The promise of RegTech

Elevating regulatory risk management in the financial industry to an effective business management practice

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The sheer volume and complexity of new and existing regulations have had the unintended consequence of encouraging financial service providers to focus on compliance rather than innovation. In parallel, firms have been cautious to innovate because of regulatory uncertainties underlying the development of new products and the deployment of pioneering technology. This has led to the emergence of promising technology companies targeting the regulatory environment to support efficient compliance management from an IT perspective. In our article we will discuss the role played by RegTech companies in helping incumbents cope with regulatory burdens and the related economic and social impact. Furthermore, we highlight the role regulators can play in facilitating innovation.

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Managing regulatory risks has risen to become an essential business management practice

The importance of regulatory risk management, which is always a critical challenge for the financial industry, has reached a heightened position in the aftermath of the financial crisis. Financial stability is the new motto, and deficiencies identified in regulatory compliance gave rise to enhanced frameworks, obligations, as well as risks. 492 percent is the rate by which regulatory change volume has increased between 2008 and 2015.[1] There is no sign of this trend slowing down; the financial industry is bound to live with the fact that regulation will continue to spread out and deepen. A consequence is the changing focus of the classic business model, which now needs to integrate regulatory risk management as a key business practice next to product profitability and meeting customer needs. Across the world, a variety of financial blue chip companies have been subject to heavy fines and penalties for failing to be compliant. Twenty of the world's biggest banks have paid more than US$235bn (£151.71bn) in fines and compensation from 2008 to 2015 for breaching a variety of financial regulations, according to Reuters. To put this number in perspective, it is roughly equivalent to the gross national product of Ireland. The preventive steps taken by several firms encompass shifting resources to mitigate regulatory risks, i.e., allocating up to 15 percent of their workforce to governance, risk management, and compliance departments[2] and spending an extra €1bn on controls in 2013 alone.[3]

1 Source: Thomson Reuters
2 Source: BBVA Research
3 Source: JPMorgan

Financial firms must embrace innovative solutions to face the heightened risk and compliance challenges

Financial institutions are currently managing ever-changing requirements while being increasingly exposed to complex multi-jurisdictional facets. In practice, regulators now demand much more transparency—meaning an increasing amount of data to be produced by financial institutions to improve their vision of systemic risk and of the behavior of different agents involved in the financial ecosystem. In order to gather, analyze, and compute that data, institutions make use of a variety of technology systems, but the truth is that much of this work still heavily relies on manual processes. It goes without saying that these processes are the main cost drivers for firms. As such, the greater demand for transparency and rigor has brought the role of technology to the forefront, boiling the issue down to the following question: how should a financial institution address compliance in an efficient and less resource-consuming way while improving the quality of data reported to supervisors?

Historically, financial institutions had the choice of using large, well-known vendor systems or building an in-house solution. In selecting and implementing products, different challenges arise. First, the solution must fit into the often complex and heterogeneous internal architectural IT environment. In addition, reporting and visualization tools are typically used locally within different departments, and not governed centrally. Finally, regulatory pressures require a fast implementation, which often conflicts with financial firms' development and transformation calendars and can create additional operational challenges.

In considering brand name vendors' commercial models, one realizes that these are typically associated with multiple module purchases, meaning that the full benefits of a solution will only be realized if multiple modules or add-ons to a preferred platform are chosen. Once selected, development and configuration needs to be done in a proprietary language while adapting the solution to an already complex existing IT architecture, which in turn leads, among others, to high lead times. Add in high price tags and it is clear that an agile alternative is required.

Technological innovations continuously emerge, offering new risk and compliance solutions and helping financial firms to comply and manage their risks at lower cost. Stepping out from the shadows into the light, regulatory technology (RegTech) solutions present themselves as able to tackle several of the aforementioned issues by providing agility, speed, and data-driven outputs. These attributes are enabled through multiple emerging technologies.

Generally, solutions tend to be cloud-based, meaning that data is remotely maintained, managed, and backed up. This provides enhanced flexibility through the ability to customize control over the access to and sharing of data. In addition, simplified adding and removing of service features provides enhanced performance and scalability while end-to-end data encryption provides necessary security. Cost-wise, the cloud is especially interesting, as it provides the ability to offer pay-as-you-go pricing.

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Besides cloud features, a variety of RegTech solutions have advanced analytical and machine learning or artificial intelligence capabilities. Evidently, data is meaningless unless it is organized in a way that enables people to understand it, analyze it, and ultimately make decisions and act upon them. As such, analytics is beginning to help the industry rapidly and automatically understand not just explicit meaning from regulation but also the implicit meaning or “nuance” that is so often a challenge to digest and assess. Advanced analytics and assessment techniques can start to “learn” and support in accelerating the assessment of new and emerging regulation based on what has been seen previously and how that has been interpreted in the same way neural networks have helped predict fraud or customer behavior.

Intertwined with analytics is the use of artificial intelligence. This technology combined with deep learning capabilities may be used as a continuous monitoring capacity, providing close to real-time insights into the functioning of global markets, and identifying problems in advance rather than simply taking action after the fact.

Lastly, some RegTech solutions use blockchain, a record or ledger of digital events distributed between many different parties that collectively guarantee the scalability and integrity of that ledger. It can only be updated by consensus of a majority of the participants in the system. Once entered, information can never be erased. Blockchains contain different type of information such as transactions as well as smart contracts. Through the blockchain’s near real-time settlement achieved through automation and global consensus, RegTech solutions can automate compliance aspects in use cases including regulatory reporting, where Deloitte’s proof-of-concept enables the use of Blockchain as a shared immutable ledger of pre-reconciled transaction reports. Aiming at improving transparency, data reconciliation, and timing issues as well as reducing reporting costs, the proof-of-concept also allows regulators to control and monitor transaction data on a daily basis.

