

Valuation Insights

THIRD QUARTER 2021

INSIDE

2. **Cover Story**
Businesses Report All-Time High Levels of Data Breach Incidents
4. **Technical Notes**
Assessing Your LIBOR Exposure
7. **International in Focus 2021**
Key Trends Impacting Anti-Bribery and Corruption Programs
10. **Spotlight**
The New Digital Age for Insurers
14. **North American Industry**
Market Multiples
15. **European Industry**
Market Multiples
17. **About Duff & Phelps**

EXECUTIVE SUMMARY

Data breach notification cases in 2020 increased by 140% over those reported in the prior year. In this issue of *Valuation Insights*, we discuss data attacks that have become broader and deeper during the pandemic, a trend that continues during the recovery, and offer recommendations on how to prepare for a data breach incident.

In our **Technical Notes** section, we showcase our *LIBOR Transition Toolkit* containing a guide and a customizable template to assist in documenting LIBOR-linked exposures.

In our **International in Focus** article, for the 10th consecutive year, we take a closer look at the state of anti-bribery and corruption (ABC) programs worldwide and provide insights from our 2021 *Anti-Bribery and Corruption Benchmarking Report*.

Finally, our **Spotlight** article highlights our new portfolio of services for insurers, where carriers can now access critical data themselves to ensure compliance with regulations, accurate pricing and alignment with industry best practices.

In every issue of *Valuation Insights*, you will find industry market multiples that are useful for benchmark valuation purposes.

Be sure to check out our [library](#) of CPE-eligible virtual events and webinars, where our valuation experts discuss issues and topics that may be impacting your business.

We hope that you find this and future issues of the newsletter informative.



Industry Market Multiples Online

Valuation Insights Industry Market Multiples are online with data back to 2010. Analyze market multiple trends over time across industries and geographies.

<https://multiples.duffandphelps.com/>

Businesses Report All-Time High Levels of Data Breach Incidents

Brian Lapidus, Heather Williams

Kroll's [Cyber Risk](#) practice has released their updated [Data Breach Outlook](#) for 2021, which shows data attacks have increased and become widespread across industries since the pandemic. We saw a 140% increase in data breach notification cases from 2019 to 2020. Industries most impacted in 2019 continued to be hard hit in both 2020 and so far in 2021, including healthcare, education and financial services. However, the greatest percentage increases occurred in industries that had been generally spared in 2019. The overall implication is that data attacks became broader and deeper during the pandemic, a trend that continues during the recovery.

We attribute the rise in data breach notification cases to four trends: the shift to remote work, which has left employees and employers more vulnerable to cybercrime; the evolution of ransomware into data extortion schemes; the rising impact of supply chain attacks; and the combination of stricter privacy

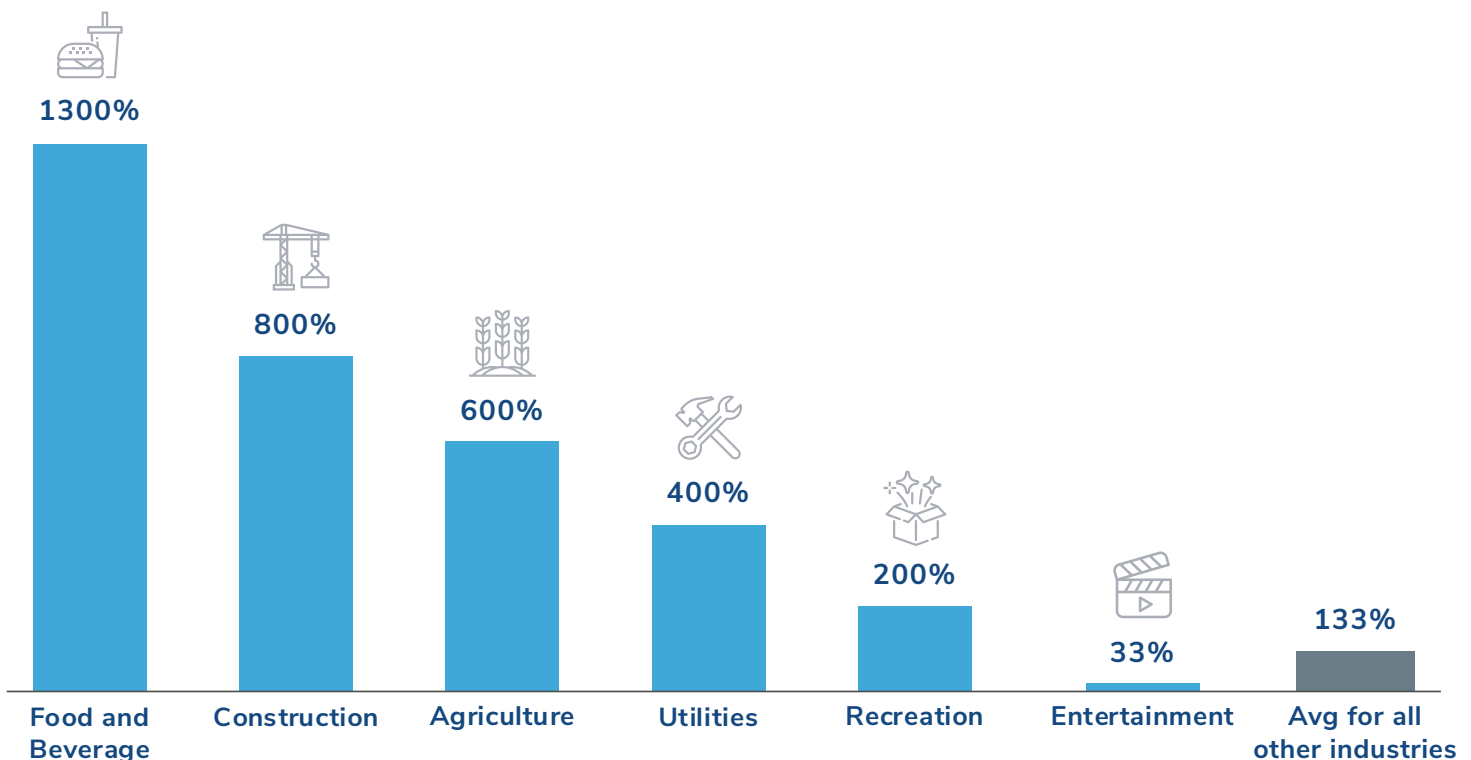
regulations with increased awareness of privacy rights. These drivers affect companies in all industries, even the ones that haven't historically been targets of cyberattacks.

