

UNDERSTANDING THE 'REAL' VALUE OF FORECAST ACCURACY



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WHAT.

How AI is empowering treasury professionals to deliver more value with cash forecasting.



WHEN.

Thursday, Dec 10, 2020
2:00 PM – 3:00 PM EST



WHERE.

Live online presentation
Replays at StrategicTreasurer.com



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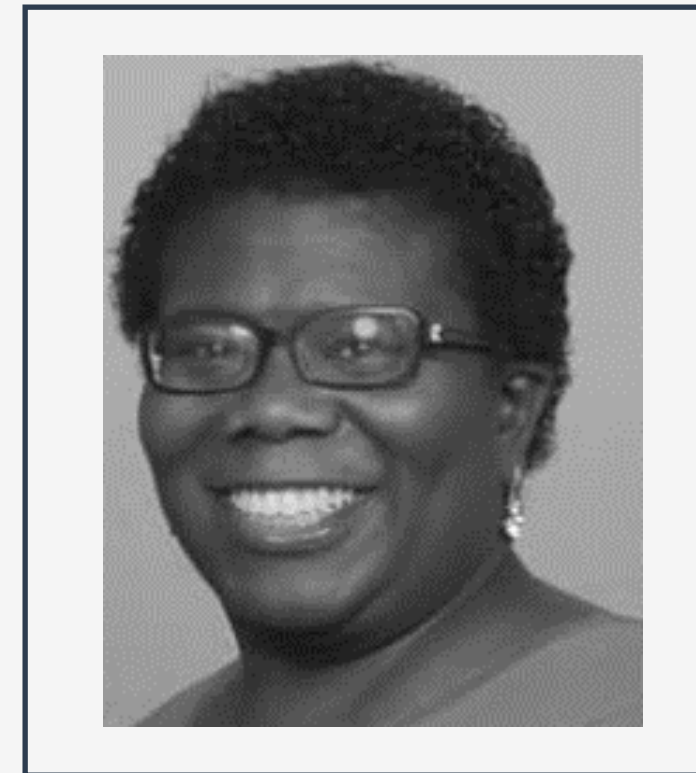
SPEAKERS.

GET TO KNOW TODAY'S
SUBJECT MATTER EXPERTS.



CRAIG JEFFERY

Craig Jeffery formed Strategic Treasurer LLC in 2004 to provide corporate, educational, and government entities direct access to comprehensive and current assistance with their treasury and financial process needs. His 30+ years of financial and treasury experience as a practitioner and as a consultant have uniquely qualified him to help organizations craft realistic goals and achieve significant benefits quickly.



TRACEY KNIGHT

Ms. Knight evangelizes the benefits of treasury departments' effective use of technology to raise treasury's profile and make treasury departments a true strategic partner to the business. Currently at HighRadius, she is excited to be on the cutting edge of treasury technology using artificial intelligence taking cash forecasting to the next level.

With over 25 years of treasury experience, she has helped hundreds of companies select and implement technology to transform their treasury departments. Experienced as both a practitioner and vendor, she brings a unique combination of knowledge and skills to truly understand a company's current state and help them see what their future state can become.

TOPICS OF DISCUSSION.

TODAY'S KEY AREAS OF FOCUS.

Cash forecasting is a process filled with many challenges, such as lack of accuracy, visibility, and accountability, but artificial intelligence (AI) is empowering treasury professionals to deliver more value.



FORECASTING AND AI

How AI works in the corporate cash forecasting scenario.



TYPES OF FORECASTING

Understanding various methods and their fit.



ACCURACY

What level of accuracy is most important?



ROLE OF TREASURY

The impact of accurate forecasts on treasury.



ROI OF ACCURACY

Estimating the direct financial and intangible benefits of accuracy.



LOOKING AHEAD

Final thoughts and leading practices for AI use in forecasting.

