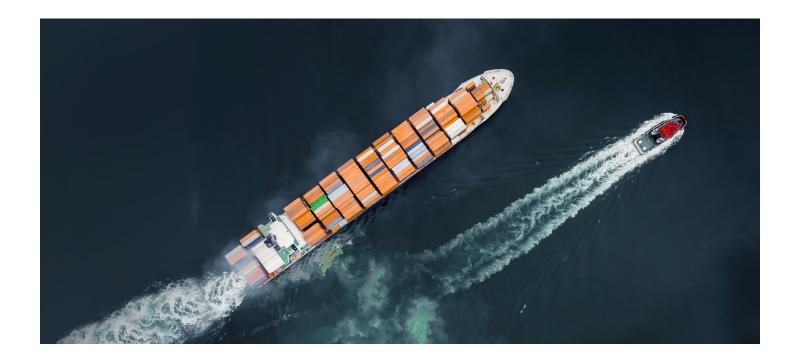
Trends to overcome 2022's volatility

How companies can sustain growth



In 2022, Russia's invasion of Ukraine, a wave of COVID-19 infections and lockdowns in mainland China, and relentless inflation have all disrupted production and stifled demand. Amid an increasingly complex regulatory landscape and tightening financial conditions, organizations are faced with pressure to derive maximum business value from data while ensuring compliance.

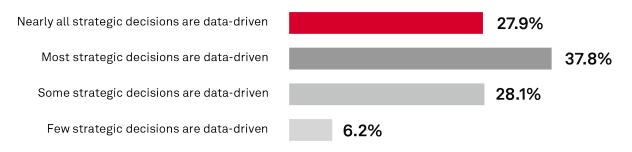
The success of every organization is increasingly tied to its ability to embrace a vast and growing number of digital technologies and that is transforming the way we live, work, and play. Today, technology strategy is business strategy.

So, what are the key ways companies use data and technology to sustain growth and Set the Pace?

1. A wealth of data fuels more nuanced decision-making

Data has never been so abundantly available to aid business decision-making. According to 2022 survey findings from 451 Research's <u>Voice of the Enterprise</u>: <u>Data & Analytics, Data Platforms report</u>, a growing majority (66%) say most or nearly all their strategic decisions are data-driven, compared with 63% two years ago. 85% of respondents say data will be increasingly important to their organizations 12 months from now.

Figure 1: To what extent would you say strategic decisions are currently 'data-driven' at your organization? Note: by 'data-driven' we mean determined by or dependent on the collection or analysis of data.

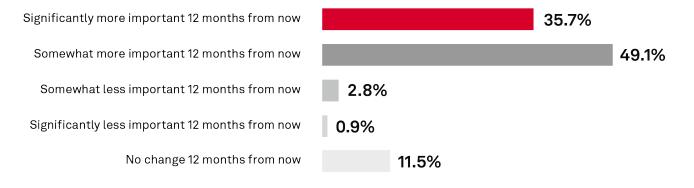


Q. To what extent would you say strategic decisions are currently 'data-driven' at your organization? Note: by 'data-driven' we mean determined by or dependent on the collection or analysis of data.

Base: All respondents (n=466)

Source: 451 Research's Voice of the Enterprise: Data & Analytics, Data Platforms, 2022

Figure 2: Looking ahead 12 months, do you think data will be more important to your organization's decision-making, less important, or will there be no change 12 months from now?



Q. Looking ahead 12 months, do you think data will be more important to your organization's decision-making, less important, or will there be no change 12 months from now?.

Base: All respondents (n=466)

Source: 451 Research's Voice of the Enterprise: Data & Analytics, Data Platforms, 2022

The companies that stand to gain the most maximize their investments in data and analytics to drive quicker and more insightful business decisions. The benefits of being more data-driven are many and varied, but 451 Research's <u>Voice of the Enterprise survey</u> respondents cite increasing sales, enhancing customer service and engagement, and improved business agility as the top three, followed by lower costs and improved/automated business processes.