Here we look at drivers of cyberattacks in six of those industries: food and beverage, utilities, construction, entertainment, agriculture and recreation. We then describe actions companies can take to mitigate the risk of data breaches and prepare for a notifiable data breach incident that might occur.

More Industries Vulnerable to Data Breaches

In 2020, data shows an average 125% growth in breach notification cases for industries which experienced five or more breaches in 2019. We continue to see a surge in the same, more traditional and regulated, group of industries as we move through 2021.

PERCENTAGE GROWTH IN 2020 DATA BREACHES COMPARED TO 2019



In contrast, the six other industries—food and beverage, utilities, construction, entertainment, agriculture and recreation—which experienced four or fewer breaches in 2019 according to Kroll data, experienced an average increase of 545% year-over-year (YoY) in 2020. This increased volume of breaches in historically spared industries remains steady in Q1 2021.

Increases in Data Breaches Varied by Industry

Interestingly, some industries saw a massive increase in data breaches in 2020 as compared to 2019, such as food and beverage, which experienced a 1,300% increase, and construction with an 800% increase. These are eye-popping increases, but it is important to keep them in context. The hardest hit industries experienced many more data breaches than the six industries we are examining here. In 2020, for example, the average number of breaches experienced in historically hard-hit industries was 104, whereas the average number for the group of six historically less-targeted industries was 12.

The hardest hit and heavily-regulated industries—such as financial services and healthcare—are also some of the best prepared to handle data breaches. The historically less affected industries are also less prepared, so it is not surprising that during COVID-19 they would experience dramatic increases in data breaches YoY.

Drivers of Data Breaches Across Industries

Kroll saw the following trends play out across industries during the pandemic:

The Shift to Remote Work Has Left Employees and Employers More Vulnerable to Cybercrime

In most industries, there was an uptick in COVID-19-related “spearphishing” email messages, as well as an increase in malicious activity against platforms adopted for remote work, such as VPN software, remote access infrastructure and cloud solutions like Microsoft Office 365.

The Evolution of Ransomware into Data Extortion Schemes

The economic downturn has triggered an increase in ransomware attacks, which attempt to exfiltrate sensitive data for extortion, with threat actors even taking steps to contact journalists, clients and vendors, to pressure victims into paying.

Rising Impact of Supply Chain Attacks

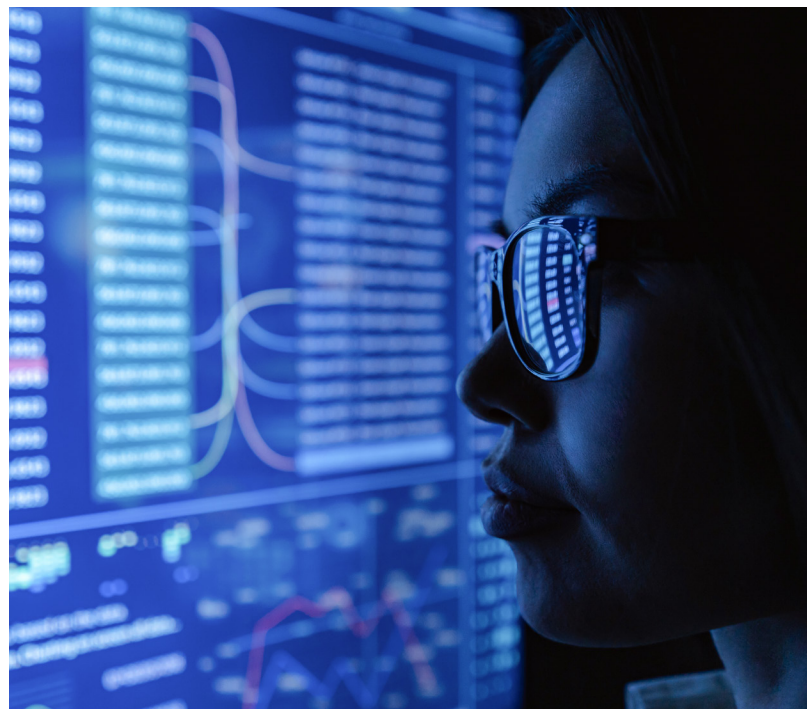
Cybercrime groups have demonstrated considerable operational maturity to not only develop a high rate of zero-day vulnerabilities but also to rapidly exploit security vulnerabilities before patches can be applied. In the last few months, we’ve seen significant impact from large file transfer repositories, email platforms and fundraising software providers that were exploited and the impacts reverberated across thousands of organizations using their solutions.

