The 2016-2017 FIMA CDO Study

THE CHALLENGES & OPPORTUNITIES FACING CDOS IN 2017

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FIMA Financial Information Management

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EXECUTIVE SUMMARY

In the wake of over a decade of mounting challenges posed by both domestic and global regulations, both the role of the Chief Data Officer and its data practices have undergone a progressive evolution. The data management function has long been important to overall business health. Across most transaction types, efficiency and accuracy relies on data quality. For example, securities processing automation relies on having reliable reference data. And the reliability of this data will have an impact that echoes through an organization at every level, from the front office for sales, research, trading, and order management; in the middle office for collateral management and regulatory reporting; and in the back office for trade confirmation, settlement, and asset management. Developing a C-level data management role is a response to the need to make sense of what can be an exponentially growing tangle of information, spread out across business units and departments.

Most recently, the CDO has become the lynchpin of an organization's approach to meeting the requirements imposed by regulations. And in this role, CDOs have the authority to work across the business to unite disparate sources of data, standardize how the organization tracks and manages Critical Data Elements (CDEs), and build best practices around lineage. However, as data management practices mature, and the technologies supporting them improve, the role is taking on a new importance. The CDO is becoming a source of significant value, driving benefits for the organization. By breaking down silos and gaining broad visibility of data assets within the organization, the CDO is fueling a growing desire for actionable business insights based on easy-to-find, trustworthy analytics.

However, many organizations are still in the midst of developing their data practices to the point that they can keep up with - and then outpace - regulatory demands. But those on the leading edge are moving into what could be called "governance 2.0." In this phase of development, growing sponsorship from - and accountability to - the business is a hallmark of maturity. This report illustrates the challenges and opportunities that CDOs face on the front lines of driving this strategic transformation while evolving the scope and value of their roles within the C-Suite.

ADDITIONAL CONTRIBUTORS

The following CDOs and industry experts contributed their insights to this report through interviews, with selected quotations appearing alongside the analysis and data gathered by the FIMA research team.

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THE ADVENT OF DATA MANAGEMENT 2.0

Growing pressures such as the maturing of the data management discipline and the challenging regulatory environment within the Finance industry are pushing practices towards the development of "data management 2.0." In data management 2.0, an offensive, business- case driven approach takes over from one that aims to simply keep pace with compliance requirements. As former CDO of CIT bank and current SVP and Chief Data Officer at Wells Fargo, BJ Fesq has observed these changes as they've affected his own practice. **"Data management is moving beyond compliance and more defensive posturing, into more offensive enablers —predictive analytics and machine learning, and it's a well defined trend. Partly, how fast you move depends on what kind of industry you're in. In financial services in particular where you're facing constant regulatory pressure, the goal posts just continue to move as regulators raise standards. [CIT Bank] in particular is one of the first voluntary SIFIs (Systemically Important Financial Institution) —we merged with One West Bank, crossed the $50 billion in assets threshold, and some of the regulations that other banks had to comply with in a three-year window, we had to do in three months. It's a huge difference from the pre-SIFI environment."**

There isn't a uniform level of strain being placed on financial institutions, as the amount of compliance hurdles they must overcome will depend on size. However, in the majority of cases, regulatory pressure is still significant. This can have an effect on the rate at which a practice can move towards an offensive strategy. Fesq states, **"From a business case perspective, there is a lot of opportunity to leverage some of these newer technologies, around predictive analytics, machine learning; and so, we've seen business cases being created to effectively pilot some of this stuff in a sandbox, trying to leverage assets we already have in terms of data; building new analytics that will help do things like prospecting, identifying customers that look like customers we do business with today, but aren't current customers. We are seeing a bunch of that, but because of the magnitude of the regulatory pressure, it's probably not as fast moving of a trend as you'd expect."**

Many CDOs are still in the midst of outfitting their data practices to keep abreast of regulatory requirements. And they're also struggling to wrap their arms around the data silos that must be reconciled within their organizations and to identify which elements must be tracked as high priority for compliance. This is a process that has been described as "trying to jump over a high bar in the dark", as the language within many regulatory guidelines is cloudy enough to cause confusion over the minimum acceptable standards that financial institutions must adhere to.