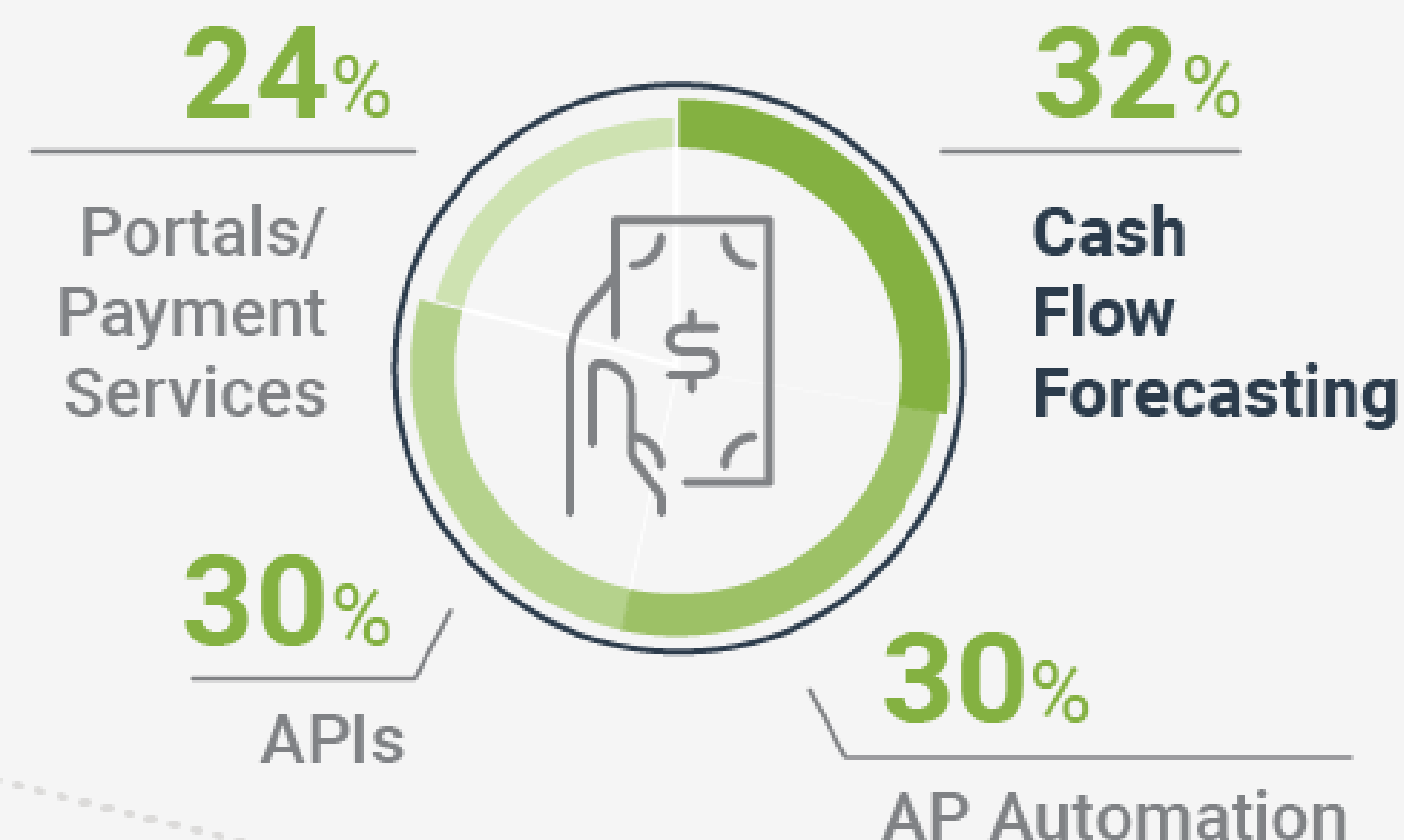
CASH FLOW FORECASTING

IN FOCUS ACROSS THE BOARD

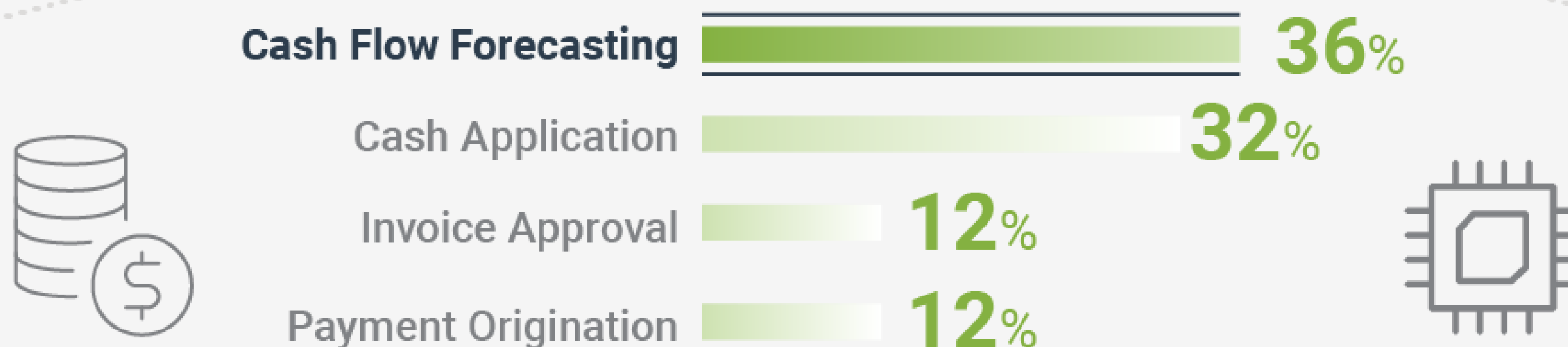
Top areas needed in data analytics



Top areas for spend



Top areas to leverage AI/RPA



UNDERSTAND THE PURPOSE OF CASH FORECASTING

Cash Surplus



Situation

- Plenty of available cash reserves
- Interest rates near zero
- Focus on business expansion/acquisition

Purpose of Forecasting

- **Reasonable accuracy**
- Strategic investment planning through **long-term forecasting** for business expansion/M&As



Cash Deficit

Situation

- Utilized most of their revolvers
- Delaying payables
- Focus on tightly managing cash

Purpose of Forecasting

- **High accuracy & frequency**
- Estimate when available working capital will fall short with accurate **short-term forecasting**
- Prevent over-borrowing



