Leading the way in Asia, Africa and the Middle East

Richard Goulding
Group Chief Risk Officer
Today’s objectives

- Demonstrate the very strong foundations of Risk Management of Standard Chartered
  - Controlling risk to remain within risk appetite
  - Working with the front line to optimise the revenue/impairment equation

- Show the importance of our diversification, short tenor profile, application of collateral, early and proactive risk management, and use of market risk which is client focused

- Address your key concerns: Credit concentrations, India, China, Commodities, Korea - by looking specifically at the way we have been managing risks in these areas

- Provide context for my belief that the future loss experience is likely to be more muted than might be assumed from the external environment
Risk management – active and thoughtful

Built on 5 strong foundations

- Diversification
- Tenor
- Collateralisation
- Discipline
- Client driven market risk
Strong foundations
Wholesale Banking diversification

Loans and advances by geography

- Highly diversified by geographic spread
- No single region accounts for more than 20%
- 10 years ago Hong Kong accounted for 20% and now down to 15%

Corporate exposures

- Highly diversified by sub industry, client and geography
- Largest exposure is energy, accounting for 20% of net nominal

Note: Total loans and advances to customer as at 30 June 13

Note: Net nominal at 30 June 13 (defined as total assets, contingents and net negative MTM of derivatives)
Strong foundations
Wholesale Banking industry diversification

**Energy**
- Coal mining 5%
- Oil rig operators 6%
- Petroleum refineries 19%
- Extraction of oil 30%
- Trade in fuel and lubricants 33%
- Other* 7%

- 20% of net nominal
- Spread over 350 client groups
- 68% of exposures have tenor <1 year
- Largest exposures to global oil majors or government supported entities

**Metals and mining**
- Gold and precious metal loans 7%
- Copper and zinc 11%
- Non-ferrous metals 13%
- Metal traders 31%
- Iron and steel 36%
- Diamonds 2%

- 9% of net nominal
- Spread over 650 client groups
- 67% of exposures have tenor <1 year
- 41% of exposures are trade related

*Includes manufacturing, repairs and support services for the petroleum industry

Note: Net nominal at 30 June 13
Strong foundations
Wholesale Banking industry diversification

Real estate
- Industrial and Logistics 4%
- Hotels 2%
- Mixed use 28%
- Residential 18%
- Retail and Shopping Mall 17%
- Others 11%

Transportation
- Sea 48%
- Air 43%
- Road 2%
- Rail 1%
- Others 6%

- 8% of net nominal
- Spread over 120 client groups
- Geographically highly diversified
- Overall LTV* of 38%

- 7% of net nominal
- Spread over 400 client groups
- Highly collateralised

Note: Net nominal at 30 June 13
* Loan to Value
Strong foundations
Wholesale Banking short tenor

Portfolio tenor distribution

<table>
<thead>
<tr>
<th>Category</th>
<th>≤ 1 year</th>
<th>&gt; 1 year</th>
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</thead>
<tbody>
<tr>
<td>Sovereign</td>
<td>87%</td>
<td>13%</td>
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<tr>
<td>Financial institution</td>
<td>89%</td>
<td>11%</td>
</tr>
<tr>
<td>Corporates</td>
<td>64%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Wholesale Banking client assets distribution

- ≤ 1 year 28%
- > 1 year 72%

Wholesale Banking portfolio tenor distribution

- ≤ 1 year 72%
- > 1 year 28%

Note: Client assets include loans and advances and contingents to corporates, FIs and sovereign; and exclude ALM and derivates MTM
Strong foundations
Wholesale Banking risk mitigation

Collateral and guarantees against loans

- Higher collateral for longer term and non-investment grade loans
- Diverse collateral mix
- Average haircut 44% of current market value
- FSV are conservative, calibrated to downturn and back tested

Collateral current market value (CMV) and forced sale value (FSV) – US$bn

Collateral regulatory view (US$bn)

Type of collateral

* Per annual accounts
Strong foundations
Consumer Banking asset mix

Loans and advances by geography

- Diversified by geography
- 10 years ago Hong Kong accounted for 50% - now 26%
- Secured assets include retail and SME mortgages each with 47% LTV

Loans and advances to customers

- Secured
- Partially secured
- Unsecured

Note: Total loans and advances to customer as at 30 June 13
Strong foundations
Market risk

Daily trading income / average VaR (%)

- SCB
- Bank A
- Bank B
- Bank C
- Bank D
- Bank E
- Bank F
- Bank G
- Bank H
- Bank I
- Bank J

Number of loss days in H1 13
1
6
N/A
N/A
0
7
6
N/A
N/A
2
13

VaR trend (US$m)

Average VaR / CT1 capital

Core Tier 1 capital (US$m)

* Core Tier 1 (CT1)
China reduced 2012 GDP growth forecast

China's Industrial production grew at slowest rate since Sep 09

IMF lowers the 2013 growth forecast for world trade volume

North Korean test fires six missiles in three days

China's economy grew at a slower pace of 7.5% in the Q2 13

Copper prices fell by 20% in H1 03

Fed indicates tapering of quantitative easing ("QE")

Slump in gold prices

Indian Rupee depreciates to 69

2012

Base metals price slump

Sharp US$ appreciation

Emerging Markets export slump

PRA Capital Stress Test
A collapse in world trade
A severe stress in China
A severe stress in India

Conflict in the Korean peninsula (scenario analysis)

Group ICAAP Stress Test
A world trade downturn

The tapering of FED QE program

INR sharp depreciation stress (Indian portfolio)

