



DEX Regulatory Suite

DEX Regulatory Suite for EBA Stresstest 2020

This whitepaper discusses regulatory reporting for EBA Stresstest 2020 and DEX Regulatory Suite for EBA.

EBA Stresstest 2020

On November 7, 2019 the European Banking Authority (EBA) published the final methodology and draft templates for the 2020 EU-wide stress test along with the key milestones of the exercise. The stress test exercise will be formally launched in January 2020 and the results published by 31 July 2020. The exercise is primarily focused on the assessment of the impact of risk drivers on the solvency of banks. Banks are required to stress a common set of risks (credit risk – including securitisations – market risk and counterparty credit risk, and operational risk – including conduct risk). In addition, banks are requested to project the impact of the scenarios on net interest income and to stress P&L and capital items not covered by other risk types.

Key milestone dates of the 2020 EU-wide stress test exercise:

- Launch of the exercise at the end of January 2020
- First submission of results to the EBA at the beginning of April 2020;
- Second submission to the EBA in mid-May 2020
- Third submission to the EBA at the end of June 2020
- Final submission to the EBA in mid-July 2020
- Publication of results by end-July 2020

The set of templates contains 32 templates which cover the following subjects:

- Credit risk
- Market risk, CCR losses and CVA
- Conduct risk and other operational risks
- Non-interest income, expenses and capital

Datapointmodels and DEX Regulatory Suite

EBA normally publishes their reporting requirements for e.g. COREP in the form of a datapointmodel. A datapointmodel is a database which contains all taxonomies, reports, metrics, dimensions and validations. DEX Data Explorers has developed DEX Regulatory Suite (DEX RS). DEX RS is able to interpret the datapointmodel and produce the reports and interfaces based on the requirements detailed in the datapointmodel.

DEX Regulatory Suite for EBA Stresstest 2020

DEX Data Explorers offers DEX Regulatory Suite for EBA Stresstest 2020. DEX RS generates the stresstest reports using the EBA specifications.

Entity

Design report lay-out	Define a source hierarchy	Load source system hierarchy sheet	Define source system data
Load datamodel	Create source system relation	Create sourceview	Encrypt sourcedata
Define projectscope	Define metric mapping	Load source data	Calculate cellvalues
Evaluate expressions	Display report	Document report	Create XML/CSV Files
Create XBRL Files	Create encrypted Mime file	Read the DNB validation results	Load external report

Close

DEX has developed a datapointmodel based on the templates which can be used to populate the reports. A bank's data can be mapped on the datapointmodel to populate the reports. Validations can be executed. The output can be exported to the EBA-defined Excel templates. This supports a more effective and repeatable process.

Below an example of a Market risk - Full revaluation template generated by DEX RS is shown.

DEX EBA Table 757: CSV_MR_FULL_REVAL - Market risk - Full revaluation template
Frequency: quarterly
Period: 2020-Q1

Export to Excel

				Actual				Fair Value				Adverse Scenario			
				Positions as of 31/12/2019								2020			
				Notional exposure								Gains (+) / losses (-) from full revaluat			
				Of which:				Of which:				Total			
				positions classified as level 1				positions classified as level 2							
				Total	Cleared	Others	Of which positions classified as level 3	Total	Cleared	Others	Of which positions classified as level 3	Of which direct sovereign positions	PnL impact	OCI impact	
				C001	C002	C003	C004	C005	C006	C007	C008	C009	C010	C011	
Asset	Amortised cost / FVPL	(i) Fair value hedged item or (ii) Portfolio Fair value hedged item	Total	Total	Total	Total	Total	279623.0							
Asset	FVOCI	(i) Cash flow hedged item or (ii) Portfolio cash flow hedged item of interest rate risk	Equity instruments	Total	Total	Total	Total								
Asset	FVOCI	(i) Cash flow hedged item or (ii) Portfolio cash flow hedged item of interest rate risk	Debt Instruments	Total	Total	Total	Total								
Asset	FVOCI	(i) Cash flow hedged item or (ii) Portfolio cash flow hedged item of interest rate risk	Other	Total	Total	Total	Total								
Asset	FVOCI	(i) Cash flow hedged item or (ii) Portfolio cash flow hedged item of interest rate risk	Total	Total	Total	Total	Total								
Asset	FVOCI	(i) Collecting contractual cash flows & selling financial assets or (ii) Holding or selling equity position	Equity instruments	Total	Total	Total	Total								
Asset	FVOCI	(i) Collecting contractual cash flows & selling financial assets or (ii) Holding or selling equity position	Debt Instruments	Total	Total	Total	Total								
Asset	FVOCI	(i) Collecting contractual cash flows & selling financial assets or (ii) Holding or selling equity position	Other	Total	Total	Total	Total								
Asset	FVOCI	(i) Collecting contractual cash flows & selling financial assets or (ii) Holding or selling equity position	Total	Total	Total	Total	Total								
Asset	FVOCI / FVPL	(i) Fair value hedged item or (ii) Portfolio Fair value hedged item of interest rate risk	Equity instruments	Total	Total	Total	Total								
Asset	FVOCI / FVPL	(i) Fair value hedged item or (ii) Portfolio Fair value hedged item of interest rate risk	Debt Instruments	Total	Total	Total	Total								
Asset	FVOCI / FVPL	(i) Fair value hedged item or (ii) Portfolio Fair value hedged item of interest rate risk	Other	Total	Total	Total	Total								
Asset	FVOCI / FVPL	(i) Fair value hedged item or (ii) Portfolio Fair value hedged item of interest rate risk	Total	Total	Total	Total	Total								

DEX Data Explorers maintains the definitions of the reports according to the regulator standards. When updates to the standards are submitted, you as a customer will receive an update on the set of reporting definitions.

