Chapter 10: Banking – new forms of lending
Overview of the book

Part I: What is sustainability and why does it matter?
1. Sustainability and the transition challenge

Part II: Sustainability’s challenges to corporates
2. Externalities - internalisation
3. Governance and behaviour
4. Coalitions for sustainable finance
5. Strategy and intangibles – changing business models
6. Integrated reporting - metrics and data

Part III: Financing sustainability
7. Investing for long-term value creation
8. Equity – investing with an ownership stake
9. Bonds – investing without voting power
10. Banks – new forms of lending
11. Insurance – managing long-term risk

Part IV: Epilogue
12. Transition management and integrated thinking
Learning objectives – chapter 10

- explain the role of banks in screening and monitoring (potential) borrowers
- explain the relevance of sustainability for banking
- understand how ESG risks can be incorporated in the credit risk assessment
- list the barriers and incentives to sustainable lending
- understand the various forms of impact lending and microfinance
Sustainability of banks
Governance of banks themselves

Values-based banks

Social capital matters

Global banks

Performed worse during crisis, but better before
# Value based banks vs global banks

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Values-based banks</td>
<td>Global banks</td>
</tr>
<tr>
<td><strong>Real economy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loans/Assets</td>
<td>76.8%</td>
<td>41.6%</td>
</tr>
<tr>
<td>Deposits/Assets</td>
<td>81.7%</td>
<td>52.2%</td>
</tr>
<tr>
<td><strong>Capital strength</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity/Assets</td>
<td>8.1%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Tier 1 Ratio</td>
<td>12.8%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Risk weighted assets/total assets</td>
<td>61.6%</td>
<td>44.2%</td>
</tr>
<tr>
<td><strong>10 years (2006-2015)</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Financial returns and volatility</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on Assets (RoA)</td>
<td>0.65%</td>
<td>0.53%</td>
</tr>
<tr>
<td>Standard deviation RoA</td>
<td>0.26%</td>
<td>0.35%</td>
</tr>
<tr>
<td>Return on Equity (RoE)</td>
<td>8.3%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Standard deviation RoE</td>
<td>4.9%</td>
<td>7.7%</td>
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</tbody>
</table>
ING’s materiality matrix

Customer centricity
A Innovative business developments
B Customer privacy and data security
C Enhancing customer financial capabilities
D Stability of IT systems and platforms
E Usability and accessibility of our products and services
F Fair communication about our products and services
G Responsible lending and debt prevention

Economic contribution
H Financial performance
I Pricing of products and services
J Managing risks

Fair operating practices
K Regulatory developments
L Anti-competitive behaviour prevention
M Corruption prevention
N Sustainable finance and investment policies

Stakeholder engagement
O Transparency and openness
P Trust

Human capital
Q Diversity and equal opportunities, preventing discrimination
R Being a good employer
Why does sustainability matter to lending?
Relevance of sustainability to lending

- ESG factors do not only influence creditworthiness company
- But also impact on collateral value (e.g. real estate)
Bank credit is important!

As a % of GDP

- **Equity**
- **Corporate bonds**
- **Bank credit**

**China**

**Euro area**

**US**
Two broad approaches

Risk based
Integrate ESG factors into credit assessment

Values based
Mission driven: impact comes first
# Integration of sustainability

<table>
<thead>
<tr>
<th>Sustainable Finance Typology</th>
<th>Bank loans</th>
<th>Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Finance 1.0</td>
<td>Exclusion</td>
<td>Risk based</td>
</tr>
<tr>
<td>Sustainable Finance 2.0</td>
<td>ESG integration</td>
<td></td>
</tr>
<tr>
<td>Sustainable Finance 3.0</td>
<td>Impact lending, Microfinance</td>
<td>Value based</td>
</tr>
</tbody>
</table>

Principles of Sustainable Finance © Schoenmaker and Schramade 2019
Risk-based approach
Sustainability credit core system

