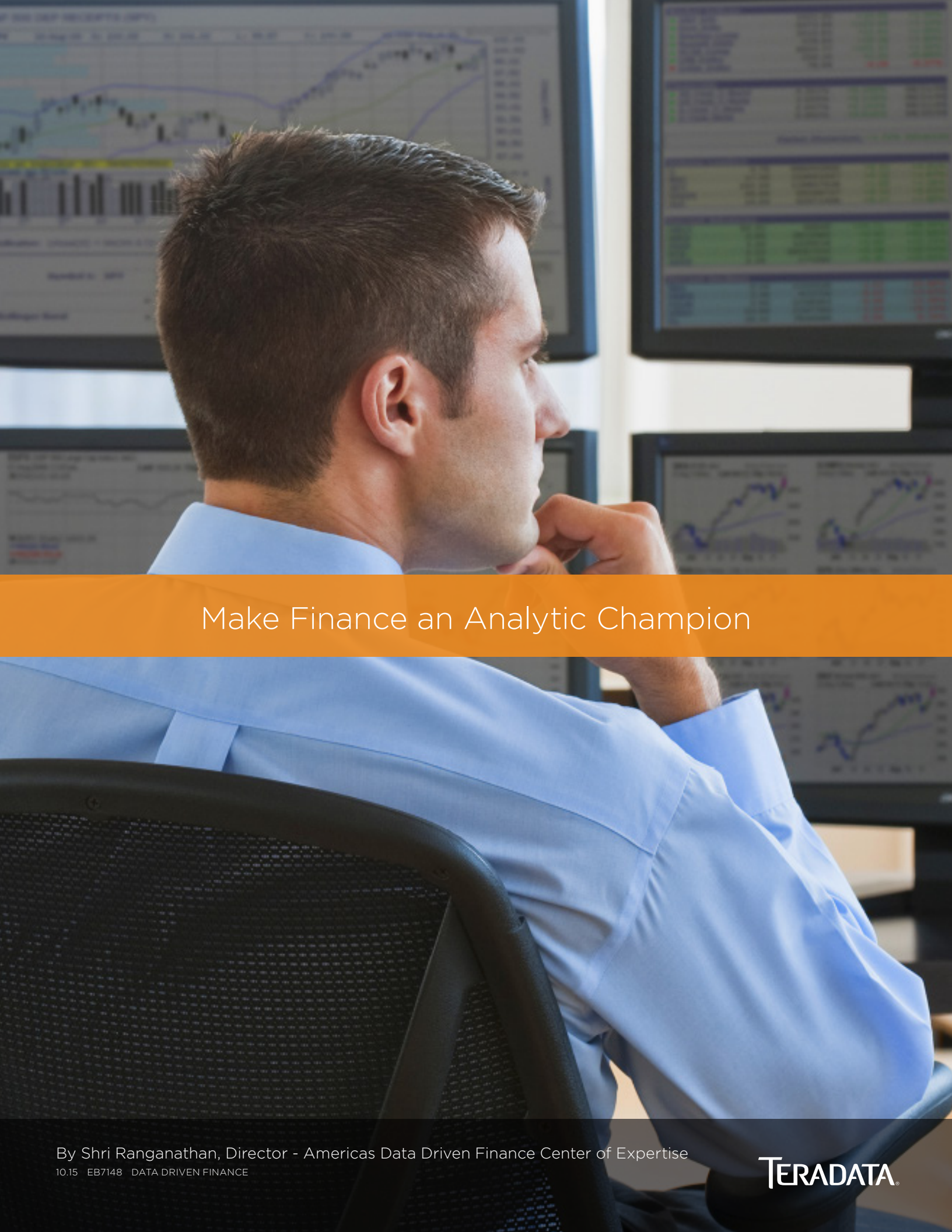

Make Finance an Analytic Champion

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10.15 EB7148 DATA DRIVEN FINANCE

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The burdens CFOs face are expanding exponentially. While constantly being challenged to reduce the cost of finance, they are increasingly expected to serve as Strategic Business Partners who can help senior management generate both top and bottom line growth. As they rise to this challenge, finance executives must figure out how best to incorporate and utilize vast new quantities and types of information such as text, unstructured and weblog data. As important as it is to leverage the promise of "Big Data" for this purpose, though, many CFOs are still struggling to first achieve a timely, single view of financial information across existing source systems, ERPs , and purpose built data marts.

