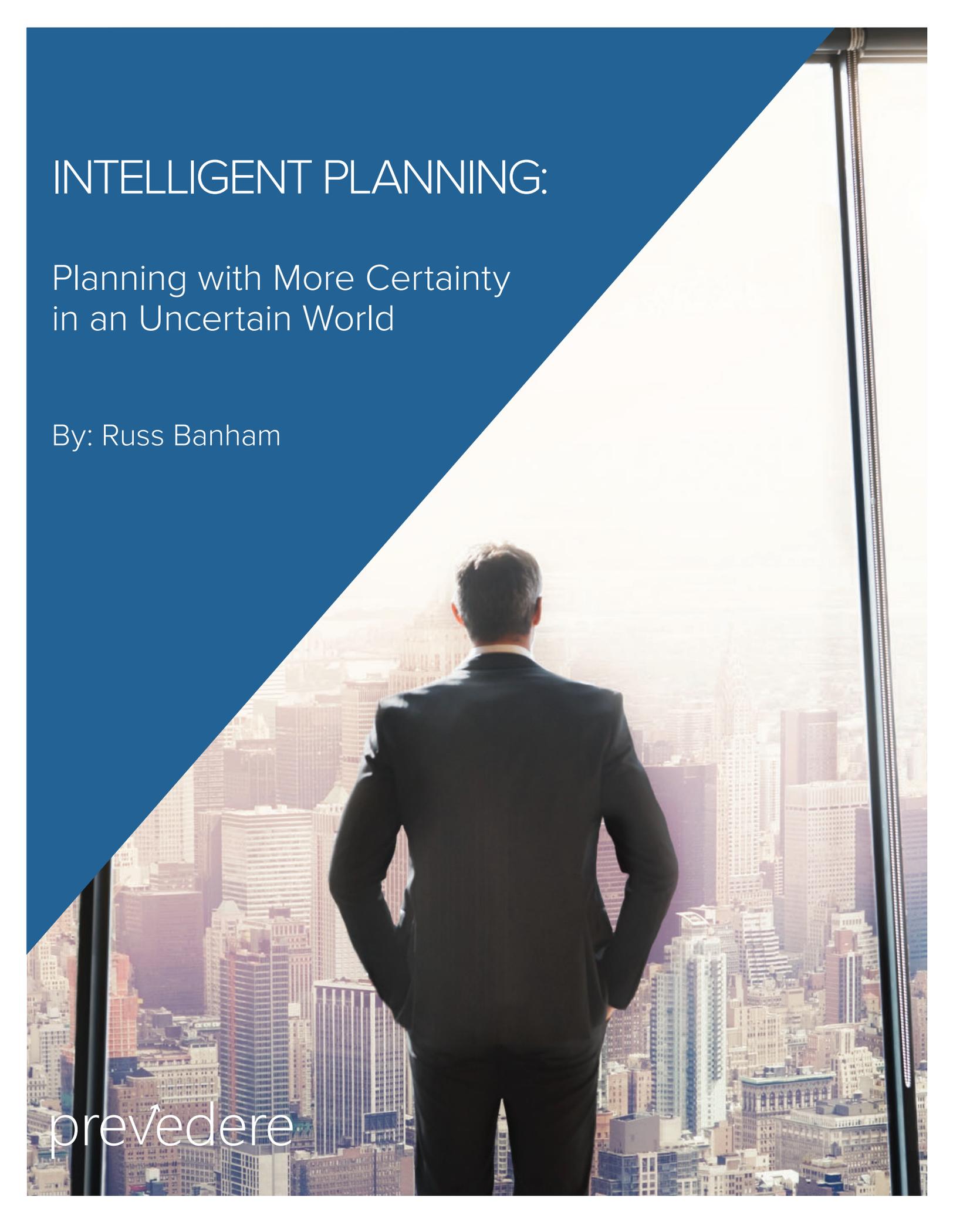


# INTELLIGENT PLANNING:

Planning with More Certainty  
in an Uncertain World

By: Russ Banham

prevedere



# Planning with More Certainty in an Uncertain World

By: Russ Banham

---

In this period of continuing economic uncertainty, Chief Financial Officers are experiencing unprecedented challenges in forecasting customer demand, given the unreliability of traditional methods to posit the business impact of a once-in-a-century pandemic.