1) Analyse company’s industry

2) Paths for average company
   • a) Business as usual
   • b) Sustainable business
   • c) Future sustainable business

3) Determine material (ESG) issues
   • plus vulnerabilities / opportunities

4) Define weights & combine into overall credit assessment
Sustainability policies

- Several banks apply sustainability policies
  - General and sectoral parts

- Examples of sectoral lending policies
  - Westpac: zero net deforestation
  - Rabobank: food and agri standards (see Box 10.2)

- New approaches with focus on transition towards 2°C
  - Terra – look at technology scenarios for each industry
  - Grant loans which are consistent with projected installed base
Assessment clients

Determine material ESG factors

Questions to clients on:

- Meeting regulations (compliance)
- Their own initiatives (commitment)
- What they can do (e.g. supply chain, reporting)
- Track record (e.g. incidents, media attention)
# Sustainability criteria for credit risk management

<table>
<thead>
<tr>
<th>Economic sustainability criteria</th>
<th>Environmental sustainability criteria</th>
<th>Social sustainability criteria</th>
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</thead>
<tbody>
<tr>
<td>Net debt service</td>
<td>Costs of environmental measures</td>
<td>Wage policy</td>
</tr>
<tr>
<td>Quality of growth</td>
<td>Emissions</td>
<td>Health policy</td>
</tr>
<tr>
<td>Sector development</td>
<td>Environmentally friendly construction</td>
<td>Social security of the employees</td>
</tr>
<tr>
<td>Integration of environmental</td>
<td>Consideration of nature and landscape</td>
<td>Workers’ participation</td>
</tr>
<tr>
<td>aspect in economic decision-making</td>
<td>Soil erosion</td>
<td>Conservation of workplaces</td>
</tr>
<tr>
<td>Community relations</td>
<td>Sewage quality</td>
<td>Flexible working conditions and working hours</td>
</tr>
<tr>
<td>Risk of accidents</td>
<td>Air emission</td>
<td></td>
</tr>
<tr>
<td>Job creation</td>
<td>Noise emission</td>
<td></td>
</tr>
<tr>
<td>Adequate firm size</td>
<td>Resource protection</td>
<td></td>
</tr>
<tr>
<td>Eco-efficiency</td>
<td>Material use</td>
<td></td>
</tr>
<tr>
<td>Material productivity</td>
<td>Ratio of renewable resources</td>
<td></td>
</tr>
<tr>
<td>Energy efficiency</td>
<td>Use of renewable energy</td>
<td></td>
</tr>
<tr>
<td>Waste management</td>
<td>Use of water (amount)</td>
<td></td>
</tr>
<tr>
<td>Toxic waste</td>
<td></td>
<td></td>
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<tr>
<td>Contaminated sites</td>
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</tbody>
</table>
If sustainability performance up, interest rate goes down

- Measured by Sustainalytics
- Up to 5-10% of credit spread

Lead arranger of five-year loan facility
- Has conducted credit risk assessment; and
- Acts as sustainability coordinator in loan syndicate

A leading sustainable corporate
- ‘Healthy People, Sustainable Program’

Loan facility to Philips

ING

Philips
ING is the leading bank for the innovative sustainability improvement loan
Successfully completed 10 transactions in 2017
Circular business models (Chapter 5)

The value hill in a **circular** economy:

Add value

- User
- Retail
- Assembly
- Manufacturing
- Extraction

Pre-use

Use

Post-use

Retain value

- Repair/maintain
- Reuse/redistribute
- Refurbish
- Remanufacture
- Recycle
Circular business models

Closed loop supply chain

- Materials remain with party that can do most with these materials
- New production technologies
- Longer life time products
- From selling to using: payment for service models

Business components

- Pre-use: design and manufacturing
- Use: services
- Post-use: refurbishment
Financing circular business models

- New challenges for financing
  - From asset based (collateral)
  - To cash flow based (clients)

