

The Data Tsunami:

Combating the overwhelming supply of GRC data

The institutional capital markets are dealing with the aftermath of one of the most aggressive periods of regulatory intervention since the Great Depression. The costs and consequences of non-compliance within financial services industry are greater than ever before. In addition, the financial industry is going through tough times with thinner margins, all-time-low volumes and low investor confidence. As a result, firms are dealing with new realities: Do more with less and adhere to stricter regulations. Existing legacy processes and technology across front, middle and back offices do not help meet these goals. Today's techniques for managing risk and compliance data have largely failed to meet internal expectations and regulatory requirements.

This TABB Group note highlights the deeper issues and challenges facing the industry, and the latest trends. Furthermore, the note also describes in detail the forward-looking solutions that solve many pain points that institutions are currently facing. These new tools will be indispensable on the journey ahead, which is why we expect a heightened sense of urgency.

Introduction

Governance, risk and compliance (GRC) is an umbrella term used to cover how institutions approach these three areas. TABB Group defines Governance as the boundaries within which the institutions should operate. It provides definitions for the institution's code of conduct to ensure compliance. Risk management consists of developing strategies for risk exposure of an institution at any given time in granular detail. Its framework encompasses identification, assessment, evaluation, and potential solutions for risks. Compliance focuses on adhering to external requirements such as wider corporate policies, laws, and regulations. If applied efficiently, the GRC solution enables institutions to comply with regulatory needs, monitor any wrong doings, develop a holistic approach to data management, and increase overall efficiency.

The financial crisis resulted in a structural change in the financial services' industry operating environment, driving permanent shifts in regulatory and shareholder expectations. The requirements of GRC vary widely depending upon the jurisdiction in question. In the US, we have rules such as Dodd Frank and its corresponding Volcker rule and initiatives such as the Consolidated Audit Trail (CAT). In Europe, EMIR and MiFID2 are giving sleepless nights to senior executives at financial intuitions. The pressure of a constantly intensifying regulatory environment requires firms to adapt and expand their in-house compliance programs to respond to compliance requirements that are increasing in breadth, depth and complexity.

GRC rules have forced institutions to increase reporting frequency, which translates into increased data capture and management, and all within tighter timeframes. Unfortunately, many institutions simply do not have the systems or control over their data to make complex analytics an integral part of workflow or enable information to pass back and forth within different functions.

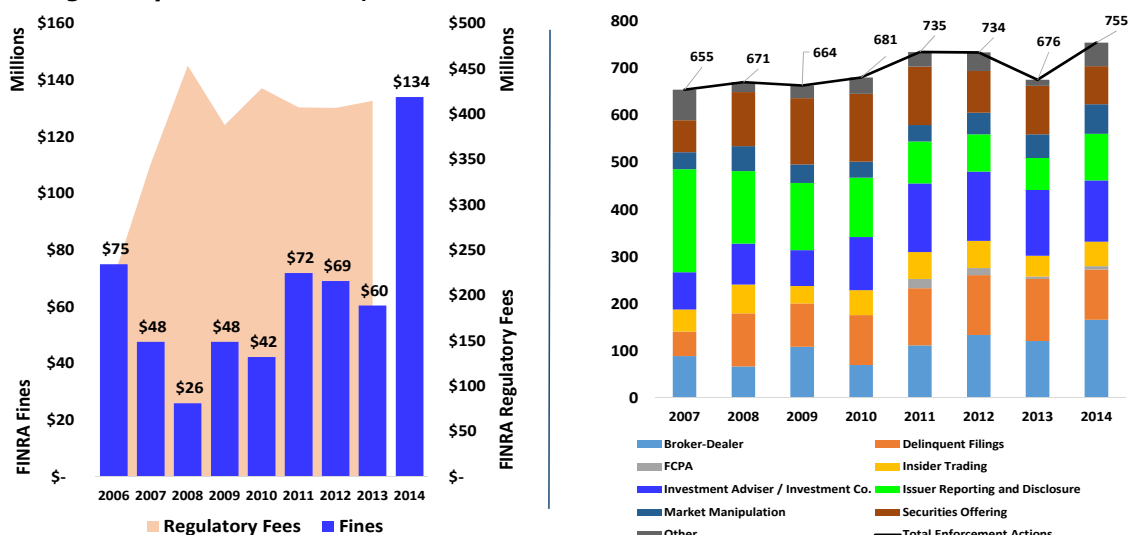
What institutions need is a combination of dynamic and flexible data-management architectures, along with aggregation capabilities, layered on top of user-friendly front ends. When combined into an elegant solution, this will allow market participants to increase the utility gained from data-management structures beyond regulatory reporting. Pre-trade risk checks, risk management, and trade analysis mean little if they occur in silos, and as new regulations come into force, those who cannot monitor across their enterprise in a holistic way will fall afoul of regulatory authorities. Those that can transform their bytes (tera and peta) beyond just regulatory requirements will gain the advantage. Regulations are both a challenge and an opportunity for institutions.