On its own, the availability of more data is not enough to generate new insights and power business growth. Organizations need the ability to integrate data from multiple sources and, critically, validate that it adheres to high levels of quality before they can confidently use it to inform decision-making. This point is underlined by several contributors in a recent white paper, "Data & Digital Transformation: Insights from Shipping Leaders".

Almost every company is increasing its use of data and analysis. Which ones are the most successful? Those that are baking data-driven decision-making into company culture by adopting new data management and analytics products and services, as well as investing in data literacy and programs to reduce data silos, facilitate access to data, and improve data governance.

With fresh approaches to remote working and customer experience following the COVID-19 pandemic, aspirational views of innovative and immersive data and technology experiences have quickly transitioned into critical requirements for employees, customers, and partners. The acceleration of digital transformation and investment in modern technologies have emerged as two prominent areas of focus to improve business agility, increase collaboration, reduce friction points, drive growth, and manage risk.

2. Artificial intelligence is now a fundamental business accelerant

Artificial intelligence (AI) has changed the way decisions are made from combining human judgment and rules-based processes, to adding predictions made by models trained by enormous volumes of disparate data. For decades, we have had predictive analytics based on historical, and usually structured, data. Results took a long time to produce and integrating predictions into other applications was difficult. We are moving to an era where we can make predictions based on structured, unstructured, and semi-structured data. Now we have forecasts driven by models that are adapting and learning all the time – and can be retrained.

2022 has seen several issues move up the list of <u>concerns about AI</u>: the continuing march toward more automated decision-making, sustainability, and an increasingly complex AI regulatory environment – even before any such proposal becomes law. We expect an increased focus on data literacy in organizations and more focus on AI bias and explainability going forward.

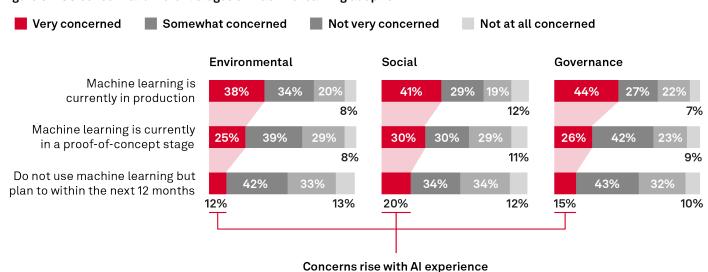


Figure 3: ESG concern at different stages of machine learning adoption

Q. Finally, how concerned are you about each of the following? – Machine learning used for immoral or unethical purposes (n=688); The environmental impact of executing/building/deploying ML models (n=682); Government regulation of AI/ML initiative (n=685). Base: All respondents

Source: 451 Research's Voice of the Enterprise: Al & Machine Learning, Infrastructure 2021

3. Serial disruptions threaten business growth and staffing

What was initially expected to be a transitory period of moderately higher consumer price inflation across the globe has morphed into a phase of persistent, exceptionally high inflation rates. Upward pressures stemming initially from a range of primarily COVID-19-related effects are now being aggravated by <u>various spill over effects</u> following Russia's invasion of Ukraine.

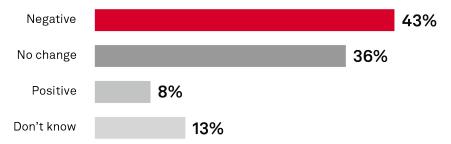
As corporations and consumers navigate growing uncertainties, it's critical to effectively monitor levels of engagement, exposure, and opportunities. Over the past couple of years, industries have been forced to be more agile, proactive, and risk orientated. Companies should invest in external data and prioritize data management to establish an effective early warning system to fortify their decision-making and monitor evolving market conditions.

<u>Various factors</u> suggest that inflation rates will be higher in the future, including:

- Waning effects of global disinflationary forces
- Over-stimulative policy and constraints on tightening
- Rising inflation expectations
- Climate change and energy transition

With interest rates now increasing in many areas of the world, companies need to shift their strategies to prepare for what's next. In 451 Research's Q1'22 Voice of the Customer: Macroeconomic Outlook survey, more than four in 10 respondents (43%) said interest rate hikes would have a negative impact on their company.