Despite the challenges of implementing a framework for better governance, CDOs see opportunity that goes beyond being pulled forward by external forces. **"Recently, I have used regulations to my advantage,"** says Clay McBride, Global Head of Market Data Management for Aegon Asset Management. **"They force change. The problem with regulations is they are typically directional in nature and do not specifically designate a standard that must be used."**

Where should one start when setting out to define a strong standard? According to Harsh Tiwari, SVP, Chief Data Officer for Enterprise Data & Analytics at CUNA Mutual Group **"Data Management should be relevant to the present needs within an organization, based on usage and exposure of that usage. Additionally, Data Security and Data Management should absolutely not be confused. Security encompasses all systems and data, while Data Management is about understanding the quality and relevance of data used in specifically in decision making."** It's important to begin with a clear vision and an approach that incorporates the need for scaling into a management strategy by identifying a reasonable scope that takes both utility and security into account.

While inertia in the form of compliance related tasks can force more ambitious projects on to the back burner in certain cases, the potential for gaining significant benefits from data has CDOs ready to go further. Tiwari observes, **"In terms of justifying the value of Data Management, when it's done right and with an understanding of how data drives value, the pressure to define that value should be a non-existent problem, as the results will be self evident."**

Simon Hankinson, Market Manager for Financial Services at Collibra, emphasizes that an evolution towards a data practice that gains greater recognition for driving business value starts with prioritizing communication and measurement of these activities, once they are defined. **"Value is in the eye of the beholder, so you must demonstrate business value by focusing on something that matters to the business. I think data organizations sometimes experience a lack of communication with business stakeholders about what is truly valuable. Simply put, there is a need to demonstrate value, so you need to focus on data issues that actually matter, and that means fostering communication with the people who are in the business, who own these issues."** He warns that exclusively focusing on the priorities of those within the data practice can actually become a limiting factor. **"It's easy for us to focus on things that we believe are important, but that are not necessarily important to business stakeholders."**

DEFINING THE CRITICAL DATA ELEMENTS REQUIRED FOR COMPLIANCE

Data management for regulatory compliance hinges on being able to track Critical Data Elements. Without a clear idea of what those data elements should be, creating a compliance strategy becomes impossible. Typically, a business will define critical data around what is required to meet immediate compliance and business needs, and will then scale up their number of tracked elements as their program matures. As Global Head of Market Data Management for Aegon Asset Management, Clay McBride follows an internal definition of critical data to establish priority. Critical data is **"data used for the application of the economic framework and the calculation of the Solvency Capital Requirement (SCR). This includes therefore data used for internal models as well as the standard formula model. Critical reporting including management reporting, at least including financial, risk and solvency reporting made for regulatory purposes or public disclosure."**

> *"Prioritization—understanding your critical data inventory, and effecting prioritization within it—is critical just to be able to operate in the current environment."*

Additional CDEs can be assigned to tiers depending on their significance for business processes. Any approach should take scalability into account from the start. Speaking to the exponential volume of data tied to compliance, BJ Fesq points out that **"if you take CCAR alone, there are probably 500 critical data elements required for the A, the M and the Q. Then you take those and multiply them by the number of accounts receivable and origination systems that you have upstream, and you're talking about multiple thousands of pieces of data required."**

As a CDO for Wells Fargo, Fesq recognizes that these tasks require a strongly prioritized approach. **"We typically look at [our CDEs] in terms of tiering: Tier 1 must be right; if it's not, you have operational inefficiency, revenue loss, reputational impact etc. Tier 2 is things that should be right, meaning that most of the time these things should be accurate, otherwise they will have some impact, but they're not going to cause significant revenue loss, or at least as significant as Tier 1 elements, so we can tolerate some degree of lesser quality. Tier 3, we'd like to be right. In an ideal world, this data should be complete, and accurate and valid; however, it really doesn't have a significant impact on our operations. Prioritization—understanding your critical data inventory, and effecting prioritization within it—is critical just to be able to operate in the current environment."**