IT departments at financial institutions are struggling with the implementation of these new regulations and this note highlights the initiatives of the larger vendors in this space.

The Struggle with legacy and fragmented data

Across the board, regulators want increasingly more information from financial institutions, and consequently, institutions are required to store, manage, and analyze increasingly greater quantities data. As the requirements increase, so does the pressure to get it right, as fines and reputational damage are becoming increasingly harsh. Non-compliance is a risk that financial institutions want to avoid. The cost of compliance and the corresponding failure to maintain a compliant institution is going up. FINRA and SEC data demonstrate that cost of both compliance and compliance failure is on the rise. FINRA fines are at their highest levels since 2007/2008 and FINRA regulatory fees are near all-time high levels, too. (Exhibits 1 & 2).

Exhibit 1 & 2:
FINRA Regulatory Fines and Fees | SEC Enforcement Actions



Source: FINRA / TABB Group; SEC/TABB Group

Sharing information within an institution is now a business imperative as regulations force market practitioners to share data and compile information from disparate systems to meet complex compliance requirements. However, most legacy data-management infrastructures deployed by financial institutions have proved to be ill equipped to handle the new challenges facing financial services firms. The existing IT infrastructure is struggling to deliver on levels such as speed, performance, and scalability to name a few.

Risk systems are the most challenging aspect of compliance because they require the most inputs from the widest variety of sources and are constantly churning through massive quantities of data. Fragmentation of risk-management technology across asset classes and departments compound the challenges associated with current risk- and data-management challenges. Nano-second variations in time stamps and reporting along with variations in the computation of risk-adjusted returns for different business units and client portfolios create dissimilarities in reporting across continents.

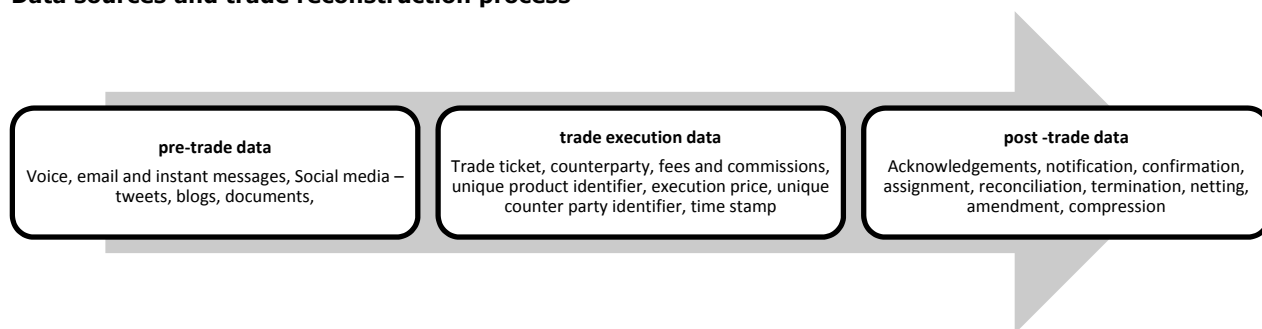
The industry is taking stern measures to streamline risk operations across the enterprise. In early 2015, Bank of America, under pressure from its U.S. regulators, shifted its compliance group from its legal department to its risk oversight group. It has combined compliance and risk to align all risk-management oversight under the bank's Chief Risk Officer. This initiative is part of the bank's efforts to simplify how it operates after largely resolving legacy issues related to the financial crisis.