Stricter Privacy Regulations and Higher Awareness of Privacy Rights

Finally, companies are more likely to report breaches because they have learned—as a result of stricter privacy regulations and greater public awareness around privacy rights—that appropriate responses to data breaches can reduce fines and reputational damage.

Read the Full Report

There are actions companies can take to mitigate the risk of data breaches and prepare for a notifiable data breach incident that might occur. These insights and more are offered in the full [2021 Data Breach Outlook Report](#).



Assessing Your LIBOR Exposure

Marcus Morton, Rich Vestuto, Mark Turner, Jeff Fromer, Florian Nitschke

A survey conducted by the [LIBOR Transition Advisory](#) team at Duff & Phelps, A Kroll Business, in early 2021 revealed that only 45% of organizations polled are prepared to [fully decommission LIBOR by December 2021](#), establishing that there is still a need for support to enable a smooth LIBOR transition process. As the decommissioning deadline quickly approaches, it is crucial for organizations to continue to develop and refine their LIBOR transition plans in accordance with the facts and circumstances of any exposures in their portfolios.

A key initial step in developing your LIBOR transition plan is documenting LIBOR-linked exposures. For additional guidance in this process, our LIBOR Transition taskforce has created a toolkit containing a guide and a customizable template to assist in gathering the appropriate documentation to assess your LIBOR-linked exposures. This includes:

- On-balance sheet LIBOR-linked instruments
- Off-balance sheet exposures, including accounting considerations, valuation and risk management models, third-party vendors, information technology and treasurer management systems

Documenting these exposures is a crucial step in maintaining an up-to-date catalogue of your LIBOR-exposed instruments to allow for a smooth transition plan, in consideration of asset class specific deadlines as they continue to take shape.

[Download the LIBOR Transition Toolkit to help gather the documentation needed to assess your LIBOR-linked exposure.](#)

The LIBOR Transition Toolkit Template

This customizable template comes with pre-formatted options to help you gather and classify key attributes such as:

- Instrument type (interest rate and cross-currency SWAPs, collateralized loan obligations, etc.)
- Exposure type (asset, liability, hedge, model, third party vendor, etc.)
- Your respective role (issuer, investor, borrower, etc.)
- Existing fallback language, alternative reference rates, and governing jurisdictions
- Contracts which are subject to the ISDA Protocol and/or central clearing

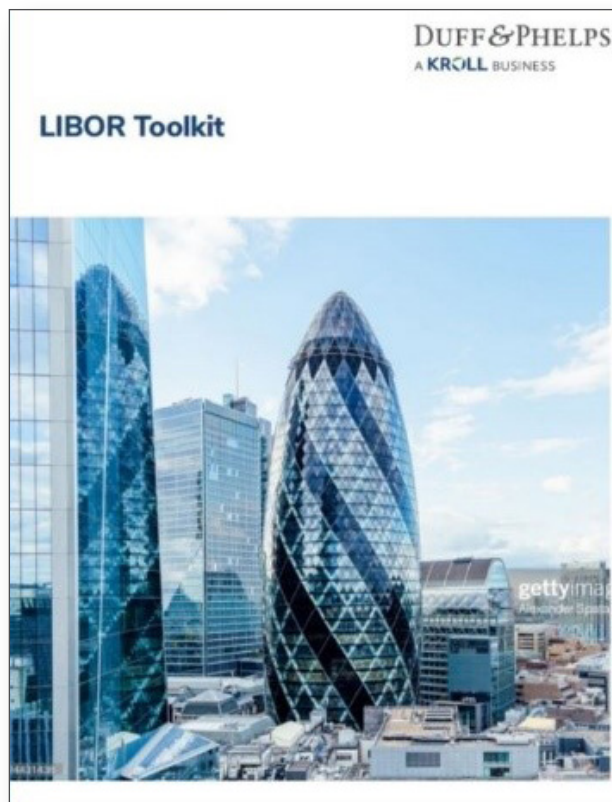
DUFF & PHELPS A KROLL BUSINESS				
LIBOR Transition Toolkit				
Instrument Overview				
Filename	Currency	Governing Law	Aggregate Principal Amount	Issue Date



The LIBOR Transition Toolkit Guide

Our guide walks you through the necessary steps to complete your LIBOR exposure assessment. This allows you to parse out your LIBOR exposures into different categories, which may require a slightly different response for each. For example, contracts referencing the ISDA Protocol may be transitioned with relative ease, whereas others may require bilateral negotiation. Understanding your dependency on third-party vendors allows you to factor them into your transition planning. Considering the use of LIBOR in your accounting practices may have an impact on the timing and sequence of your transition.

After completing the self-assessment, you will have a clear view of your LIBOR exposure and will have taken the first steps towards developing a clear transition strategy. Additionally, our experts are available and ready to assist you with your transition.



How We Can Help

It is important to consider the extent of your LIBOR exposure and the necessary steps involved in its decommissioning. This could include the establishment of a change management project with its own governance and project managers to ensure swift progress and implementation of your transition plan, including documentation of milestones achieved, all in consideration of regulatory guidance and industry practice.