In situations where a lack of clarity on what should be considered a CDE persists, it can help to drill down into what is required for continuity. This is the approach being taken by Harsh Tiwari as a CDO of Enterprise Data and Analytics at CUNA Mutual Group. **"When determining what constitutes a significant data element, we prefer a top-down approach. First we define critical metrics and tolerance thresholds. For example, decisions impacting $XMM in revenue or $YMM in cost are critical, then the metrics and business case defines what we can consider to be critical data. Once you have these protocols established, you can augment the framework to include externally disclosed data for reputational risk or regulatory risk."**

Once continuity is established, the data practice must also convey the importance of their efforts to their business stakeholders. As Simon Hankinson points out, **"some of the terminology we use doesn't do us any favors in terms of how we are demonstrating value to others. We certainly need to define what the most important data elements are, because those are the things that need managing. But there also needs to be a rationale that explains, 'why is that data element important?' We have our own hierarchy for our data, but defining it really starts with establishing 'the why', which makes that information important."**

It's not just to prove the value of tracking these elements. Creating an understanding of the data practice's mission is helpful for data managers as well as their internal clients. **"Determining what constitutes a significant data element requires an understanding of what the information is that matters to the person using it, segregating it down to its constituent parts, and then prioritizing it based on the significance that data has to that information," says Hankinson. "Not all data is equal, and what's important is in the eye of the consumer. And just governing data is only addressing part of what needs to be governed for sound information governance – we also need to be governing calculations and metrics used to create information."**

PATHWAYS TO MATURITY: INCREASING THE EFFECTIVENESS OF THE DATA MANAGEMENT ORGANIZATION

CDOs agree that when working on creating a more effective data management organization, it's critical to lay a strong foundation for future progress, and focus on scaling up with reality based milestones. A framework suggested by Harsh Tiwari prioritizes the creation of tangible insights and value that can be used to make the case for more resources. **"When working to improve the effectiveness of your data organization, start with a focus on the basics – decompose typical "average" metrics to drive intelligent insights. Focus on operationalization (achieving bottom line value) vs. model insights or exploring possibilities."** Having the ability to point to value based results is a critical leverage point that CDOs will need in discussions around scaling the capabilities of their practices.

Winning those leverage points and making the case for the data organization is critical, as Simon Hankinson relates that **"one of the keys to effective change management is having authority and sponsorship. As much as you like to use carrots to encourage change in behavior, there has to be some form of 'stick', or authority, behind it so that there are consequences if change doesn't happen."**

One of the most vital resources a data practice requires is a talent pool that can own the data management function as well as gather and execute on the needs of internal clients. Culture, technology, and a strategic allocation of resources are equally important for making this work. Ultimately, responsibility for data can't belong to a single entity within an organization. **"I've seen cases where everything is centralized in IT, and IT are seen as the owners of data assets, but maybe don't know the business as well as their partners,"** BJ Fesq reports. **"Those kinds of structures are typically doomed for failure. Having the right organizational structure is critical, just as much as recognizing that any organization's secret sauce is the people."** Creating a clear ownership structure around data can ensure that the expertise needed for success is present, as well as the practical knowledge relevant to how the data is being consumed.

Clay McBride points out that defining these structures is vital for long term scalability as well. **"We never have enough resources to accomplish everything at once, so we must prioritize. Data is a journey. Changing culture and maturing a data management program will take many years. We use a maturity assessment tool to gauge our progress over time and to help prioritize investments."**

Ultimately, the journey to maturity will differ depending on where you are starting from. It's critical to understand the starting point of the data practice before working on

more ambitious projects. BJ Fesq points to establishing a baseline level to improve from as a key in building organizational credibility; **"When I first stepped into this role, there was one Chief Data Officer before me, and probably about five data leaders before him. All of them had tried to build a big warehouse, and do some kind of "big-data project" only to fail. We had a lot of skepticism when I picked up the team."** It was only after crafting a strategy that acknowledged the need to educate stakeholders that things could begin to move in the right direction. When determining the maturity of the data practice, he shares that **"one of the measures I look at is consumption of the enterprise data assets that we manage, as well as the degree of business engagement. One of the things that is very different about our program today versus prior ones is that every aspect of the business is fully engaged in understanding the data that's critical to their business, and so they're deeply invested in governance activities and stewardship of that data. That's something that is critical to effectiveness. If your business has a data team, but other units don't really rely on you or consume your data, or have you at the table when they're making strategic decisions about things, that's a pretty poor measure of effectiveness. I think that we've been pretty successful in that regard, and it's really been because of focus on the business relationships; making sure the business partners see value in what we deliver from this capability."**