Understand the required level of accuracy for your business

DIRECT vs. INDIRECT CASH FORECASTING METHODS

Indirect Cash Forecasting

Direct Cash Forecasting

Definition

Begins with net income and adjusts to operating cash flows

Shows each cash inflow and outflow related to receipts and disbursements

Inputs

- Various projected income statements (IS)
- Balance sheets

- Upcoming payments
- Upcoming receipts

Advantages

Data from existing reports could be used to quickly build the forecast

Allows for granular analysis with better visibility of cash flow

Different goals

Different perspective

Different measure of cash

Different time horizon

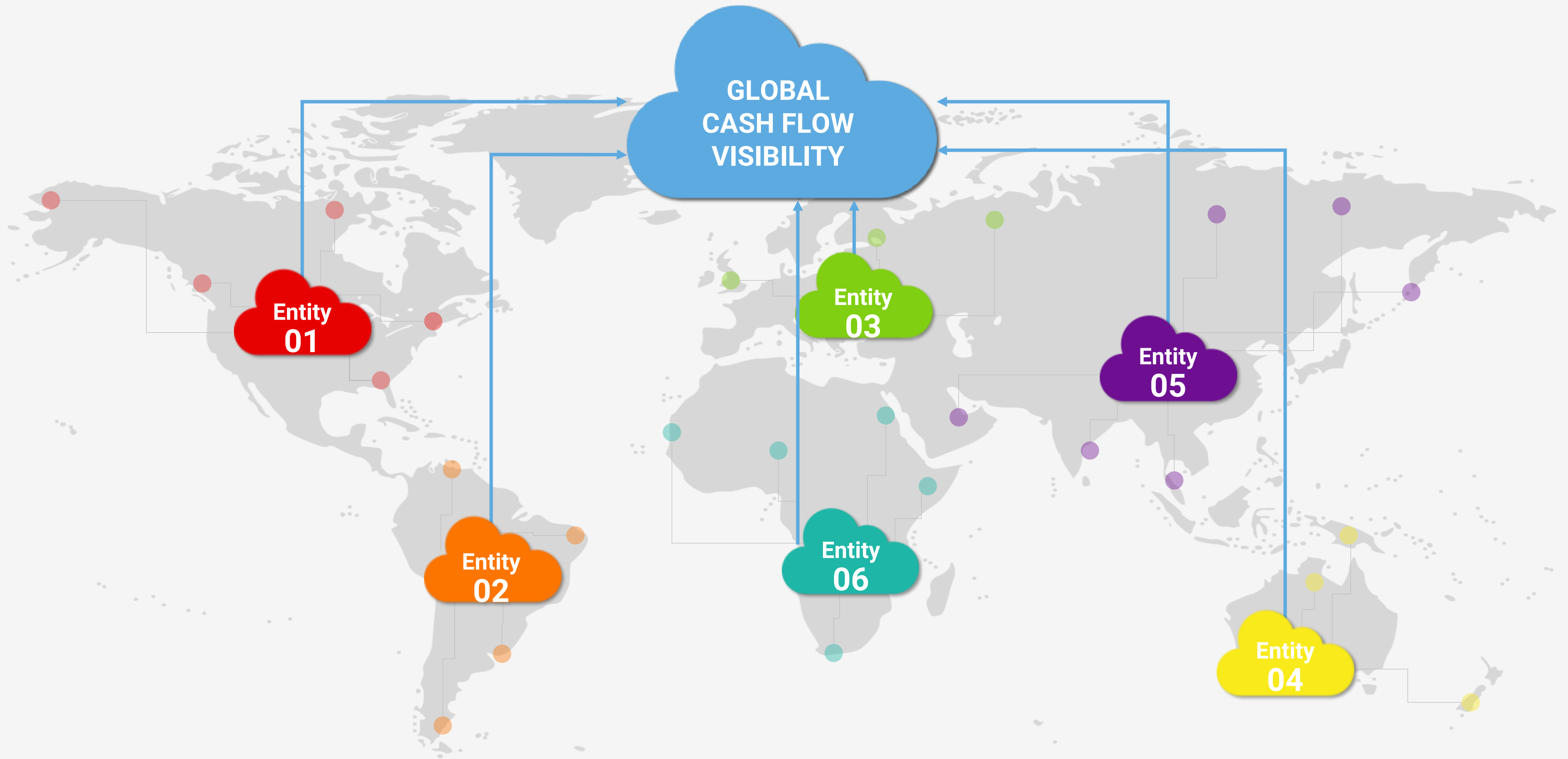
Different schedule



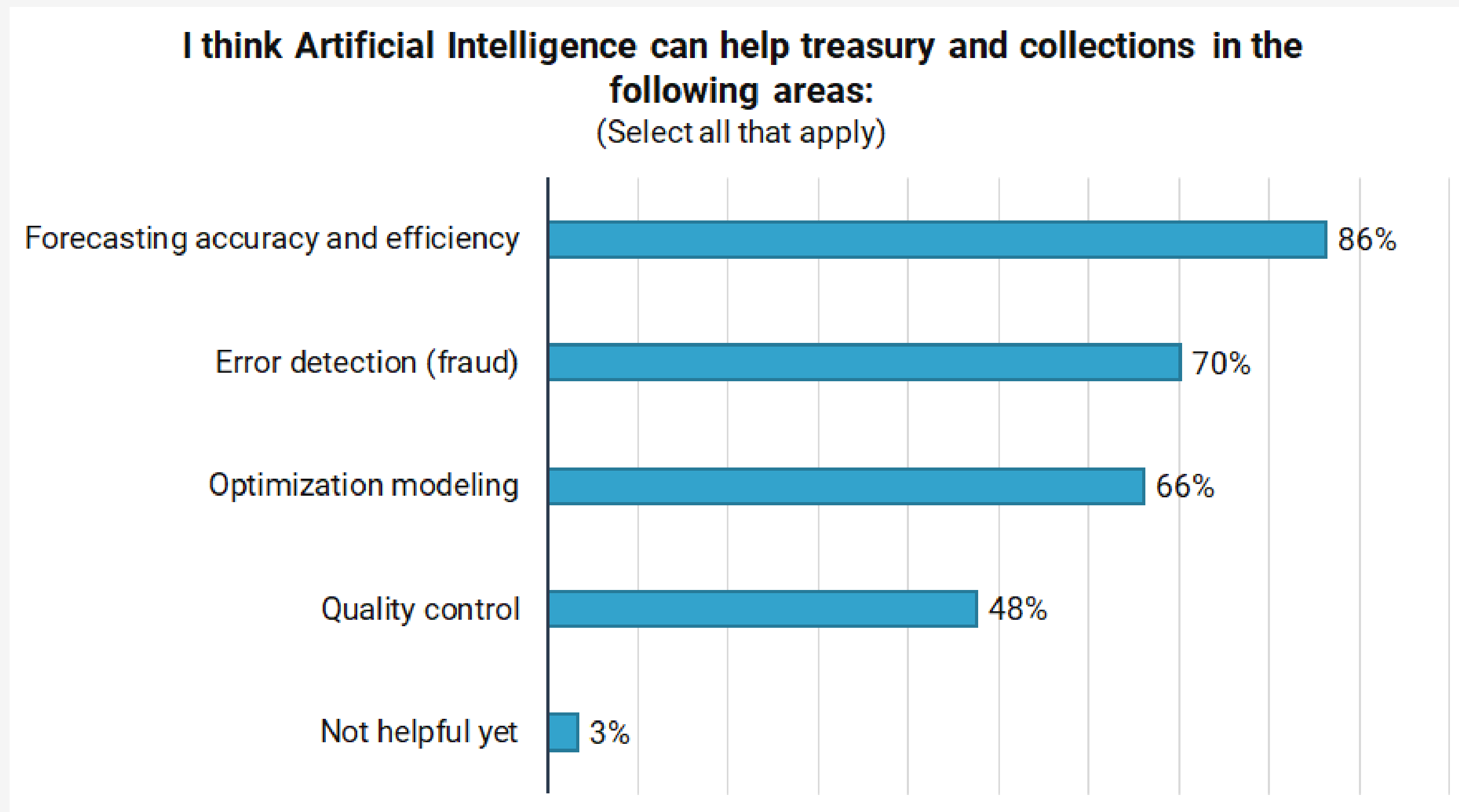
For most cash flows, direct cash forecasting has higher accuracy in the short term.

DIRECT CASH FORECASTING

USING BOTTOM-UP APPROACH

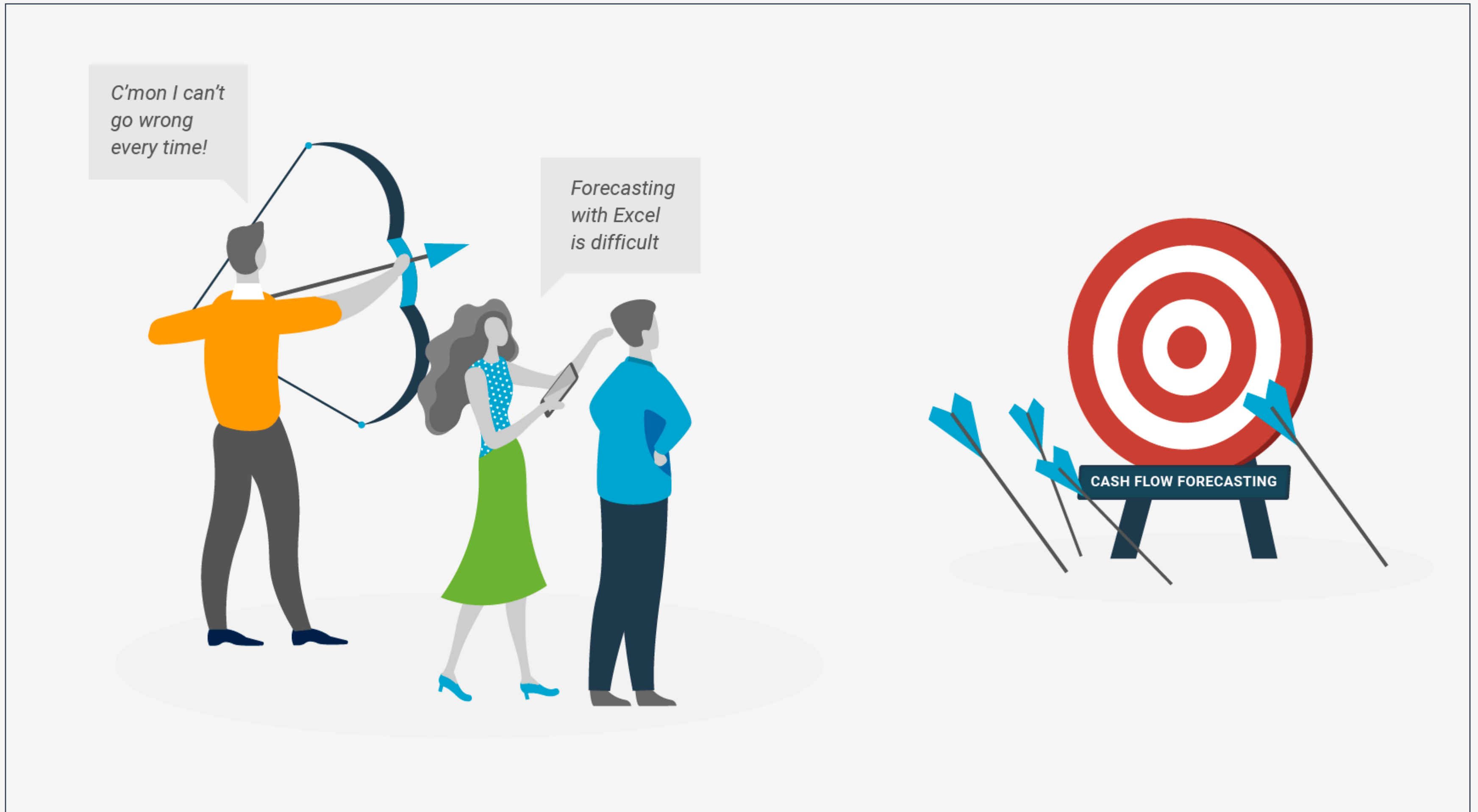


Poll Question



FORECASTING WITH SPREADSHEETS

ACCURACY IS CHALLENGING



NEGATIVE IMPACTS OF INACCURATE FORECASTS

DUE TO SPREADSHEET-DRIVEN PROCESSES



Increased Cash Buffers

Offsetting any unforeseen costs instead of maximizing returns on idle cash



Higher Cost to Borrow

Borrowing more from financial institutions at higher interest rates



Penalties

Some delayed payments come with direct penalties while other trading partners adjust pricing upwards to compensate for late payments



Delayed Investments

Postponed investments in the business delay returns and value accretion

EFFECT ON THE ROLE OF TREASURY

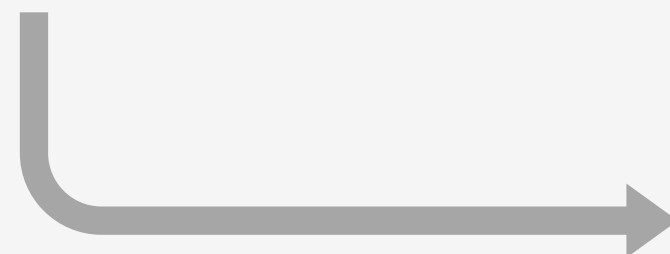
Treasury

makes



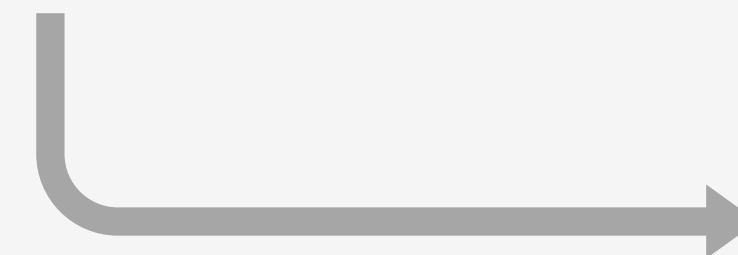
Decisions

based on



Inaccurate, Ground-Level

data resulting in



**Diminished
Credibility**

IMPROVING FORECAST ACCURACY BEYOND EXCEL

TECHNOLOGY AS A LEVER



ROBOTIC PROCESS AUTOMATION (RPA)

Office Automation.

