**DRAFT**

# Update on Government schemes

## *Market reactions to recapitalisations*

| | Bank | Share price % change[1] | Market reaction |
|---|---|---|---|
| ***Netherlands*** | ■ SNS Reaal | (4.8%) | ■ Slightly less dilutive than we had expected, due to the low coupon payable to the foundation<br>■ Capital injection should protect its ratios in the event of further macro shocks<br>■ Main capital metrics now look adequate<br>■ 'Limited upside due to combination of ongoing earnings risks and materially restricted dividend capacity for several years is not an attractive investment proposition', **Citigroup**, 13-Nov-08 |
| ***France*** | ■ BNP Paribas | 7.5% | ■ 'Recapitalisations in Europe have left BNP Paribas behind the curve in terms of capital ratios' **JPMorgan** 28-Oct-08 |
| | ■ Societe Generale | 10.2% | ■ 'Current capital ratio is not a threat to its access to liquidity' **Deutsche Bank** 4-Nov-08 |

**Note (1)** Previous close share price vs post-announcement

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# Update on Government schemes

## *Market reactions to recapitalisations*

| | Bank | Share price % change[1] | Market reaction |
|---|---|---|---|
| ***UK*** | ▪ HBOS | 24.5% | ▪ Substantial and necessary buffer created<br>▪ 'Necessary buffer given HBOS's risky loan book', **Deutsche Bank**, 14-Oct-08 |
| ***Germany*** | ▪ Commerzbank<br>(Nov-08)<br>(Jan-09) | <br>5.0%<br>(13.8%) | ▪ Capital measure is relatively shareholder friendly – reducing earnings rather than diluting EPS<br>▪ 'Large strengthening of tier 1 ratio', **UniCredit**, 22-Dec-08<br>▪ Additional capital measures as a negative surprise<br>▪ Injection is not only provided via a non-dilutive silent participation, but it is combined with a dilutive capital increase (25% stake for the German government)<br>▪ 'Capital still short' **JPMorgan** 7-Jan-09 |
| ***Netherlands*** | ▪ ING | (27.5%) | ▪ Means that ING can build capital over the next few years, minimizing dilution<br>▪ 'We concur with ING's assurances that it is adequately capitalised but, in the current turmoil, this is probably no longer enough' **KBW** 19-Oct-08 |

**Note (1)** Previous close share price vs post-announcement



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# Update on Government schemes

## Market reactions to recapitalisations

| | Bank | Share price % change[1] | Market reaction |
|---|---|---|---|
| US | Bank of America | 6.3% | ■ Modest improvement of tier 1 ratio<br>■ Implicit government backstop<br>■ 'Capital ratios remain under pressure' **Credit Suisse**, 18-Dec-08 |
| | Citigroup | 9.1% | ■ Stabilization of the group in the short term<br>■ EPS dilution in 2010, sizable but less than feared (16% in 2010)<br>■ Fixed income markets reacted positively to the bailout with sharp improvement in ABX, MBS spreads, and Citi CDS spreads<br>■ Potential boost to lending<br>■ 'US authorities provided the New York based bank with all the tools it needs to recover' **UniCredit** 24-Nov-08 |
| | JPMorgan | 13.5% | ■ Capital provides powder to boost lending<br>■ 'Results in strong capital levels' **Bernstein Research** 16-Oct-08 |
| UK | Lloyds TSB | (6.9%) | ■ Capital provides greater freedom for the combined group (LTSB-HBOS) to provision aggressively against weaker credits on the closure of the deal<br>■ Concern that the bank may naturally find it harder to take decisions on mass foreclosures, lending strategies, and pricing policies in future<br>■ Costing appears onerous<br>■ May need to raise additional capital<br>■ 'Limited prospects of a dividend before 2011e is also an uncompelling investment case' **Societe Generale** 29-Oct-08 |
| | RBS | 0.8% | ■ A positive development which limits risk of further dilution<br>■ Ends doubts over balance sheet strength<br>■ 58% ownership by government may limit future underlying returns<br>■ Existing shareholders significantly diluted again such that the cost of the capital buffer is significant<br>■ 'Core tier 1 ratio sufficient to see the group through the next few years' **KBW** 4-Nov-08 |