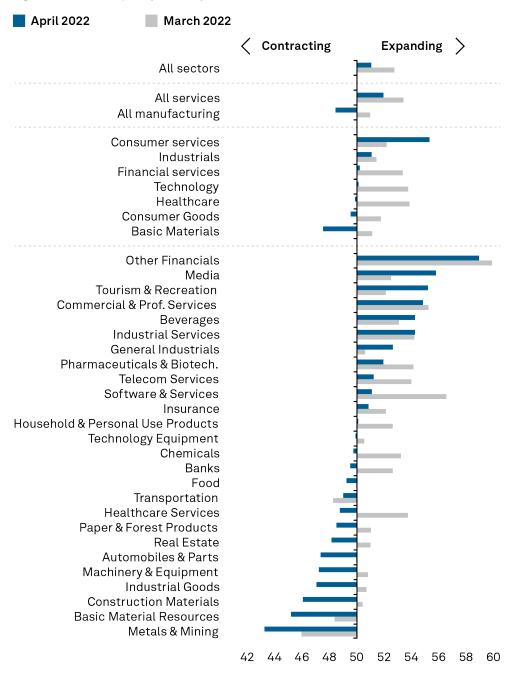
Figure 4: Expected impact of higher interest rates on business



Source: 451 Research's Voice of the Customer: Macroeconomic Outlook, Business Trends, Financial Health 2022.

With real GDP growth running below potential, our Economic & Country Risk analysts forecast the US unemployment rate will rise from 3.6% in April to 5.0% by 2025. The challenge is further compounded by the shock from Russia's invasion of Ukraine, as 13% of businesses report the invasion as the greatest macroeconomic threat to their sales. With the exception of the downturn seen in early 2020 during the initial phase of the pandemic, April 2022 saw more sectors reporting falling output than at any time since 2012.

Figure 5: Global output by industry and sector



Source: S&P Global, JPMorgan

Eurozone retail sales, industrial production, and net foreign trade decreased in March, as the fallout of the <u>Russia-Ukraine war</u> took a heavy toll on consumer and business confidence. Our eurozone real GDP growth forecast remains below the market consensus and is projected to slow from 5.4% in 2021 to 2.5% in 2022 and 1.8% in 2023. The prospect of further disruption to energy supply, which drives up prices, is a downside risk as the European Union considers broadening the ban on energy imports from Russia to include oil and petroleum products.

4. Supply chain disruptions are a top contributing risk to credit conditions

Supply chains used to be something that only procurement and supply chain managers discussed. Now, it's a key topic raised on earnings calls. Supply chain disruptions are a significant factor in rising inflation and, for some countries, can reduce GDP. The pandemic exacerbated supply chain weaknesses that had been lurking for years. When combined with a heavier reliance on outsourcing, an increasingly punitive regulatory landscape, and changing customer expectations, the risks—and costs—of performing with a "business as usual" attitude increased. 55% of businesses expect an increase in the prices of their products and services in 2022 compared with 52% one quarter ago.

In the <u>Global Credit Conditions Q2 2022</u> report by S&P Global Ratings, it was determined that supply chains were one of the top contributing risks to global credit conditions given "sharply higher input costs and supply chain disruptions that are being further fuelled by the rising energy and commodities prices."

Our Probability of Default Market Signals (PDMS) model shows the <u>credit impact</u> of supply chain disruptions using shipping data and supplier intelligence. It incorporates stock price and volatility to calculate a one-year probability of default (PD) to understand the potential credit impact of supply chain disruption.