- Explicitly programmed by humans
- May contain specific work-flows, decision trees and tolerance checking
- Unable to “think for themselves” or adapt without human intervention to manage exceptions
- Performs repetitive tasks quickly and accurately



MACHINE LEARNING (ML)

Broader AI Technologies/Systems.

- Can learn in a “supervised” arena
- Typically consist of data mining software and predictive analytics
- Able to discern and embark on an appropriate course of action
- May require human intervention to “pull the strings” and define the environment



ARTIFICIAL INTELLIGENCE (AI)

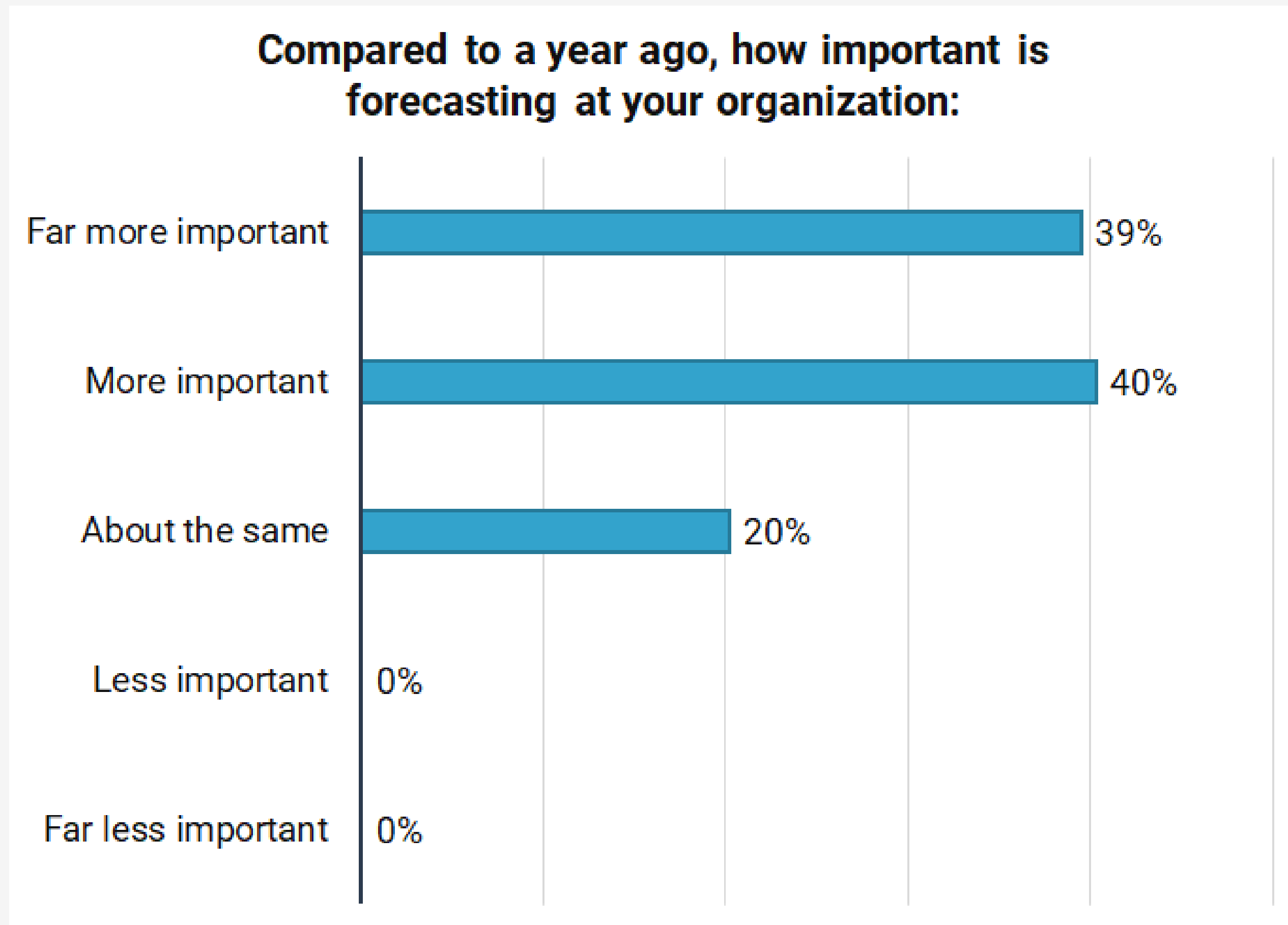
Machines thinking in a human-like manner.

- Consumes vast amounts of data and applies it to a specific, pre-defined objective
- Identifies correlations or variables that would be extremely difficult for a human to discover
- Can be given “free rein” with regard to a specific function
- Requires guidance to help the AI to select problems and boundaries



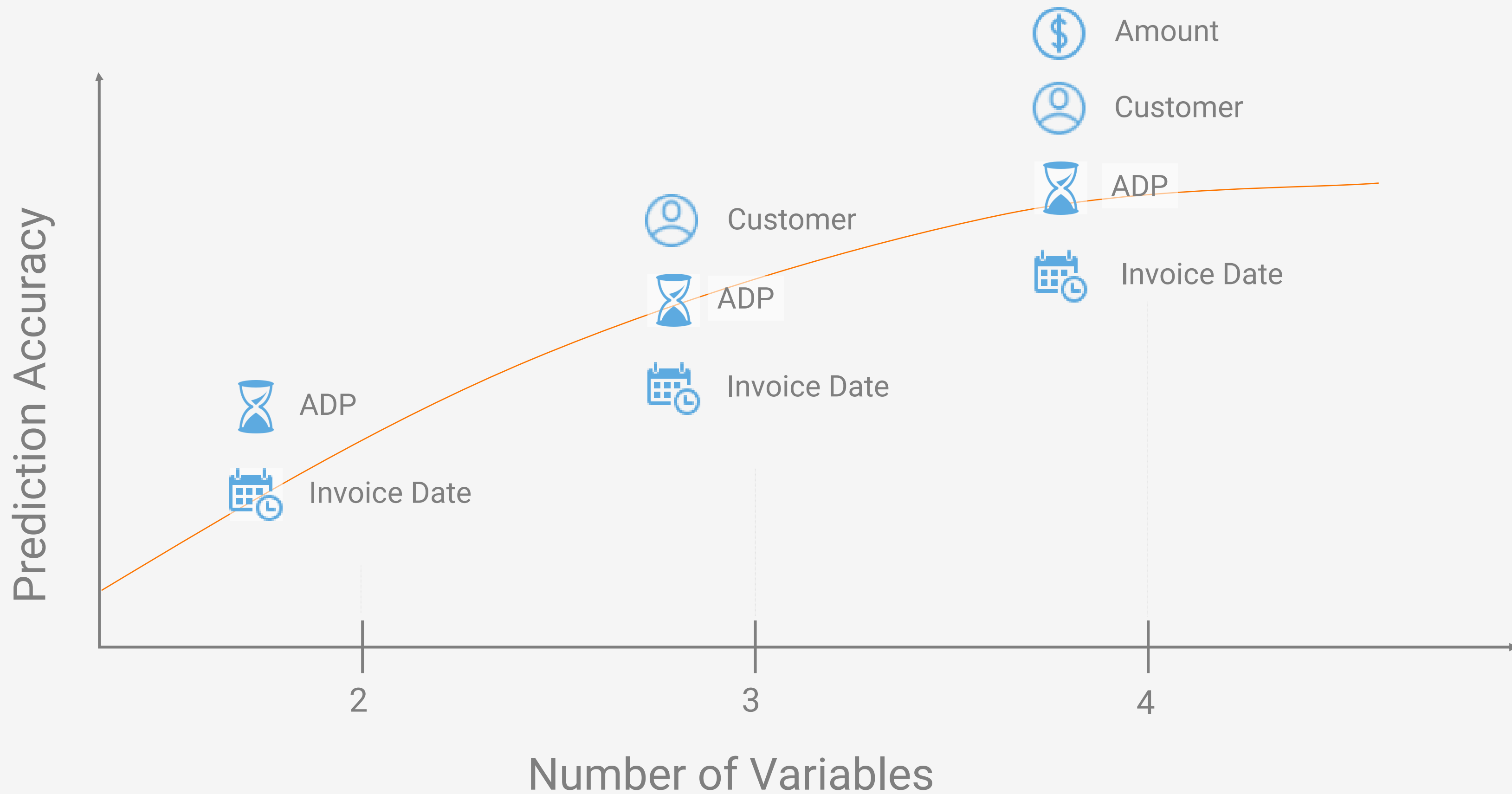
**AI is optimally suited for cash forecasting
because it can improve it, not just automate it.**