This difficulty was evident in the more than half of companies in the Standard & Poor's 500 that either withdrew or reduced their earnings guidance at mid-year. Shaken by the systemic macroeconomic shocks discharged by the pandemic, many CFOs had no choice other than to prepare and deliver multiple forecasts containing a range of recovery scenarios.

Much of this demand forecasting—the process of predicting future sales based on historical internal financial information and external data—was performed by the Financial Planning & Analysis team. The problem FP&A encountered is that the typical trending signals and other historical markers of performance no longer were of practical use in assessing and projecting demand.

“Previously, the combination of historical data and internal knowledge offered a reasonable projection to guide an organization’s marketing approaches and pricing strategies,” said Andrew Duguay, Chief Economist at Prevedere Inc., a provider of predictive analytics software.

“*But the world turned upside-down, disrupting population health and safety, supply chains, consumer habits, income fluctuations and customer procurement processes. The forecasting approaches of the past had become close to worthless, as they were grounded in combinations of data based on demand indicators that no longer held up,”* continued Andrew.

While some industry sectors like travel and hospitality, retail and manufacturing incurred significant demand decreases, other sectors like home repair, office furnishings, pet care, grocery chains, video conferencing and ecommerce channels prospered, in large part from the mass migration of employees working remotely. The demand forecasting challenge for these industries is whether or not this upsurge would continue.

These intricate assessments overwhelmed even the best FP&A teams. According to a mid-July survey of CFOs by Deloitte, “forecasting and planning” was cited by the finance officers as their second biggest concern, just a notch behind “continued uncertainty in demand and revenues.”

In the quest to forecast demand, in what economists have dubbed a “new normal,” historical financial information and traditional external data sources no longer held up. This dilemma presents the possibility of CFOs making crucial capital budget decisions on a misguided forecast, weakening its financial solvency and competitive standing.

Fortunately, necessity is the mother of innovation. Innovative and agile ways to plan and forecast with greater confidence have been put forth to make sense of the current crisis.

# PUTTING A FINGER ON THE FUTURE

As the pandemic's business impact continued through the end of 2020, demand forecasting remained a near-impossible quest. Few companies had their arms around which products or services would be purchased, where, when and in which quantities.

Although COVID-19 infection and fatality rates appeared to be falling slightly in the United States, a second wave of the virus flowed through parts of Europe. Many governments continued to temper the economic impact by subsidizing floundering businesses and augmenting unemployment benefits for the millions of workers either furloughed or out of work, the case with the CARES Act in the U.S.

These well-intentioned actions created artificial indicators of business health that clouded the reliability of demand forecasts. The U.S. government's economic stimulus package, for example, undermined the reliability of "consumer discretionary spending," a traditional metric used to project demand. The additional unemployment benefits sustained consumer spending in certain industry sectors, but without continuing financial sustenance how long might this spending hold up?

The embattled retail sector is a case in point. Many well-known retail chains filed for bankruptcy protection over the past year, including J.C. Penney, Lord & Taylor, Neiman Marcus, Barneys New York, and Brooks Brothers. Others survived, in large part by nimbly shifting sales to ecommerce platforms and providing curbside pickup services.

Nevertheless, even these retailers experienced tremendous upheaval. Driven by government mandates, companies were compelled to close stores on a regional basis and then nationally in some cases, only to reopen them on an intermittent basis.

