Improving Risk Assurance & Audit Efficiency implementing Continuous Auditing (CA)



5th Annual Internal Audit Forum

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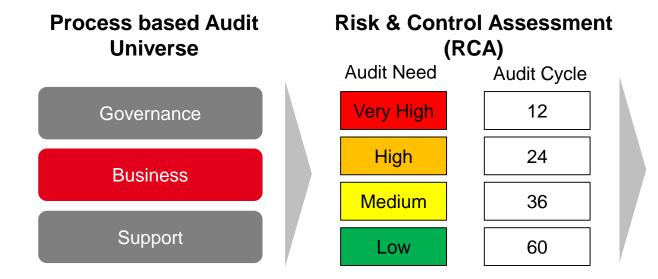
Our need is to improve Risk Assurance and Efficiency

- Risk Assurance in terms of scope and timing to cover the relevant risks of the bank
- Efficiency in terms of man days needed to provide the most relevant assurance
- How could Continuous Auditing support us?

Agenda

- Starting point "Traditional Audit function"
- CA definition and objectives
- Challenges for implementation
- Defining CA activities: Key Audit Information (KAIs) and data analysis
- CA/ KAI examples
- Q&A

Starting point "Traditional Audit function"*



Annual & Long-term Audit Plan

Proces s	'17	'18	'19	'20	'21
А	х	х	х	х	х
В	х		х		х
С	х			х	



* Focus on bottom-up planning

Continuous Auditing vision: From point in time Assurance..





Continuous Auditing vision: ...to Continuous Assurance?





CA definition: keep it simple!

Continuous Auditing

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"is any method used by auditors to perform audit-related activities on a more continuous or continual basis. It is the continuum of activities ranging from continuous control assessment to continuous risk assessment — all activities on the control-risk continuum."¹

"Continuous Auditing is audit work on a more frequent basis"

Point in time audit preparation and work program Continuous audit preparation and work program



Continuous Auditing objectives to start with

- Closer insight/ constant overview and contact to auditees
- Continuous risk or audit assessment of some key audit objectives
- Detection of issues on an ongoing basis and in case of severe issues trigger special investigations

Continuous Auditing

Audits

Planned

- Improve Risk Assessments and planned audit areas and cycles
- Contribute to the coverage of the audit universe -> extension of audit cycles
- Reduce the effort to cover the audit universe

- Leverage on time series of information and data analysis for sampling
- Reduce or enlarge the scope of audits in focussing on the relevant risks as well as the depth of audit tests ("Lean Audit")
- Reduce the effort for a single audit



Planning

RCA

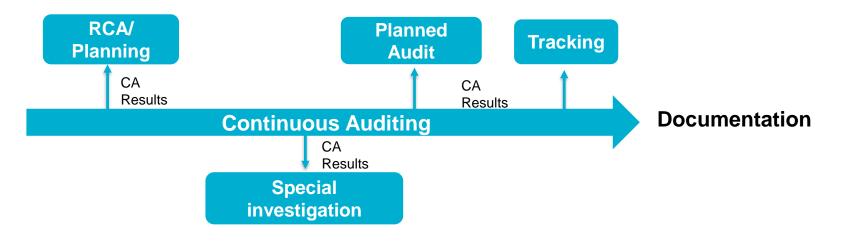
Major challenges for implementation



- Mindset of auditors
- Added value and feasibility
- Methodological framework
- Documentation
- Clients

CA agile implementation concept – Implementation approach

• Implementation of CA as a **supporting activity** for Planning and Auditing within the existing methodological framework





CA agile implementation concept – Definition of CA activities/ KAIs



- KAI = A relevant, risk-oriented information required to prepare and execute the assessment of a process and to fulfil the audit objectives of the work program
 - Quantitative KAI = specific continuously available indicator based on data (KRIs / KCIs / KPIs)
 - Qualitative KAI = any relevant information (e.g. meeting minutes)



Continuous work program draft for a Markets Business Line (1/2)

Fixed Income and Currencies:

- Bank wide Business processes and Front office risk management related to trading interest rate-linked products (cash and derivatives),
- the interface to the related functions of the process chain (line functions, support functions and control functions): i.e. Organisation, Mid Office, Risk Management, Collateral Management, Accounting, outsourced Back Office and IT as well as the embedded controls to ensure overall compliance with specific regulations



