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ACTUS: A unified standard for the representation of financial data

The latest financial crisis made the failure of regulation on the one hand and current risk assessment methods and technologies on the other plainly clear. Also, this was to a large extent due to a lack of high-quality data as a basis for risk analysis. To improve this situation, the ACTUS project aims to establish a global standard that allows a consistent mapping of financial instruments by means of unambiguously defined and standardized contract types.

Summary

ACTUS (Algorithmic Contract Types Unified Standards) is a global initiative initiated by a group of individuals (academics, former regulators and industry experts) and strives to establish a global standard for the consistent representation of financial instruments for analytical purposes. With a set of about 30 algorithmic Contract Types (CT), virtually all cash flow patterns that currently occur in the financial industry can be unambiguously defined and mapped in a standardized manner. The ACTUS source code will be made available under an open-source license. The mapping of financial contracts can in turn be integrated into any suitable and proprietary platform for data processing and analytics of financial services organizations. Operation and maintenance of ACTUS will be ensured by the financially independent AOS (ACTUS Open Source) Community. ACTUS is interested in broader support by Swiss Banks who intend to foster the contract standardization initiative and to benefit from it in the mean term. In unison with the FSB LEI initiative of the Financial Stability Board, ACTUS has the following **objectives**:

- ▶ Unify the internal representation of financial data regarding all financial instruments and across all organizational units of the bank (trading, back office, risk management, planning)
- ▶ Improve enterprise risk management due to a consistent data foundation
- ▶ Refine regulation and at the same time massively reduce the internal cost burden of regulatory compliance
- ▶ Provide a consistent data foundation for true systemic risk analysis, thus opening new dimensions in financial research.

All activities regarding business intelligence and data analysis in financial services firms – whether for internal or regulatory purposes – will be significantly affected and influenced in various ways by the application of such a standard. Increased transparency, improved efficiency due to consistent processing of data, and a stronger focus on the quality and predictive power of analyses instead of the mere handling of data will lead to substantial cost savings at financial services institutions.

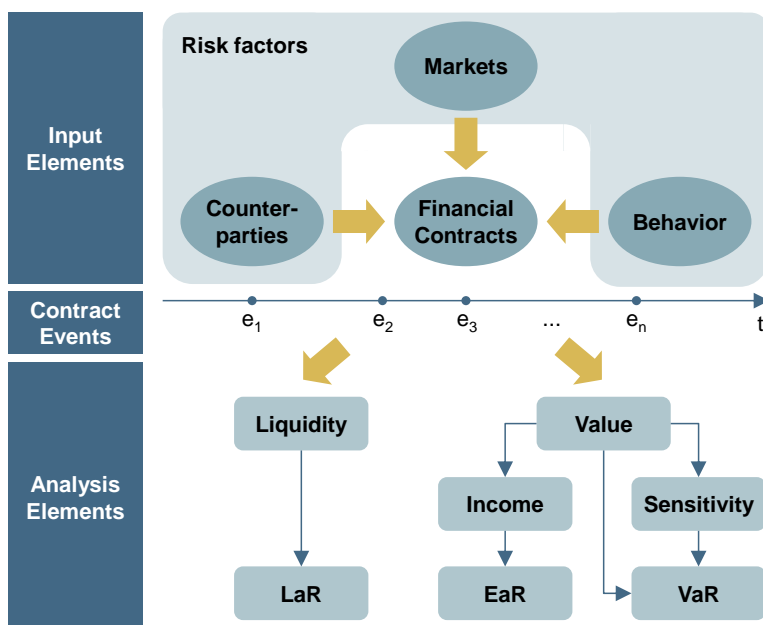
During the initial phase ACTUS is supported by the following institutions: the **Alfred P. Sloan Foundation**, the **Stevens Institute of Technology**, the **Zurich University of Applied Sciences**, and **Deloitte**. ACTUS will be incorporated as a non-profit open source community in the fall of 2014 with open membership opportunities. After the initial setup the ongoing operations of ACTUS should be financed by members and contributors, but still be conducted on a non-profit basis.

After a pilot project phase in 2012/2013 the first six standard contract types are already completed and have been made available for public use at www.projectactus.org. The financing for the development of a second batch of contract types was approved in march 2014. This second phase is expected to be completed by the end of 2014. Based on the first 12 standard contract schemes typical financial portfolios can already be mapped to a very large extent (mostly to a degree of more than 80%). The remaining contract types will focus on more exotic cash flow patterns and will be completed by 2015. Already today, first pilot projects for a consistent portfolio mapping based on the existing standard contract schemes are being carried out by financial services institutions.

Methodology

ACTUS is based on the Unified Financial Analysis (UFA) methodology where standardized contract types constitute the central elements of the modeling paradigm. ACTUS aims at raising this standardization to a universal/global level. Essential to the architecture is the strict separation of

the known contract terms and risk factors from the unknown risk factors in the markets (market and counterparty risk, behavior of contract parties).



Elements of Unified Financial Analysis (Source: Brammertz et al., 2009).

Impact

The strict separation of all factually known and agreed-upon parts of a financial contract from the risk-related, unknown elements is key to a consistent and standardized financial and risk analysis. The ACTUS open-source infrastructure provides financial institutions as well as IT outsourcers for the financial services industry with a powerful foundation for consistently mapping cash flow patterns and thus building their own proprietary risk analysis models and engines.

The analysis of data at financial services firms – whether for internal purposes or regulatory compliance – is considerably influenced and significantly harmonized by the application of such a standard. Increased transparency, efficiency improvements due to consistent data handling and a stronger focus on the quality of analyses instead of the mere processing of data will result in significant cost savings at financial services institutions. In addition, ACTUS could substantially contribute to increasing the stability and efficiency of the worldwide financial system. It can easily be conceived that in the future FINMA (the Financial Markets Supervisory Authority) will have direct access to «ACTUS data» at financial institutions and will be able to carry out analyses and assessments in their own right. This would lead to a significant reduction of the burden imposed by the compilation and consolidation of reports for regulatory compliance purposes at financial services firms.

Links

www.projectactus.org | info@projectactus.org

Sources

- ▶ FSB (Financial Stability Board) of the G20, LEI: The Legal Entity Identifier Initiative
- ▶ Unified Financial Analysis, Brammertz et al. (2009), Wiley.