A data-driven CFO and finance department can do both. The reporting and analytics finance produces can be improved through a simplified, lower-cost data infrastructure built on an integrated data platform. These foundational analytical capabilities position leading CFOs to incrementally incorporate Big Data into their analytic frameworks and unveil new insight into company performance. Equipped with integrated financial, traditional operational and new "Big Data" driver details, data-driven CFOs are best equipped to anticipate the financial consequences of strategic, operational and tactical decisions.

This paper will describe how CFOs can spearhead a data-driven approach by applying best practices observed within today's leading finance organizations. Finance departments seeking to build data management and analytic infrastructures capable of both providing best-in-class traditional reporting and analytics, as well as a foundation capable of exploiting relevant Big Data analytics opportunities, are partnering with IT to develop finance architectures. Data driven CFOs are leaders who are truly positioning themselves to "do more with less" by designing systems around five key principles: agility, sustainability, extensibility, predictability, and accountability.

Challenges with Financial Analytics

In many ways, CFOs find themselves pursuing two contradictory goals. As a cost-center for the business, finance must honor stringent cost reduction imperatives and flat budgets. Yet at the same time, growing regulatory and management requirements demand that CFOs provide unprecedented levels of financial transparency and decision support.

Some CFOs are being asked to integrate Big Data at a time when their own financial house is probably not entirely in order—or at least not in an order that provides necessary, actionable insight into detailed results. Too often, CFOs rely upon a web of unnecessarily complex, disconnected financial systems that require significant manual, error-prone reconciliation and validation labor. This can lead to inconsistently or inaccurately reported results, as well as the internal "data struggles" that erupt when divisions have conflicting definitions of net revenue, gross margin or selling expense. The resulting arguments delay management's decisions and negatively impact their quality.

As stewards over the financial data reported to both regulators and external stakeholders, CFOs must step into the breach and advocate improved data management practices that settle conflicts involving any information that impacts the financial statements. It is the only way to ensure that their companies can operate with a reliable, transparent single view of total company performance.

Furthermore, CFOs need more analytical capabilities than ever before because General Ledger data is no longer sufficient to meet regulators' and stakeholders' demands for transparency. Financial, management, and regulatory reporting all require greater sub-ledger detail (e.g. accounts receivable, inventory, and accounts payable) than in the past, as well as the ability to integrate increasing amounts of non-financial data (e.g. warranties, supplier, and customer). With the right infrastructure and a data-driven orientation, Finance can assist all aspects of the business in making more informed decisions. One of the key things that we see CFOs tasked with is Optimizing Order to Cash and Procure to Pay Processes. Meeting this challenge requires detailed linkages between financial statements and the Sub Ledger details which aggregate up into the General Ledger. This requirement not only meshes well with Finance's traditional financial data steward role, it is often a natural progression at the growing number of companies whose CIOs report to the CFO.

The Guiding Principles to Becoming Data Driven

To ensure their departments are data-driven, CFOs should work with IT to embark on a phased journey toward a simplified finance systems architecture that eliminates redundancy, leverages integration and maximizes automation. By uniting all of finance's diverse data sources—from point of sale devices, consumer billing or mortgage loan systems to brand-name and homegrown ERPs, to accounting hubs and rules-based cost allocation calculation engines—around a single, integrated data repository, the CFO organization can transform its effectiveness and efficiency. Teradata sees our Data Driven Finance customers achieving this state by redesigning their financial systems architectures with five core capabilities in mind: agility, sustainability, extensibility, predictability, and accountability.

Agility

Agility is all about the CFO's ability to respond to and promote change. Real-time delivery is an increasingly critical component driving Big Data Analytics and Finance is not immune to that requirement. How quickly can CFOs get the views they need to support management reporting required to implement new company strategies? How quickly can they evaluate a potential acquisition, a new line of business, or adjust reporting required to reflect new business models? The answers to these questions underscore the need for **agility**. CFOs are increasingly expected to proactively inform day-to-day decision making in both finance and operations. To meet these requirements, finance has to have its own analytic hub, enabling more in-depth, near real-time analysis, and a robust enterprise performance management solution which revolves around products, services, suppliers and customers and is more detailed than in the past. This analytic hub must integrate, over time, all relevant financial and related operational driver data (traditional and new) in order to equip the analyst with the insights that truly produce value. Properly equipped, Finance can then produce analytics that highlight differing value drivers in a way that helps the business respond more effectively to rapidly changing markets and competition. Without an agile reporting infrastructure, costly and time-consuming operational reporting updates can limit the amount of change that a company can support in the short run. Companies with flexible reporting can quickly reorganize to take advantage of opportunities and integrate acquisitions. They can also enact significant cost reductions and increase efficiency by reducing reliance on manual processes.

