BANK-WIDE SIMULATION

KPI DEVELOPMENT IN VARIOUS SCENARIOS

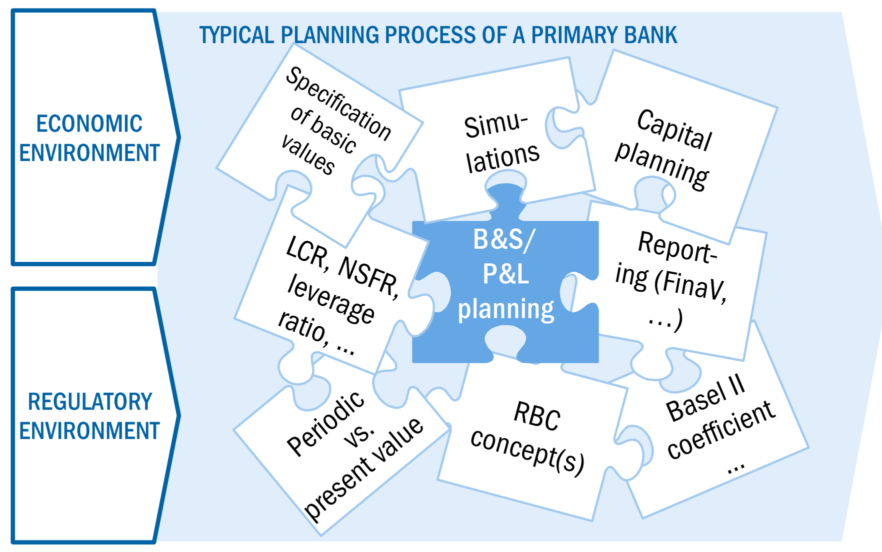
zeb

Initial situation of the planning process

SUB-STEPS OF AN IDEAL PLANNING PROCESS (SIMPLIFIED)

MEDIUM-TERM CYCLE	ANNUAL ROLLING CYCLE			
Strategy process	I Strategic planning	II Operational planning process		
	Top-down	Top-down	Bottom-up	Coordination
Annual strategy reviews	• Definition of target values • Comparison with medium-term planning • Definition of core KPI for achieving strategic goals on bank-wide and business-segment level • Transfer of core KPI to projectable target value per business segment	• Specification of top-down target values (income, cost, risk) • Specifications for all management areas	• Unit-specific detailed planning • Consideration of interrelations (e.g. Sales and Treasury) and bank-wide requirements	• Combination and matching of bank-wide and unit planning • Adoption of bank-wide and unit goals

The growing requirements of the economic and regulatory environment continue to increase the complexity of the planning process



Duplication of work
Plans and especially simulations are prepared in an isolated manner and in different tools

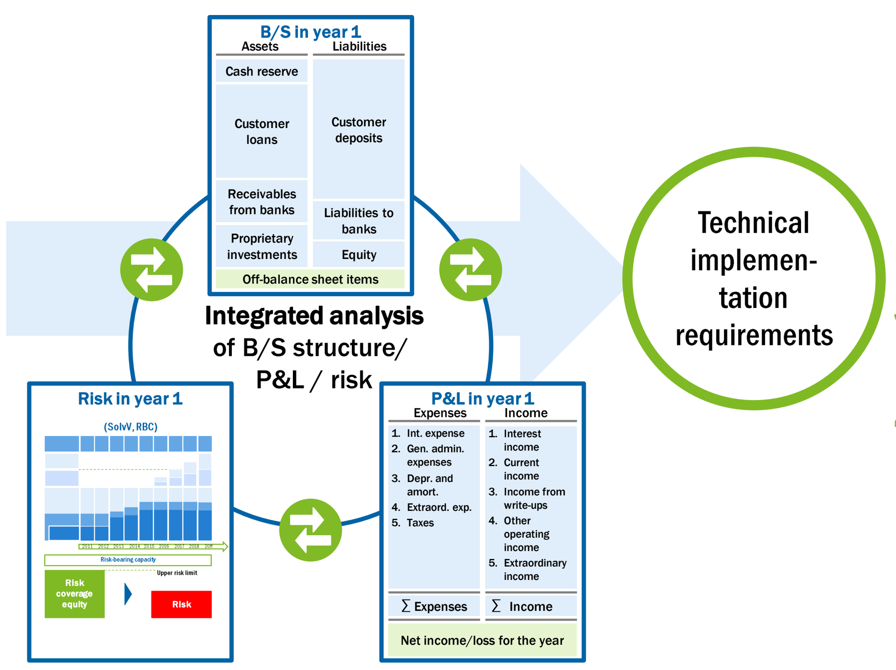
Disruptions in methodology
"Same" measures are often calculated differently