KEYS TO A SCALABLE APPROACH

When asked to define the three keys to data practice scalability, Clay McBride identified three critical factors:

- Executive support - not just lip service paid to data management
- Having a clear, documented data strategy to guide the journey
- Clear leadership and accountability - the function needs a CDO or similar leader

In his own journey as Global Head of Market Data Management, McBride remembers that **"when we first started our data governance program, we used a decentralized approach for data stewards."** Admittedly, that wasn't sustainable. **"While this was successful, we found it difficult to mature. Moving to a centralized data steward approach helped keep the governance program moving. We now have 3 fulltime data stewards. They focus 100% on metadata and critical data elements, which are no longer an afterthought or a small portion of someone's responsibilities that can get lost in the craziness."**

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Consolidating ownership of data architecture and governance work under a single banner can help to ensure that efficiency and reliability are equally developed in an organization-wide data strategy. While other best practices will differ based on the size of the organization, BJ Fesq points out that a solid foundation of architecture and governance are two of the essential pillars of sustainability. **"If you have a poor architecture, you can have great governance and engagement with your data, but you're constantly going to be fixing the same things over and over again; you're going to have inefficiency in terms of multiple sources of truth, or multiple unnecessary reconciliations of the same data. If you have a great architecture but poor governance, you can be efficient, but your data quality is just not going to be above an acceptable threshold. Both of them are key. I've seen organizations where one of these, maybe governance, aligns with the business, the COO, the CEO, the CRO—and the architecture component is aligned to the CIO or CTO, or CDO—which can also report into the business."**

Rather than breaking down the reporting for these equally essential components, Fesq advocates a consolidated approach, of the kind in place within his own organization. **"Here, we have the architecture component and the governance component both reporting into the data office, which reports into the CIO. Having said that, we're really just stewards of the framework, while the business is the owner of the data. They're the ones that are engaged in executing the framework for their respective areas. I've found this organizational structure to work well, because governance and data have to be tied at the hip and this forces them to be. At the same point, you have a lean core in terms of driving out the governance framework, and ensuring that your business is engaged, and that you're relying on them to truly take ownership of the data."**

Fostering a sense of data ownership across the business is a critical part of scalability. Without a sense of having skin in the game, other areas of the business may leave the full weight of management responsibilities to the CDO. Gaining this support, as well as identifying the critical elements and standards of the data under management are at the foundation of a scalable approach.

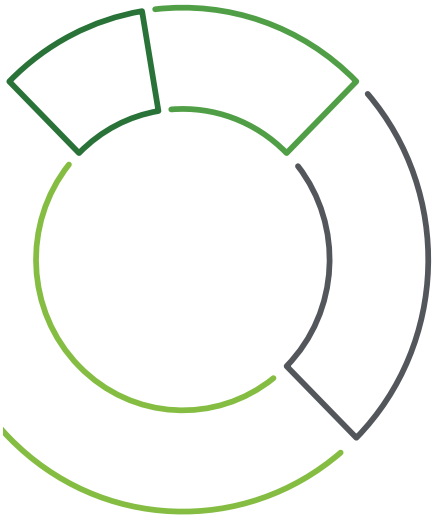
> *"Here, we have the architecture component and the governance component both reporting into the data office, which reports into the CIO. Having said that, we're really just stewards of the framework, while the business is the owner of the data.*