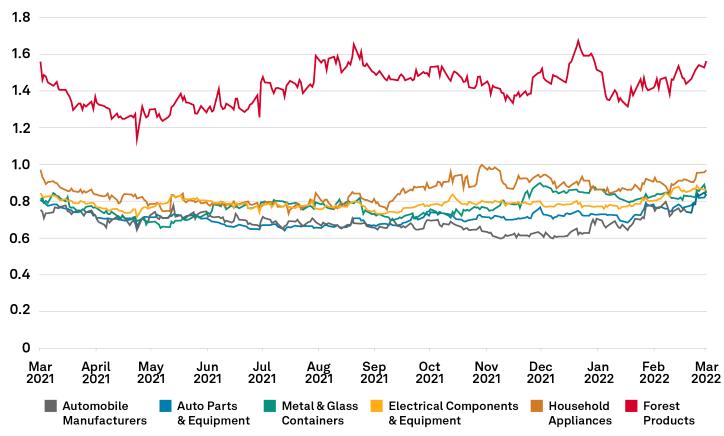


Figure 6: PDMS in the industries with highest import reduction

Source: S&P Global Market Intelligence. As of April 1, 2022. For illustrative purpose only.

In April and May 2022, we ran several credit and risk polls on LinkedIn to gather insights on which risk-related area is top-of-mind for businesses. The leading response with 45% of the total votes, was supply chain disruptions.

45 40 35 30 25 20 15 10 24% 45% 20% 12% 5 0 Supply chain Consumer Appropriate Counterparty credit limits creditworthiness disruptions liquidity risk

Figure 7: Top risk-related concern: which of the following risk-related areas Is currently top-of-mind for your business?

Source: S&P Global Market Intelligence LinkedIn survey, April-May 2022.

Supply chain stress can be gauged via the <u>Purchasing Manager Index</u>TM (PMITM) suppliers' delivery times index. While the opening months of 2022 saw some moderation in the number of reported delays, March and April have seen the supply situation worsen again, linked primarily to the disruptions caused by the Ukraine war and China's shutdowns. The latter is perhaps of the more notable concern for the near-term: China's PMI data has shown a more severe downturn in manufacturing output due to the recent Omicron outbreaks than seen in the initial COVID-19 shutdowns, which has the potential to feed through to further supply delays in the coming months. Supply chain recovery is not expected until 2023.

5. Cybersecurity is now the entire company's responsibility

Many enterprises transitioned much of their operations to digital platforms over the past two years. Some of that transition was already part of longer-term digital transformation strategies, and some was in response to new and unforeseen scenarios imposed by the COVID-19 pandemic, like the spike in remote working activity. The shift toward digital has required enterprises to update and expand cybersecurity investments, which in turn accelerated cybersecurity innovation and consolidation.

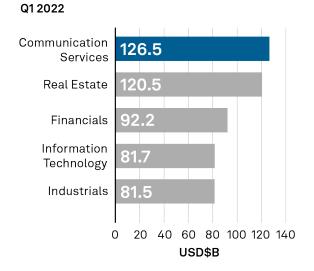
As digital transformation takes hold across industries, <u>cybersecurity</u> is no longer just the responsibility of IT departments and must be considered in assessments of credit risk. As organizations continue to adapt to a new work-from-anywhere reality, we expect heightened sensitivity to attacker activity and improved defense against continued and highly damaging attacks such as ransomware to define key movements in the security market.

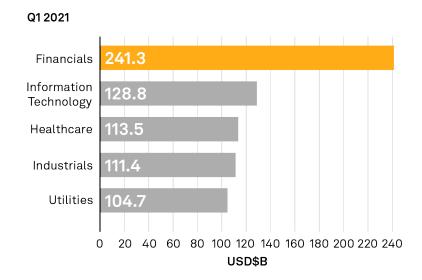
At S&P Global Market Intelligence, we recognize that cyber-risks are part of the broader <u>country risk outlook</u>. In the same way we look at terrorism, interstate war, and other security risks, cyber-risks are now a part of our approach to understanding the risk environment.

6. With increased market volatility comes greater risk for shareholders and investors

It is hard to ignore the importance of data when informing stakeholders and building a corporate growth strategy. For example, mergers and acquisitions (M&A) volume <u>declined in Q1 2022</u>, as concerns around inflation, the Russia-Ukraine conflict, and rising COVID-19 cases dampened deal enthusiasm and began to impact global markets.

