

Index: Year 0 = 100

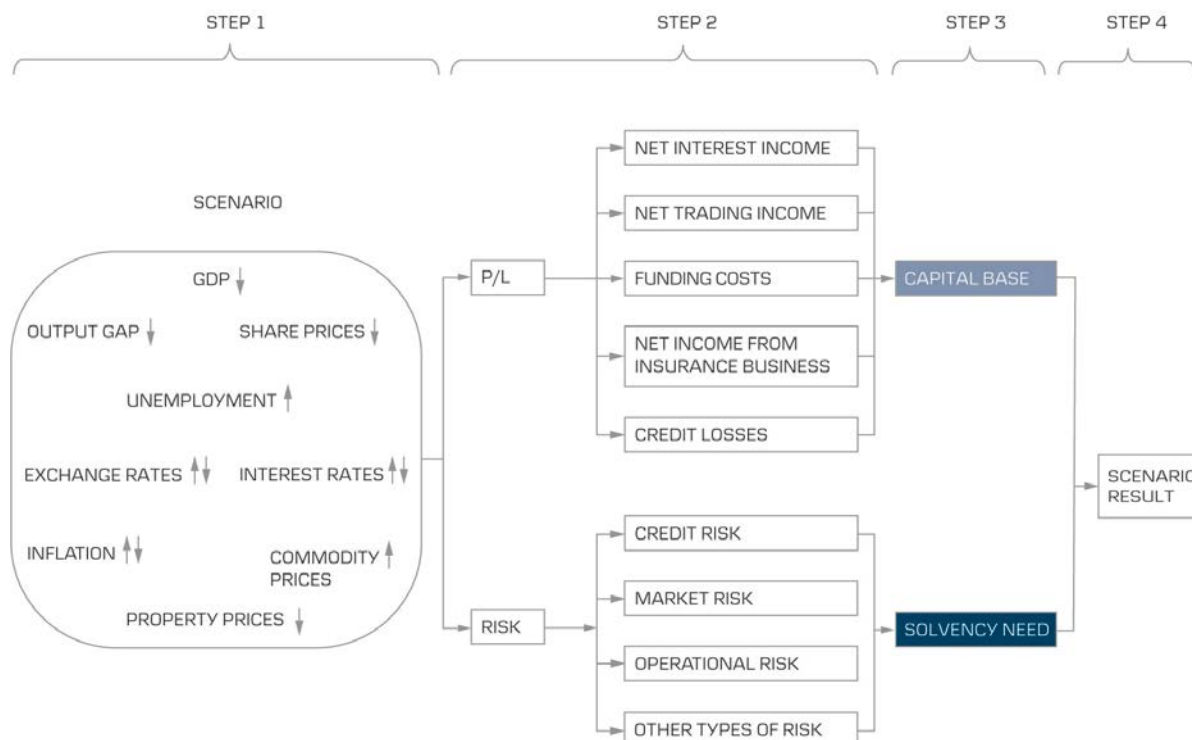


Note: Data are calculated on the basis of a RWA-weighted average of the markets where the Group operates.

Since 2005, the Group has conducted quarterly stress tests showing the effects of various economic scenarios over a period of three to five years.

There are four phases in the Group's stress test methodology: (1) choice of scenario; (2) translation of scenario; (3) stress test calculations; and (4) evaluation of results and methodology. The Group evaluates the main scenarios and their relevance on an ongoing basis. The most relevant scenarios in terms of the current economic situation and related risks are analysed at least once a year. New scenarios may be added when necessary. The scenarios are an essential part of the Group's capital planning in the ICAAP.

## EFFECT OF STRESS TEST SCENARIOS ON EARNINGS AND RISK



According to the stress tests, the Group is sufficiently capitalised to withstand the effect of the scenarios applied.

## 5. Additional information

The present report is updated on a quarterly basis and is published together with Danske Bank Group's interim and annual reports. It can be downloaded from Danske Bank's and Realkredit Danmark's websites, [www.danskebank.com/ir](http://www.danskebank.com/ir) and [www.rd.dk/investor](http://www.rd.dk/investor).

The Risk Management 2013 report, published at the same time as the Danske Bank Group's Annual Report 2013, contains a detailed description of the Group's risk organisation, capital management, risk profile, exposure and more. It can be downloaded from [www.danskebank.com/ir](http://www.danskebank.com/ir).



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