

## **Dutch banks resilient in European stress test**

*23 July 2010*

The four Dutch banks that, in cooperation with De Nederlandsche Bank (DNB), participated in the stress test of the Committee of European Banking Supervisors (CEBS), prove to be resilient in this test. ABN Amro, ING Bank, Rabobank and SNS Bank have calculated the impact of the stress on their solvency positions. The average Tier 1 ratio after two years of stress would amount to 10.3%. The Tier 1 ratio is an indicator of the solvency level of banks which includes only the highest quality of capital. All banks stay well above the benchmark set by CEBS at 6% Tier 1 ratio (the regulatory minimum is 4%). This follows from today's publication of the results by the banks.

The test has been performed for 91 European banks (representing around 65% of the European banking sector), on request of the European Council of Ministers of Finance. The four Dutch banks represent almost 75% of the Dutch market in terms of assets. In a stress test, banks are asked to calculate the impact of a hypothetical scenario, to assess whether they would be able to withstand losses following from it. Given the extreme developments in recent months and the volatility of financial markets, the results are published on a bank-by-bank basis this time. CEBS set the benchmark Tier 1 ratio required to at 6% (which is two percentage points above the regulatory minimum of 4%), just as in the US stress tests of 2009. The stress test also provides transparency on the so-called sovereign risk of banks. Not only is this risk included in the scenario, exposures on European governments are published by all banks as well.

### *Scenario*

The stress test comprises two scenarios: a "benchmark", and an "adverse" scenario. The scenarios have been developed by the ECB and the European Commission in close cooperation. The macro-economic scenarios include a set of key macro-economic variables, differentiated for EU Member States, the rest of the EEA countries and the US for the next two years. All banks are to use these predefined shocks. The benchmark scenario is based on current expectations about economic growth, and serves as a comparison for the adverse scenario. For the Netherlands, the benchmark scenario assumes first signs of economic recovery, although unemployment still rises. House prices and commercial real estate prices remain stable (see Table 1).

The adverse scenario is the core of the stress test, and presupposes a further economic downturn, leading to substantial stress (see Table 1). The scenario consists of a continuing recession, during which economic growth in the Netherlands declines by 1% in the next two years on top of the already stressed year of 2009. Main reasons for this downturn are a global confidence shock, leading to decreasing world trade and falling asset prices. In this hypothetical scenario, Dutch unemployment reaches a level of 7%. The 3-month interest rate increases over a short time horizon to 3.3% and the

10-year interest to 4.9%. This implies a flattening of the yield curve and decreasing interest rate margins. In addition, banks have to incorporate a fall in house prices of 20% over the coming two years. A similar shock is assumed for commercial real estate. These shocks are nearly as large as the decline in house prices in the beginning of the 1980s. Next to that, equity markets fall by 20% in the adverse scenario. In addition, the scenario prescribes shocks for spread risk and banks' trading books.

The adverse scenario considers sovereign risk as well. The hypothetical sovereign shocks lead to write-downs on exposures in the banking book and additional haircuts on sovereign bonds in the trading book of banks. It is furthermore assumed that these shocks in equity, credit, and real estate markets occur simultaneously and that the banks' balance sheets will not increase over the scenario horizon.

**Table 1: Scenario's for the Netherlands**

	The Netherlands	
	2010	2011
<b>Benchmark Scenario</b>		
GDP at constant prices (annual percent change (y-o-y*))	0.9	1.6
Unemployment (as % of the labour force at year-end)	5.4	6.0
Short-term interest rates (3M at year-end) (Euribor or Libor depending on the country)	1.2	2.1
Long-term interest rates (10y at year-end)	3.8	4.1
Commercial property prices (% change from previous year (y-o-y*))	0.0%	0.0%
Residential property prices (% change from previous year (y-o-y*))	0.0%	0.0%
<b>Adverse Scenario</b>		
GDP at constant prices (% change y-o-y*)	0,0	-1.0
Unemployment (as % of the labour force)	5.5	7.0
Short-term interest rates (3M) (Euribor or Libor depending on the country)	2.1	3.3
Long-term interest rates (10y)	4.4	4.9
Commercial property prices (% change y-o-y*)	-10.0%	-10.0%
Residential property prices (% change y-o-y*)	-10.0%	-10.0%
<b>Additional Sovereign shock on the Adverse Scenario</b>		
Long-term interest rates (5y) yearly average - Treasury bonds <sup>1</sup>	3.1%	3.8%

