



OUR SERVICES

INDUSTRIALIZED STRESS TESTING

EconLab Consulting, d. o. o.

www.econlab.si

INDUSTRIALIZED STRESS TESTING

Financial sector is in the midst of radical shift in business models, perpetuated by low interest rate environment and digitalization. At the same time the echoes of 2008 financial crisis are felt in the regulatory environment. By combining high-level quantitative skills and in-depth knowledge of regulatory environment, EconLab can solve many of the challenges that organizations are facing today.

OUR EXPERTISE

ICAAP & STRESS TESTING

EconLab has extensive experience in helping clients in ICAAP process and carry out internal stress tests. With background gained from being involved in the design of the stress testing methodologies within the ECB and bank of Slovenia, we are ready to tackle any assignment in this area. Our team has also supported international banks in EBA stress testing in relation to stress test modelling, template completion, review of these templates from regulatory positions, preparation of explanatory notes to the ECB, assistance in DQ phases, and managerial support in stress test process

QUALITY ASSURANCE AND VALIDATION

Model risk and ensuring model quality becomes increasingly important, in the era that building models has become easier and easier with out-of-the-box toolkits. Having strong quantitative and academic background, EconLab is well positioned to provide quality assurance even for more complex models. Our focus areas are IFRS 9 & stress testing forward looking models. Similarly, we have ample experience in validation of rating models, where we also have developed a proprietary toolkit that organizations can use themselves to improve internal validation capacity. Our staff has also experience in ECB TRIM process and is able to support the validation procedure of IRB level models.

RISK MODEL DEVELOPMENT

We have supported banks, asset managers, and commodities trading operations, in keeping their risk exposure at bay. We have experience in building models for credit rating, stress testing, market risk, and operational risk. We can assist organizations during the entire model development process, starting from data preparation and data quality assurance & control, to model development and validation, including post-development activities such as support in policy development and support in regulatory inspections. We also place great importance on building our clients' internal capacity and thus for us, an integral part of modelling is the process of knowledge transfer to our clients.

DATA AND TECHNOLOGY

In banking technology and data are the most critical areas of competitive advantage. We can help organizations assess their IT strategy and the viability of current core IT components and help plan out a way forward. Data also plays a key role in regulatory compliance and it is the foundation of any quantitative methodology. Having a strong understanding on how the data is utilized in modelling, we can help design data capture and warehousing strategy and help clean and organize older data to meet current needs.

ASSET MANAGEMENT SUPPORT

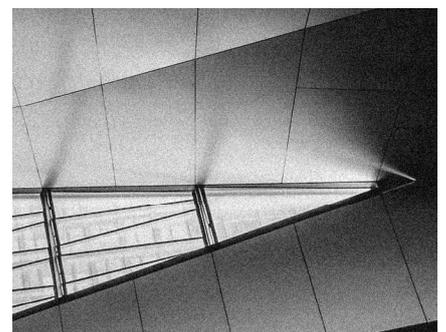
Under the low interest rate regime, more critical than ever to ensure an optimal asset allocation. Our strong background in macroeconomic and financial modelling, can help you dynamically adjust the portfolio structure to strike the right balance of seizing opportunities with limited downside. We have extensive experience in Interest rate, exchange rate and commodity price modelling, as well as solid background in market risk modelling. Being in tune with the business needs we also place special care to make the modelling results and limitations clear, leaving the decisionmakers in an optimal position to further apply their own experience and judgement.

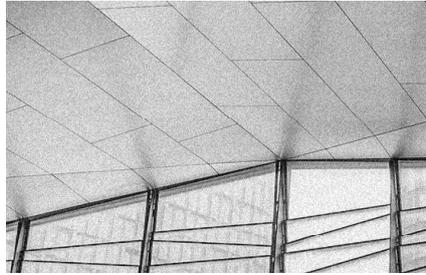
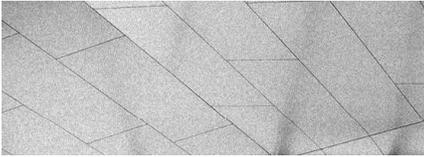
STRATEGY AND OPERATIONS

The ever-faster evolution of banking market regulations means that a growing number of standards have to be met. These new requirements may also have major impact on business models. With background in regulatory positions, EconLab staff is well positioned to help institutions navigate the maze of new requirements in a profitable manner. EconLab's core speciality is operationalizing the methodological and quantitative requirements put forth by the regulators, in their typical non-prescriptive style that leaves a lot of room for interpretation.