Our experts can assist in the preparation of the LIBOR Transition Toolkit, helping with the identification and documentation of various LIBOR-linked exposures, as well as develop a robust transition plan inclusive of alternatives and updated models.

Our vast array of subject-matter experts have the background and experience to handle any steps necessary to mitigate risks associated with the cessation of LIBOR.

[Download our LIBOR Transition Toolkit](#) today.



Duff & Phelps Is Becoming Kroll

NEW NAME. SAME TRUSTED PARTNER.

We begin this new chapter with a fresh look and a clear and confident vision for the future. Duff & Phelps, A Kroll Business, delivers a seamless experience across our full suite of services, with a cohesive approach to bringing tech-forward solutions to the market. Our goal is to produce greater value for our clients and partners along with compelling career opportunities for our people.

Duff & Phelps has helped clients make confident decisions in the areas of valuation, real estate, taxation and transfer pricing, disputes, M&A advisory and other corporate transactions. Built on the strength and equity of our legacy brands, we are an independent advisory firm with nearly 5,000 professionals in 30 countries and territories around the world.

Our sharp analytical skills, paired with the latest technology, allow us to give our clients clarity—not just answers—in all areas of business.

Learn more at www.duffandphelps.com

DUFF & PHELPS
A **KROLL** BUSINESS

About Kroll

Kroll is the world's premier provider of services and digital products related to valuation, governance, risk and transparency. We work with clients across diverse sectors in the areas of valuation, expert services, investigations, cyber security, corporate finance, restructuring, legal and business solutions, data analytics and regulatory compliance. Our firm has nearly 5,000 professionals in 30 countries and territories around the world. For more information, visit www.kroll.com.

Key Trends Impacting Anti-Bribery and Corruption Programs

Steven Bock

Kroll's [2021 Anti-Bribery and Corruption Benchmarking Report](#) highlights results of a survey of 200 senior compliance and risk professionals from around the world to gain their unique perspective on the global anti-bribery and corruption (ABC) landscape in 2021. Our report reflects current industry trends, including the changing role of environmental, social and corporate governance (ESG) considerations, evolving challenges with enhanced due diligence, third-party risk management trends, automation technology, regulatory changes and a look ahead to ABC in the post-pandemic work environment.

This year, with the world in flux, we eagerly anticipated reviewing the results of our survey. One year into the pandemic, we regarded this as an especially opportune time to understand and evaluate strengths, weaknesses and emerging trends in ABC programs across the globe. Additionally, this year, the survey not only delved into the views on the efficiency of ABC programs, but also probed further into the critical challenges faced by ABC compliance officers in our ever-changing world.

Key Findings

Fifty-four percent of global respondents indicated that ESG creates more challenges than benefits for the compliance function.

The survey found that almost three-fourths (70%) of survey respondents indicated that environmental, social and governance (ESG) should be included in ABC programs, however only 54% indicated that it's currently included in their organizations' program. The ESG factors have taken the spotlight in recent years as companies and investors acknowledge that they can no longer ignore the externalities and internal processes of their partner companies. Yet, despite the majority of survey respondents agreeing that ESG should be part of compliance programs and that ABC programs create opportunities for good governance, 54% of global respondents also indicated that ESG creates more challenges than benefits for the compliance function.

Fifty-one percent of respondents would rate their ABC programs as highly effective, with the U.S. and Canada most confident at 66%.

Important findings highlight that compliance officers are now evaluating their compliance programs as generally effective (51%); but 71% of respondents feel that the compliance role will take on increased responsibilities in 2021. The new reality of remote working and increasing digital interconnectivity has created a multitude of risks for all aspects of an enterprise, and the compliance function has been no different. Of the professionals surveyed, 46% believe that cyber security and data breaches are the top reason for increased risk, stressing the importance of cyber hygiene and secure technology platforms.

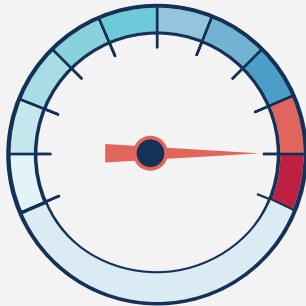
While 72% of respondents felt they had sufficient technology to address current challenges, only 36% were using an automated solution to help the due diligence process.

Survey respondents identified several challenges in the due diligence process, which automation, including artificial intelligence (AI), may be able to solve. The top three most valuable attributes of automation technology were a centralized platform, finding the most relevant information and improved quality of due diligence. While only 36% currently use automation to help with their due diligence, 45% of respondents hope to incorporate it in the next 12-36 months, proving that there is value in using technology to address some of these pain points. The results from our survey make one thing clear—the role of the compliance function to safeguard their organizations against risk has never been more vital.