Weaving together structured and unstructured data

Regulatory agencies like the Commodity Futures Trading Commission (CFTC) and the Securities and Exchange Commission (SEC) have become increasingly aggressive in curbing trading activities that undermine public confidence in the markets. As a result, new expectations by these regulators for proactive trade surveillance are gaining increased traction, especially as financial firms seek to eliminate breaches of internal controls and policies that lead to unlawful trading activities. Staying abreast of and complying with the increasing scope and complexity of regulatory and E-Discovery (ESI) guidelines poses an ever greater challenge for financial services firms. They have to deal with not only structured and internal data, but also unstructured and external data sources. For example, the CFTC rules surrounding Dodd Frank require financial services firms to be able to reconstruct a complete derivatives trade in just 72 hours, including all pre- and post-trade communications.

All communications associated with trading activity including email, voice, instant messaging, and voice recordings need to be collected, digitized, tagged, and stored. While compliance departments have in the past had to leverage technologies that store data and meet other discrete regulatory requirements, trade reconstruction represents a completely new level of distinct challenges. This has forced senior management and compliance departments to take actions to mitigate the risks associated with the identification, organization, and production of information streaming from the multiple sources of structured and unstructured datasets. (See Exhibit 3)

Exhibit 3:
Data sources and trade reconstruction process



Source: TABB Group

For senior management this means establishing not only a coherent, responsive data-management infrastructure for the whole organization, but also an enterprise-wide

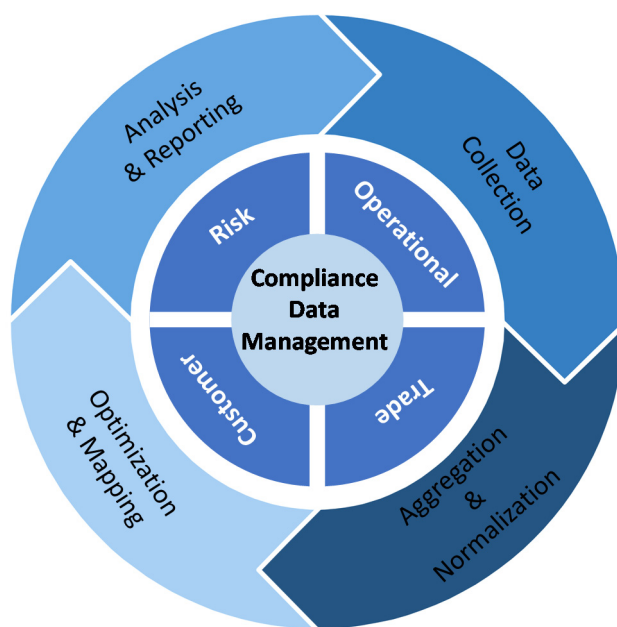
approach to data governance. Institutions need to tackle the governance challenge from a requirements perspective. The process starts with

- Noting your requirements
- Teasing out the data you need
- Identifying the systems and sources of data
- Mapping the data paths (how you are going to get the data together)
- Identifying a technology that fulfills all requirements and then create an output.

Institutions have to place a great deal of emphasis on the quality of data that is required to drive new reporting and risk analytics, as problematic outcomes could cause institutions to have inconsistent results. In addition, getting this right is of paramount importance as getting it wrong means very harsh scrutiny from management, regulators and investors.

As required, institutions need to integrate trade, operational, risk, and customer data into an enterprise-wide data-management platform that provides a single view of the truth. Once data is collected, the process should involve a continuous process of aggregation and normalization, and data mapping to create order lifecycle, followed by analysis and reporting. These compliance activities involve an ongoing process of preventing, detecting, investigating and remediating areas of noncompliance (See Exhibit 4).