REGULATORY & COMPLIANCE

Low interest rate environment and new technologies are reshaping the banking landscape. This necessitates more focus on new business models and operational efficiency. This also has brought new regulatory scrutiny as part of the SREP. Therefore, on banks should proactively review of existing strategy from the point of view of viability and sustainability of the business model, market competitiveness and benchmark their performance to peers. Econlab can help in forging a new strategic direction, and help makes operations leaner.





INDUSTRIALIZED STRESS TESTING

MACROECONOMIC SCENARIO GENERATOR

Our macroeconomic scenario generator will completely take care of internal scenario preparation. The modeller can specify a macroeconomic shock for given variables, and the generator will automatically prepare a scenario. Significant downturns and upturns for desired variables are modelled in a parametrized environment, which enables the modeller to acquire macroeconomic scenarios by setting shock amplitudes and transmission mechanisms. Generated scenarios are ready to be utilized by the scenario application tool.

AUTOMATED VARIABLE SELECTION

Our modelling software employs BACE algorithms that are not – in contrast to many other common approaches – prone to overfitting due to application of modern econometric techniques. We offer modelling parameters as a modeller's choice, but the ultimate model specification is based on multiple criteria with aim to deliver best performance.

AUTOMATED SCENARIO APPLICATION

Scenarios and market conditions change. It is therefore in the bank's best interest to deliver reliable estimates and projections of key credit risk parameters. In our modelling software, the application of different scenario specifications is an automated task carried out completely in the background.

AUTOMATED SENSITIVITY ANALYSIS

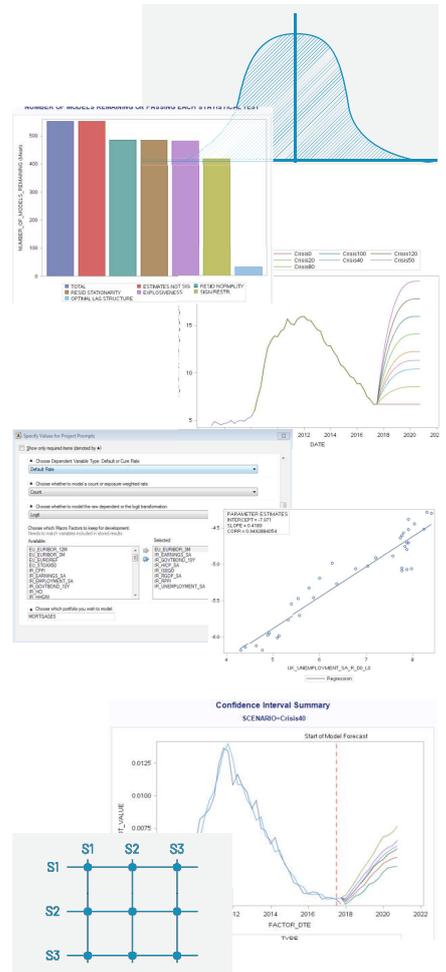
Understanding the risk drivers and sources of credit losses is crucial, especially in times with elevated uncertainty. In conjunction with automated projections of credit risk parameters for a particular scenario, our modelling software also offers partial macro analysis. By decomposing the projections, this provides a unique insight into credit losses.

AUTOMATED MoC CALCULATION

Application of margin of conservatism is a complex task and should therefore not be prone to rework and model redevelopment. To further utilize available resources, our automated MoC calculation delivers MoC estimates based on different model specifications and scenarios. Projections' confidence intervals are presented in an intuitive way, ready to be incorporated into any relevant documentation.

STAGING AND LOAN LOSS FORECASTING

The ultimate goal of our solution is to provide a complete "hands-off" approach to stress testing. All features listed above are incorporated into a staging model that will calculate impairment charges based on given opening and long-run parameters. This operation includes calculations of loss rates, transitions, and long-run dynamics to deliver final estimates of economic losses and required impairment charges.



IGOR MASTEN PhD
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Igor Masten is a professor of economics at the University of Ljubljana and the managing partner of EconLab. He holds a PhD in Economics from the European University Institute and has several publications in high-ranked scientific journals in the areas of risk management, banking, econometrics, finance and macroeconomics.

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