What to expect
Use cases covered by RegTech solutions are much broader than regulatory reporting and decline themselves in many forms. Yet, they all have one thing in common: the targeting of a very specific niche.

Through a thorough market analysis displayed on the website,[4] we have mapped more than 80 RegTech companies offering solutions that we have attributed to five categories :

Compliance	
Regulatory watch and online library	Regulatory watches and online libraries are platforms showing upcoming and current regulations. This type of platform notifies the user if a new regulation relevant for his company comes up.
Compliance project management	Compliance project management tools enable the user to plan the tasks, the resources and the timeline for upcoming regulations.
Compliance health check	Compliance health check tools show the user if the company is compliant with the regulation. This is mostly shown via indicators on dashboards and ensures a full and real time compliance.
Web due diligence and security	Web due diligence and security tools focus on data privacy management and data security management. The user gains assurance on compliance through artificial intelligence and machine learning tools. Data loss is thus avoided and fraud detection facilitated.
Identity	
Identity management	Identity management tools embody the step in the process of a new customer/counterparty relationship. For customers, this part of the process known as KYC (Know Your Customer).
Identity controls	Identity controls are an ongoing part in the relationship with a client. This may include Anti Money Laundering checks. It creates big data based reports on/for e.g. customers, PEP and business relationships.
Risk management	
Scenario modelling and forecasting	Scenario modelling and forecasting tools enable to compute future data. This tool is useful for regulatory requirements such as stress testing.
Risk assessment	Risk assessment tools determine for instance the current exposures and asset qualities. This tool is useful for computing regulatory requirements such as capital ratios or liquidity ratios.
Risk reporting	Risk reporting tools enable easier reporting of risk issues
Transaction monitoring	
Transaction monitoring and auditing system	Transactions monitoring and auditing systems enable companies to scan transactions through technologies like blockchain. Processes are merged in order to reduce costs as well as increase and simplify the compliance.
Regulatory reporting	
Regulatory reporting	Regulatory reporting tools enable a simple and automated way for regulatory reporting

4 https://www2.deloitte.com/lu/en/pages/technology/articles/regtech-universe.html

Each category encompasses various subgroups. For instance, “identity validation” involves both identity management and controls, where tools target customer or counterparty onboarding. Based on biometrics and access to a multitude of information databases at once, Know-Your-Customer (KYC) processes can be facilitated. Identity controls are an ongoing part in the relationship with a client and may include Anti-Money Laundering checks based on big data reports. In risk management, several tools provide scenario modelling and forecasting for regulatory requirements such as stress testing by computing future data and allowing for the automatic reassessment and refinement of processes in reaction to input from users.

The potential of RegTech is far greater than the sum of its current solutions. Indeed, it has the potential to enable a close to real-time and proportionate regulatory regime that identifies and addresses risk while also facilitating far more efficient regulatory compliance.

As the RegTech space is in its infancy and is developing rapidly, it is difficult for financial firms to identify and commit to a particular technology or solution. In addition, several constraints remain, such as sharing, storing, processing, and accessing data. A general wariness of banks and other financial actors with regard to RegTech solutions mainly originates from the need for enforcement authorities and supervisors to approve the use of such innovative products and services as well as apprehensions toward them being unproven.

For instance, as the ecosystem moves toward increased data utilization, the regulatory framework pertaining to the utilization of data to perform analyses through advanced algorithms will need to be assessed. Indeed, how data will be handled in terms of ownership, analysis, maintenance, and security will be a non-negligible aspect of the evolution of RegTech.

Recently, a progressive approach has been adopted by regulators such as the FCA, the Monetary Authority of Singapore (MAS), and the Australian Securities and Investments Commission (ASIC). Being the first worldwide to offer a “regulatory sandbox,” the FCA aims to provide a safe place where businesses can test new

services and business models in a live environment alongside regulators who are tasked with assisting these innovators. The FCA has established a framework of application as well as safeguards for the operation of its sandbox. The stated market objectives for the sandbox are to reduce time-to-market at a potentially lower cost, provide better access to finance, and foster more innovative products reaching the market.[5]

For the RegTech ecosystem to grow, collaboration is required from key industry stakeholders. Currently, RegTech solutions are in the process of understanding business and regulatory engagements to align their solutions with regulatory frameworks, while some financial institutions are working on the development of their RegTech strategy and roadmap. On the educational front, we see professional services firms, startups, and—rather critically—regulators. As such, regulators play a large role in fostering innovation, creating common integrated standards, and proactively driving efficiencies in the RegTech ecosystem. With the development and further innovation in the RegTech space, regulators and financial institutions would be able to monitor and analyze real-time financial information from all the parts of the global financial services sector and facilitate a more efficient and safer financial system.

In summary

RegTech cannot be labelled as a buzzword anymore. On one hand, there is a need from financial institutions to drive compliance programs with greater efficiency, while on the other hand, new technologies foster the creation of innovative solutions as observed through our "analysis."[6] While we anticipate a strong interest by financial firms in RegTech solutions due to the resultant competitive advantage, the adoption of RegTech solutions is slow due to a variety of underlying challenges. As such, legitimization of these innovative products by enforcement authorities and regulators is key to stimulate adoption. The FCA is one of the regulators spearheading innovative initiatives, e.g., through the regulatory sandbox, which provides a unique opportunity to pilot this novel kind of regulatory architecture and eventually make it viable. Looking ahead, the challenges for regulators globally will be to conceptualize and implement the far-reaching possibilities of RegTech to develop the ecosystem into a foundational base underpinning the financial services sector.

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5 Source: FCA

6 https://www2.deloitte.com/lu/en/pages/technology/articles/regtech-universe.html