Continuous work program draft for a Markets Business Line (2/2)

- 1. Framework and Organisation
 - a) Organisational Structure
 - b) Mission and Main Tasks
 - c) Staff composition
 - d) New Product Process
 - e) New Algo Process
 - f) Access Rights
 - g) Operational Risk
 - h) Significant IT Projects
- 2. Business Activities
 - a) Business Commentary
 - b) Quarterly PnL Analysis

- 3. Controlling Processes (Draft)
 - a) VaR vs P&L Backtesting
 - b) IPV
 - c) FVA, CVA, XVA
 - d) Liquidity

4. Middle Office

- a) Trade Validation KPIs
- b) Late Trades

- 5. Back Office
 - a) Outstanding Confirmations
 - b) EMIR Compliance: Distribution
 - c) EMIR Compliance: Matching

6. Follow Up

- a) Internal Findings
- b) External Reviews



Example Organisational Structure: Amber Impact: Monitor changes in org structure over coming months and identify allocation of responsibilities



Credit Rating system - Requirements (1/4)

- Article 191 **CRR** requires "the internal audit or another comparable independent auditing unit should review the rating system and its operations at least annually".
- Precisions by **ECB**:

"that internal audits will perform a general **annual review** of all aspects of the IRB Approach in order to determine the areas that, due to increased risk, **require more thorough review during the year**." *RTS ON ASSSESSMENT METHODOLOGY FOR IRB APPROACH (EBA/RTS/2016/03)*

• Further guidance by **TRIM guide** (currently in draft):

Internal audit has to "carry out a general risk assessment of all aspects of the rating systems in order to define the appropriate internal audit work plan. When an area shows signs of increased risk (...), it should be subject to a thorough new review ("deep dive"). For other areas where no significant change has occurred the internal audit may keep its opinion unchanged."

"The procedures for the general assessment and prioritisation, the annual work plan, the different auditing techniques and guidelines, and the subsequent production of the internal audit reports are expected to be properly documented"



Credit Rating system – Continuous work program draft (2/4)

Validation		Application	Application		
Regularity	 Annual validation cycle has been complied with 	Adherence to time limits	 Annual rating, aging, three- months time limit, 31-day time limit 		
Completeness	 Tests defined by validation standards are completely applied 	Segmentation	 Assignment to the correct rating procedure, industry model, rating duty, amount limits Additional factors, ratings without documents, rating groups etc. 		
Interpretation	 Validation results are traceably interpreted and recommendations derived are plausible 				
Tracking	 Recommendations from previous validations have been implemented 	Application			
Reporting	 Validation results have been transparently reported to and approved by Risk Committee 	Approval	 Overrides, 4-eyes-principle, defaults etc. 		

Risk

 When a rating reaches the status "Age restriction" it will be automatically downgraded with the effect that Risk Weighted Assets (RWA) increase and thus cost of equity

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Indicator

- Monthly indicator based on two sub-indicators:
 - Ratio of clients with overdue rating updates for each of the rating systems (<10% is ok)
 - Development of this ratio over time

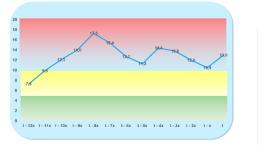
Objective

- Risk and control indicator for further analyses and assessments to fine tune scope and samples of rating audits
- Continuous Risk and Control Assessment



Credit Rating system – KAI "Age restriction"* (4/4)

Rating procedure	EAD _{precEQ} (*) mio. €	No. of NDGs	Overall grade	Age restriction ratio	Development of Age restriction ratio
А			RED	RED	RED
В			YELLOW	YELLOW	GREEN
С			YELLOW	YELLOW	YELLOW
			RED	YELLOW	RED
			YELLOW	YELLOW	GREEN
			YELLOW	YELLOW	GREEN
			YELLOW	GREEN	YELLOW
			RED	GREEN	RED
			GREEN	GREEN	GREEN
			GREEN	GREEN	GREEN
			YELLOW	GREEN	YELLOW
			GREEN	GREEN	GREEN
			YELLOW	GREEN	YELLOW
			GREEN	GREEN	GREEN
Ν			GREEN	GREEN	GREEN



- Additional information:
 - Reasons for age restriction status
 - Time in age restriction status (<3m is ok)
 - Credit Office responsible

Assessment, if there is a need for action

• Thanks for your attention!

• Further questions?