Poll Question

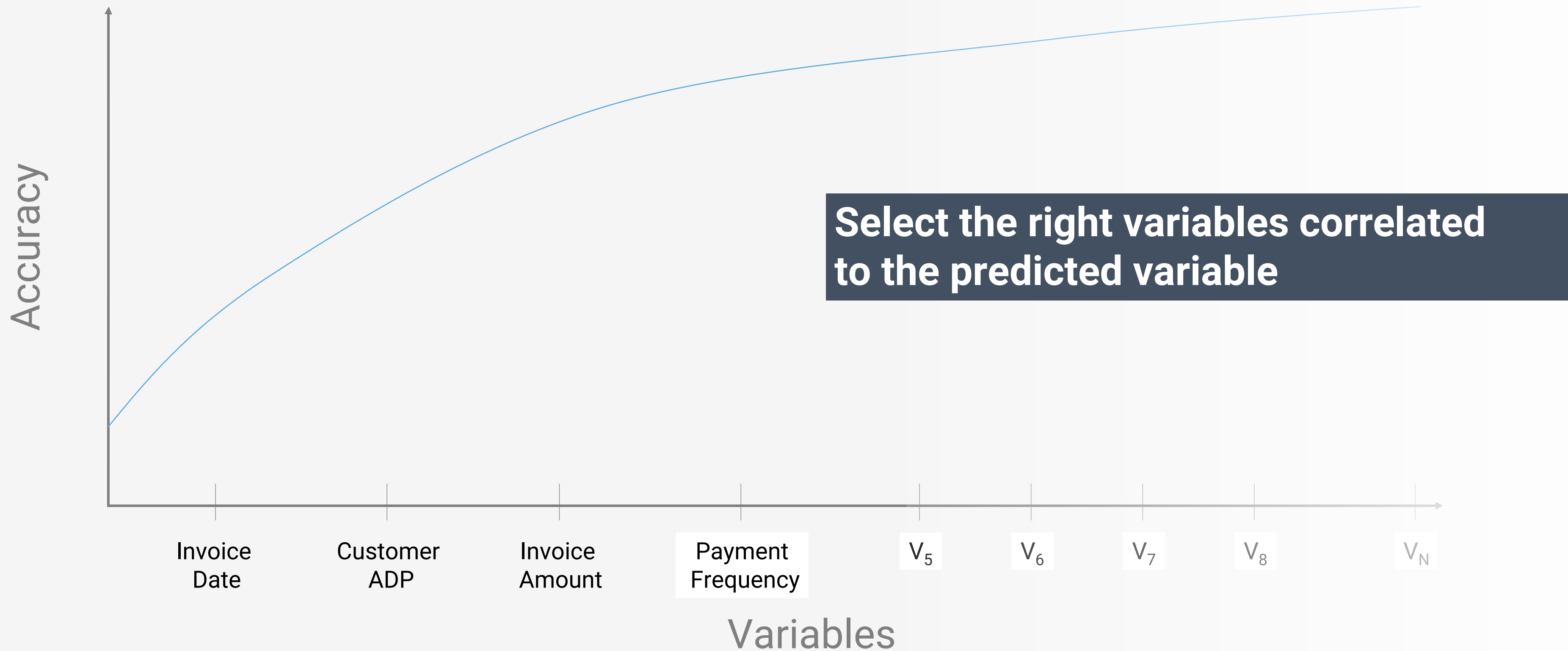


ARTIFICIAL INTELLIGENCE 101

IMPACT ON ACCURACY LEVELS



ARTIFICIAL INTELLIGENCE 101



Select the right variables correlated to the predicted variable

CONCEPTS: IDENTIFYING THE BEST FIT CURVE

FINDING CORRELATION BETWEEN VARIABLES

Master List

Invoice Date
 Customer Specific ADP
 Invoice Amount
 Past Invoice Count
 Total Open Amount
 Gap Between Payments
 Delayed Payments Percentage
 Branch Level Delays
 Closed Invoice Sum
 Delayed Invoice Sum
 Due Payment Day of the Week
 Past Total Delay Count
 Customer Average Open Amount
 Closed Invoice Count
 Past All Invoice Count
 Due Gap for Customer

60+

Invoice and Customer
Level Variables

Correlated Variables

Invoice Date
 Customer Specific ADP
 Invoice Amount
 Total Open Amount
 Gap Between Payments
 Delayed Payments Percentage
 Branch Level Delays
 Closed Invoice Sum
 Due Payment Day of the Week
 Customer Average Open Amount
 Past All Invoice Count

30+

Correlated
Variables

Pick the Algorithm

Linear Regression
 Logistical Regression
Random Forest Classifier
 Neural Networks
 Decision Trees
 Support Vector Machine
 Gradient Boosted Trees
 K-Nearest Neighbour
 XG-Boost
 Light GBM
 Q-Learning
 Temporal Difference

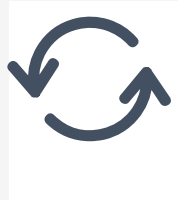
25+

Artificial Intelligence
Algorithms



IMPACTS OF ACCURATE FORECASTS

WITH ARTIFICIAL INTELLIGENCE



Reduced Forecast Turnaround Times

Agile forecasting to stay on top of market fluctuations or uncertainties



Effective Cash Management

Better liquidity by fast-tracking cash conversion cycle



Reduced Idle Cash

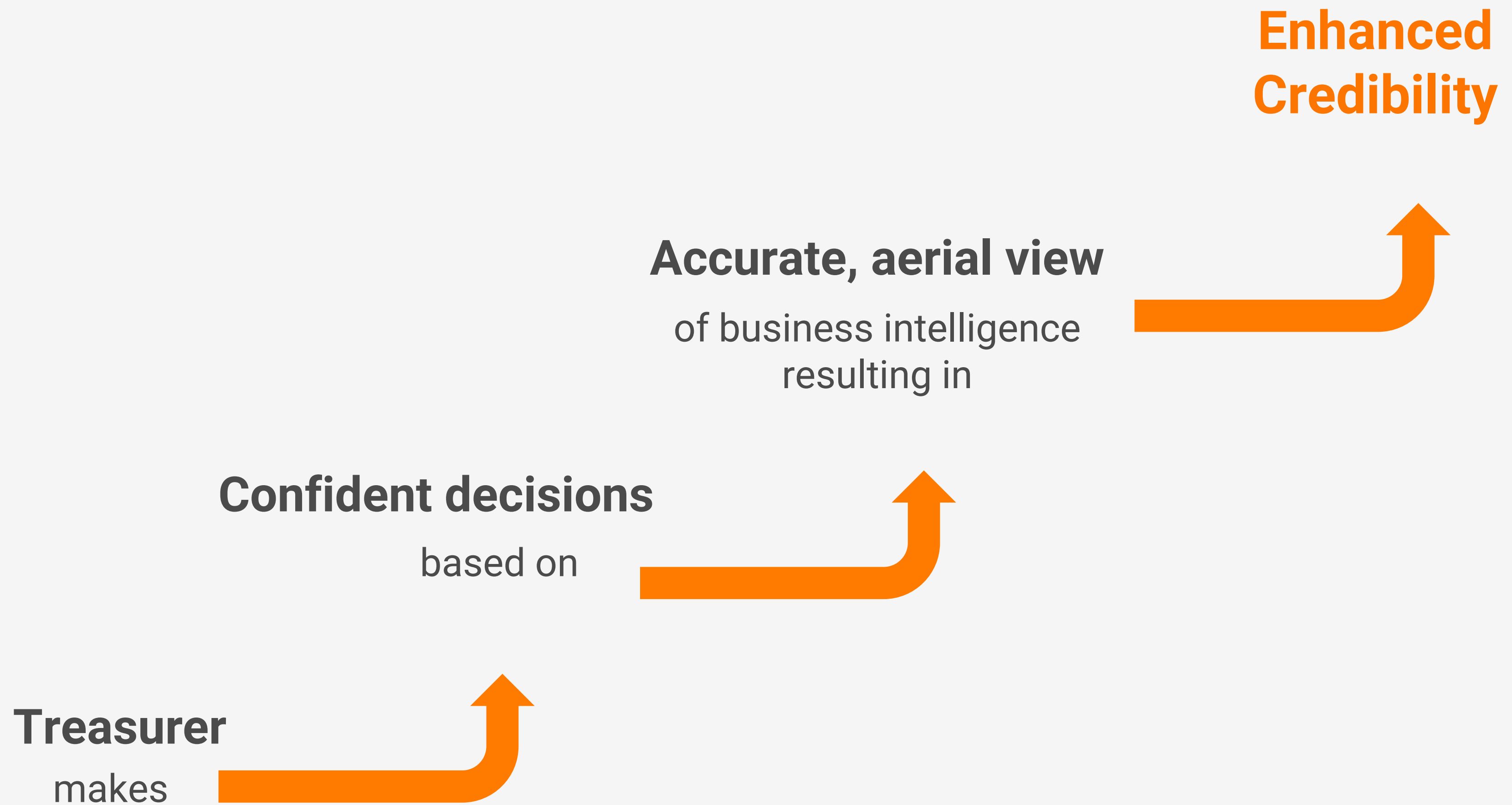
For the CFO's office, this translates to better capital allocation, risk management