“

*“The pandemic introduced so many changing variables (in the retail sector), particularly stores that closed, reopened and then closed again in different regions on different timescales,” said Richard Fitchen, Chief Revenue Officer at Prevedere. “Retail CFOs couldn’t be sure that an uptick in consumer spending in one region would dry up if the government closed down stores again or if the stimulus money ran out.”*

”

CFOs at other industries like travel and hospitality, healthcare and manufacturing also were undermined by uncertainty, unclear if slowing COVID-19 infection rates in a region or country would continue, as these rates surged and abated on an unpredictable basis. Sectors lifted by additional consumer spending, on the other hand, could not predict how long the good news would last—if at all. “It became almost impossible for CFOs to put a finger on the future,” Fitchen said.

Even if businesses reopened, had the pandemic introduced changes in consumer behaviors that would persist well into the future? If this were the case, would GDP continue to fall, deepening the recession? Would unemployment levels stay as they are or even rise? The answers to such inform CFO baseline assumptions in putting together the demand forecast, but their ability to draw confident conclusions was marred by the unreliability of traditional demand indicators.

The hunt for new sources of data to augment and or/replace traditional demand metrics was on, with an objective outlined recently by McKinsey & Co., “Companies should aim to reset demand forecasting daily,” the management consultancy stated.

## A DYNAMIC OUTLOOK EMERGES

Leading the charge to achieve this goal is Prevedere, which has long espoused an atypical approach to demand forecasting. Rather than present a set of predictions based on a narrow view of historical internal financial information and traditional external macroeconomic data, Prevedere’s analytics engine sifts through millions of external economic data sets to capture the ones that correlate with a client’s business cycle over the past five years.

The data sets that are found to be in alignment with a client’s past business cycle are useful indicators of future performance. The metric may be as unconventional as the number of times all the Internet-enabled garage doors in a region open and close over a particular duration of time. This widely available information can be used as a proxy to determine when people are most likely to be driving. A retail chain can leverage this data to make more informed decisions on store hours and labor needs, improving its revenue position while lowering operating expenses.

Prevedere's econometric modeling methodology had proven its value through the years. But like other predictive technologies, the uncertainty surrounding demand forecasting in the current economic crisis required pause for consideration and fine-tuning.

"Given our wealth of external data and AI-driven econometric modeling engine, we saw an opportunity to be even more relevant, by helping people see the impact on their business of various economic and pandemic-related scenarios to improve planning and reduce risks," Fitchen said.

Prevedere calls this new capability Economic Scenario Planning. While its analytics engine still searches through millions of external indicators looking for high "cause and effect" correlations that align with a client's past business performance, this new capability shortened the lead time in the demand forecast by several months, providing what Duguay said are "more flexible and rapid iterations in the demand assumptions underlying the forecast."

## EXPANDING THE PREDICTIVE POSSIBILITIES

Prevedere was far from alone among business intelligence providers in realizing that current demand forecasting methodologies had faltered. The status quo had become untenable, since the combination of internal knowledge and external market knowledge no longer provided reliable projections.

"While the machine learning algorithms we relied upon to analyze structured data and statistical relationships were still extremely important, we needed to also leverage data on COVID-19 shock factors, such as erratic store closures, customer foot traffic, health and government data," Duguay said.

Fitchen concurred, citing the difficulties of forecasting customer demand for a retail client. "Pre-COVID, by leveraging the external indicators in the econometric models, we were able to help the client increase their forecast accuracy by nearly 10 percent, but in the current environment there were so many shifting variables affecting their demand," he said. "We needed to understand these shifting market headwinds and tailwinds."

In the pre-COVID-19 economic world, they were "gentle breezes," Fitchen said. "Given all the variables at play today, they're hurricane force winds that shift in circular patterns. This turbulence is evident in trying to evaluate consumer spending—if COVID-19 infection rates surge or fall back or the federal government's stimulus spigot is turned off. We needed to develop the means to analyze the points of inflection within the headwinds and tailwinds."