- Asset based (inventory)
  - Standardisation, modularity and flexibility

- Cash flow based (strategy, network, customers)
  - Where is value part in product chain?
  - Contract terms + quality customers
Sustainable lending

- **Evidence**: Chava (2014) – lower (higher) interest rates for loans to companies with environmentally friendly products (environmental concerns)

- **Barriers**:
  - Training account managers to include ESG in due diligence and calculation of credit risk premium
  - Status quo existing clients -> higher risk premium / ban
  - Maturity risk < 10 years, while ESG long term
Example of old vs new thinking

Assessing a large investment in new battery facility

Traditional credit risk assessment
- No loan or high credit risk premium
- High risk due to large investment with business risk

Sustainable credit risk assessment
- Better!
- Low credit risk premium
- Opportunity due to transition to renewable energy
Incentives

- **Nudging**: base rate for low ESG risk projects and extra premium for projects with ESG concerns
  - Example: energy-efficient mortgages
  - Real estate very important (60% lending portfolio)

- **Capital adequacy framework**:
  - Should it be used for sustainability?
  - If so, green support factor or brown capital charge?
Values-based banking
Values-based banking: impact lending

![Diagram showing the relationship between impact, return, and risk.](Image)
## Scorecard – values based banks

<table>
<thead>
<tr>
<th>Quantitative factors</th>
<th>Weight</th>
<th>Minimum</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial viability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on average assets (3 year average)</td>
<td>10%</td>
<td>0%</td>
<td>Peer market</td>
</tr>
<tr>
<td>Equity/Total assets</td>
<td>10%</td>
<td>3%</td>
<td>8%</td>
</tr>
<tr>
<td>Low quality assets</td>
<td>5%</td>
<td>0%</td>
<td>Peer market</td>
</tr>
<tr>
<td>Liquid assets</td>
<td>5%</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td><strong>Real economy focus</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real economy loans/Total assets</td>
<td>10%</td>
<td>30%</td>
<td>65%</td>
</tr>
<tr>
<td>Client funding/Total assets</td>
<td>10%</td>
<td>30%</td>
<td>75%</td>
</tr>
<tr>
<td>Real economy revenues/Total revenues</td>
<td>10%</td>
<td>50%</td>
<td>75%</td>
</tr>
<tr>
<td><strong>Triple bottom line focus</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triple bottom line exposures/Total exposures</td>
<td>40%</td>
<td>10%</td>
<td>55%</td>
</tr>
</tbody>
</table>
## Scorecard – Cont’d

<table>
<thead>
<tr>
<th>Qualitative factors</th>
<th>Consistent analysis of factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>Values-based mission, strategy and culture; gender diversity</td>
</tr>
<tr>
<td>Organisational structure</td>
<td>Values-based commitment of owners and partner organisations</td>
</tr>
<tr>
<td>Products and services</td>
<td>Impact of products and services; gender diversity clients</td>
</tr>
<tr>
<td>Human resources</td>
<td>Recruitment; training; culture; compensation equality</td>
</tr>
<tr>
<td>Management systems</td>
<td>Risk and lending processes; capital allocation; ALM</td>
</tr>
<tr>
<td>Performance reporting</td>
<td>Publicly available information on ESG activities and impacts</td>
</tr>
</tbody>
</table>
Microfinance / microcredit

- Microfinance: banking service to low-income or unemployed and micro-enterprises
  - Pioneers in Bangladesh (different from traditional banking)
  - Social control, group lending, etc.

- Challenges + opportunities
  - Unserviceable and unreachable part of population
  - Small loans at affordable cost
  - New approaches: satellite linked with mobile vans/boats
  - Use mobile telephones
Conclusions

- Integrate sustainability in credit risk assessment

- New approach for account managers
  - New ways of looking (transition preparedness; circular models)
  - Policy and technology uncertainty (future is uncertain)
  - Material ESG issues differ across sectors/companies

- Values-based banking: impact comes first

- Microfinance emerging in Asia, Latin-America and Africa