\* y-o-y: year on year change

<sup>1</sup> including the widening of spreads relative to German government debt

### *Process*

Dutch banks have calculated the impact of the scenarios on their consolidated balance sheets. In these figures, the impact of the current credit crisis has been taken into account. The stress test assumes a new shock on top of losses already realised. Banks factored the developments in the first quarter of 2010 into their calculations. The participating banks have used their internal models to calculate the impact of the scenario. The stress test does not allow banks to take new measures that mitigate the impact of the scenario.

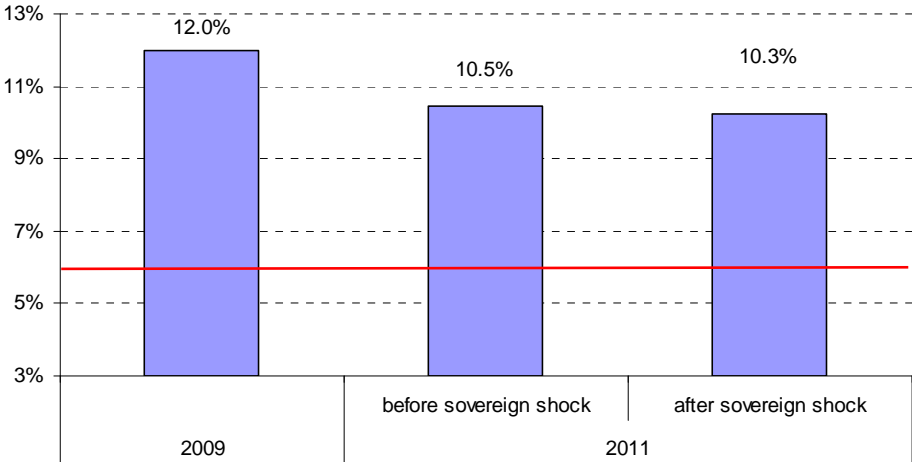
DNB has applied a rigorous evaluation of the institutions' calculations and assumptions and has also monitored the consistency of the results. These are dependent on banks' internal models and their

interpretation of the scenario. DNB assessed whether banks have adequately translated the macro economic shocks of the scenario into loss ratios.

*Results*

The results show that in the adverse scenario, aggregate impairments for the four Dutch banks amount to EUR 21 billion over two years. This is 24% of their Tier 1 capital. Hence, the average Tier 1 ratio for the Dutch banks declines from 12.0% in 2009, to 10.3% in 2011, including sovereign risk. If the impact of the sovereign stress is excluded, the impact is slightly smaller, and the Tier 1 ratio would decline to 10.5%. The impairments are largely accounted for in the profit and loss account. Dutch banks appear to be sensitive to losses in the corporate portfolio. The average loss ratio on corporate loans is 1.3% after two years of the adverse scenario, compared to 0.9% on the retail portfolio.

**Graph: Impact scenarios on average tier 1 ratio of four Dutch banks**



For all four banks, the Tier 1 ratio remains well above the benchmark of 6% defined by CEBS (against the 4% regulatory minimum), due to the relatively large capital buffer in the reference period. The four Dutch banks prove to be resilient in the stress test. The results of this stress test will be used as input for a broader assessment of banks' capital position in the Basel II framework.

<b>Name of bank:</b>	<b>ABN AMRO BANK</b>
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#### Actual results

<b>At December 31, 2009</b>	<b>EUR million</b>
Total Tier 1 capital	15,481*
Total regulatory capital	20,742*
Total risk weighted assets	118,703*
Pre-impairment income (including operating expenses)	1,812*
Impairment losses on financial assets in the banking book	1,568*
1 yr Loss rate on Corporate exposures (%) <sup>1</sup>	0.79%*
1 yr Loss rate on Retail exposures (%) <sup>1</sup>	0.44%*
Tier 1 ratio (%)	13.0%*

#### Outcomes of stress test scenarios

The stress test was carried out under a number of key common simplifying assumptions (e.g. constant balance sheet, uniform treatment of securitisation exposures). Therefore, the information relative to the benchmark scenarios is provided only for comparison purposes. Neither the benchmark scenario nor the adverse scenario should in any way be construed as a forecast.

