



Risk transfer solutions for corporate agribusiness clients





Swiss Re is a global financial services firm with a long history of success

Swiss Re is ...

- ... a financial services firm with 144 years of experience
- ... the world's leading and most diversified reinsurer
- ... a proven expert in risk and capital management
- ... a pioneer and leader in capital market solutions



Quick Facts (31.12.2007)

- Revenues CHF 42.8 billion
- Net income CHF 4.2 billion
- Total investments: CHF 228 billion
- Rated AA- by S&P and Aa2 by Moody's
- 11,000+ employees
- 90 offices in 25 countries
- Headquarters in Zurich, Switzerland

Recent Awards



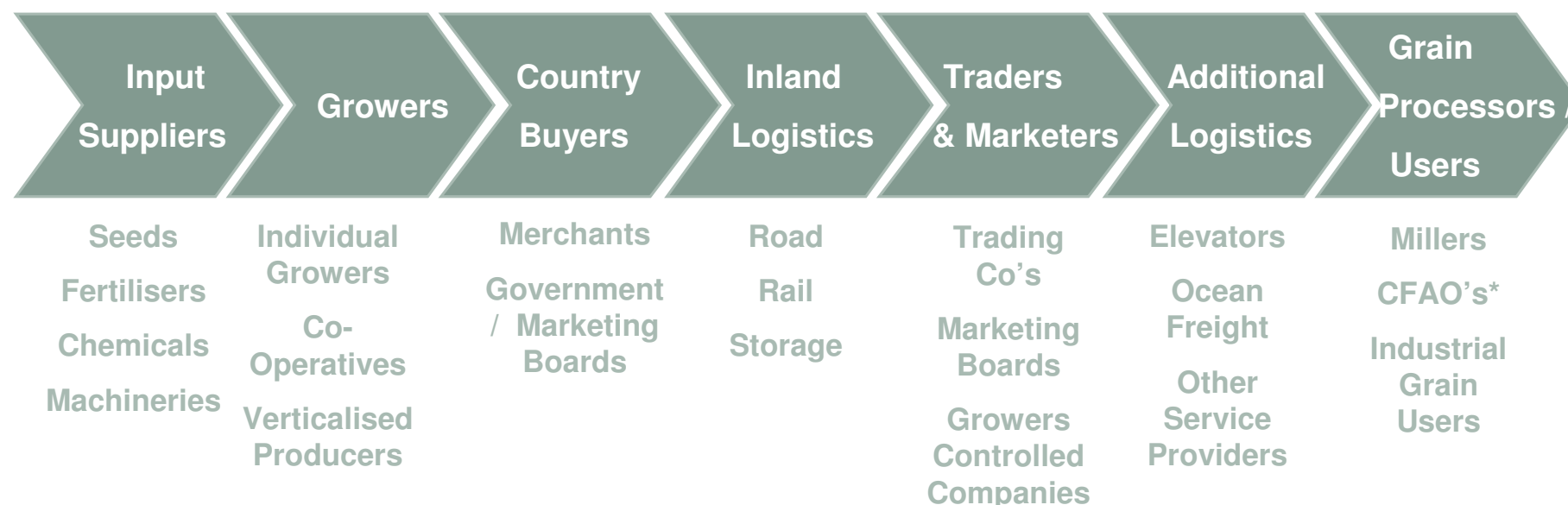
- Best Global Reinsurer (Reactions 2007)
- Top-10 "Green Giant" (Fortune Magazine, 2007)
- Top-50 "Low Carbon Pioneers" (CNBC, 2007)
- Insurance Borrower of the Year (Euromoney, 2007)
- #1 Capital Raising of the Year (Reactions, 2006)



Risks are multiple along the agricultural supply chain and can affect many players

(Re)insurance provides comfort and credit enhancement in the value chain

Financial Institutions / other lenders



Swiss Re's global experience and expertise enables to provide tailored risk transfer solutions to the stakeholders involved in the agricultural supply chain



Two ways of covering risks

Production shortfall (Volume / Price)

Risk: Volatility in earnings due to lack of raw material from weather perils / diseases and related price fluctuations

Production index = (planted area * Δ Yield * Δ Price) in excess of retention

Measure of shortfall:

1. Government production data; company statistics
2. Third party assessments (eg inspectors)
3. Crop forecast models

Indemnity: Deviations from yield and/or price from agreed values from agreed data

Perils: Hail, flood, drought, excessive rainfall, frost, storm, fire, pests, diseases, lower quality, etc.