**Note (1)** Previous close share price vs post-announcement

# Update on Government schemes

## *Lending growth overview*

| Country | GDP growth | Lending growth |
|---|---|---|
| **France** | 2008e: 0.9%<br>2009e: (1.2%) | ▪ Total bank lending growth, 3 months to Nov-08, annualised: 6.5% (1 month annualised 8.2%)<br>▪ *"The [French] bankers had "signed a moral pact with the nation" in agreeing to increase the amount of credit in the real economy by 3-4 per cent a year in return for €10.5bn (£8.3bn) in subordinated loans from the government…[the requirement] does not seem onerous given last year's 11 per cent rise."* **Financial Times** 31 Oct 08 |
| **Germany** | 2008e: 1.4%<br>2009e: (0.7%) | ▪ Growth in lending to non-financial institutions, 2 months to Nov-08: 0.3% (12 months 2.2%)<br>▪ *"The impact of guarantees offered to banks by Berlin [remains] to be felt."* **Financial Times** 16 Dec 08 |
| **Netherlands** | 2008e: 1.9%<br>2009e: (0.7%) | ▪ Total private sector lending growth 2 months to Nov-08: 0.2% (12 months 7.3%)<br>▪ *"Assuming that the world economy recovers quickly, the Netherlands could return to growth in 2010 with a 0.5 percent expansion, but if world trade does not recover, banks remain reluctant to extend credit and consumers stay frugal, it could contract again by 0.8 percent."* **Reuters** 10 Dec 08 |
| **UK** | 2008e: 0.7%<br>2009e: (2.5%) | ▪ 1-month M4 lending growth to private non-financial corporations Nov-08: (0.4%)<br>▪ 12-month M4 lending growth to private non-financial corporations Nov-08: 5.0%<br>▪ *"A Growth in bank lending to the corporate sector as a whole has been in sharp retreat for some time. Quarterly new lending to private non-financial institutions fell to just £447m in the third quarter of 2008 from an average of £16bn in 2007. The Bank of England's latest credit conditions survey suggest lending terms will tighten further in line with mounting concerns over the economic outlook and falling collateral values and recovery rates."* **Financial Times** 7 Jan 09 |
| **US** | 2008e: 1.3%<br>2009e: (1.0%) | ▪ Seasonally adjusted lending growth by commercial banks in the US, Q4 2008: c.3.5% (LTM c.8.0%)<br>▪ *"The markets for low-cost, short-term debt that have been battered by the credit crunch have started the new year with signs of improving health following central bank actions to support the flow of cash to companies. Data from the US Federal Reserve showed that the overall market for short-term commercial paper saw, in the first week of this year, the second-biggest weekly expansion in the past two years, with outstanding volumes growing by $83.1bn."* **Financial Times** 10 Jan 09 |

Source **Central bank reports, EIU, Datamonitor, press**

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# Update on Government schemes

## *Overview of selected schemes*

| Country | Capital Injected | Details of Injection |
|---|---|---|
| **UK** | £50bn scheme set up<br>Injections (announced Oct-08 – RBS Nov-08, Lloyds TSB and HBOS to be fully completed upon successful merger)<br>- £9bn preference shares<br>- £28bn ordinary shares<br>- Recipients: HBOS, Lloyds TSB and RBS | Instrument<br>■ Preference and ordinary shares<br>Conversion<br>■ n/a<br>Vehicle<br>■ UKFI (Government-owned limited company)<br>Underwriting vs direct participation<br>■ Underwriting and direct participation<br>Conditions<br>■ Callable after 5 years at par, has to be replaced by a hybrid instrument of equivalent subordination |
| **US** | $250bn earmarked<br>Injections (Oct-08)<br>- $125bn direct commitment (9 banks) | Instrument<br>■ Senior preferred shares with stapled warrants<br>Conversion<br>■ Warrants stapled<br>Vehicle<br>■ Treasury<br>Underwriting vs direct participation<br>■ Direct participation<br>Conditions<br>■ Callable after 3 years at par, must be at least partially financed from a "qualil equity offering of any Tier 1 perpetual preferred or common stock |

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# Update on Government schemes

## *Overview of selected schemes*

| Country | Capital Injected | Details of Injection |
|---|---|---|
| **Ireland** | The Government announced intention to provide €10bn<br>Has not been utilised to date | Instrument<br>■ Preference or ordinary shares<br>Underwriting vs direct participation<br>■ Direct participation or underwriting contemplated |
| **Netherlands** | €20bn earmarked<br>Injections to date (announced Oct-08 – Nov-08)<br>- €10bn (ING) (Completed 12-Nov-08)<br>- €3bn (Aegon ) (Completed 1-Dec-08)<br>- €750m (SNS Reaal) (Completed 11-Dec-08) | Instrument<br>■ Non-voting deeply subordinated securities (Core Tier 1)<br>Conversion<br>■ Convertible into ordinary shares at the issuer's option after three years, at which stage the Dutch Government may also elect to receive cash at par<br>Vehicle<br>■ n/a<br>Underwriting vs direct participation<br>■ Direct participation<br>Conditions<br>■ Callable anytime @ 150% of par (cash settled, subject to regulators approval) |
| **Sweden** | SEK 15bn fund set up for emergency share purchases in banks<br>Has not been utilised to date | Vehicle<br>■ Stabilitetsfond (a Government controlled fund)<br>Underwriting vs direct participation<br>■ Direct participation and underwriting |

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# Update on Government schemes

## *Overview of selected schemes*

| Country | Capital injected | Details of injection |
|---|---|---|
| **France** | €40bn fund set up (SPPE)<br>Injections (announced Oct-08, completed Nov-08)<br>- €10.5bn hybrid capital (6 banks)<br>- €3bn preferred shares (Dexia) | Instrument<br>▪ Subordinated loan (Tier 1), preferred shares (Core Tier 1)<br>Conversion<br>▪ n/a<br>Vehicle<br>▪ SPPE (Government controlled company)<br>Underwriting vs direct participation<br>▪ Direct participation<br>Conditions<br>▪ Early redemption permitted for subordinated debt if (1) debt is replaced by a hybrid of equivalent subordination and (2) the Government agrees |
| **Germany** | €100bn fund set up (SoFFin)<br>Injections (announced Oct 08 – completed Jan-09 (Commerzbank))<br>- €8.2bn (Commerzbank)<br>- €3bn (Bayern LB) | Instrument<br>▪ Commerzbank: Perpetual hybrid (silent participation, Tier 1), BayernLB: Preferred shares (Core Tier 1)<br>Conversion<br>▪ n/a<br>Vehicle<br>▪ SoFFin (Government controlled federal fund)<br>Underwriting vs direct participation<br>▪ Direct participation (Commerzbank and BayernLB)<br>Conditions<br>▪ May be redeemed at par, subject to the Government's approval |