<b>Benchmark scenario at December 31, 2011<sup>2</sup></b>	<b>EUR million</b>
Total Tier 1 capital after the benchmark scenario	14,753
Total regulatory capital after the benchmark scenario	19,501
Total risk weighted assets after the benchmark scenario	122,691
Tier 1 ratio (%) after the benchmark scenario	12,0%

<b>Adverse scenario at December 31, 2011<sup>2</sup></b>	<b>EUR million</b>
Total Tier 1 capital after the adverse scenario	12,904
Total regulatory capital after the adverse scenario	17,796
Total risk weighted assets after the adverse scenario	125,884
2 yr cumulative pre-impairment income after the adverse scenario (including operating expenses) <sup>2</sup>	1,607**
2 yr cumulative impairment losses on financial assets in the banking book after the adverse scenario <sup>2</sup>	-3,189
2 yr cumulative losses on the trading book after the adverse scenario <sup>2</sup>	-17
2 yr Loss rate on Corporate exposures (%) after the adverse scenario <sup>1,2</sup>	1,20%
2 yr Loss rate on Retail exposures (%) after the adverse scenario <sup>1,2</sup>	0,90%
Tier 1 ratio (%) after the adverse scenario	10,3%

<b>Additional sovereign shock on the adverse scenario at December 31, 2011</b>	<b>EUR million</b>
Additional impairment losses on the banking book after the sovereign shock <sup>2</sup>	-465
Additional losses on sovereign exposures in the trading book after the sovereign shock <sup>2</sup>	-89
2 yr Loss rate on Corporate exposures (%) after the adverse scenario and sovereign shock <sup>1,2,3</sup>	1,48%
2 yr Loss rate on Retail exposures (%) after the adverse scenario and sovereign shock <sup>1,2,3</sup>	0,96%
Tier 1 ratio (%) after the adverse scenario and sovereign shock	9,9%
Additional capital needed to reach a 6 % Tier 1 ratio under the adverse scenario + additional sovereign shock, at the end of 2011	0

The aggregated RWA and capital figures are based on the aggregation of the RWA and capital components of ABN AMRO Bank and Fortis Bank Nederland and therefore do not reflect the impact of the harmonisation of the determination of the RWA and capital components.

<sup>1</sup> Impairment losses as a % of corporate/retail exposures in AFS, HTM, and loans and receivables portfolios

<sup>2</sup> Cumulative for 2010 and 2011

<sup>3</sup> On the basis of losses estimated under both the adverse scenario and the additional sovereign shock

\* ABN AMRO Bank and Fortis Bank Nederland only merged on 1 July 2010. To facilitate the trend analysis, the stress test has been performed on the basis as if it had already merged as per 31 December 2009. Therefore several adjustments, predominantly relating to the separation of ABN AMRO Bank from RBS N.V., the execution of the Dutch State capital measures and the RWA impact of the closing of the EC Remedy have been applied to the aggregated 2009 year-end capital figures. In addition, as ABN AMRO Bank has only become Basel II Advanced-IRB compliant as of 1 April 2010, an assessment of the aggregated Basel II figures as per year-end 2009 has been made retrospectively. Furthermore, the results for 2009 are the aggregated reported results of both banks.

\*\* Please note that this figure does not include several large items related to the integration of ABN AMRO Bank and Fortis Bank Nederland, including amongst others the impact of the closing of the EC remedy and restructuring charges, as well as other items such as a revaluation of the EC Remedy credit umbrella under the adverse stress scenario and an addition to the legal provision. The total amount of the items not included is EUR 1,807 million negative. However, these items are included in the estimated capital position and capital ratios of this stress test.