Automation
No automated transfer of measures

Resource utilization
Inefficiencies due to data matching, use of interim solutions, etc.

Challenges and solution

MAJOR CHALLENGE



TECHN. IMPLEMENTATION REQUIREMENTS

1 Self-consistent calculation of balance sheet, P&L, risk and regulatory measures

2 Multidimensional analysis in consideration of alternative scenarios

3 Business model-specific definition of relevant target scenarios

4 Precise consideration of maturities and interest rate development

5 Appropriate level of accuracy/granularity, or otherwise danger of inefficiencies or misjudgments

Setup of an integrated balance sheet, P&L and liquidity model for mapping dependencies and impact directions in a standard software

BANK-WIDE SIMULATION

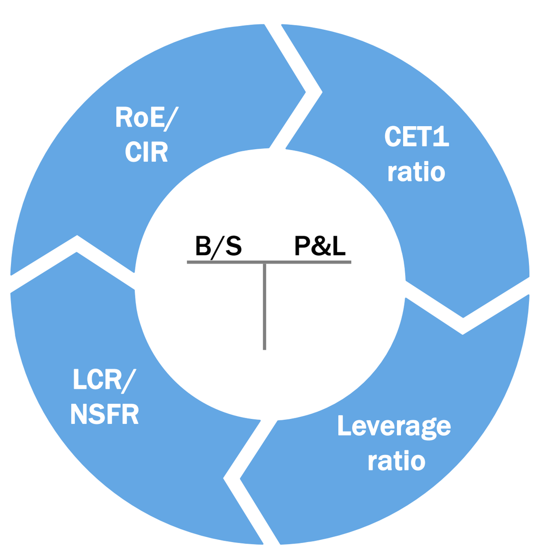
Complete set of relevant **KPI** available; mapping of income, risk and growth dimensions	Consideration of **measures with** relevance for **regulation**	**Multi-period planning scope can be** defined as needed; precise consideration of maturities and interest rate development	Integrated scenario administration **"at the push of a button"**	**Consistent** and **coherent planning of balance sheet, capital, P&L and cash flow**

Approach and functional area

ASSUMPTIONS ON ...

- Interest rate development
- Product parameterization (mix ratios of variable products, maturities, (net) margin development, repayments, etc.)
- Income and maturities of products (or product categories)
- Changes in asset or off-balance sheet items, separated by asset class
- Cost development
- Dynamic appropriation of earnings – development of equity
- Risk weighted assets (RWA)
- Capital resources and ratios
- LCR and NSFR weighting

HOLISTIC APPROACH



ZEB SOLUTION

- Simulates projections of various business model-specific value drivers and scenarios
- Models dependencies among risk, income, balance sheet use and further requirements using different factors
- Enables various levels of aggregation
- Calculates KPI and dependencies on divisional and group level
- Identifies and assesses direct impact of planning on KPIs
- Estimates scope and results of management actions