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# Project Horizon: Update on Government schemes (draft)

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# B. Hybrid pricing sensitivity analysis

## *B.1 Illustrative conversion premium sensitivity analysis for revised convertible hybrid*

**Conversion premium required on a perpetual convertible hybrid (assuming a 10% total return)**

**Dividend assumption** Zero in 2008-09 (thereafter coupon / 125%)

| | | Non-call period | |
|---|---|---|---|
| | | 5 years | 3 years |
| Coupon | 8% | 31.0% | 24.5% |
| | 7% | 22.5% | 18.0% |
| | 6% | 15.2% | 13.0% |

**Assumptions**

| | |
|---|---|
| **Implied volatility assumption** | 33% |
| **Theoretical stock borrow assumption** | 0.50% |
| **All-in discount rate** | 10% |
| **Theoretical value (% of face)** | 100% |
| **Dividend dates** | 29/09 (ann.) |

**Delayed conversion**

Convertible from 3rd anniversary only

**Dividend assumptions (% of perpetual issue price)**

| | | Dividend date | | | | |
|---|---|---|---|---|---|---|
| | | Sep-09 | Sep-10 | Sep-11 | Sep-12 | Sep-13 |
| Coupon | 8% | 0.0% | 0.0% | 6.4% | 6.4% | 6.4% |
| | 7% | 0.0% | 0.0% | 5.6% | 5.6% | 5.6% |
| | 6% | 0.0% | 0.0% | 4.8% | 4.8% | 4.8% |

***3 year non-call period permits a conversion premium up to 6% lower than the one required for an otherwise identical instrument with a 5 year non-call period***

# A. Selected recapitalisations using Tier 1 hybrids

## A.1 Overview of recent capital injections using hybrid structures

| Government | Tier 1 securities issued | Issue call option timing | Limitations to callability | Amount deployed to date | Coupon | Implied capitalisation |
|---|---|---|---|---|---|---|
| UK | ▪ £9bn preferred shares<br>▪ Recipients: Lloyds TSB, HBOS, RBS | ▪ Callable after 5 years at par | ▪ Has to be replaced by a hybrid instrument of equivalent subordination | ▪ £9bn | ▪ 12% on preferred shares | ▪ Proforma T1: RBS 12.6%, HBOS 12%<br>▪ Proforma Core T1: RBS 8.4%, HBOS 9%, merged entity >8.55 |
| USA | ▪ Preferred shares with stapled warrants (9 banks and counting) | ▪ Callable after 3 years at par | ▪ Must be at least partially financed with the proceeds from a "qualifying" equity offering of any Tier 1 perpetual preferred or common stock | ▪ $125bn direct commitment<br>▪ $250bn in total made available | ▪ 5% first 5 years<br>▪ 9% thereafter | ▪ Minimum subscription:1% of RWAs<br>▪ Maximum subscription: the lesser of $25bn or 3% of RWAs |
| France | ▪ €10.5bn subordinated debt (6 banks) | ▪ Callable after 5 years at par | ▪ Early redemption permitted if debt is replaced by a hybrid of equivalent subordination and the Government agrees | ▪ €13.5bn | ▪ 400bps over risk free rate | ▪ 50bps average improvement in Tier 1 ratio of the 6 banks being capitalised |
| Netherlands | ▪ Non-voting Core T1 securities (ING, AEGON, SNS Reaal) | ▪ (1) Callable at any time @ 150% of par<br>▪ (2) First year only: early redemption | ▪ (1) Subject to regulators approval<br>▪ (2) Option available for a limited proportion of the issue; callable at par + repurchase fee + accrued interest | ▪ €10bn ING capital injection<br>▪ €3bn AEGON<br>▪ €750m SNS Reaal | ▪ Higher of 8.5% interest or 1.25x ordinary dividends to the extent these are paid | ▪ ING T1 ratio 10%<br>▪ ING Core T1 ratio 8.5%<br>▪ SNS Reaal T1 ratio 10% |
| Austria | ▪ €2.7bn non-voting / non-transferable / non-dilutive preference shares (Erste) | ▪ Callable after 5 years at par | ▪ Requires the Government's approval | ▪ €2.7bn in Erste<br>▪ €15bn committed | ▪ 8.0% annually | ▪ T1 ratio: 10% |

***5 year non-call period is market standard in Europe, Dutch capital injection is the exception***

9 January 2008 Strictly private and confidential

# Project Horizon – additional materials on hybrids (draft for discussion)

# B. Hybrid pricing sensitivity analysis

## B.1 *Illustrative conversion premium sensitivity analysis for revised convertible hybrid*

**Conversion premium required on a perpetual convertible hybrid (assuming a 10% total return)**

**Dividend assumption** Zero in 2008-09 (thereafter coupon / 125%)

| | | Non-call period | |
|---|---|---|---|
| | | 5 years | 3 years |
| Coupon | 8% | 31.0% | 24.5% |
| | 7% | 22.5% | 18.0% |
| | 6% | 15.2% | 13.0% |

**Assumptions**

| | |
|---|---|
| **Implied volatility assumption** | 33% |
| **Theoretical stock borrow assumption** | 0.50% |
| **All-in discount rate** | 10% |
| **Theoretical value (% of face)** | 100% |
| **Dividend dates** | 29/09 (ann.) |