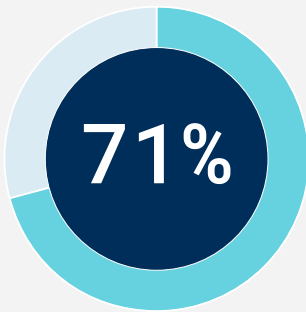
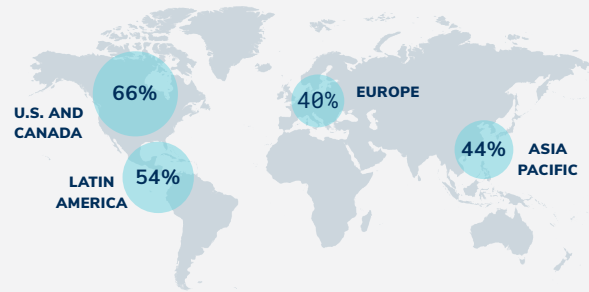


Increased Risks are Imminent, but Respondents are Confident in Their ABC Programs

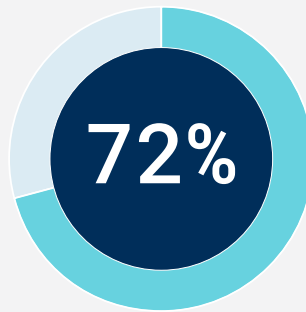
90% expect ABC risks to increase or remain the same compared with 2020



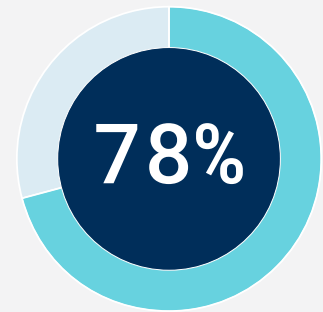
51% would rate their ABC program as highly effective, with U.S. and Canada as most confident at 66%



Feel the compliance function will take on increased responsibilities in 2021



Feel their compliance program has sufficient technology to address their current challenges



Feel senior management in their organization supports the compliance function

Additional Findings

The full benchmarking report contains five brief articles that share additional findings from our survey and what we think will impact this ever-changing landscape in the

coming months. To explore these findings further, read our [2021 Anti-Bribery and Corruption Benchmarking Report](#).



ON-DEMAND CPE WEBCASTS

The time is now for virtual learning.

Catch up on the latest insights and developments in valuation, financial reporting, taxation and risk management. Each webcast qualifies for 1.0 CPE credit.

Browse our library of CPE-eligible webcasts at

www.duffandphelps.com/cpe-webcasts

DUFF & PHELPS
A **KROLL** BUSINESS

M&A advisory, capital raising and secondary market advisory services in the United States are provided by Duff & Phelps Securities, LLC. Member FINRA/SIPC. Pagemill Partners is a Division of Duff & Phelps Securities, LLC. M&A advisory, capital raising and secondary market advisory services in the United Kingdom are provided by Duff & Phelps Securities Ltd. (DPSL), which is authorized and regulated by the Financial Conduct Authority. Valuation Advisory Services in India are provided by Duff & Phelps India Private Limited under a category 1 merchant banker license issued by the Securities and Exchange Board of India.

The New Digital Age for Insurers

Rebecca Fuller, Mathew Donahue

The [Insurance Valuation Services](#) practice of Duff & Phelps, A Kroll Business, continues to evolve as insurers change their traditional approach to underwriting. For decades, insurance companies have relied on the insured to provide the bare minimum information required to price risk, with no way to verify this data. Today, in this digital age where many businesses are governed by the regulations of the Insurance Act, risk transfer metrics must become more sophisticated.

To satisfy market demand, we have developed new portfolio review services, risk heat mapping services, and the ability to carry out virtual site inspections. Through the interactive deliverables we provide, carriers can now easily access critical data to ensure compliance with regulations, accurate pricing and alignment with industry best practices.

Portfolio Review Services

We work with insurance companies to analyze very large portfolios by entering property information into our proprietary software, which then checks the adequacy of the insurance coverage declared.

This includes a review of:

- The property’s physical address
- Current insurable values against peers within the portfolio
- Current insurable values compared to our valuation database
- Gross floor areas compared to measurements from aerial imaging

With a real-time risk overview of their entire portfolio of assets, our insurer clients can prioritize risk engineering visits, better price their premiums by understanding inaccuracies and shortfalls within their portfolio, and make more informed decisions about insuring certain risk.

Over the past six months, we have conducted portfolio reviews of over 18,000 buildings worth \$56 billion. Our reviews found that 35% of properties were insured below the appropriate value ranges derived from our proprietary database. The shortfall is estimated at up to \$13 billion.

An example portfolio review dashboard is shown below.



Risk Heat Mapping Services

Geospatial valuation data sets are one of our new reporting capabilities for industrial manufacturing sites. These data sets display a physical distribution of values and can be viewed in any geographic information system (GIS). They provide two main advantages over traditional reporting:

- They facilitate estimated maximum loss (EML) calculations, whereby a flood, fire or blast radius from different risk scenarios can be directly translated into monetary damage.
- Value heat maps can be created to view and analyze value concentrations, thereby targeting high- and low-risk areas within a plant and identifying any anomalies to be explored further.

These risk maps can be integrated into the interactive dashboards that are delivered as part of larger engagements.

We've found that our industrial clients have been able to achieve reduced premiums after implementing our heat maps. Clients can better predict (and support) the anticipated value destruction caused by an insurable event if they have a refined distribution of value with a more accurately defined blast radius by production area.

An example of a risk heat map is shown below.



Virtual Inspections

Over the past year, we have remotely inspected a broad spectrum of facilities using smart technology, including those used for manufacturing, mining, metals, chemicals, plastics and refineries. Since the onset of the COVID-19 pandemic, smart glasses, mobile phones, tablets and headsets have necessarily become the tools of choice. Virtual site inspections (VSIs) have ensured a degree of continuity, allowing us to sustain our services in an era of travel restrictions and national lockdowns. Enhanced pre-inspection data collection and analysis streamline the process as we work flexibly with the client to design the most efficient virtual survey. While our output and reporting remain as detailed and robust as ever, our clients can realize significant travel-related cost savings.

