

AI for regulatory reporting: Challenges, opportunities and the road ahead

Part 1 – A time for innovation





INTRODUCTION

A Time for Innovation in Regulatory Reporting

In today's financial service industry, the regulatory reporting landscape is rapidly evolving. Because of new legislation, shifting requirements and steady industry growth and diversification, most organizations have already experienced an increase in their reporting burdens – yet the challenges they will face tomorrow promise to be far greater.

Even the largest and most sophisticated compliance teams could become overwhelmed if they fail to adapt.

The shift towards more real-time granular data reporting requirements is a global trend, moving away from the schedule reporting timed- and template-based reports consisting of aggregated datasets that were once the norm. While financial institutions used to be required to submit reports to various regulators each month – still a considerable burden – they are now obligated to support a constant flow of data broken into its finest, most detailed parts, straining already overworked reporting professionals on both sides of the equation.

New regulations such as the Integrated Reporting Framework (IReF), AnaCredit, Securities Holdings Statistics (SHS), and OSFI's Data Collection Modernization (DCM), among others, are driving this change. These mandates, spanning diverse jurisdictions and functional areas, necessitate a complete reimagining of traditional reporting processes.

Both regulators and the regulated must ensure efficiency and accuracy at an unprecedented scale, checking the quality of millions of datapoints at a time when cost pressures are high and employees are being pulled in more directions than ever.

At the forefront of solutions to these challenges is artificial intelligence (AI), particularly generative AI. With its capacity to process vast amounts of information, identify patterns, and augment human decision-making, AI offers a compelling path forward.

However, the adoption of AI in such a high-stakes environment demands careful consideration.

This whitepaper explores the transformative potential of AI in regulatory reporting, addressing the challenges and opportunities it presents. We delve into the critical aspects of responsible AI implementation, including data quality, transparency, governance, and privacy. Additionally, we examine the organizational and systemic changes required for firms to successfully integrate AI into their operations.

As the first part of our two-part series, we will investigate how AI can supercharge the regulatory data management and its initial application of AI in regulatory reporting.



Artificial Intelligence (AI)

The ultimate accelerator for granular data workflows

Under aggregated data reporting requirements, a financial institution might submit a few hundred thousand datapoints to regulators each month. But with the march toward granularity – every single dataset must provide comprehensive clarity across an unprecedented range of time intervals and calculations – these reporting burdens have escalated to a point far beyond what humans can effectively manage.

One primary reason for this is poor data quality. To meet their regulatory requirements, most financial institutions must gather data spread across multiple internal and/or third-party systems on a fixed schedule and in a harmonized manner. These systems are diverse – they can encompass trading, risk, accounting, client service and everything in between – but the common thread is that they are not purpose-built to support regulatory reporting, and in many cases they do not communicate well with one another. As a result, it's all too common for these systems to contain discrepancies or be misaligned with the reporting function.

Even when the quality is relatively high, this data can exist in a range of different formats. Too much inconsistency can make it difficult to work with the reported dataset. Do all deliverables contain all the fields necessary for easy comparison? Is there a framework in place to align disparate data dictionaries? Done manually, these normalization and enhancement checks can require considerable time and resources.

Enter AI. With its incredible capacity for automation, AI can powerfully accelerate some of the most repetitive and time-consuming tasks in the regulatory reporting process.

AI could also go a long way toward cleaning up incomplete or error-riddled datasets. For example, if a given dataset omits a field that has been included in the past or is often present in similar reports, an AI-powered system can automatically flag the possible oversight and prompt users to take corrective action.

When there are persistent errors, AI can identify potential reasons why this is happening, saving users the trouble of looking under the hood and assessing mountains of information as part of a lengthy auditing and diagnostic process. It can even indicate what the downstream implications of a reporting gap might be, explaining what processes will be impacted and whether they amount to a warning sign or a critical vulnerability. All these capabilities are checked by human decision-makers.

According to a BIS survey conducted among the members of the GCRG in January 2024 *“The current status of GenAI adoption in central banks: over two thirds (71%) of respondents are already using GenAI, and 26% have plans to incorporate such tools into their operations within the next one to two years. The adoption rate could therefore approach 100% in the near term.”*

[BIS Papers No 145 Generative artificial intelligence and cyber security in central banking](#)

Leveraging AI in regulatory reporting

The top 3 focus areas to enhance

These benefits cut both ways. Just as financial institutions can leverage AI to increase data quality, ensure data completeness and identify logical steps to increase reporting efficiency, regulators and other authorities can use the technology to analyze submitted reports more rapidly and guide the process of reconciling multiple

submissions, making follow-up requests, conducting examinations and the like. The potential benefits exist throughout the reporting lifecycle, regardless of which side is dealing with the data.

Ultimately, AI in regulatory reporting is likely to be leveraged across three distinct pillars:



Requirements

Financial regulations are highly complex. AI can help cut through the noise, providing financial institutions and vendors clarity into the specific terms and datapoints necessitated by a given rule, drawing insight from official documentation and code snippets as needed.



Data

Assessing the state of a given dataset and putting this analysis into the context of an organization's regulatory obligations, other data assets and team structure is a significant challenge – as is performing automated normalization and enhancement processes. AI can accelerate all these processes.



Time

Applying AI in the right places during the entire regulatory reporting process can speed up the entire reporting cycle. Besides interpreting requirements and managing data which are big factors in time savings, AI can also be utilized during reporting results analysis.

That's just a taste of the vast potential of AI for regulatory reporting. With the need to supply a steady flow of highly granular data, financial institutions no longer have the bandwidth to manually address discrepancies at the end of the lifecycle, almost as a failsafe – instead, completeness and accuracy must be baked into the entire process. By automating these functions, firms can meet these elevated requirements while increasing efficiency and maintaining control.

As we conclude this part, we set the stage for the next installment in our series. In Part 2, we will delve deeper into the practical adoption and implementation of AI in regulatory reporting. Stay tuned to learn more about the advanced applications and future trends of AI in this critical domain.

ABOUT REGNOLOGY

Regnology is a leading technology firm on a mission to bring safety and stability to the financial markets.

With an exclusive focus on regulatory reporting and more than 35,000 financial institutions, 70 regulators, international organizations, and tax authorities relying on our solutions to process their regulatory reporting data, we're uniquely positioned to bring greater data quality, efficiency, and cost savings to all market participants.

With over 900 employees in 16 countries and a unified data ingestion model powering our work, our clients can quickly implement and derive value from our solutions and easily keep pace with ongoing regulatory changes.

For more information visit regnology.net



© 2024 Regnology Group GmbH. All rights reserved.

Regnology is a registered trademark of Regnology Group, or its affiliates.
All other trademarks are property of their respective owners.

CONTACT US



regnology.net