ZEB.CONTROL FEATURES

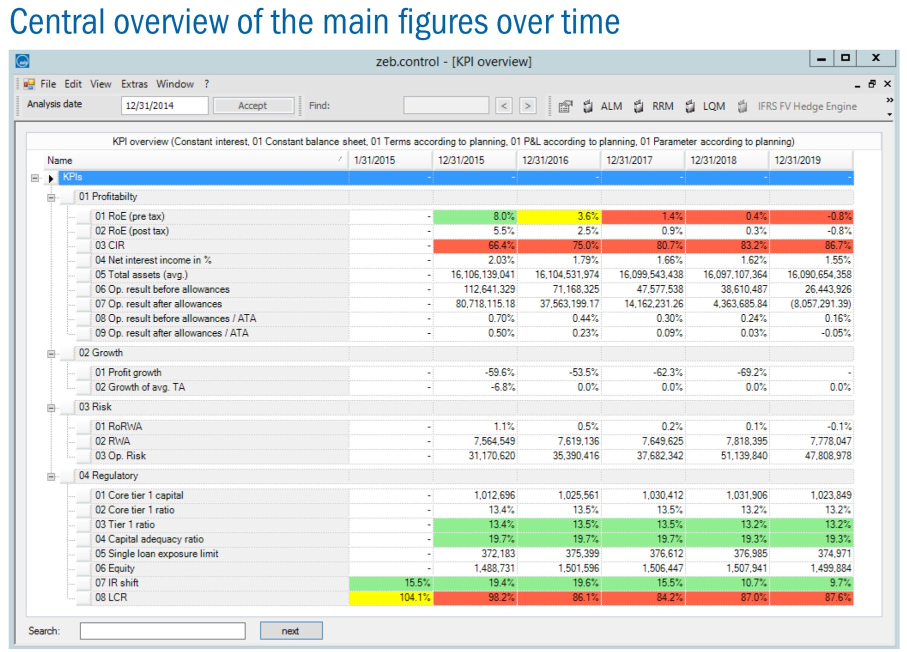
1 **Mapping of basic relations**
- (Basis) modeling for P&L, B/S and CF necessary for bank-wide simulation and stress testing
- Diverse "playing around" with "what if" scenarios to generate hypotheses

2 **Mapping of effects over time**
- Modeling of maturity effects, elasticity and transformation result necessary for simulation
- Dynamic simulation over time to estimate the stability of overall performances

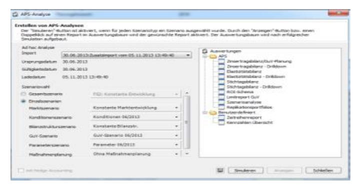
3 **Aggregation level selection**
- The management portfolio level is useful for simulating strategic basic values
- Data accuracy of 80:20 is often sufficient – further specification as part of bottom-up planning

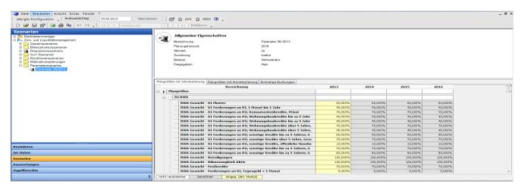
Requirements and reporting

Central overview of the main figures over time



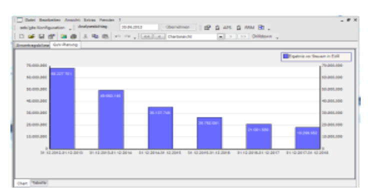
Simple administration of data/scenarios in a standard software ...

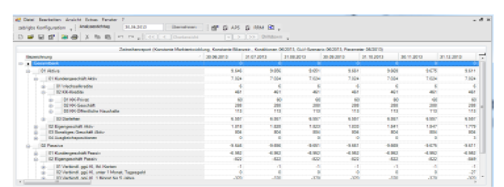




... makes it possible to quickly and efficiently carry out multi-period and integrated simulations


Cash flows (status quo and over time)


P&L over time


Balance sheets over time

zeb.control is scalable – selection of the correct level of aggregation and abstraction is the core challenge for generating results

2021 schedule

September	October	November	December
1 Wed	1 Fri	1 Mon	1 Wed
2 Thu	2 Sat	2 Tue	2 Thu
3 Fri	3 Sun	3 Wed	3 Fri
4 Sat	4 Mon	4 Thu	4 Sat
5 Sun	5 Tue	5 Fri	5 Sun
6 Mon	6 Wed	6 Sat	6 Mon
7 Tue	7 Thu	7 Sun	7 Tue
8 Wed	8 Fri	8 Mon	8 Wed
9 Thu	9 Sat	9 Tue	9 Thu
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27 Mon	27 Wed	27 Sat	27 Mon
28 Tue	28 Thu	28 Sun	28 Tue
29 Wed	29 Fri	29 Mon	29 Wed
30 Thu	30 Sat	30 Tue	30 Thu
	31 Sun		31 Fri

My notes

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