Fixed-Asset Case Study— Sophisticated Buyers

Recently, one of our U.S. clients acquired a refinery in Europe. To satisfy IFRS 3, business combinations they were required to have a purchase price allocation (PPA) carried out within the first year post-acquisition. Noticeably efficient in their use of internal time and resources, the client was quick to identify the potential for a simultaneous PPA-driven site inspection, insurance valuation and risk engineering survey.

Our team joined the virtual survey with the client, insurance and risk teams. We were able to gain 360-degree clarity of the asset values, insurance policy and risk profile—a position we historically could only have imagined.

As part of this fixed asset work, we provided a heat map and identified assets over an agreed-upon monetary threshold, segmented by areas of concentrated value. Secure online access to the heat map and valuation data was provided to permitted stakeholders at the client's request.

Our team is proud to be able to deliver multiple benefits to clients via one engagement.

Future

By 2023, our insurer partners will have consolidated information from multiple third-party data providers available within their own intelligent underwriting systems. As such, we aim to be an essential link in the data chain, allowing clients to seamlessly use our growing database and smarter algorithms for their benefit.





Kroll Alternative Investments Virtual Conference

November 9, 2021

9:00 a.m. – 1:00 p.m. EST

2:00 p.m. – 6:00 p.m. GMT

[Kroll's 15th Annual Global Alternative Investments Virtual Conference](#) returns on Tuesday, November 9, 2021. Industry experts will share their perspectives on the alternative fund sector, with a focus on valuation, risk, governance and fund operations.

The conference is ideal for institutional investors, investment managers, regulators, advisers and third-party AIFMs. Continuing professional education (CPE) credit will be available to attendees.

To view a detailed agenda and the full speaker lineup and to register visit our events page [here](#).

About Kroll

Kroll is the world's premier provider of services and digital products related to valuation, governance, risk and transparency. We work with clients across diverse sectors in the areas of valuation, expert services, investigations, cyber security, corporate finance, restructuring, legal and business solutions, data analytics and regulatory compliance. Our firm has nearly 5,000 professionals in 30 countries and territories around the world. For more information, visit www.kroll.com.

North American Industry Market Multiples

As of June 30, 2021

Industry	Market Value of Equity to Net Income		MVIC to EBIT		MVIC to EBITDA	
	U.S.	Canada	U.S.	Canada	U.S.	Canada
Energy	13.0	11.1	18.1	17.9	11.2	12.1
Energy Equipment & Services	—	—	—	—	10.8	12.1
Oil, Gas & Consumable Fuels	13.3	11.6	17.8	20.2	11.2	11.8
Materials	19.4	13.4	19.3	10.5	11.2	7.4
Chemicals	20.7	—	21.7	—	12.0	—
Containers & Packaging	25.3	—	17.3	—	10.5	—
Metals & Mining	15.3	13.2	19.3	10.7	10.7	7.1
Industrials	26.1	18.1	21.6	18.9	13.6	12.0
Aerospace & Defense	23.3	—	20.7	—	13.7	—
Building Products	23.9	—	17.5	—	11.8	—
Construction & Engineering	22.3	—	20.5	—	10.6	—
Electrical Equipment	23.5	—	21.6	—	16.4	—
Machinery	32.1	—	25.8	—	16.3	—
Trading Companies & Distributors	24.3	15.4	18.7	12.8	14.3	7.3
Commercial Services & Supplies	24.4	21.1	25.2	14.2	11.2	11.5
Professional Services	25.3	—	19.8	—	13.1	—
Road & Rail	18.9	—	18.4	—	6.8	—
Consumer Discretionary	16.7	19.7	16.3	18.1	11.0	11.8
Auto Components	24.1	—	17.4	—	10.2	—
Household Durables	12.3	—	13.2	—	10.7	—
Leisure Products	16.7	—	12.8	—	10.5	—
Textiles, Apparel & Luxury Goods	18.0	—	17.1	—	12.2	—
Hotels, Restaurants & Leisure	25.7	—	28.7	25.2	16.2	—
Diversified Consumer Services	13.6	—	17.0	—	10.9	—
Internet & Direct Marketing Retail	39.7	—	20.5	—	14.9	—
Specialty Retail	14.1	—	13.7	—	7.7	—
Consumer Staples	20.0	16.2	16.2	14.0	12.2	10.4
Food & Staples Retailing	16.5	—	18.5	14.5	9.6	9.5
Beverages	32.3	—	22.7	—	19.0	—
Food Products	23.7	20.1	15.8	—	12.6	10.0
Personal Products	18.7	—	15.6	—	9.9	—