Economic Scenario Planning provided the means. The unique methodology was developed during numerous brainstorming sessions at Prevedere to create a more dynamic demand forecast. A chief goal was to find near-term high frequency data connected to the current crisis that would provide the additional “points of inflection” that Fitch described.

Initially, three types of data—mobility data, customer preference data and economic policy data—were found to fit this bill. Several health and government organizations had begun to gather and aggregate mobility data from smartphone GPS systems to track the spread of the coronavirus on a regional basis. Customer preference data was available through the Google Trends homepage, which provided user access to a largely unfiltered sample of search requests. This data was subsequently anonymized, categorized and aggregated to provide real-time insights on customer search preferences down to the Zip Code level.

The daily Economic Policy Uncertainty Index, on the other hand, proved to be an excellent proxy for consumer uncertainty. Published by almost every country and tracked by many global businesses, the index is constructed from three underlying components—newspaper coverage of policy-related economic uncertainty, the number of federal tax code provisions set to expire in future years, and disagreement among economic forecasters.

These datasets were just the beginning. In recent months, Prevedere has added other datasets to narrow its economic analysis of inflection points, such as customer foot traffic by category like grocery stores, restaurants and convenience stores; the number of actual hours worked at hundreds of thousands of small businesses; mobile payment data across gas stations, ecommerce platforms, real estate, travel & hospitality, and automotive; and even sports event data.

“When a major sports league cancels games, people have more time on their hands,” Duguay said. “The question then becomes what they do with that time.”

Prevedere also has integrated survey-type information into its analyses to gauge subtle changes in consumer behaviors. Survey data on consumer intent to purchase a particular product or service, save more money, or go on a vacation in the next few months are other useful and near-real time points of inflection.

“

*“The varied hard and softer datasets gave us added insights into changing economic conditions and their business impact, augmenting the strategic value of our planning and forecasting services,” Duguay said.*

”

## ECONOMIC ANALYSIS AND ACTIONABLE INFORMATION

Another adjustment was the decision to provide clients with the opportunity to receive an Economist-as-a-Service (EaaS) consultation. The service is designed to give clients a more refined view of the potential impact of different scenarios on consumer demand.

Once Prevedere’s analytics engine presents the baseline outlook, a staff economist like Duguay assesses the data and suggests a range of possible outcomes. “For each indicator that goes into the predictive model, we build another set of assumptions around them that are slightly more pessimistic or optimistic,” he explained.

In coming up with these possible upsides and downsides, the economist takes into account a minimum of four shifting scenarios, each one generated by the current crisis. They include:

- The rate of COVID-19 infections and related regional government mandates governing the opening and closing of businesses.
- The potential business impact of the infection rates and government mandates on different industry sectors.
- Rising or falling consumer confidence and spending behaviors.
- The pace, breadth and scope of federal government stimulus money

By analyzing these scenarios—which are closer to real time than quarterly and monthly metrics like GDP, housing starts, wage and unemployment statistics—the economists are able to suggest a range of business outcomes on a more dynamic basis. A new tool was built to run multiple algorithmic simulations of these scenarios for the staff economists.

“By weighing these additional assumptions against the unique datasets that have a high ‘cause and effect’ correlation with a client’s business, we’re able to drive more agile assumptions in producing a more accurate and consensus-driven forecast,” said Duguay.

Prevedere clients are the beneficiary of the new Economic Scenario Planning models, which take into account the four shifting scenarios above to generate both upside and downside assumptions. “We then used the simulator tool to posit a series of ‘what if’ questions like ‘what if COVID-19 gets worse or better?’ ‘What if the stimulus package continues or ends?’ ‘What if unemployment bounces back or remains stubbornly high?’”

Prevedere’s demand forecasting model remains a work in progress, as other datasets continue to be discovered to make more informed assumptions to deliver the most comprehensive and useful demand forecast across industries.