**Delayed conversion**

Convertible from 3rd anniversary only

**Dividend assumptions (% of perpetual issue price)**

| | | Dividend date | | | | |
|---|---|---|---|---|---|---|
| | | Sep-09 | Sep-10 | Sep-11 | Sep-12 | Sep-13 |
| Coupon | 8% | 0.0% | 0.0% | 6.4% | 6.4% | 6.4% |
| | 7% | 0.0% | 0.0% | 5.6% | 5.6% | 5.6% |
| | 6% | 0.0% | 0.0% | 4.8% | 4.8% | 4.8% |

***3 year non-call period permits a conversion premium up to 6% lower than the one required for an otherwise identical instrument with a 5 year non-call period***

# A. Selected recapitalisations using Tier 1 hybrids

## A.1 Overview of recent capital injections using hybrid structures

| Government | Tier 1 securities issued | Issue call option timing | Limitations to callability | Amount deployed to date | Coupon | Implied capitalisation |
|---|---|---|---|---|---|---|
| UK | ■ £9bn preferred shares<br>■ Recipients: Lloyds TSB, HBOS, RBS | ■ 5 year call option on preferred shares, at par | ■ Has to be replaced by a hybrid instrument of equivalent subordination | ■ £9bn | ■ 12% on preferred shares | ■ Proforma T1: RBS 12.6%, HBOS 12%<br>■ Proforma Core T1: RBS 8.4%, HBOS 9%, merged entity >8.55 |
| USA | ■ Preferred shares with stapled warrants (9 banks and counting) | ■ Within 3 years on preferred shares, at par | ■ Must be at least partially financed with the proceeds from a "qualifying" equity offering of any Tier 1 perpetual preferred or common stock | ■ $125bn direct commitment<br>■ $250bn in total made available | ■ 5% first 5 years<br>■ 9% thereafter | ■ Minimum subscription:1% of RWAs<br>■ Maximum subscription: the lesser of $25bn or 3% of RWAs |
| France | ■ €10.5bn subordinated debt (6 banks) | ■ 5 year call option on hybrid debt, at par | ■ Early redemption permitted if debt is replaced by a hybrid of equivalent subordination and the Government agrees | ■ €13.5bn | ■ 400bps over risk free rate | ■ 50bps average improvement in Tier 1 ratio of the 6 banks being capitalised |
| Netherlands | ■ Non-voting Core T1 securities (ING, AEGON, SNS Reaal) | ■ (1) Anytime call option<br>■ (2) First year only: early redemption | ■ (1) Call at 150% of the issue price (cash settled), subject to regulators approval<br>■ (2) Option available for a limited proportion of the issue; callable at par + repurchase fee + accrued interest | ■ €10bn ING capital injection<br>■ €3bn AEGON<br>■ €750m SNS Reaal | ■ Higher of 8.5% interest or 1.25x ordinary dividends to the extent these are paid | ■ ING T1 ratio 10%<br>■ ING Core T1 ratio 8.5%<br>■ SNS Reaal T1 ratio 10% |
| Austria | ■ €2.7bn non-voting / non-transferable / non-dilutive preference shares (Erste) | ■ Callable after 5 years, at par | ■ Requires the Government's approval | ■ €2.7bn in Erste<br>■ €15bn committed | ■ 8.0% annually | ■ T1 ratio: 10% |

***5 year non-call period is market standard in Europe, Dutch capital injection is the exception***



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**Summary Heads of Terms (an example)**

- Assumptions:
  - Total return: 10%
  - Fixed coupon: 8%
  - Convertible into sufficient shares to make instrument worth 100% [- 108% of face value (TBD if underwriting required)]

- Maturity: Perpetual
- Coupon: As before, higher of fixed coupon or dividend link (125% of dividends paid on ordinary shares)
- Conversion premium: [25, or less TBD]% premium to the prevailing share price at issue
- Conversion period: At any time after 3 years
- Non-call period:
  - Non-callable for [3 years and 1 month]
  - Between the end of [year 3 plus 1 month] to year 5: callable at a price which ensures an annual return of [10%]p.a. for the Government [(calculated based on cash income paid to date only)], subject to the consent of the regulator and replacement using junior core tier 1 capital only (i.e. equity)
  - After year 5: callable at 100% of face value

- Call mechanism if Issuer calls instrument for redemption [prior to 5 years]
  - If called, the Government has 2 weeks to opt to convert into the underlying shares as opposed to accepting the call price
  - If the Government does not convert, the call price is paid in cash [3 days] following the end of the 2 week period
  - If the Government opts to convert the Issuer must deliver the call price in cash [3] days following conversion but also then deliver the remaining conversion value owed which has not been satisfied in cash, in the form of shares ("Net Share Settlement")
  - In the event shares are required to be issued, the Issuer has the right for 30 days following the conversion date to attempt to sell such shares on behalf of the Government at a price equal to the Volume Weighted Average Share Price ("VWAP") between such conversion date and the date on which the shares are sold

- Sale of shares: Upon conversion at any other time, any shares to be delivered to the Government shall be subject to a 30 day period in which the Issuer has the right to attempt to sell the shares to the market and deliver cash proceeds to the Government. The price per share (as previously envisaged) is to be determined by the VWAP from the conversion date to the date at which the Issuer sells the shares