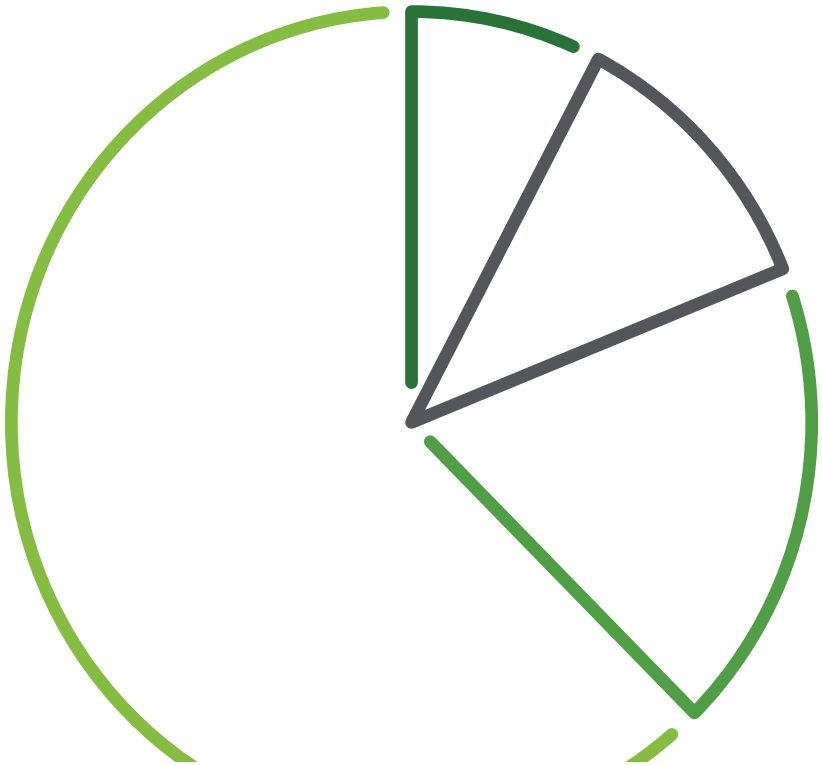
> *Where a lot of data organizations struggle is in their ability to communicate what they've done.They can't report easily, and it becomes a very large manual process, and that reporting is often greeted with some skepticism because it is so manual.*

As Harsh Tiwari states, **"One of the keys to a sustainable and scalable Data Management organization is making sure that you distribute responsibility for good data management throughout the areas that the department encompasses. Modify your Project and Infrastructure methodology to define critical and important data, its quality, and handling standards to continuously build success."**

From a technology standpoint, Simon Hankinson points out that **"many organizations get going by building processes which use Excel, PowerPoint, Word, and SharePoint to manage their growing data organization, and they quickly realize that that's not scalable. They find themselves sending emails to multiple people, where there's no automated workflow, no automated issue management processes, and no automated reporting capabilities for the data organization. Everything remains manual."**

From a sustainability perspective, this creates clear issues. However, there's more to be addressed than just internal bandwidth challenges. Hankinson relates that reporting can be the lever that helps an organization win greater trust. **"Where a lot of data organizations struggle is in their ability to communicate what they've done. They can't report easily, and it becomes a very large manual process, and that reporting is often greeted with some skepticism because it is so manual. It's key for an organization to be able to report what it does. One of the things we say is, 'if you can't report it, did it really happen?' One of the biggest opportunities and challenges that data organizations are facing is to develop effective reporting so they can communicate internally and externally on where they are, what they've done in the last quarter, and what they're going to do moving forward."**





KEY RECOMMENDATIONS

When defining the CDEs that your practice will focus on first, use a tier based system defined by your immediate and future needs.

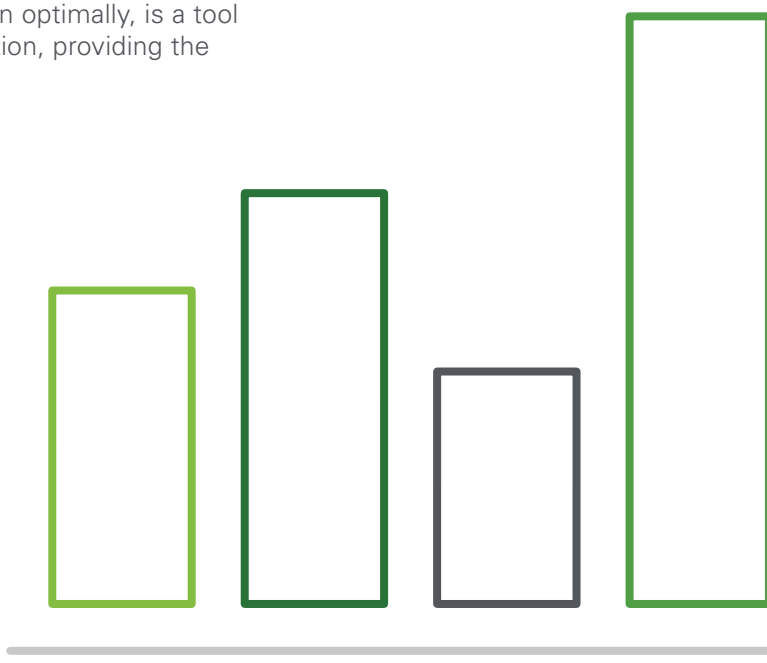
One of the important things that CDOs realize is the need to prioritize, as a single data initiative has the potential to balloon out in complexity when pursued. Identify the CDEs that are required to avoid penalties, as well as to provide the quality needed to support critical business needs first, before moving on to second and third tier concerns.