Exhibit 4:
Data gathering and governance process for institutions



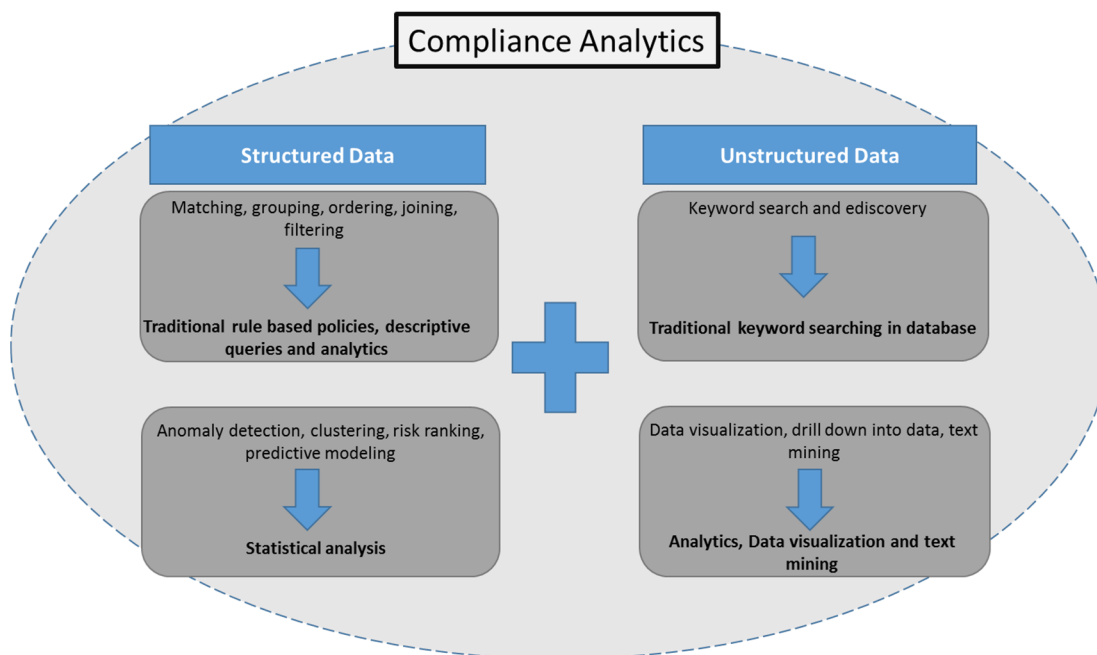
Source: TABB Group

All capital markets institutions today have to collect and store more data than ever before. However, without analytics data is a white elephant; it's nice to look at but expensive to maintain and provides no utility and no alpha. Deploying the right set of analytics tools can help generate both alpha and internal efficiencies. The right set of analytical algorithms and

models is a key competitive differentiator for any institution. Institutions need analytics functionality and expansion of coverage across all asset classes and geographies.

Recent high-profile lapses in regulatory compliance have reinforced the need to get it right. Consequently, compliance initiatives have moved from relative obscurity within the back office to center stage in the front office. Moreover, compliance requirements have moved increasingly from post-trade data gathering and analysis to real-time analysis and reporting. This shift has amplified the need for a sophisticated, real-time compliance platform to meet mandated integration of structured and unstructured data sets for regulatory reporting requirements. Compliance analytics tools now need to incorporate functionality for both internally generated structured data and unstructured data generated by third parties (See Exhibit 5).

Exhibit 5:
Pieces of compliance analytics for analyzing structured and unstructured data



Source: TABB Group

Compliance analytics tools should be able to seamlessly integrate and analyze structured and unstructured data sets to get a holistic view of internal operations. Key capabilities in compliance analytics include storing, archiving, tagging, key-word search, reporting data back to regulators and sophisticated models to predict wrong doings.

Integrating technology into your compliance process

New technology tools are a key to the compliance puzzle

Technology is both the root cause and the solution to the problem. The proliferation of high-speed data devices has caused an exponential growth in the generation, capture, and reporting of data. On the other hand, given the complexity and diversity of the systems involved, technology is the only option for solving the problem.

Traditionally firms viewed compliance as a basic but burdensome and time-consuming business requirement that attracted little attention and generated no alpha. However, today it is a key business function and requires the comparable investments in technology, resources, and strategic focus in the front office in order to keep pace with global regulatory mandates and market conditions. Use of technology in compliance has moved from best practice to standard practice for financial institutions. Unfortunately, most institutions are struggling to manage their internal compliance workflows. TABB Group research indicates that leading edge institutions reach out and seek help and advice from the vendors. These institutions understand that they need assistance in understanding the new global compliance paradigm. Unfortunately, while a few institutions get it, most are still averse to working with vendors on their GRC deployments. This needs to change.