- In reality, this is an unlikely scenario to occur but reflects the risk the Government is taking when injecting capital. It is a market standard feature of tier one capital
- However, a reduced 3 year non-call period may increase the risk highlighted above, given the current market backdrop

We suggest the following may be helpful:

i. If the non-call period were to be reduced to 3 years, between years 3 and 5 the call price should be 100% of par plus a cash top-up to ensure the Government has made a [10%] annual return during that period
   - For example, assuming an instrument with no conversion option (and an average risk profile) for simplicity, if after three years only two out of three [10]% annual cash coupons have been paid the call price to remove the instrument would be c.[110]%

ii. The instrument will not be callable until [1 month] after the 3rd anniversary to ensure the Government gets its 3rd annual coupon payment and, for example, following a non-conversion period the Government is also able to convert into equity and receive the shares if it wants to

iii. In a case where there is an equity link, once an Issuer call notice has been provided to the Government, the Government can opt to receive the higher of the call price or the market value of the shares at conversion split into:
   a) the value of the call price, described in (i) above, paid in cash; and
   b) the remaining value owed is payable in shares (to the extent the Issuer is unable to sell the excess shares to the private market and deliver all of the conversion value in cash)

C. Valuation considerations

- The "conversion premium" is the required increase in the share price for the underlying shares to be worth more than the Government's original investment (i.e. before upside is received)
- From a mathematical perspective a 3 year non-call period reduces the value of the conversion option compared to a 5 year non-call period (all else held equal). However this means (assuming an 8% coupon) the conversion premium can fall from c.31% to c.25% for both instruments to be worth the same value (see slide B.1 attached separately)
- This reduction in value is because the point in time at which the Government could be forced to convert (in an upside scenario) is brought forward (from 5 years to 3 years). The Government is therefore forced to collect only 3 years of incremental coupons (over and above the dividend yield paid on the shares), and loses the ability to collect 2 further years of income while still continuing to participate in the equity upside (and ranking senior to equity on the downside)

**We conclude that a reduction in the non-call period to 3 years is on balance more beneficial to the Government (if our adjustments in B. above are included) as it means:**

- **For the same fixed coupon as a 5 year non-call structure, the share price will have to rise less for the Government to receive upside from the conversion option**
- **The Government can potentially exit at an earlier date**

- In our view, the key consideration for the Government is therefore not whether to require a value differential/discount (compared to an instrument convertible at any time) but more importantly to decide whether it is willing to relinquish flexibility to do the following during the first 3 years:

  i. Receive shares and try to liquidate part/all of its position through a sale of the shares to the market
  ii. "Threaten" the Banks that it will convert in order to utilise its ability to vote should, 9 months after the injection for example, the Bank(s) in question have failed (or refused even) to have acted in the broader interests of the economy
  iii. To the extent the Government actually wanted to obtain votes in the near term, it would not be able to so (although we understand this is not intended anyway)

**2. Reducing the Issuer non-call period**

We have the following three observations/considerations:

A. Approval from the FSA

- A minimum 5 year non-call period is envisaged in the EC guidelines and has been a market standard feature in a majority of other European tier one hybrid capital injections by Governments (as highlighted on slide A.1) and other private market tier one hybrid issuance prior to the credit crunch. It may not be simple for the regulator to accept a reduced call period
- However, we believe the following arguments should be taken into account by the regulator when making this decision given there are merits (outlined below) to having a shorter 3 year non-call period:

  i. The Dutch regulator was willing to accept that a core tier one instrument could be callable at anytime, at 150% of face value; given the call option was subject to the consent of the regulator. One could further speculate that the regulator took comfort that:
     a. This instrument would only ever be replaced with equity, an even better form of core capital
     b. The injection(s) were viewed as a one-off direct investment by the Government and would therefore not set a precedent for any further tier one capital instruments issued to the private market

  ii. The EC specifically highlights the Dutch instrument in the final remarks on page 11 of their paper on "The recapitalisation of financial institutions in the current financial crisis"
  iii. Although not directly relevant to the EC guidelines, the US capital injection had a 3 year non-call period (a Global precedent in the absence of a European one)

B. Return considerations

- As with all tier one instruments there is a risk that after 5 years the instrument has failed to pay any yield for a some/all of the period because the banks had insufficient distributable reserves (for example) and the instruments are then redeemed at par (e.g. refinanced with equity), having paid no return during the period

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# Memorandum

**From** Rothschild
**Date** 6 January 2009

[DRAFT FOR DISCUSSION]

**To** Danish Ministry of Finance

**Subject** **Conversion rights and Issuer call feature**

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**The below memo addresses two separate issues/questions:**

1. The implications for the Government of a delayed conversion start date 3 years after issue

2. Reducing the non-call period on the hybrid instrument to 3 years instead of 5 years

We would like to highlight that both issues are separate and are not inter-conditional or interlinked in any way. Each feature should be considered on a stand alone basis.

We have also summarised our conclusions in the form of a summary heads of terms at the end of this memo.