Increased Strategic Investments

Make strategic decisions related to business expansions, M&A

EFFECT ON THE ROLE OF TREASURY



ROI WITH AI-ENABLED CASH FORECASTING

THREE PRIMARY ACCURACY-DRIVEN ROI FACTORS



HARD ROI

Increased Accuracy – Better debt/investment decisions, reduced idle cash

- Determine the difference in interest expense likely from making better decisions (more LIBOR loans, fewer prime loans)
- Reduced borrowing and better rates



SOFT ROI

Automation – Reduced time spent creating, updating and consolidating forecasts and variances

- Determine the cost of the time spent on tasks that can be automated
- Identify incremental value of other tasks that can be accomplished given new time-saving



INTANGIBLE ROI

Greater confidence – Build credibility with a consistent and highly accurate forecast

INCREASE IN MARKET VALUATION

BY POSITIVELY IMPACTING STOCK PRICES



High accuracy quarter over quarter forecasts

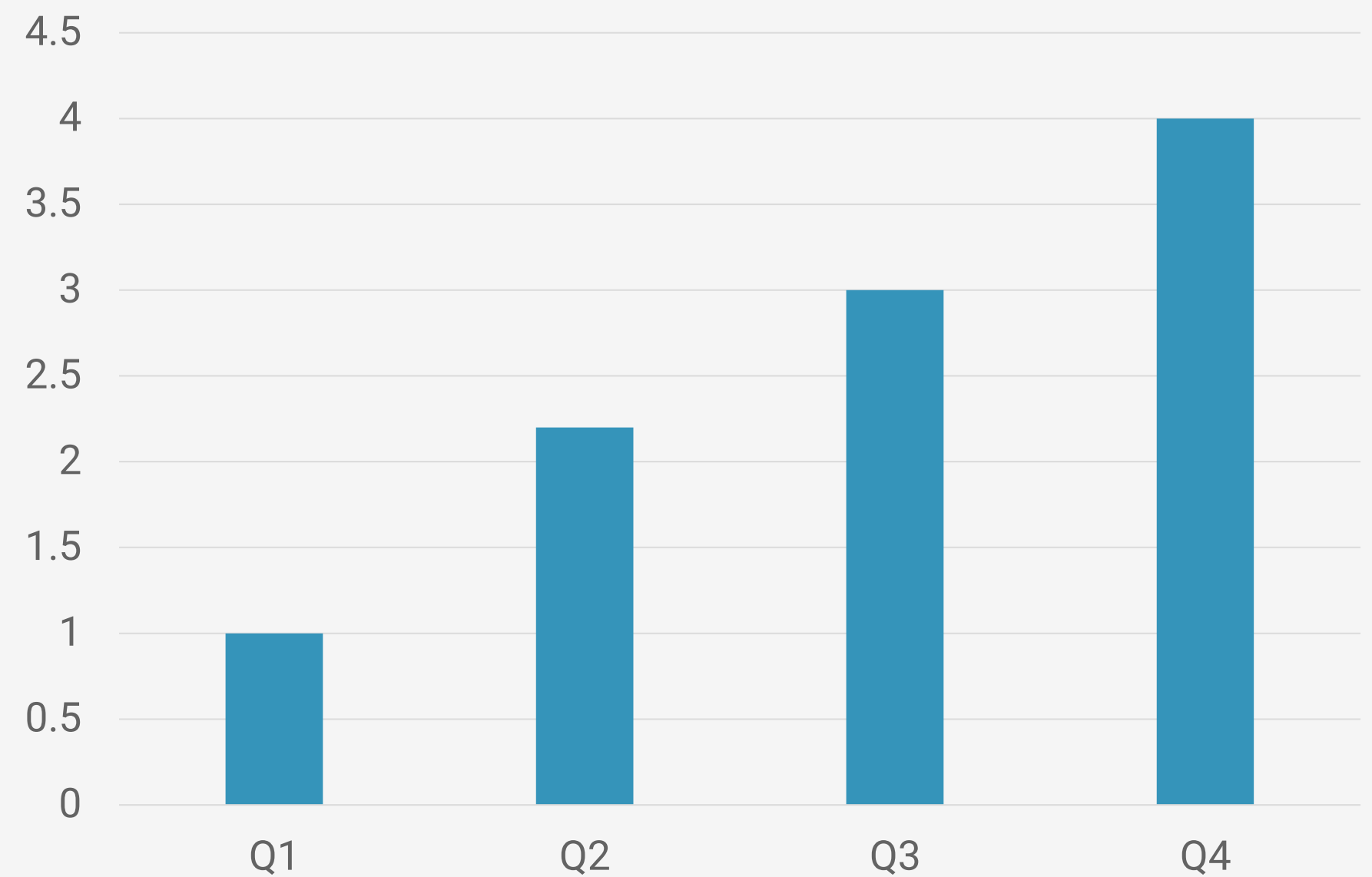


More confidence on metrics such as free cash flow



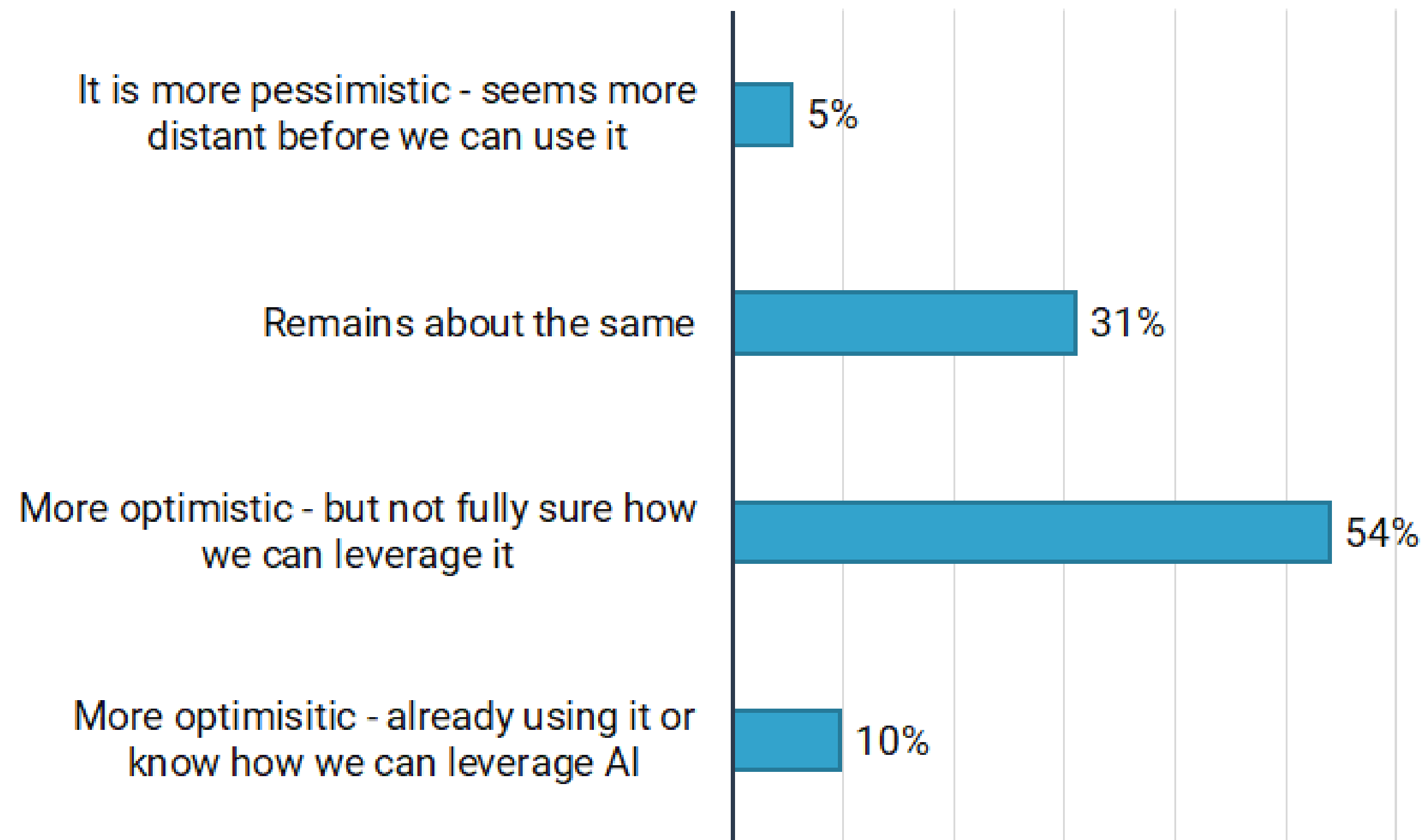
Increased trust by investors in CFO's numbers impacts stock attractiveness and price