An $18B global manufacturer of medical imaging and monitoring devices recently implemented a major business realignment to enable a richer customer experience across regions, products, and functions. Their financial ERP systems were not capable of supporting the new reporting matrix, the demand for higher financial visibility, or the need for a single global chart of accounts view. Using a Teradata warehouse and Oracle reporting tools, the company designed the reporting flexibility needed to support business reorganizations, accelerate integration of acquisitions, and realize $6M in annual savings through a reduction in manual processes.

Sustainability

Sustainable financial analytics are built on a decision-making environment which can be continuously updated and evolved with minimum effort. Often times, quick fix analytic patches are sought by simply putting people to the project. Unfortunately, this approach is not sustainable and does not provide the ability to realize benefits month after month and adapt as changes occur. Executing project initiatives within an overall strategic framework capitalizes on data linkage across projects. By doing so, each effort helps to normalize and govern the data involved for enabling future projects.

A global IT services enterprise recognized the value of building a sustainable analytics system. This industry leader's sales and services organizations lacked complete visibility into their customers' network of inventory and equipment, limiting their ability to proactively identify incremental migration, cross-sell, and upsell revenue opportunities. In order to serve 1,000+ users with relevant data from ten different systems, management realized the need for a well-thought-out data management foundation. Since its initial development seven years ago on Teradata, this mission-critical application has driven daily decision-making about what revenue opportunities to pursue. With a recent expansion into the company's partner network, the system continues to generate hundreds of millions of dollars in increased revenue.

Shows common data among business capabilities

- If data assets are available to enable the column, then the percent of data to enable the row is displayed
- Example: If all data assets are available to enable Revenue, Sales and AR Optimization, then 81% of data needed to enable Cash Flow Forecasting and Management is already available

Then this... \ If this...	Revenue, Sales and AR Optimization	Cash Flow Forecasting and Management	Spend Analytics	Inventory Optimization
Revenue, Sales and AR Optimization	100%	98%	93%	36%
Cash Flow Forecasting and Management	81%	100%	89%	32%
Spend Analytics	86%	100%	100%	34%
Inventory Optimization	68%	73%	69%	100%

Figure 1. Extensibility Encourages Data Reuse.

Extensibility

Data analytics architectures tend to be built in phases. A "burning platform" and urgent need will bubble up pressure around an initial project leveraging G/L, Accounts Payable and Procurement data, for instance. **Extensible** architectures are designed with an eye on future data types that, when married with initial ones, will generate incremental business value. In these environments, newly added content like product, customer and order detail can be logically linked to existing data to further and deepen analytics. Rather than continuing to fund new initiatives on a project by project basis, data-driven CFOs take a longer view putting governance around these investments to ensure that each project can leverage work performed for prior projects. To CFOs, this simply makes common sense. It enables their departments to do more analytics with only a small incremental investment.

As an illustration, refer to Figure 1. The company has already completed a project which has pulled in Revenue and Accounts Receivable information for the insights needed to optimize collections. A new project arises wherein there is a desire to improve Cash Flow Forecasting. By extending the platform investment that has already been made in the Revenue and Accounts Receivable space, the Cash Flow project already has 80% of the information needed, and does not require a new round of testing and cleansing this data. Instead, the focus on only the remaining 20% (order data) requires less cost and less resource time.

A global technology conglomerate's reliance upon siloed, independent data marts across 40 different business units and 60 international subsidiaries resulted in data anarchy. The high cost analytic challenges pervaded subject areas as diverse as customer, product, sales, inventory, and financial reporting. By establishing a central Global EDW which linked and housed source data on orders, shipments, invoices, point of sale, supply chain, inventory, customers, financial and human resource data, IT and Finance delivered value back to the business quickly. Over a four-year period, Teradata-enabled analytics generated a total value of $1.5B in indirect cost savings, strategic sourcing cost reductions, inventory savings, and enhanced sales force productivity.

Predictability

Like an engaged chess player, CFOs are always anticipating the next market-impacting world event or competitor action, and projecting how that will affect future outcomes within their business. Data-driven CFOs strive to make their companies proactive rather than reactive. They achieve this by spending more time understanding trends and planning for future events rather than merely reporting historical results. The consistency with which a company delivers future financial results within shareholder expectations instills confidence that top management knows how to run the business. World class finance organizations—defined by The Hackett Group as performing in the top decile of efficiency and effectiveness—have two times the forecast accuracy for sales, cash, and earnings as compared to their peers.[1]

Because **predictability** hinges upon how revenues and costs interact, CFOs need detailed operational insight to identify and take action on priority activities that can improve future profitability and help avoid unnecessary costs. For example, if certain customers utilize the call center more heavily, they should receive a higher allocation of call center expenses. This provides a more accurate view of the profitability of different groups of customers, which in turn informs models of future profitability. Such insights can also enhance models including those for Economic Value Added (EVA) analysis, calculating profitability through leverage of the most important parameters.

