

RISK ANALYSIS IN THE BANKING WORLD

klas@bjornevik.se

*How do you boost your long term financial
development ?*

*Take the right decisions
and.... have the ability to execute*

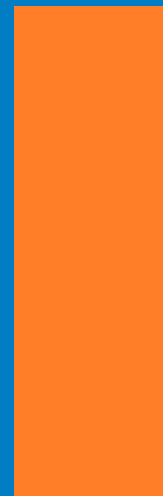
AGENDA

- Why banks talk about risk
- The risk map
 - Areas of use
 - Current trends
 - Models in credit risk
 - Challenges

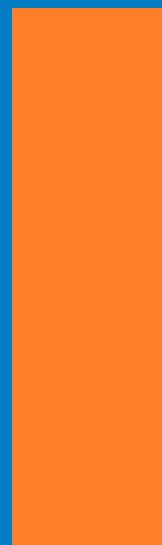
WHY BANKS TALK ABOUT RISK



WHY BANKS TALK ABOUT RISK



Liability



Asset

They won't get
my money!!

THE RISK MAP

AREAS OF USE

IFRS 9

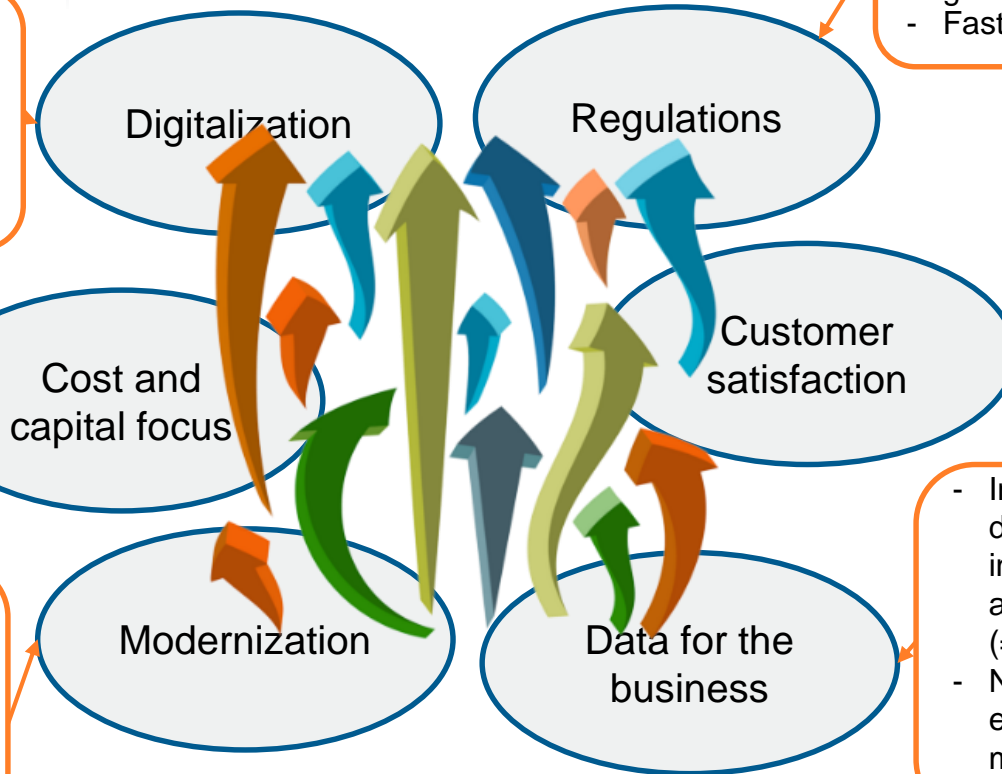


CURRENT TRENDS IN ANALYTICS

- Digital and mobile first for revenue / customer experience growth.
- Analytics COEs trending up
- Transaction Banking
- Automation

- Reduction in staff (more scoring)
- consolidation of systems
- Review of IRB calc.

- More efficient environment using High performance tools: in memory, ESP, Hadoop
- Visual and easy management tools
- Forward looking analysis



- New regulations (IFRS 9, BCBS 239, PSD2, AnaCredit etc.) + assure compliance, data governance
- Faster respons to regulators

- 360o view of customers becoming omni-channel including risk information

- Increased use of unstructured data (external & internal) for insight, service, predictive analytics and R&D (=innovation lab)
- New methods in early exploration phase/buzz word; maschine learning, text mining, real time information

THE RISK MAP MODELS IN CREDIT RISK

Todo: Data quality • variable generation • segmentation • clustering • binning • variable selection • model building • analysis • documentation • deployment to production • maintenance

Model objectives: Probability of Default (PD) • Loss Given Default (LGD) • Conversion Factor (CF)

Common model types: average • logistic • probit • tree • hazard • z-factor

Vs. CRM: More robust • longer lead project time • well documented

THE RISK MAP | SOME EXAMPLES OF CHALLENGES

Coping with the business cycle:

As models are not fully follow the cycle adjustments need to be made to fulfill regulations – Basel requires averaged Through the cycle and new IFRS 9 requires a forward looking point in time (PIT).

Lagging variables:

Information around the financial statement is up to two years old (result info 0,5y+ 0,5y before available + up to 1 year before usage).

THE RISK MAP SOME EXAMPLES OF CHALLENGES

Early warning:

client executive get early warning signals when the risk is increased... It is almost impossible to protect against flaw flags. E.g. Board member changed by the bank, income

Size:

In IFRS 9 Large bank – normally run test monthly for up to 50 years with up to 5 scenarios. Several output variables. Need to decompose in 5 runs.

... 10 000 000 contracts * 50 * 12 month * 5 scenarios * 10 variables * 5 decomposition runs = 1 500 billion cells as input for aggregating the final ECL's (Banks are looking into how to bring the size down).

THANK YOU FOR YOUR ATTENTION