Drawback: Historical data (area planted, yield) not always reliable or available, solution works best for large geographical areas

Weather Index

Risk: Volatility in earnings due to weather exposure from measurable weather perils at weather stations

Weather index = Δ Temp/Precip * Price per Tick

Measure of shortfall:

1. Weather data
2. Satellite-based drought index

Indemnity: Deviations (“ticks”) from agreed weather parameters measured at weather stations

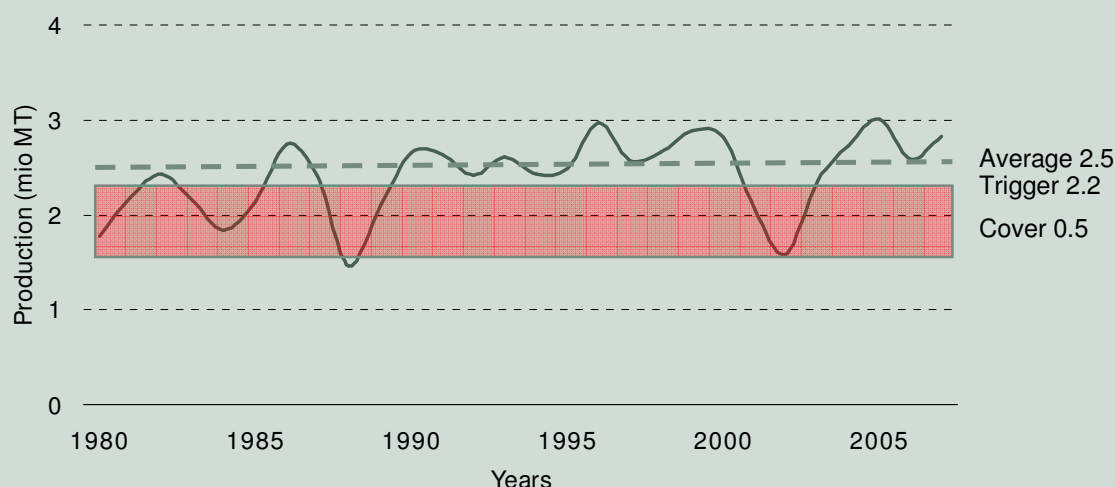
Perils: Rainfall and/or temperature with its extremes (excessive rainfall, drought, frost)

Drawback: Weather station not accurately representing area of interest, short time series of weather records. Correlation not as high as for the energy sector

Case study: Grain Handling Co.

Situation

- Grain Handling company purchases / handle different grain varieties in several regions/states incur 40% production shortfall or more in drought years
- Insurance product covers production shortfall of Grain Handling Company below de-trended historical average production in function of gross margin per ton shortage



Definitions

- Average Production (Grain Handling Co. only) (AP): 2.5 mio MT as 10 year de-trended average
- Average Area Seeded (not only Grain Handling Co.) (AAS): 6 mio ha as 10 year average
- Trigger: 2.2 mio MT (88% of AP)
- Cover: 0.5 mio MT
- Indemnity: fix amount per ton based on gross margin

Indemnity

- Trigger adjusted if Actual Area Seeded < 90% of AAS
- Indemnity when Actual production < Trigger => compensating tonnage shortfall up to a maximum of 0.5 mio MT (cover) at a fix amount per MT (gross margin)

Swiss Re



Thank you very much

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