**1. Conversion start date delayed until end of year 3**

It is possible to delay conversion by the Government, for example, until the 3rd anniversary from issue. The implications are two fold:

A. Impact from a mathematical modelling/valuation perspective

- Technically there is negligible impact on the value of the conversion option if one delays conversion for the first 3 years given that derivative models will assume it is economically rationale for the Government to hold/sell the instrument (as opposed to convert it) even if there is a substantial rise in the share price
  - This is because the instrument has (a) a higher coupon than the dividend received on the underlying shares, and (b) relative downside protection (compared to shares) given a senior position in the capital structure
  - The model therefore always assumes that investors will not convert until forced to do so (i.e. when the instrument is called by the Issuer for redemption)

- However, the derivative model does not account for the fact that the instruments:
  i. Will likely be of a significant size in both nominal terms (i.e. DKKm) and relative terms (compared to the market capitalisation of the Bank)
  ii. Are unlikely to be listed or tradable (although this can potentially be resolved)
  iii. Will be less liquid than the shares even if the instruments were to be listed / traded

B. Practical reduction in flexibility

- Even if the Government were able to convert the instrument before 3 years it would still likely have substantial difficulty in selling all of the Shares at an acceptable price

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## Hanne Lanther (DEP)

**Fra:** Ulrik Nødgaard (DEP)
**Sendt:** 7. januar 2009 17:59
**Til:** 'Ljungberg, Henrik'
**Cc:** Lon IB Project Horizon; Peter Brixen; Kristian Vie Madsen (FT); Lotte Aakjær Jensen (DEP)
**Emne:** SV: Project Horizon - Comments on Package

Thanks for your comments.

For clarification purposes, are banks restricted in the number of time they can access the programme (we assume not but the document is not explicit on this point)?; They have to apply before june 30th.

- On what basis is the target post capital injection Tier 1 Capital Ratio calculated (transition rules or fully implemented Basel II)? Moreover, how was the target of 12 per cent determined?; Fully implemented Basel II. It is implicitly determined from the new financial stability report from the central bank. It includes a number of stress-scenarios that usggets that a capital injection of this size would be sufficient to ensure that no banks will violate the capital requirements over the next two years.
- The upper limit, for recapitalisation, of 3 per cent of risk weighted capital for banks with Tier 1 Capital Ratio of at least 9 per cent is somewhat higher than the EU guidance on recapitalisation of "sound" banks (up to 2 per cent). Would you foresee any issues with this and/or have you had any discussions on this point?; Good point.
- The pricing of recapitalisation is said to be on average 10 per cent, how is that determined and what is the anticipated spread between, for example, a large listed Group 1 bank with liquid stock and a smaller bank with limited / no liquidity? I guess this is what we expect you guys to come up with a proposal for!!
- Furthermore, it is not clear, from the text, that the average expected return of 10 per cent consists of two components (the cash coupon and the theoretical option value of the call feature) and that the composition may vary considerably between institutions. This would help clarify how you plan to compensate for unlisted banks not offering equity upside; and
- We appreciate the difficulties in linking the recapitalisation to lending volumes. However, you may want to consider using the conversion option as a carrot / stick for banks perceived not to comply with the implicit terms of the recapitalisation (maintain / increase lending volumes). Useful suggestions, but the government is trying to avoid being evaluated on the impact on lending
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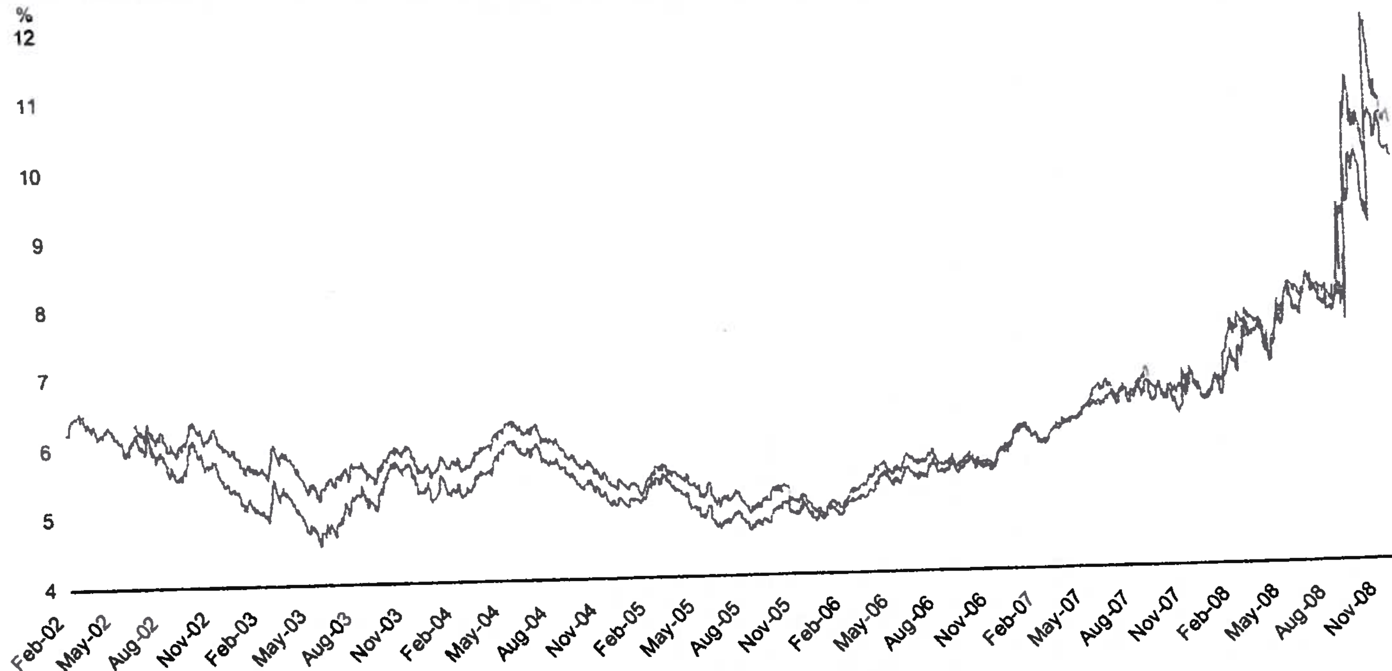
# Yield analysis