DEX Regulatory Suite offers the following functionality:

- Lay-out specified in the datapointmodel
- Formula's loaded in the datapointmodel, all calculations can be reviewed in the system

- Updates by EBA can easily be processed
- The output can be exported to the EBA templates

Efficient mapping of data

The user can map the source data to the target in an efficient way. In datapointmodelling there are the following concepts:

- Metrics are the values that are measured in the reports
- Dimensions describe the characteristics of a metric

Below the mapping screen is shown. Metrics and dimensions can be mapped to source data. Template CSV_MR_FULL_REVAL has for example 34.498 datapoints. The template can be populated by mapping 4 metrics and 24 dimensions. This is a far more efficient process than mapping individual datapoints. DEX RS can translate code values, so the user can deliver proprietary code values which can be mapped in DEX RS to the target values.

The screenshot displays the DEX EBA mapping interface. At the top, the 'Project' is 'Stresstest2020' and the 'Table' is 'CSV_MR_FULL_REVAL - Market risk - Full revaluation template'. Below this, there are two main sections: 'Mapping for selected metric' and 'Mapping for selected dimension'.

Mapping for selected metric:

- Metric:** A list of metrics is shown, with 'C001 - Total (M: Actual Positions as of 31/12/2019 Notional exposure)' selected.
- SourceSystem:** 'StressTest' is selected.
- SourceTable:** 'CSV_MR_FULL_REVAL' is selected.
- SourceAttribute:** A list of attributes is shown, with 'Actual Positions as of 31/12/2019 Fair Value-Actual Po' selected.

Mapping for selected dimension:

- Dimension:** 'Balance sheet' is selected.
- SourceSystem:** 'StressTest' is selected.
- SourceTable:** 'CSV_MR_FULL_REVAL' is selected.
- SourceAttribute:** A list of attributes is shown, with 'Balance sheet-Balance sheet' selected.

Below these sections, there are fields for 'Possible pre-defined values for metric', 'Possible pre-defined values for source attribute', 'Possible membervalues for dimension', and 'Possible pre-defined values for source attribute'.

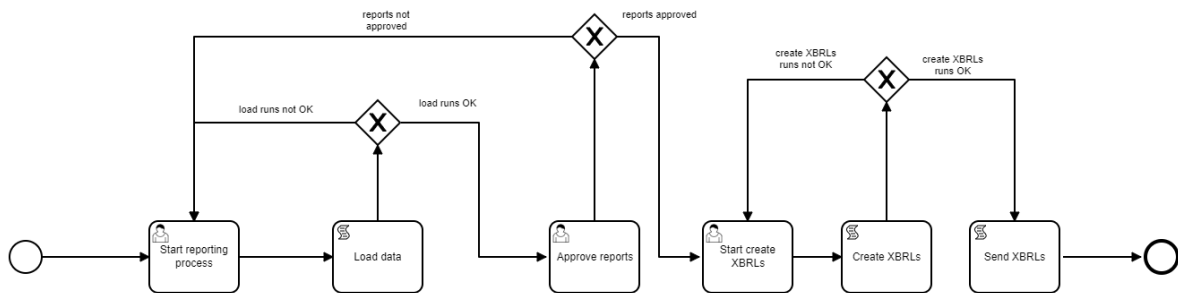
Platform-independent solution

DEX RS has been developed in Python. Every SQL based database can be used (e.g. MySQL, SQLite, SQL Server, Oracle, PostgreSQL). The system can be deployed on-premise, in Azure, AWS and outsourced at Addition. Data can be read from CSV, Excel, SQL databases and SAS datasets.

Workflow support

DEX RS offers workflow integration. The DEX RS functionality has been integrated with workflow systems. Users are guided through the regulatory process; manual steps are integrated with automated steps. All actions are logged.

DEX Data Explorers offers integration with Camunda and Viewflow, but DEX RS can be also be invoked from other workflow systems.



Design you own reports

On top of delivering the required regulatory reports DEX RS offers you the possibility of designing you own reports. This way you can reuse the data you use for regulatory reports for e.g. internal reports. You can also add your own calculations and validations.

Available solutions

DEX Regulatory Suite supports the following regulations:

- MiFID ii
- Solvency
- Financial Assessment Scheme (FTK)
- DNB Digital Reporting (DRA)
- Country Risk
- AnaCredit / Residential Real Estate
- Deposit Guarantee Scheme
- FINREP / COREP / Asset Encumbrance / Funding Plans / Supervisory Benchmarking Portfolio
- Social Economic Reports
- SFTR
- AIFMD
- Premium Pension Institutions
- Stress test

Addition Knowledge House and DEX Regulatory Suite

[Addition Knowledge House \(www.addition.nu\)](http://www.addition.nu) is a reseller of [DEX Regulatory Suite](#). Addition Knowledge House delivers the following services with regards to DEX Regulatory Suite:

- Implementation support
- Maintenance
- Business process outsourcing



Addition Knowledge House offers the possibility to outsource large parts of the regulatory process.

Addition can offer the following services using DEX RS:

- Collect the information source systems
- Generate the CRD iv reports and distribute them to interested parties
- Create the XBRL and send it to the regulator.

Each situation is unique. Addition Knowledge House will be happy to discuss how we can support your process in an optimal way.

DEX Data Explorers

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