Industry	Market Value of Equity to Net Income		MVIC to EBIT		MVIC to EBITDA	
	U.S.	Canada	U.S.	Canada	U.S.	Canada
Health Care	22.9	20.7	21.6	17.6	15.3	15.6
Health Care Equipment & Supplies	23.5	—	20.3	20.2	15.5	12.8
Health Care Providers & Services	17.9	—	17.7	—	12.3	13.5
Biotechnology	16.9	—	17.7	—	14.1	—
Pharmaceuticals	18.9	17.1	22.0	17.6	13.8	16.8
Life Sciences Tools & Services	47.6	—	35.2	—	24.9	—
Information Technology	28.0	31.9	25.1	28.1	16.4	20.2
IT Services	30.2	—	28.0	—	15.8	—
Software	32.7	39.1	31.2	37.6	19.9	25.1
Communications Equipment	25.6	—	27.9	—	15.5	—
Technology Hardware, Storage & Peripherals	19.4	—	20.4	—	12.3	—
Electronic Equipment, Instruments & Components	21.3	—	21.1	—	12.4	—
Semiconductors & Semiconductor Equipment	30.3	—	25.3	—	20.6	—
Communication Services	14.3	13.7	18.8	16.5	10.5	9.3
Diversified Telecommunication Services	7.0	—	14.5	—	7.0	—
Media	11.4	7.6	15.2	11.2	10.7	6.8
Entertainment	32.1	—	—	—	19.8	—
Interactive Media & Services	24.1	—	31.8	—	18.8	—
Utilities	20.2	19.2	21.8	21.1	12.9	13.3
Electric Utilities	20.4	—	22.5	—	12.5	—
Gas Utilities	18.0	—	17.8	—	10.0	—

Industry	Market Value of Equity to Net Income		Market Value of Equity to Book Value	
	U.S.	Canada	U.S.	Canada
Financials	12.2	9.8	1.2	1.3
Banks	12.4	—	1.2	—
Thrifts & Mortgage Finance	13.1	—	1.1	—
Capital Markets	15.3	4.4	2.0	1.3
Insurance	10.5	10.6	1.1	—



Industry Market Multiples are available online!
Visit <https://multiples.duffandphelps.com>

"An industry must have a minimum of 10 company participants to be calculated.

For all reported multiples in the U.S. and Canada, the average number of companies in the calculation sample was 73 (U.S.), and 35 (Canada); the median number of companies in the calculation sample was 41 (U.S.), and 24 (Canada)."

Sample set includes publicly-traded companies (private companies are not included). Source: Data derived from Standard & Poor's Capital IQ databases. Reported multiples are median ratios (excluding negatives or certain outliers). MVIC = Market Value of Invested Capital = Market Value of Equity plus Book Value of Debt (includes capitalized operating leases). EBIT = Earnings Before Interest and Taxes for latest 12 months (includes adjustment for operating lease interest expenses). EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization for latest 12 months (includes adjustment for operating lease expenses). Note that due to the exclusion of negative multiples from the analysis, the number of companies used in the computation of each of the three reported multiples across the same industry may differ, which may occasionally result in a counterintuitive relationship between those multiples (e.g. the MVIC-to-EBITDA multiple may exceed MVIC to EBIT).

European Industry Market Multiples

As of June 30, 2021

Industry	Market Value of Equity to Net Income	MVIC to EBIT	MVIC to EBITDA
	Europe	Europe	Europe
Energy	12.2	19.2	9.1
Energy Equipment & Services	10.9	17.9	10.8
Oil, Gas & Consumable Fuels	12.4	19.4	8.2
Materials	19.1	18.5	11.0
Chemicals	27.0	22.9	12.9
Containers & Packaging	17.4	16.3	10.3
Metals & Mining	16.0	14.0	10.3
Industrials	26.4	22.5	13.7
Aerospace & Defense	22.0	24.8	13.2
Building Products	30.0	23.8	14.1
Construction & Engineering	18.1	20.1	11.3
Electrical Equipment	31.5	23.5	15.7
Machinery	31.8	23.8	15.5
Trading Companies & Distributors	26.3	21.3	12.8
Commercial Services & Supplies	23.0	20.9	11.2
Professional Services	34.3	26.1	16.9
Marine	16.0	20.3	13.7
Transportation Infrastructure	18.1	15.9	10.3
Consumer Discretionary	21.9	19.7	13.3
Auto Components	31.8	23.1	11.3
Household Durables	20.9	16.9	12.6
Leisure Products	22.4	18.1	14.1
Textiles, Apparel & Luxury Goods	25.8	23.0	15.8
Hotels, Restaurants & Leisure	23.0	32.7	16.7
Internet & Direct Marketing Retail	29.6	28.8	22.9
Specialty Retail	16.2	16.9	8.3
Consumer Staples	22.5	20.2	13.2
Food & Staples Retailing	20.3	17.7	9.0
Beverages	28.2	26.4	16.2
Food Products	21.5	20.3	13.0
Personal Products	29.0	22.5	18.4

Industry	Market Value of Equity to Net Income	MVIC to EBIT	MVIC to EBITDA
	Europe	Europe	Europe
Health Care	31.1	24.2	16.1
Health Care Equipment & Supplies	35.0	25.9	20.3
Health Care Providers & Services	28.8	24.0	13.5
Health Care Technology	42.9	27.9	22.5
Biotechnology	29.2	21.9	17.3
Pharmaceuticals	22.9	21.7	14.8
Life Sciences Tools & Services	48.2	37.9	23.2
Information Technology	30.0	24.2	16.9
IT Services	26.6	21.0	14.3
Software	34.9	30.7	21.2
Communications Equipment	33.2	21.2	17.3
Technology Hardware, Storage & Peripherals	21.8	16.2	14.3
Electronic Equipment, Instruments & Components	28.7	24.0	17.4
Semiconductors & Semiconductor Equipment	43.5	36.4	22.8
Communication Services	20.4	19.1	11.6
Diversified Telecommunication Services	20.0	22.0	8.6
Media	20.0	17.0	11.5
Entertainment	22.8	20.1	14.6
Interactive Media & Services	38.3	30.1	18.2
Utilities	21.0	21.8	12.7
Independent Power and Renewable Electricity Providers	32.9	30.1	14.4

Industry	Market Value of Equity to Net Income	Market Value of Equity to Book Value
	Europe	Europe
Financials	12.7	1.0
Banks	11.5	0.7
Diversified Financial Services	11.6	1.2
Capital Markets	16.4	1.3
Insurance	13.4	0.9

An industry must have a minimum of 10 company participants to be calculated. For all reported multiples in Europe, the average number of companies in the calculation sample was 84 and the median number of companies in the calculation sample was 47.