## *Instruments issued by Nordic banks*

**Yield analysis of selected Nordic bank Tier 1 instruments**

| | Min | Max | Mean |
|---|---|---|---|
| Handelsbanken | 4.6% | 11.9% | 5.9% |
| Nordea | 4.8% | 11.0% | 6.1% |

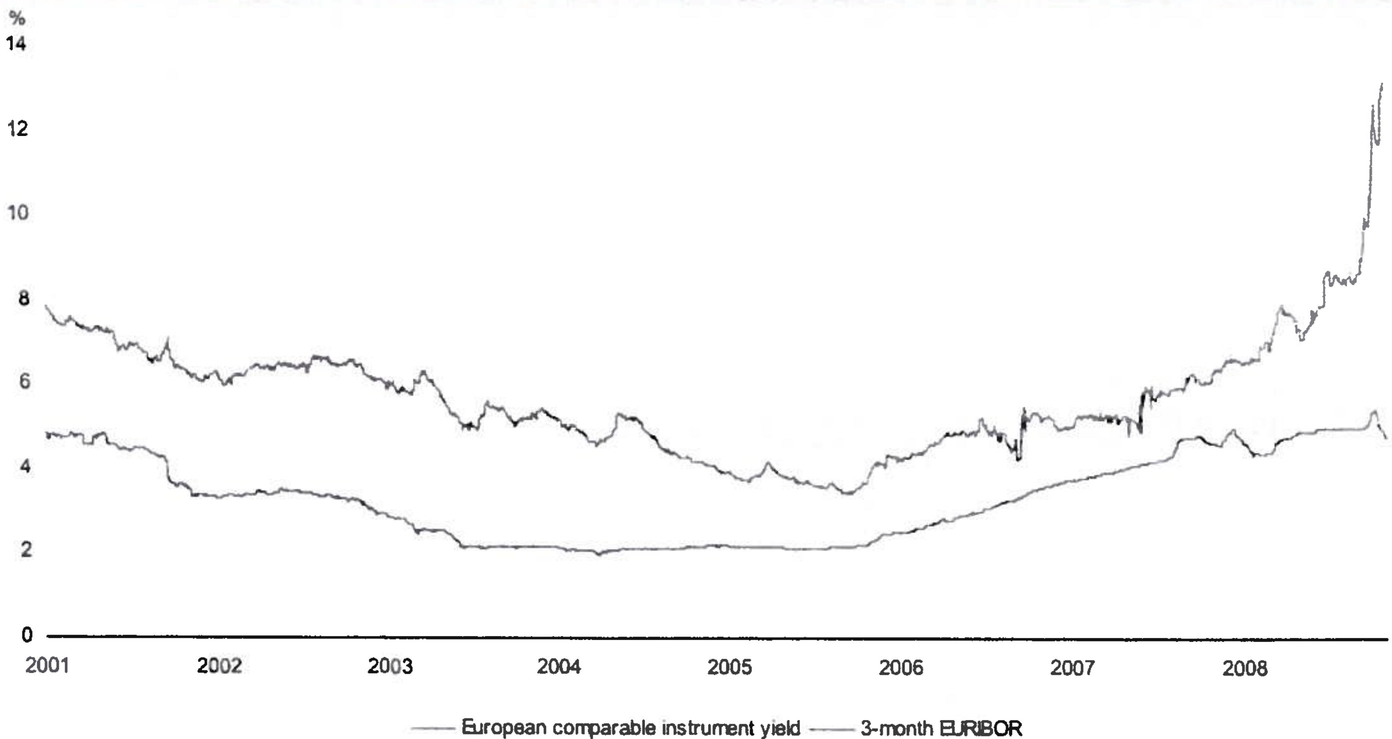



**Note** SEB and Danske Bank instruments excluded for this chart as the issuance on their quoted Tier 1 instruments was in 2005 or later and does not fully represent a cross-cycle trend
Source **Bloomberg**

# Indicative Tier 1 instrument index

## 8-year over the cycle yield analysis

| | Min | Max | Mean |
|---|---|---|---|
| 2001-2005 | 3.4% | 7.9% | 5.4% |
| 2006-2007 | 4.2% | 6.7% | 5.3% |
| 2008 | 6.5% | 13.1% | 8.2% |




Source **Bloomberg**

**Note** November 2008 has been used as the cut-off point due to volatility. The analysis considers selected Tier 1 instruments from BNP Paribas, Deutsche Bank, ING, Intesa Sanpaolo and RBS

Strictly private and confidential

# 8-year history of yields on quoted Tier 1 instruments

# Irish bank recapitalisation

## *Summary of recapitalisation programme announced 15 December*

- €10bn recap facility
- In principle existing shareholders will be given the opportunity to participate
  - Presumably therefore it will consist mainly of rights issues with government underwriting
- Government may invest in ordinary shares or preference shares
  - i.e. similar to UK scheme
- Investments may be via the National Pensions Reserve Fund
- Banks apply for funds as required – but government will "initiate" dialogue
- Each situation will be looked at on a case-by-case basis
- *Financial Times, 15 Dec 08*: *"Dublin's plan to inject €10bn of capital into domestic banks is as welcome as it is late. And, for all the time taken, it is remarkably vague. Apart from the worrying suggestion that it might help itself to Ireland's €18bn state pension scheme – recognition that funding alternatives are high as sovereign bond spreads widen – the government says it might buy preference or ordinary shares or underwrite a share issue"*