The GRC market is comprised of a wide range of solution categories, each integrating several GRC functions. While each vendor or even market segment says they “do it all,” caution is needed. The idea of a single GRC Platform to meet all of an institution’s needs is a myth. There is no one-stop shop for GRC needs spreading across business functions, assets classes and geographies. The best practice for institutions is to approach GRC as a federated architecture that allows for best-of-breed solutions as required, and does not force the institution into one platform that tries to fulfill all needs. GRC is a wide area and several vendors provide solutions that cater to the growing needs of financial institutions.

GRC is a highly fragmented market, but existing tools aim to integrate GRC teams' many responsibilities into one platform with broad functionality. Each vendor is targeting to pain points that institutions are struggling with and providing enterprise-wide data-management platforms that are flexible and integrate data from across the enterprise and external sources. No single IT tool has all the answers. Consequently, institutions need to create cohesive business processes to manage various functions and technologies in sync

Below we have profiled NICE Actimize, a leading provider for GRC tools to the financial services industry.

Vendor Profile

NICE Actimize

Founded in 1999 and part of NICE Systems since 2007, NICE Actimize provides global compliance and regulatory solutions to more than 250 tier-one and tier-two financial institutions across six continents. The NICE Actimize risk management platform provides real-time and cross-channel fraud prevention, anti-money laundering, enterprise investigations, risk management and trading surveillance solutions.

Solution highlights:

- The Trade Surveillance suite by NICE Actimize is a compliance offering designed to monitor the full trade life cycle. It can monitor trade-related communications, analyze relevant news events, and run trading activity through advanced algorithms to determine suspicious activity.
- The suite monitors trading activity across business lines and products including equities, fixed income, forex, futures, commodities, and derivatives markets.
- The solution offers multi-dimensional coverage of global regulations including Dodd Frank, European Securities and Markets Authority (ESMA), European Market Abuse Directive (MAD II), Codes of Conduct regarding Benchmark Manipulation (UK FCA, US CFTC).
- NICE Actimize offers a variety of data-sourcing options: Data may be drawn directly from client trading systems, proprietary systems, market data vendors, or via data warehouses deployed by the client.
- Deployment options include an on-premises installation, a hosted solution through cloud technology, or a hybrid deployment combining the two. NICE Actimize has a decade of expertise in delivering cloud-based solutions to its clients around the world, with over 200 successful deployments.

Key Differentiator - NICE Actimize differentiates its offering through the depth and breadth of its Trade Surveillance coverage, combined with capabilities around Communications Surveillance (particularly voice analytics) that are unmatched by any other vendor in the industry. These two solutions are available as standalone, or fully integrated as Holistic Surveillance. NICE Actimize trade surveillance covers the full spectrum of asset classes, including cross-market and cross-product surveillance. It is delivered on top of an enterprise-scale case management platform that is designed for global needs. Communications surveillance solution allows firms to use voice, email, instant message, and social media monitoring to provide a holistic view of all trade-related activity data to proactively meet regulation requirements.

Conclusion

As regulations continue to toughen, compliance departments will face challenges in terms of managing large volumes of data and the increasing costs associated with storing, retrieving, analyzing and producing that data in a consistent, unified and efficient manner. GRC regulations have made it an imperative for all functions and businesses within financial institutions to share information more readily and rapidly in order to meet regulatory requirements and support and improve investment decision-making as a whole.

For the effective aggregation of data, institutions need to streamline their application portfolios, standardize and normalize data more effectively, and ensure the rapid integration and sharing of data across systems. With a holistic view of data, the ability to harness synergies across the reporting requirements under new regulations offers tremendous opportunities. A cross-organizational, proactive approach to risk and compliance functions will transform regulatory necessity into a definitive business advantage. However, institutions simply do not have the systems or control of data they need to make complex analytics an integral part of workflow or enable information to pass back and forth across different functions.