Sample set includes publicly-traded companies (private companies are not included). Source: Data derived from Standard & Poor's Capital IQ databases. Reported multiples are median ratios (excluding negatives or certain outliers). MVIC = Market Value of Invested Capital = Market Value of Equity plus Book Value of Debt (includes capitalized operating leases). EBIT = Earnings Before Interest and Taxes for latest 12 months. EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization for latest 12 months. Note that due to the exclusion of negative multiples from the analysis, the number of companies used in the computation of each of the three reported multiples across the same industry may differ, which may occasionally result in a counterintuitive relationship between those multiples (e.g. the MVIC-to-EBITDA multiple may exceed MVIC to EBIT).

Cost of Capital Navigator

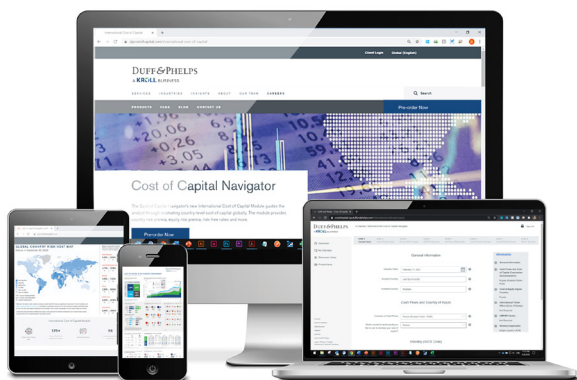
An online platform that guides you through the process of developing global cost of capital estimates, a key component of any valuation analysis. You can subscribe to any or all four cost of capital modules, each offering three annual subscription levels: Basic, Pro and Enterprise.

The Cost of Capital Navigator

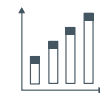
Our solution is comprehensive, providing end users with multiple alternative models and corresponding required inputs as they use their professional judgement in developing their own estimates. Users can export their work or download data sets using the Cost of Capital Navigator Excel add-in directly into their own spreadsheets, saving time and ensuring a consistent, accurate analysis. Results can also be downloaded into a standard report format suitable for review by auditors and other stakeholders with inputs and assumptions clearly documented.

Key Features:

- Risk-free rates
- Equity Risk Premia
- Betas
- Industry Risk Premia
- Size premia
- Country Risk Premia
- Relative Volatility factors
- Global industry-level inputs
- Multiple methods to choose from
- Frequent data updates
- Excel Add-in
- Industry leading expert guidance
- Subscription packages for teams of all sizes



Global Cost of
Capital Data



Comprehensive Solutions
to Quantify Risk



Thought Leaders and
Expert Guidance



Reliable and
Accurate Data

Learn More: dpcostofcapital.com

Virtual Events and Webinars

SEPTEMBER 2021

[Incident Response Forum Europe 2021](#)

September 23 | 12:00 p.m. BST

[Shaping Regulations to Promote Business Resiliency and Growth in the Digital Economy](#)

September 23 | 9:00 a.m. EST

[CanArbWeek 2021](#)

September 23 | 1:30 p.m. EST

OCTOBER 2021

[Making the Most of Digital Risk Protection in Today's Threat Landscape](#)

October 6 | 11:00 a.m. EST

NOVEMBER 2021

[Kroll Alternative Investments Virtual Conference](#)

November 9 | 1:00 p.m. EST

CONTRIBUTORS

Steven Bock

Mathew Donahue

Jeff Fromer

Rebecca Fuller

Brian Lapidus

Marcus Morton

Florian Nitschke

Mark Turner

Rich Vestuto

Jamie Warner

Heather Williams

EDITOR

Sherri Saltzman

About Duff & Phelps, A Kroll Business

For nearly 100 years, Duff & Phelps has helped clients make confident decisions in the areas of valuation, real estate, taxation and transfer pricing, disputes, M&A advisory and other corporate transactions. For more information, visit www.duffandphelps.com.

About Kroll

Kroll is the world's premier provider of services and digital products related to valuation, governance, risk and transparency. We work with clients across diverse sectors in the areas of valuation, expert services, investigations, cyber security, corporate finance, restructuring, legal and business solutions, data analytics and regulatory compliance. Our firm has nearly 5,000 professionals in 30 countries and territories around the world. For more information, visit www.kroll.com.

M&A advisory, capital raising and secondary market advisory services in the United States are provided by Duff & Phelps Securities, LLC. Member FINRA/SIPC. Pagemill Partners is a Division of Duff & Phelps Securities, LLC. M&A advisory, capital raising and secondary market advisory services in the United Kingdom are provided by Duff & Phelps Securities Ltd. (DPSL), which is authorized and regulated by the Financial Conduct Authority. Valuation Advisory Services in India are provided by Duff & Phelps India Private Limited under a category 1 merchant banker license issued by the Securities and Exchange Board of India.