India cross border stress

2013

Refinance risk

Mono-product clients

US$ appreciation (large clients)

Clients with Europe exposure

Power sector contagion

Coal investigation

Renewable energy

Banks

Contractor sector

Refinance risk update

Impact of RBI measures on Indian banks

Telecom and Mining

Regional financial institutions

FM derivatives (counterparty credit risk)

Commercial real estate

China deep dive

China Bank trade

Local corporate and middle market

Commodity client (steel focus)

Parental support (non-contractual)

Holding companies

China Bank CBN review

Privately owned enterprises

Banks – Wealth Management product sold portfolio

East China middle market segment

Ship building

Solar supplies and affiliates

Corporate governance and fraud review

Steel sector
Large corporate underwriting

- Careful selection of clients – resilience under stress
- Robust assessment of client business plans and industry risks
- Facilities are diligently structured
- Credit decisions on full underwrite, not just hold levels
- Ongoing Senior Risk Coverage
The top 20 relationships are highly diversified.

On average each exposure is spread across 7 markets and 5 industries.

Remain broadly stable, both as a proportion of Group Capital resources and Wholesale Banking net nominal.
India

**Issues**
- 2G Licensing scandal (2011)
- Political Stasis (2012)
- Severe economic downturn (2013)

**Actions taken**
- India Working Group formed
  - Closely managed top Indian corporate exposures aggregating to US$9.6bn
  - Reduced corporate exposures by US$740m since Dec 2012
  - Stress tested portfolio across a comprehensive list of scenarios including a foreign exchange stress test

**Telecom sector exposure**

- 2010: 26%
- 2013: 13%

**Onshore:**
89% of exposures are below 1 year tenor

**Offshore:**
- Over 90% is US$ denominated
- 57% exposures are less than 1 year tenor

Overall portfolio: 57%
### China

**Issues**
- Reduced growth
- Repositioning of economy

**Actions taken**
- Cut limits and exposures to Solar materials / equipment producers by 66% since April 2012
  - Further shortened tenor of ALM placements to Chinese banks
    - 93% of the book <1 year and
    - 66% of the book <3 months vs. 36% as at August 2012
- Exited 16 commodity trader and producer clients
Commodities

Issues
- Falling commodity prices
- Increased volatility

Actions taken since 2012
- Reduced exposures to commodity traders by US$900m
- Exited 100 clients with aggregate exposure of US$800m
- Improved tenor profile with 92% < 1 year

Producer commodity stress test
- 20% to 50% price reduction - 2 year period
- Only 4% of portfolio vulnerable under stress conditions
## Korea retail unsecured

<table>
<thead>
<tr>
<th>Issues</th>
<th>PDRS* applications started rising in Q4 2011 and have continued to rise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actions taken</td>
<td>Jan 2012 – Increased bureau sub-prime scorecard cutoff</td>
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<td>Sep 2012 – Tightened unsecured debt income ratio and scorecard cutoff</td>
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<td>Mar 2013 – Further tightened unsecured debt income ratio and scorecard cutoff</td>
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<td>Aug 2013 – Decision to exit Select loan business</td>
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<tr>
<td>Observations</td>
<td>Select loan had rational risk return characteristics despite its riskier nature</td>
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<td>Main competitors for this product were finance companies, who have comparably worse performance</td>
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*PDRS – Personal Debt Rehabilitation Scheme*
### Wholesale Banking Impairment Experience

#### Emerging Markets Financial Crisis

<table>
<thead>
<tr>
<th>Year</th>
<th>Median Gross Loan Impairment (bps)</th>
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<th>Median Recoveries (bps)</th>
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<td>97 – 202</td>
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#### Benign Period (pre-IFRS)

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#### Global Financial Crisis

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#### Post Traumatic Stress Environment

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<th>Year</th>
<th>Median Gross Loan Impairment (bps)</th>
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Loans and advances to customers (US$bn)

Gross LI bps of avg loans and advances to customers

Personal bankruptcies in Hong Kong

Taiwan unsecured lending bubble

Global financial crisis

Korea personal debt rehabilitation scheme

Consumer Banking impairment experience

<table>
<thead>
<tr>
<th>Year</th>
<th>Loans and advances to customers (US$bn)</th>
<th>Gross LI bps of avg loans and advances to customers</th>
<th>LI bps of avg loans and advances to customers</th>
<th>LI bps of avg customers loans and advances (excluding one off sales, policy adjustments, and Korean PDRS)</th>
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</thead>
<tbody>
<tr>
<td>2001</td>
<td>266</td>
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**Outlook: Wholesale Banking**

**Early alerts trend**
- Early Alerts (EA) is not a leading indicator of loss, but is an indicator of increased account scrutiny

**Non performing loans trend**
- Non performing loans as a % of Wholesale Banking Loans and Advances have been broadly flat at around 2% since 2009
- MESA accounts for 47% of the total NPL of US$4.5bn at June 2013
Outlook: Consumer Banking

30+ and 90+ days past due trends (US$bn)

- 30dpd (LHS)
- 90dpd (LHS)
- 30dpd/ENR% (RHS)
- 90dpd/ENR% (RHS)
Key messages

- Our risk management is built on five strong foundations
  - High portfolio diversification
  - Short tenor
  - High degree of collateralisation of sub-investment grade exposures
  - A deeply embedded set of risk management disciplines
  - Utilisation of Market Risk only in support of client activities

- Active and early response to anticipated deteriorations in market conditions

- Consistent, well-structured and highly selective approach to large ticket corporate credit underwritings