<b>Name of bank:</b>	<b>ING BANK</b>
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**Actual results**

<b>At December 31, 2009</b>	<b>EUR million</b>
Total Tier 1 capital	34,015
Total regulatory capital	44,731
Total risk weighted assets	332,375
Pre-impairment income (including operating expenses)	6,436
Impairment losses on financial assets in the banking book	-5,936
1 yr Loss rate on Corporate exposures (%) <sup>1</sup>	0.38%
1 yr Loss rate on Retail exposures (%) <sup>1</sup>	0.45%
Tier 1 ratio (%)	10.2%

**Outcomes of stress test scenarios**

The stress test was carried out under a number of key common simplifying assumptions (e.g. constant balance sheet, uniform treatment of securitisation exposures). Therefore, the information relative to the benchmark scenarios is provided only for comparison purposes. Neither the benchmark scenario nor the adverse scenario should in any way be construed as a forecast.

<b>Benchmark scenario at December 31, 2011<sup>2</sup></b>	<b>EUR million</b>
Total Tier 1 capital after the benchmark scenario	40,366
Total regulatory capital after the benchmark scenario	45,814
Total risk weighted assets after the benchmark scenario	360,758
Tier 1 ratio (%) after the benchmark scenario	11.2%

<b>Adverse scenario at December 31, 2011<sup>2</sup></b>	<b>EUR million</b>
Total Tier 1 capital after the adverse scenario	37,836
Total regulatory capital after the adverse scenario	43,071
Total risk weighted assets after the adverse scenario	417,980
2 yr cumulative pre-impairment income after the adverse scenario (including operating expenses) <sup>2</sup>	13,074
2 yr cumulative impairment losses on financial assets in the banking book after the adverse scenario <sup>2</sup>	-9,029
2 yr cumulative losses on the trading book after the adverse scenario <sup>2</sup>	-411
2 yr Loss rate on Corporate exposures (%) after the adverse scenario <sup>1, 2</sup>	1.21%
2 yr Loss rate on Retail exposures (%) after the adverse scenario <sup>1, 2</sup>	0.91%
Tier 1 ratio (%) after the adverse scenario	9.1%

<b>Additional sovereign shock on the adverse scenario at December 31, 2011</b>	<b>EUR million</b>
Additional impairment losses on the banking book after the sovereign shock <sup>2</sup>	-733
Additional losses on sovereign exposures in the trading book after the sovereign shock <sup>2</sup>	-445
2 yr Loss rate on Corporate exposures (%) after the adverse scenario and sovereign shock <sup>1, 2, 3</sup>	1.31%
2 yr Loss rate on Retail exposures (%) after the adverse scenario and sovereign shock <sup>1, 2, 3</sup>	1.02%
Tier 1 ratio (%) after the adverse scenario and sovereign shock	8.8%
Additional capital needed to reach a 6 % Tier 1 ratio under the adverse scenario + additional sovereign shock, at the end of 2011	0

<sup>1</sup> Impairment losses as a % of corporate/retail exposures in AFS, HTM, and loans and receivables portfolios

<sup>2</sup> Cumulative for 2010 and 2011

<sup>3</sup> On the basis of losses estimated under both the adverse scenario and the additional sovereign shock

<b>Name of bank:</b>	<b>RABOBANK</b>
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**Actual results**

<b>At December 31, 2009</b>	<b>EUR million</b>
Total Tier 1 capital	33,226
Total regulatory capital	34,903
Total risk weighted assets	236,320
Pre-impairment income (including operating expenses)	4,563
Impairment losses on financial assets in the banking book	-1,959
1 yr Loss rate on Corporate exposures (%) <sup>1</sup>	0.43%
1 yr Loss rate on Retail exposures (%) <sup>1</sup>	0.20%
Tier 1 ratio (%)	14.1%

**Outcomes of stress test scenarios**

The stress test was carried out under a number of key common simplifying assumptions (e.g. constant balance sheet, uniform treatment of securitisation exposures). Therefore, the information relative to the benchmark scenarios is provided only for comparison purposes. Neither the benchmark scenario nor the adverse scenario should in any way be construed as a forecast.