Institutions cannot delay their investments in an integrated approach to data management and analytics. Deploying efficient data-management architecture will provide consistent access to real-time, static, and historical data, ensuring users do not have to navigate and reconcile among various legacy systems that only deal with their respective versions of data. This will result in more timely and accurate analysis and easier validations and reconciliations. In addition, analytics has become critical to data management strategies. Analytics is no longer a nice-to-have tool, it's a must-have tool. Advancements in the user interfaces for analytics tools now allow users to explore and visualize data, and provide the flexibility to play with data and produce reports that satisfy regulatory instructions.

Having said that, enterprise-wide compliance requires a push from the top management. Visionary leaders need to introduce a new and efficient architectural paradigm that enables a holistic and unified view of internal and external data.

Leaders need to push the idea of working with vendors and automating parts of the compliance process. This is help save money and time for the institution as a whole.

The increasingly preferred deployment option for GRC compliance tools is the cloud. This shift illustrates a significant new trend in institutional preferences that favor reduced infrastructure investments and on-demand services and capacity. Financial intuitions are continuing their efforts to reduce costs while concurrently dealing with regulations and operational re-engineering. For them, the cloud has become an increasingly attractive outlet for a subset of use cases. TABB Group recently published a report, "**Public Cloud for Capital Markets: Trends and Uptake,**" highlighting the use cases of Public cloud services in the capital markets. Our research points to a positive uptake of public cloud services among capital markets firms as vendors enhance capabilities around security and control

while simultaneously reducing prices. The fact that vendors are increasingly offering compliance tools in an on-demand model validate this trend.

While financial firms are unlikely to migrate business-critical data (i.e., primary storage data) to the cloud any time soon, they are increasingly moving historical data for GRC and compliance to the cloud. TABB Group believes public cloud storage is the best way for enterprises to deal with increasing pressure on storage of data. Its built-in flexibility allows for hybrid implementation options, where firms archive historical trade data in the public cloud while storing current data and customers' personal identifiable data (PII) behind their own firewalls.

Investments are inevitable to create the infrastructure necessary to meet the distinct regulatory challenges associated with trade reconstruction (integrating structured and unstructured data). Those that make the real-time analysis and exchange of data part of their everyday workflow across the front, middle and back-office functions will be primed for both compliance and profitable growth. The sooner IT leaders act to address these challenges, the more successful they will be in meeting the compliance and data-management requirements of this new era.

About

TABB Group

TABB Group is a financial markets research and strategic advisory firm focused exclusively on capital markets. Founded in 2003 and based on the methodology of first-person knowledge, TABB Group analyzes and quantifies the investing value chain from the fiduciary, investment manager, broker, exchange, and custodian. Our goal is to help senior business leaders gain a truer understanding of financial market issues and trends so they can grow their businesses. The press regularly cites TABB Group members, and members routinely speak at industry conferences and gatherings. For more information about TABB Group, go to www.tabbgroup.com.

The Author

Shagun Bali

An experienced technology analyst, Shagun Bali joined TABB Group in September 2014. She brings seven years of experience as an analyst specializing in the IT market. With TABB, Shagun's research and consulting focus has related primarily to data management, analytics, adoption of public cloud, technical infrastructure, regulations and compliance. She has authored various reports such as "The Consolidated Audit Trail (Part III): Value Proposition and Hard Decisions", "The Consolidated Audit Trail (Part II): Problems and Pitfalls", "The Consolidated Audit Trail (Part I): Reconstructing Humpty Dumpty", "Public Cloud for Capital Markets: Trends and Uptake" and "Predictive Analytics 2: Enabling Better Risk and Return Outcomes". Previously, Shagun was working with research firm Ovum, specializing in business intelligence, next-generation analytics, customer experience management, privacy and security of customer data, Big Data, CRM and IT investment trends for global telecoms industry. As a part of her role, she investigated advancements in technology, connectivity and applications, regulatory changes, and the changing demands of customers. She has focused on helping IT vendors find new areas of growth and innovation by better understanding unmet customer needs, industry dynamics, and competitive moves.



TABB
GROUP

www.tabbgroup.com

New York
+ 1.646.722.7800

Westborough, MA
+ 1.508.836.2031

London
+ 44 (0) 203 207 9477