Increase in stock value



Poll Question

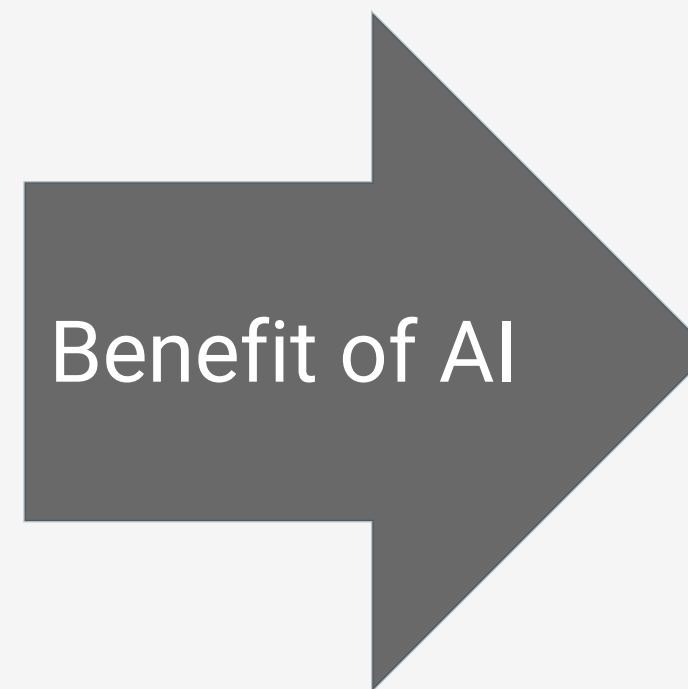
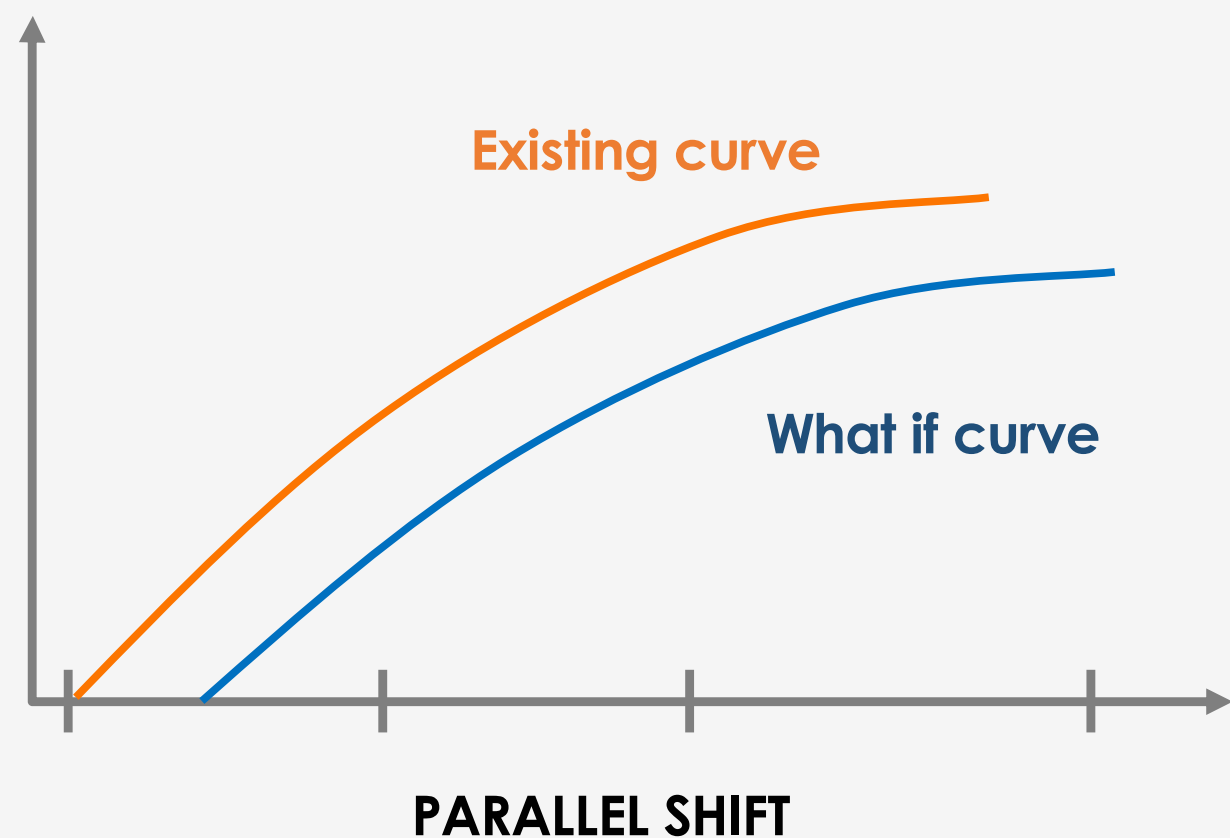
From today's discussion, my position on Artificial Intelligence for forecasting:



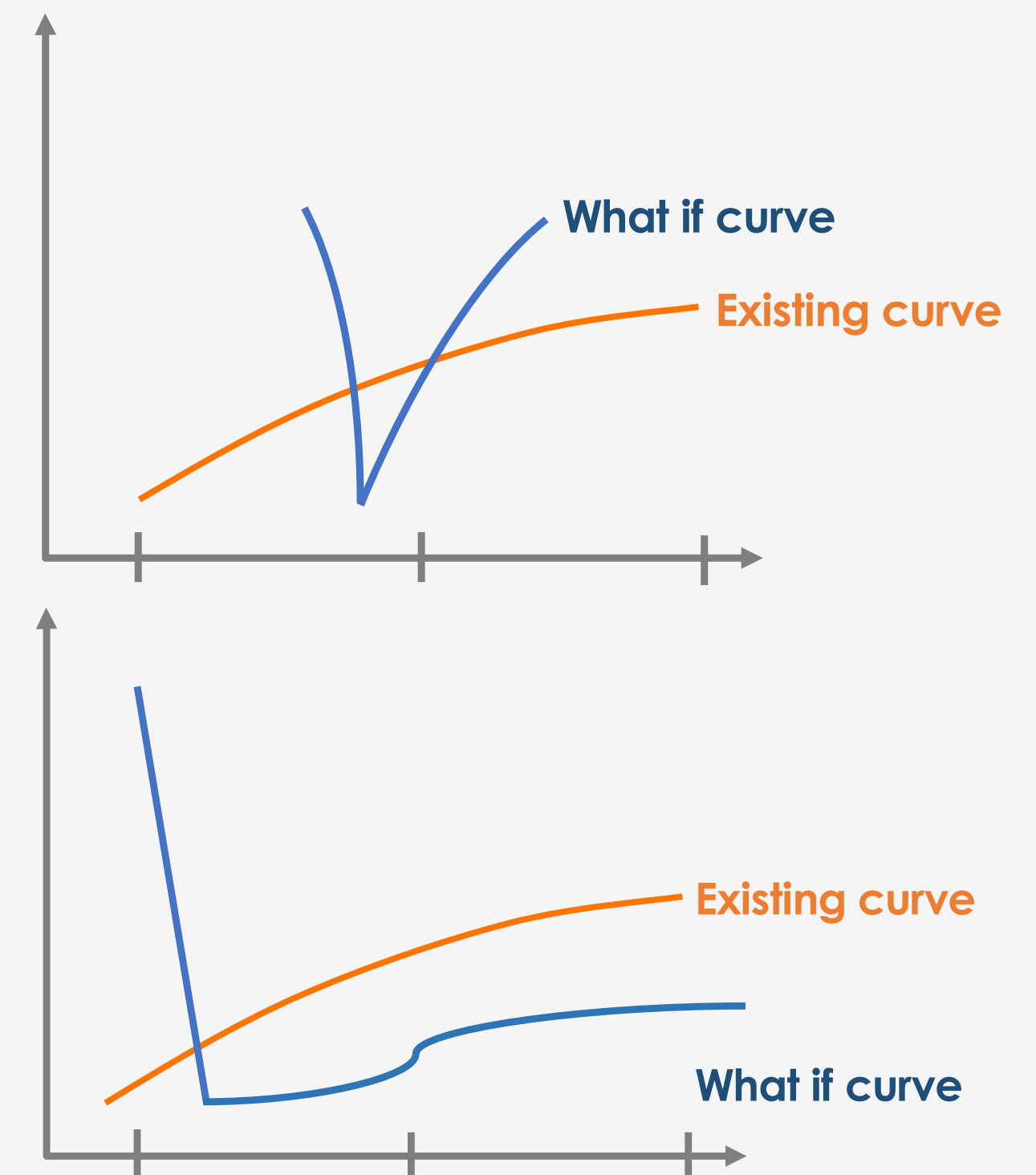
LIQUIDITY MODELING FOR LONG-TERM FORECASTS

LEVERAGING SCENARIOS TO VISUALIZE CASH PROJECTIONS

Traditional Way: Simple Approach



Digital Way: Robust Approach



FINAL THOUGHTS.

KEY TAKEAWAYS



KEY POINT #1

Direct Forecasting is Better for Treasury

Get accurate forecasts by using bottom-up approach that rolls up to central treasury and has cash visibility across regions, entities and ERPs.



KEY POINT #2

Do the Math

Evaluate if the ROI makes sense by estimating the dollar cost savings and also the intangible benefits offered by high accuracy forecasts.



KEY POINT #3

Consider Technology Enablers Such as AI

Use artificial intelligence to generate low variance short-term and long-term forecasts.



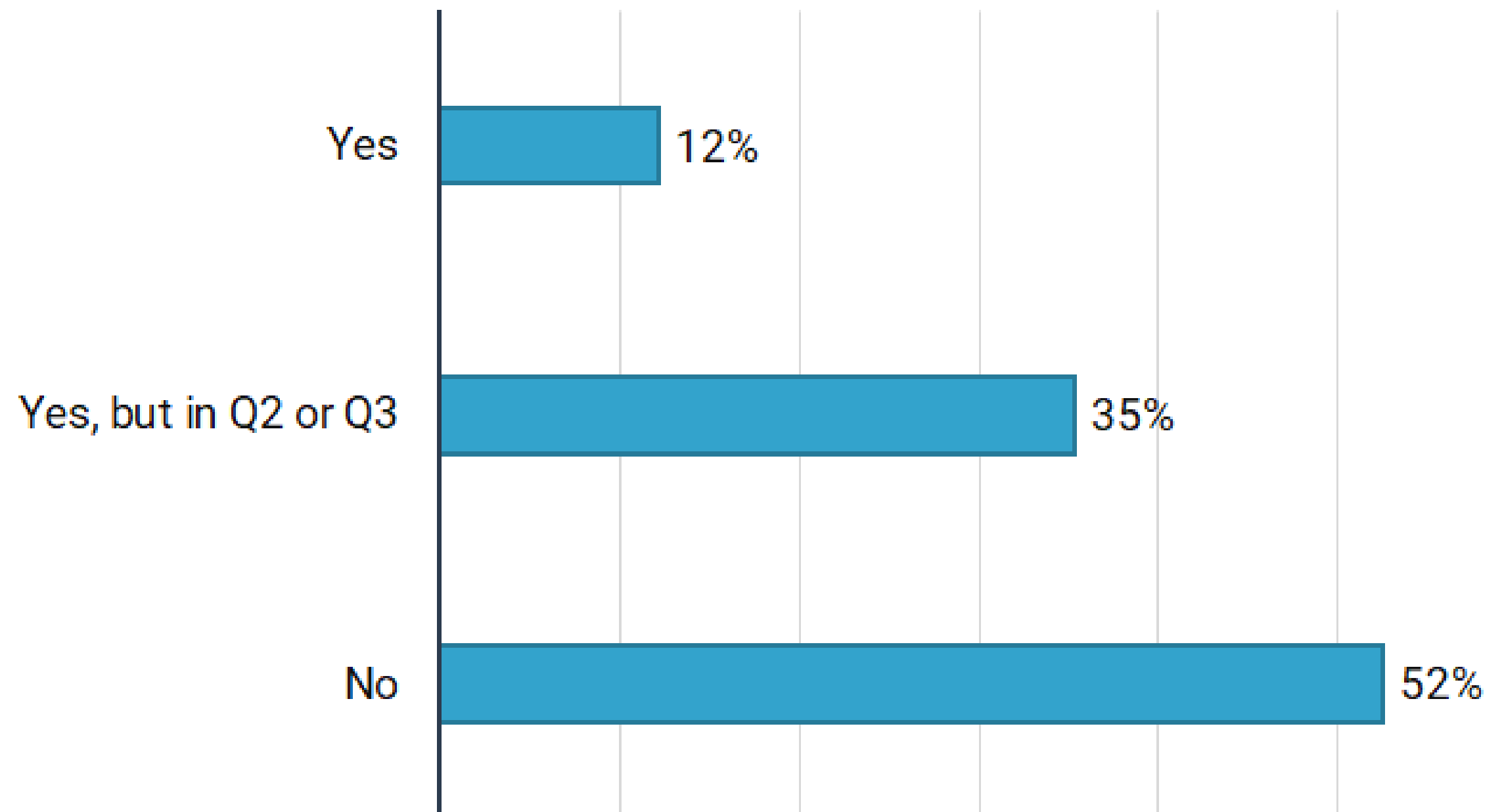
KEY POINT #4

Make Strategic Decisions

Move from data entry and model creation to being strategic contributors in the CFO's office.

Poll Question

Would you be interested in taking a look at how Artificial Intelligence could improve your current forecasting process?



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Integrated Receivables

-  **Credit**
-  **EIPP**
-  **Cash App**
-  **Deductions**
-  **Collections**

Treasury Management

-  **Cash Forecasting**
-  **Cash Management**
-  **Bank Reconciliation**

Series B | \$1b+ Valuation

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PERFORMANCE



Autonomous Systems

2020

BANK OF AMERICA
PNC **SGE** **citi**
SUSQUEHANNA GROWTH EQUITY, LLC
Strategic Investments

2019

Artificial Intelligence

2017

Cloud Solutions

2014

On-Premise Solutions

2010

2006

Trusted By
200+ Fortune 1000
Companies

\$ 1 Trillion +
transactions processed annually

LET'S CONNECT.

DON'T LET THE LEARNING END HERE...
CONTACT US WITH ANY FUTURE QUESTIONS.

Thank you for your interest in this presentation and for allowing us to support you in your professional development. Strategic Treasurer and our partners believe in the value of continued education and are committed to providing quality resources that keep you well informed.



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HOW HAS THE PANDEMIC IMPACTED TREASURY?

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