<b>Benchmark scenario at December 31, 2011<sup>2</sup></b>	<b>EUR million</b>
Total Tier 1 capital after the benchmark scenario	37,211
Total regulatory capital after the benchmark scenario	38,888
Total risk weighted assets after the benchmark scenario	251,249
Tier 1 ratio (%) after the benchmark scenario	14.8%

<b>Adverse scenario at December 31, 2011<sup>2</sup></b>	<b>EUR million</b>
Total Tier 1 capital after the adverse scenario	35,732
Total regulatory capital after the adverse scenario	37,409
Total risk weighted assets after the adverse scenario	282,310
2 yr cumulative pre-impairment income after the adverse scenario (including operating expenses) <sup>2</sup>	9,418
2 yr cumulative impairment losses on financial assets in the banking book after the adverse scenario <sup>2</sup>	-4,528
2 yr cumulative losses on the trading book after the adverse scenario <sup>2</sup>	-496
2 yr Loss rate on Corporate exposures (%) after the adverse scenario <sup>1, 2</sup>	0.82%
2 yr Loss rate on Retail exposures (%) after the adverse scenario <sup>1, 2</sup>	0.57%
Tier 1 ratio (%) after the adverse scenario	12.7%

<b>Additional sovereign shock on the adverse scenario at December 31, 2011</b>	<b>EUR million</b>
Additional impairment losses on the banking book after the sovereign shock <sup>2</sup>	-510
Additional losses on sovereign exposures in the trading book after the sovereign shock <sup>2</sup>	-100
2 yr Loss rate on Corporate exposures (%) after the adverse scenario and sovereign shock <sup>1, 2, 3</sup>	0.91%
2 yr Loss rate on Retail exposures (%) after the adverse scenario and sovereign shock <sup>1, 2, 3</sup>	0.69%
Tier 1 ratio (%) after the adverse scenario and sovereign shock	12.5 %
Additional capital needed to reach a 6 % Tier 1 ratio under the adverse scenario + additional sovereign shock, at the end of 2011	0

<sup>1</sup>. Impairment losses as a % of corporate/retail exposures in AFS, HTM, and loans and receivables portfolios

<sup>2</sup>. Cumulative for 2010 and 2011

<sup>3</sup>. On the basis of losses estimated under both the adverse scenario and the additional sovereign shock

<b>Name of bank:</b>	<b>SNS BANK</b>
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**Actual results**

<b>At December 31, 2009</b>	<b>EUR million</b>
Total Tier 1 capital	2,766
Total regulatory capital	3,590
Total risk weighted assets	25,885
Pre-impairment income (including operating expenses)	476
Impairment losses on financial assets in the banking book	-438
1 yr Loss rate on Corporate exposures (%) <sup>1</sup>	1.75%
1 yr Loss rate on Retail exposures (%) <sup>1</sup>	0.25%
Tier 1 ratio (%)	10.7%

**Outcomes of stress test scenarios**

The stress test was carried out under a number of key common simplifying assumptions (e.g. constant balance sheet, uniform treatment of securitisation exposures). Therefore, the information relative to the benchmark scenarios is provided only for comparison purposes. Neither the benchmark scenario nor the adverse scenario should in any way be construed as a forecast.

<b>Benchmark scenario at December 31, 2011<sup>2</sup></b>	<b>EUR million</b>
Total Tier 1 capital after the benchmark scenario	2,899
Total regulatory capital after the benchmark scenario	3,628
Total risk weighted assets after the benchmark scenario	24,217
Tier 1 ratio (%) after the benchmark scenario	12.0%

<b>Adverse scenario at December 31, 2011<sup>2</sup></b>	<b>EUR million</b>
Total Tier 1 capital after the adverse scenario	2,617
Total regulatory capital after the adverse scenario	3,346
Total risk weighted assets after the adverse scenario	24,217
2 yr cumulative pre-impairment income after the adverse scenario (including operating expenses) <sup>2</sup>	992
2 yr cumulative impairment losses on financial assets in the banking book after the adverse scenario <sup>2</sup>	-1,076
2 yr cumulative losses on the trading book after the adverse scenario <sup>2</sup>	-12
2 yr Loss rate on Corporate exposures (%) after the adverse scenario <sup>1, 2</sup>	4.40%
2 yr Loss rate on Retail exposures (%) after the adverse scenario <sup>1, 2</sup>	0.57%
Tier 1 ratio (%) after the adverse scenario	10.8%