Figure 8: Sectors with the most M&A activity



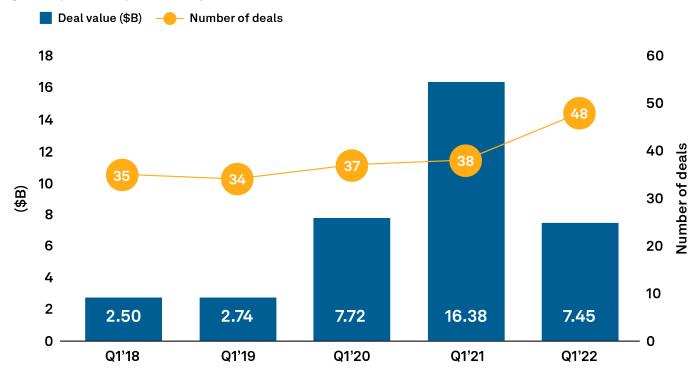


Source: S&P Global Market Intelligence. Data compiled April 11, 2022.

In contrast, May was the <u>busiest month of 2022</u> so far for M&A transactions worth more than \$10 billion, with seven such deals worldwide. This is the highest deal count since June 2019, when nine M&A deals worth \$10 billion or more were announced.

While the <u>first quarter of 2022</u> saw fewer deals with reported terms, deal volumes in the cybersecurity industry increased dramatically. High-profile cybersecurity breaches have further driven the investment thesis for both enterprise and government. In some cases, government regulators are now mandating certain cybersecurity investments for critical private sectors. In a competitive market, precise market and company data can mean the difference between inking a deal or missing an opportunity.

Figure 9: Cybersecurity M&A activity

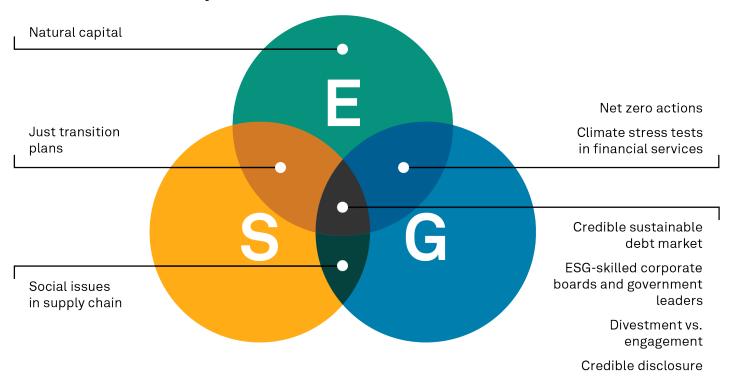


Data compiled May 11, 2022. Cybersecurity data includes all 451 Research security subsectors excluding physical security. Source: 451 Research, a part of S&P Global Market Intelligence

Investors and companies are increasingly seeking more evidence-based insights, high-quality data, and advanced analytics to support their investment strategies, particularly when linking environmental, social, and governance (ESG) or sustainability factors to business performance. One of the most important tools they can utilize to assess sustainability performance is an <u>ESG score</u>.

Company engagement, consistent, comparable, and assured disclosures, and rigorous analysis are the vital building blocks for robust ESG analysis. In 2022, corporate boards and leaders face rising pressure to show they're equipped to understand and oversee ESG issues — from climate change to human rights to social unrest. A key challenge for market participants is managing that growth in a way that combats rising concerns about greenwashing, as well as managing the proliferation of data points required to report on sustainability.

7. The intersection of key ESG trends for 2022



Source: S&P Global

One-stop intelligence. Nonstop results.

In an intensely competitive and unpredictable marketplace, it's not enough to respond to the status quo.

Our trusted solutions, data, and expertise drive multiple workflows across your organization, so you can enhance decision making and accelerate growth. See how your company can set the pace. Learn more at spglobal.com/SetthePace.

Copyright © 2022 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved. No content, including by framing or similar means, may be reproduced or distributed without the prior written permission of S&P Global Market Intelligence or its affiliates. The content is provided on an "as is" basis.

SPGMI1434 / 0722