

# OPTIMISING THE TOTAL COSTS OF OWNERSHIP OF MARKET DATA, A GRASSROOTS PERSPECTIVE

by David Myton

## INTRODUCTION

Welcome to the first of a series of discussions conducted by David Myton with a range of data experts within capital markets.

Capital markets is a data-intensive sector, and success correlates directly with the breadth and depth of data used in specific decision-making processes and applications.

Some of the challenges explored in this discussion series are:

- Optimizing the time to a decision, particularly trading decisions.
- Flexibility to integrate with middle office and back office applications.
- Siloed data licensing, resulting in multiple licensing of the same data.
- Optimal utilization of data assets.

David Myton is a respected journalist, author, and editor. In his first discussion, David engages with Rama Chandra, Senior Delivery Manager from RoZetta Technology, on the data challenges facing organizations in capital markets. Rama has a deep knowledge of market data, gained from many years of experience at Thomson Reuters (fka Refinitiv) and RoZetta Technology.

The subsequent discussions will focus on some strategic challenges that capital market participants face:

- total cost of data ownership; and
- integration of alternate data sources.

## THE DISCUSSION

Rama Chandra explains, “Managing market data is a real challenge for many organizations in capital markets. Typically, exchange generated data has over 1600 fields, and globally the record count, each presenting an event, could exceed 10 billion per day. This means that managing capital markets data is an exercise in applying big data technology and capability.”

Rama adds, “This creates challenges on managing the data but also creates challenges in how it can be integrated to a broad range of market data sets. Using a limited number of fields will inform a user of what has happened on the market, but having a better understanding of the entire data set, and how it can be integrated with other data, gives users the opportunity to gain an understanding of why events happen. It completes the cause and effect loop of market activity.”

This complexity is increased if an organization sources market data from multiple vendors as each vendor applies their own file structures and normalization rules.

Rama continues, “To manage all this data efficiently requires a deep knowledge of the data to integrate, store and index for maximum efficiency in providing data to end users.”

## THE 5 KEYS TO BETTER DATA

The question to the RoZetta team was about the fundamental things RoZetta does to deliver the best possible data to its clients. Rama agreed that five things they focus on are:

- **Inquisitive:** RoZetta invests in learning about the raw data. We think ahead about how data is used by the business and by our clients.
- **Structure:** Data comes in all shapes and sizes, and we spend time to decide the best way to make the data easy to consume by users.
- **Data Quality:** RoZetta excels in this area of data management. It is essential to resolve all inconsistencies and identify data that is invalid or missing.
- **Validate:** We verify all of the data issues and go back to source to address and investigate any new data or new content.
- **Publish:** Our clients rely on clean, complete and accurate data. RoZetta is committed to minimising any wrangling effort for all downstream users.

Rama then adds “Keeping these principles in mind, and living them every day, helps maintain the standard we expect of ourselves and by our clients.”

## THE OVERALL CHALLENGE

Capital markets are increasingly nervous as the world economy seemingly heads into a new era of inflation and recession, leading to increased market volatility.

Rama Chandra says – “Every crisis is an opportunity.”

Over the past 20 years, RoZetta has invested in building the technology required to examine “huge data volumes” along with interfaces and programs designed to analyze the data and facilitate research across many markets and market sectors.

“With this technology-driven approach to understanding a problem, we brought in highly skilled researchers and data science experts who examine the markets through a technology lens, working alongside our market experts.”

Rama adds: “When it comes to everything to do with capital markets, RoZetta has the right technology, expertise, and professionalism to help our clients deal with any situation.” “Combining our data scientists with our highly skilled technology professionals, we can deliver bespoke solutions for our clients leveraging our core assets as the foundation,” says Rama.

## UNCERTAINTY IN WORLD CAPITAL MARKETS

On the increasing surveillance and regulation, Rama says: “Even a government change in one market can impact closely related markets. Investors don’t know if rules will change or how it will impact companies.”

“Volatility is just a way of life, and we deal with it, capturing the volume of the data that comes in and then working out how to organize it the best way.” Data management is a continuous process of data enhancement, and flexible access, as use cases increase.

Rama explains that Data and Analytics, Cloud Computing, Artificial Intelligence (AI), and Distributed Ledger Technology (DLT) are the four core competencies and technologies identified in the Association for Financial Markets in Europe’s report entitled ‘Technology and Innovation in Europe’s Capital Markets’.

A clear data management strategy is an immediate priority as it is the enabler for these four core technologies.

How do we collect, validate and organise this data? How do we store it to ensure continual access? And then distribute it efficiently?

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In all of this, Rama says, RoZetta focuses on supplying clients with fast-tracked, good quality, analysis-ready data. Meeting the needs of the client as they adapt to new market conditions and opportunities.

## ANALYSIS READY DATA

“Analysis-ready data is data that a person or organization can trust to trade and report on confidently,” he explains.

There is a constant need to have good quality data to drive trading decisions, compliance reporting, or determining current risk positions.

Data supplied in a prescribed format and field order is analysis-ready data. Users can immediately ingest the data in an application or process to perform their role in the organization.

“The data business is a secondary line of business for exchanges. Now, as a data vendor, the objective is to capture everything from the exchange. So when a vendor has operational issues, they may not capture all the historical events accurately.

Frequently venue’s will have data gaps as their ‘feed handlers’ have not captured all the data in their initial data supply, but this data may be captured at a future date when reconciling many data feeds.”

Rama continues, “But a client may need only specific data relating to certain fields at every minute, on each day. RoZetta takes this requirement and processes it, so the client gets the information they need.” By maintaining the integrity of the historical data, significant efficiencies flow through the entire organisation as corrections are addressed at the source rather than duplicated at the user level.

## CAPITAL MARKETS ACCUMULATE VAST AMOUNTS OF DATA

“We are not just talking about today’s or yesterday’s data. The amount and volume of data are huge – it’s petabytes,” says Rama. Some estimates are upwards of ten billion daily transactions, that in turbulent times blows out to thirty billion, in global capital markets.

“So imagine you need only a part of it. How do you go in there and extract the specific data you need? And you expect the data to be clean, without any gaps or errors.”

And that’s where RoZetta comes in, with the expertise and the technology, to handle the data wrangling - supplying clients with cleaned, analysis-ready data based on their requirements to help them make investment decisions.”

## DATA ISSUES AND TRAPS

Inherent to this are various events that can happen on an exchange and cause more pain.

“For example, when a company changes its name (due to takeover or merger for example), you need details on historical name changes to ensure a continuous data set that covers all that has happened to that company over time.”

Rama says there are two aspects to RoZetta’s engagement, “The technology solution and organizing the data, so it’s ready and usable, and then RoZetta’s understanding of the data and markets - for example, knowing how vendors capture and massage the data.”

Adding, “What issues exist in this data? How do I get this data to be analysis-ready? Is the reference data correct?”

## KNOWLEDGE OF THE DATA IS AN ASSET

RoZetta excels in this with its knowledge of major data providers in the market. “We understand their data dictionaries and have systems to interpret that data and then onboard it onto our platform.”

“We have the technical know-how and the smarts to organize that data so that end users can source the data quickly and have it delivered to a technical platform of choice.”

RoZetta publishes an “issue calendar,” informing clients that “on this day, on this exchange, for this particular instrument, there is an issue.”

“We built this calendar as part of our pipeline. Clients can proactively account for issues rather than falling into the same pitfall each time.”