“Every CFO can get first-rate data from a large consultancy, but they don’t have the depth of curated data we have at our fingertips, much less our analytics engine,” said Rich Wagner, Prevedere CEO and founder. “We’re able to provide even more grounded data and a richer set of insights than we previously provided, on a more iterative and dynamic basis.”

Given that demand forecasting informs CFO budget allocations to sales channels, supply chains, working capital, workforce planning, real estate and other decision in the still uncertain future, the CFOs with the most accurate and useful forecasts have the ability to make wiser bets with their organization’s capital, boosting competitive advantage.

# Economic Scenario Planning from Prevedere

---

Companies planning for 2021 are headed into uncharted waters. **The question on every business leader's mind is, how will the pandemic affect next year's numbers?**

Economic Scenario Planning from Prevedere helps companies navigate what's next. The solution projects future business outcomes for three plausible macroeconomic scenarios under COVID-19. Scenario outlooks are based on our unique combination of economic data, AI-powered econometric modeling, and the expertise of senior economists. Companies use our economic insights to sharpen plans and forecasts, improve shareholder guidance, and better prepare for an uncertain future.

The Economic Scenario Planner was built using Prevedere's ERIN Engine, which can be integrated into any data lake or data warehouse or can be imported into most BI and analytics tools, including Microsoft PowerBI, Tableau, SAS, Excel, and many others.

To learn more about Prevedere's Economic Scenario Planning solution visit:

[www.prevedere.com/economic-scenario-planning](http://www.prevedere.com/economic-scenario-planning)

# Russ Banham

A Pulitzer Prize-nominated financial journalist and best-selling author

---



Russ Banham is a Pulitzer Prize-nominated journalist and author of 23 books. Other books include *The Ford Century*, the award-winning, international best-selling history of Ford Motor, translated into 13 languages; *Rocky Mountain Legend*, the national best-selling chronicle of the Coors brewing dynasty; *Wanderlust*, profiling the historic design and cultural impact of the iconic Airstream “silver bullet” travel trailer; and *The Fight for Fairfax*, detailing the turbulent economic growth of northern Virginia in the aftermath of World War II. His various books have led to several television appearances, including *The Today Show* and *A&E Biography*.

Banham has written more than 4,000 articles for dozens of publications, including the *Wall Street Journal*, the *Economist*, the *Financial Times*, the *Atlantic*, *Forbes*, *Chief executive*, *U.S. News and World Report* and many others.

Recognized for his broad grasp of business issues and an ability to transform dense information into comprehensible, compelling and insightful stories, Banham is available for contract writing assignments. Corporate services include white papers, brochures, advertising copy, Website copy, speechwriting and ghostwriting of bylined articles and reports.

#### Sources

“Over half of S&P 500 has shelved or cut guidance since coronavirus.” S&P Global Market Intelligence. May 15, 2020.

“Covi-19 Financial Reporting Trends—Different News or More of the Same?” Eric Knachel. Deloitte. September 15, 2020.

“COVID-19 crisis response: What’s keeping CFOs up at night?” Deloitte. July 15, 2020.

“Rapidly forecasting demand and adapting commercial plans in a pandemic.” McKinsey & Co. April 21, 2020.

## ABOUT PREVEDERE

Prevedere is a predictive analytics software company that delivers insights into future business outcomes based on economic trends. Our predictive economic intelligence offering helps executives see what lies ahead for their business and solve for upcoming risks and opportunities. Our SaaS solutions apply the power of machine learning and predictive modeling to millions of indicators of global economic and consumer activity. Prevedere customers include Fortune 500 industry leaders in retail, manufacturing, and consumer packaged goods. To learn how Prevedere can help provide executive-level strategic insights, please contact [888.686.7746](tel:888.686.7746) or [inquires@prevedere.com](mailto:inquires@prevedere.com).

prevedere

.....  
TO LEARN MORE, VISIT:  
**PREVEDERE.COM**