**Overview of position of listed Irish banks**

| *EURm* | Allied Irish Banks | Bank of Ireland | Anglo Irish Bank | Irish Life & Permanent |
|---|---|---|---|---|
| Market capitalisation | 1,748 | 884 | 286 | 421 |
| P/BV | 0.18x | 0.14x | 0.07x | 0.16x |
| Shareholders' equity ex minorities | 9,555 | 6,382 | 4,125 | 2,639 |
| Total assets | 182,973 | 204,279 | 101,321 | 76,130 |
| Tier 1 ratio | 7.7% | 8.7% | 8.4% | 12.5% |
| Core Tier 1 ratio | 6.20% | 6.3% | 6.7% | 10.1% |
| Basis | Basel II | Basel II | Basel II | Basel I |
| Balance sheet date | 30/06/2008 | 30/06/2008 | 30/09/2008 | 30/06/2008 |
| *Capital injection required for 8.0% Core Tier 1 (pre-losses), €bn* | *3.3* | *3.5* | *1.3* | *n/m* |

Source Company information, Factset 15/12/2008

*Assuming no other changes in risk-weighted assets / capital, in order to achieve a 8% Core Tier 1 ratio, a capital injection of €8.1bn is required for the largest Irish banks*



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**Capital analysis**

| SEKm, as at 3Q 2008 | Nordea | Swedbank | SEB | Handelsbanken |
|---|---|---|---|---|
| Core tier 1 (note 1) | 133,816 | 61,122 | 64,863 | 61,556 |
| Hybrid capital | 14,485 | 8,670 | 11,448 | 11,324 |
| Tier 1 capital | 148,301 | 69,792 | 76,311 | 72,880 |
| *Hybrid as % of Tier 1 capital* | *9.8%* | *12.4%* | *15.0%* | *15.5%* |
| | | | | |
| Tier 2 capital | 51,136 | 27,764 | 33,051 | 45,465 |
| Total capital | 199,437 | 95,606 | 97,651 | 108,018 |
| RWAs (transition period) | 2,118,214 | 847,400 | 936,906 | 1,052,568 |
| RWAs (post transition) | 1,879,641 | 666,612 | 770,200 | 709,222 |
| **Capital ratios (transition rules) (note 2)** | | | | |
| Core tier 1 ratio | 6.3% | 7.2% | 6.9% | 5.8% |
| Tier 1 ratio | 7.0% | 8.2% | 8.1% | 6.9% |
| Total capital ratio | 9.4% | 11.3% | 10.4% | 10.3% |
| Capital required to achieve 8.0% core tier 1 ratio | 35,642 | 6,670 | 10,089 | 22,649 |
| **Capital ratios (post transition)** | | | | |
| Core tier 1 ratio | 7.1% | 9.2% | 8.4% | 8.7% |
| Tier 1 ratio | 7.9% | 10.5% | 9.9% | 10.3% |
| Total capital ratio | 10.6% | 14.3% | 12.7% | 15.2% |
| Capital required to achieve 8.0% core tier 1 ratio | 16,556 | (7,793) | (3,247) | (4,818) |

Source **Company 3Q reports**

**Notes**

1) Core Tier 1 capital = Tier 1 capital less hybrid capital (core capital contribution); Swedbank capital adjusted for cSEK12bn capital raised (net of SEK 400m expenses) Handelsbanken adjusted for SEK 2.1bn capital raising

2) Transition period calculations are based on the transitional rules, applicable over the three year transition period to Basel II ending in 2009

# Responding to the credit crisis

## *Handelsbanken hybrid Tier 1 capital loan issuance*

*Swedish banks are now able to include up to 30% in hybrid Tier 1 capital loans in their Tier 1 capital*

**Overview**

- The Swedish Financial Supervisory Authority announced 12/12/08 that Swedish banks, like their counterparts in most EU countries, can include up to 30 percent in hybrid Tier 1 capital loans in their Tier 1 capital
- Handelsbanken has issued a hybrid Tier 1 capital loan of SEK 2.1bn
  - The issue was subscribed for by a small group of institutional investors
  - The loan leads to an increase in Handelsbanken's capital base and thus boosts the bank's potential lending capacity
- Handelsbanken said in their statement (16/12/2008):
  - *"The issue has attracted a great deal of interest and it was carried out on good terms. Our assessment is that this was helped by the Government's stabilisation fund, which includes Handelsbanken. At present, many companies need to renew their loans, while many international lenders have disappeared from our domestic markets. To meet this need, we are further increasing our lending capacity by issuing this hybrid Tier 1 capital loan. The Swedish Financial Supervisory Authority has decided that the loan may be included in Tier 1 capital when calculating the Bank's capital base. Thus our Tier 1 capital ratio will be strengthened by about 0.2 percentage points."*
- Following yesterday's issue, Handelsbanken has the capacity to issue approximately SEK 10bn more under the new regulations

***Handelsbanken raised SEK 2.1bn hybrid Tier 1 capital following the increase of regulatory limit for Tier 1 hybrids to 30%***