Where possible, implement automated solutions and visibility tools to gain more insights from data with less expended manpower. Reducing tactical involvement where possible is a key to being able to scale up, alongside fostering ownership with data stakeholders.

It goes without saying that the more time spent on performing tasks that can be automated, the more is taken away from other aspects of the data management role. By creating a strong framework of solutions that minimize the manual hours needed, those same hours can be spent on strategic tasks such as developing prescriptive actions based off of data insights, as well as communicating value and the need for ownership to other stakeholders across the organization.

Drive a transition from a reactive (compliance) based approach, to a value driven, business case based approach that can help win resources and recognition from key stakeholders.

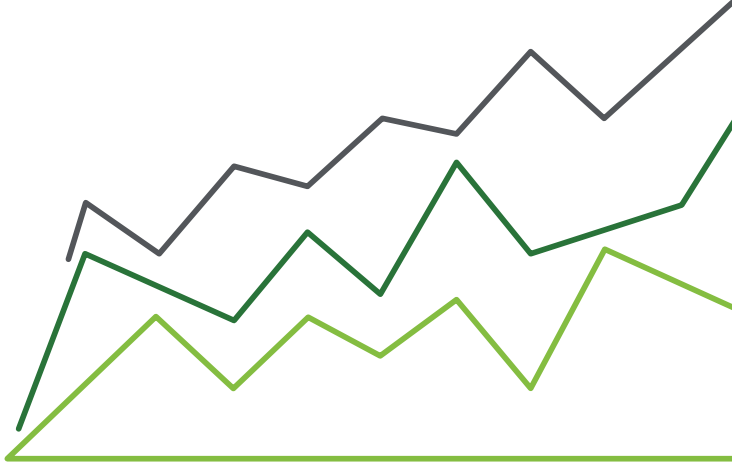
The data management function, as lead by the CDO, has the potential to develop a role within their organizations that is even more influential than the one they currently occupy. An invigorated data management practice, with the right solutions in place and the resources that is requires to function optimally, is a tool that shines a light on the core mechanics of a financial institution, providing the visibility needed to make impactful decisions.



APPENDIX

METHODOLOGY

The research analyzed in this report was gathered during interviews with participating CDOs and industry experts. Interviews with sources were conducted in the third and fourth quarters of 2016.



ABOUT

FIMA Financial Information Management

Financial Information Management (FIMA), launched in 2005, is the leading reference data management event in the United States. Each year FIMA hosted sessions and discussions are led by top reference data management professionals, all covering topics that are of fundamental importance to your enterprise-wide data management initiatives. We expanded to the West Coast and launched FIMA West in 2015 to bring together a broader group of data management executives to share best practices for both building and further maturing data management programs. We're dedicated to helping you make an ever-increasing impact on your business year after year!

To learn more about FIMA, please visit: fimaus.wbresearch.com

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As the leader in data governance software for business users, Collibra helps organizations across the world gain competitive advantage by maximizing the value of their data across the enterprise. Collibra is the only platform purpose-built to address the gamut of data stewardship, governance, and management needs of the most complex, data-intensive industries. Our flexible and configurable cloud-based or on-premises solution puts people and processes first – automating data governance and management to quickly and securely deliver trusted data to the business users who need it. Learn more at www.collibra.com.

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