The largest rental equipment company in the world turned to Teradata for help analyzing the profitability of its customers and products. The business and technical teams together were able to pinpoint and profile the most profitable customers and products (and the most unprofitable ones). The teams then used "like comparisons" to offer specific guidance to account managers seeking out new customers and product lines that would be similarly profitable, improving revenues and future cash flow forecasts.

Accountability

Accountability, in the traditional sense for the CFO, means that he/she can attest to the integrity of financial reporting—that it is free of fraudulent manipulation and provides an accurate picture of the company's state of affairs. **The data driven CFO pushes accountability further** by driving a framework which aligns strategy and execution across the enterprise. The ultimate goal of these organizations is to run the business on an agreed fact base through a common set of metrics. Without a common set of agreed upon metrics and numbers, managers waste valuable time debating which numbers are correct, as opposed to drilling into universally accepted financial results to identify operational performance drivers that improve forward-looking decisions.

A leading European commercial bank, became painfully aware of their need for a structured process for data management in the aftermath of 2008's worldwide economic turbulence. It saw the need for an enterprise-wide analytic platform where common models for data comparability at the Group level would support timely reporting on Asset and Liability Management, Credit and Treasury, and Planning and Control. Using Teradata as its CFO Data Warehouse foundation, business finance and planning within the bank established common definitions for key business dimensions and for the calculation of risk-adjusted customer profitability. Customer relationship managers across 9400 branches worldwide now have accountability for assembling and pricing the portfolio of products and services they offer their customers based upon their risk profile. The bank leveraged global collaboration process to define the new profitability metrics, which they credit for the fact that every business function ultimately bought into the metrics supplied by the CFO Data Warehouse.

1 The Hackett Group, World Class Finance EPM Playbook, 2014.

Why Data-Driven Finance Requires a New Approach to Data Management

The types of changes needed to achieve true data-driven finance do not happen instantly. Such transformation requires the creation of a governed data store that allows for broad reuse, and will eventually require company-wide cultural shifts and top-down support for the use of data across the business. Companies have to be willing to move beyond their historical dependence on siloed and unnecessarily complex IT environments in which only a set of predetermined questions can be asked and answered over an extended time horizon.

Importantly, even as they chalk up individual successes, CFOs cannot let historical inertia prevent future advances. They must leverage the power of integrated and modeled data that provides a flexible foundation for clean data company-wide. Once companies ensure the integrity of all financial and traditional operational data in a repository which serves finance as well as non-financial departments, they will be best equipped to tackle the new frontiers of Big Data. Armed with true analytical agility, these companies' finance departments can begin integrating "hot" Big Data types like text, unstructured and weblog with relevant customer, product, service, revenue and cost detail in the search for new leading indicators of company performance and customer/account-level profitability. An integrated, simplified, lower-cost systems environment allows the CFO to partner with the CIO and exploit Big Data innovations while effectively addressing changing regulatory requirements, improving strategic and tactical decision-making and maximizing profitability through a more granular understanding of costs and related efficiencies. Teradata's Data Driven Finance Center of Expertise finds that a growing number of our clients are already starting to integrate Big Data types with traditional financial data. The ones best able to focus on this task are those who have already taken steps to develop a simplified, data-driven finance systems architecture.

Conclusion

CFOs have always been the stewards of the single version of their company's finances. By providing this reality check to the rest of the business, they have historically supplied the baseline for judging the success of the company. Enabling data-driven finance as a logical extension of this work. CFOs can move beyond the single version of the truth they've offered to a more multi-faceted version of it, in which the value comes from analytics that incorporate non-financial and critical Big Data. In the process, CFOs can help democratize the use of data across the business, allowing every employee, regardless of department, to use analytics to make real-time data-driven decisions. These are sounder decisions, ones based on knowledge of how operational activities and customer behavior impact the bottom line. Leading CFOs know they cannot achieve this new reality overnight, but are already beginning the hard but important work of partnering with the CIO to develop a simplified systems architecture built on the principles of agility, sustainability, extensibility, predictability, and accountability.

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