<b>Additional sovereign shock on the adverse scenario at December 31, 2011</b>	<b>EUR million</b>
Additional impairment losses on the banking book after the sovereign shock <sup>2</sup>	-87
Additional losses on sovereign exposures in the trading book after the sovereign shock <sup>2</sup>	0
2 yr Loss rate on Corporate exposures (%) after the adverse scenario and sovereign shock <sup>1, 2, 3</sup>	4.53%
2 yr Loss rate on Retail exposures (%) after the adverse scenario and sovereign shock <sup>1, 2, 3</sup>	0.73%
Tier 1 ratio (%) after the adverse scenario and sovereign shock	10.5%
Additional capital needed to reach a 6 % Tier 1 ratio under the adverse scenario + additional sovereign shock, at the end of 2011	0

<sup>1</sup>. Impairment losses as a % of corporate/retail exposures in AFS, HTM, and loans and receivables portfolios

<sup>2</sup>. Cumulative for 2010 and 2011

<sup>3</sup>. On the basis of losses estimated under both the adverse scenario and the additional sovereign shock

## Q&A

### *What is macro stress testing and what is it used for<sup>1</sup>*

Within the scope of regular supervision, institutions are required to perform stress tests on a regular basis, with a view to assessing their risks (micro stress testing). Supervisors compare the outcomes of these tests with other information to form an opinion on the stability of the institutions, and insofar as applicable, determine what supervisory measures would be appropriate. In addition, institutions – notably the larger ones – are frequently asked to participate in macro stress tests as part of DNB’s macro prudential analysis. In these tests, institutions calculate the impact of uniform scenarios on their exposures, while DNB assesses whether the calculations sufficiently reflect the severity of the macro-economic scenarios. This process is conducted in consultation with the institutions, thus contributing to their risk awareness and DNB’s insight into the risks involved. The macro stress test results provide a general picture of the financial sector’s resilience. However, DNB customises the application and follow-up of the results to the individual institutions. This means that the risk profile and risk-mitigating elements, including capitalisation, are assessed per individual institution. For these assessments, the macro stress test outcomes serve as one of the sources of information.

### *Why are the results published on a bank-by-bank basis?*

Stress tests are performed more often. The results are usually published by DNB on an aggregate level in the annual report or Overview of Financial Stability (OFS). Given the extreme developments in recent months and the volatility of financial markets, the results are published on a bank-by-bank basis this time. The objective is to provide financial markets with more information on the resilience of European banks for stress.

### *What are the differences with the US stress test?*

This European stress test has largely a similar objective and set-up as the US stress test. However, the stress test is performed at a far later stage in the crisis and the results partly reflect that the stability of the European banking sector has already benefited from government support measures. The main difference is that the focus of the US exercise was on real estate exposures, which at that time were the largest risk. In the European stress test, a broad spectrum of risks is tested, including sovereign risks, which were not taken into account in the US stress test. In this way, the stress test considers current risks.

### *Is the scenario sufficiently severe?*

The stress scenario requires banks to calculate the impact of a considerable number of severe shocks. Instead of an expected recovery, they have to calculate the impact of a continuing downturn.

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<sup>1</sup> Also see DNB’s Quarterly Bulletin June 2009, ‘Macro stress testing as a tool for supervision and financial stability’.

Economic growth declines to 1%. Unemployment rises to 7%, compared to an unemployment ratio of less than 5% in 2009. Till now, house prices have only declined by around 6%, while in the scenario banks have to apply a 20% decline. Also commercial property prices as well as stock markets fall by 20% in the adverse scenario. These shocks are combined with a rapid rise in both short- and long-term interest rates. Hence, these shocks impact all of banks' exposures (credit and market risks). Deteriorating market conditions for sovereign risks are included in the test. As is shown by the resulting losses, these shocks form quite a severe scenario.

*Will other banks also publish the results of the stress test?*

The CEBS-list of 91 banks is based on an adequate representation per country, based on market share. Other bank may of course voluntarily calculate the impact of the scenario. However, CEBS has agreed that these banks will not publish the results on 23 July, but later. DNB has requested banks performing voluntary calculations not to publish the results before Monday 26 July.