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THE OPEN-SOURCE APPROACH IN RISK MANAGEMENT

Has high efficiency potential for financial institutions

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Key Facts

- Open Source Risk Engine (ORE) was published as an open-source solution for risk management at financial institutions
- The open-source approach has high efficiency potential for the core business of financial institutions
- A lever for boosting technological expertise and reducing expenses has incurred from specialist units in relation to market and credit risks

Report

Risk management is one of the core competencies of the finance industry. This sensitive field's immunity against technological developments has long since evaporated, with models and methods influenced as a result. In particular, data and new ways of exploiting it (think big data and, to an increasing degree, artificial intelligence) are having a transformative effect and challenging the previous organizational models employed by institutions. The recently published Open Source Risk Engine Platform promises to open up these possibilities to a greater number of institutions. It is based on the open-source approach, which has been successful for many years in the field of operating systems. This approach makes critical competencies available on a global scale and enables more efficient development and operating models.

The aim of ORE is to provide financial institutions with complex analyses of market and credit risks in an era of recurrent short release cycles. To this end, ORE uses QuantLib, an open-source library that employs peer-review processes conducted by the online community, to develop effective applications specially tailored to quantitative financial analysis. The first release of ORE, which has just gone live, covers interest and forex derivatives. The plan is that future releases will offer an extended framework and functional modules (e.g. credit risks).

The potential for establishing an open-source approach in risk management offers potential benefits in various ways. It enables a greater degree of standardization, for example, data and models can be factored in and technically implemented by means of state-of-the-art interfaces and exchange formats. From the point of view of financial service providers, this offers efficiency potential, as local developments – especially EUC solutions that can only be maintained in the future at unacceptable expense – can be migrated at a considerably lower internal and external cost. A further aspect lies in the changed security approach of open source. It will be a matter of debate whether this approach, which is currently just "different," will also offer optimization potential or whether another concept offering resilient structures can be developed. It is, at least, clear that swarm intelligence ought to be harnessed in order to generate more qualitatively reliable outcomes by means of continuous fine-tuning.

The question of whether the potential offered by the open source platform can be leveraged within financial institutions – and how

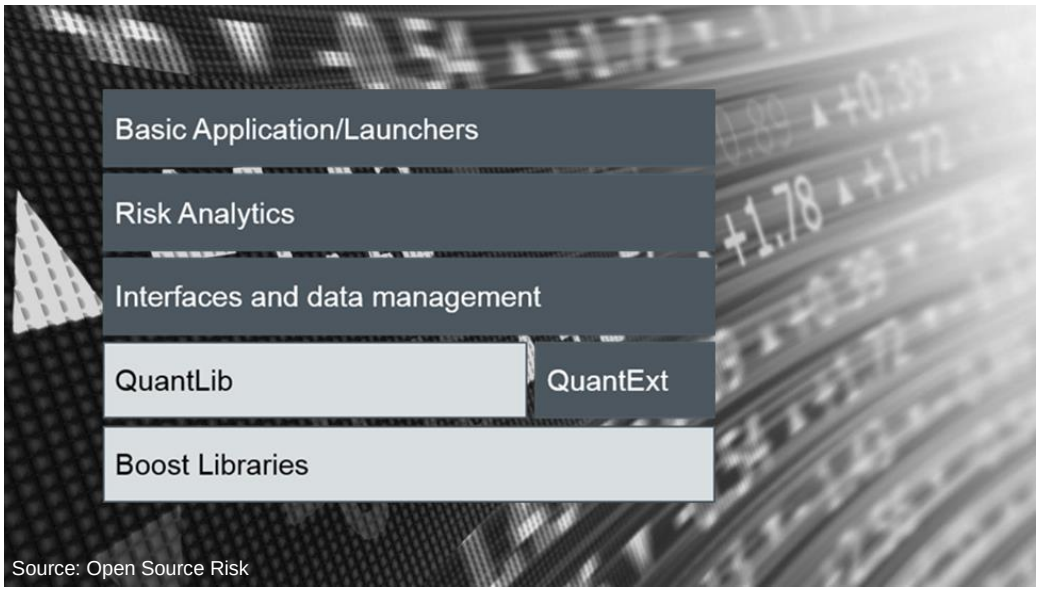

Fig. 1: The various dimensions of the Open Source Risk Engine platform

this can be achieved – depends on the willingness of financial institutions to embrace this new approach. By getting to grips with these changed solutions, they can tap into technological innovations and, as a knock-on effect, strengthen their technology expertise within an industry that has not been technologically savvy before now, as well as leveraging high efficiency potential in their departmental and IT structures in the process.

Sources

OPEN SOURCE RISK ENGINE

http://www.opensourcerisk.org/

QUANTLIB

http://quantlib.org/index.shtml

COLUMBIA UNIVERSITY

http://sps.columbia.edu/enterprise-risk-management

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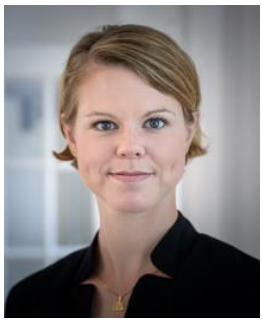

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