

Insurance Valuation TODAY

July 2021



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EXECUTIVE SUMMARY

In this issue of *Insurance Valuation TODAY*, we cover topics of interest for insurance professionals, risk managers and others who need to determine insurable values and replacement costs of real and personal property. We are excited to bring you several featured articles that discuss how to leverage property valuations for tax and financial reporting to establish insurable values, digital developments that can benefit insurers and how to put together a vendor cyber risk program before 2022.

Included in this issue is a cost trend update providing construction and equipment cost indices for the U.S., UK, Italy, Brazil, Canada and Spain that can be applied to building and equipment historical costs to determine indicators of replacement cost. These indices are monitored, gathered, and analyzed in a retrospective manner. Given the current economic environment, the impacts on both construction and equipment costs are unknown. We will continue to monitor the indices and expect to include new indicators in upcoming cost trend updates.

We hope you find this newsletter useful, and we encourage you to contact us if you require additional support.

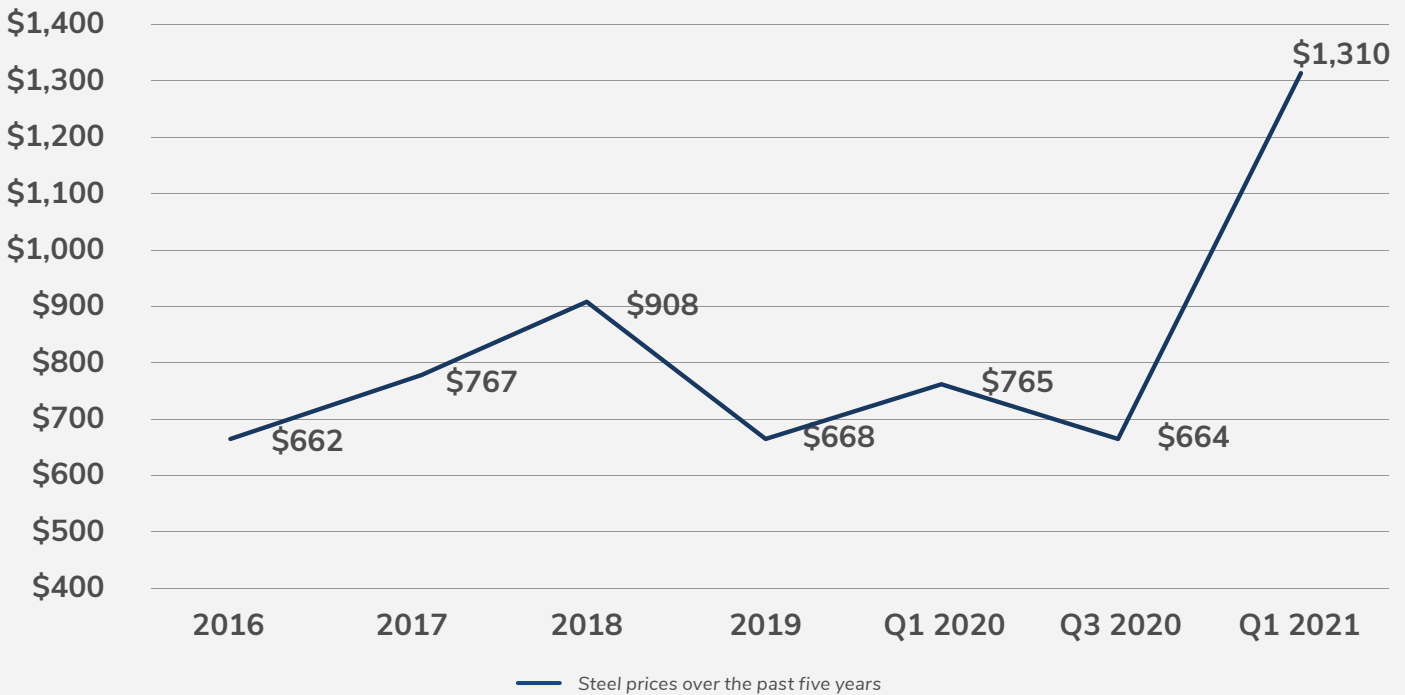
U.S. Cost Trend Update — May 2021

Construction Cost Indices

We have begun 2021 with quite an uptick in three of four U.S. construction cost indices (we will not receive the fourth until July). All three indices show increases for 2021 between +1.1% and +2.36%, which if annualized would be significantly higher than in previous recent years.

Steel prices which is a leading indicator of construction indices, saw an increase of approximately 71% over the past three quarters in the U.S.¹

STEEL PRICES



1. MEPS (International), Ltd. All Carbon Steel Products Composite Price and Indices

Apart from steel, lumber prices have also increased significantly over this time period. During the last 12-month period through April, dimensional lumber prices have increased 89.7%.² With regard to labor, wages continue to rise, and more experienced individuals are entering the workforce; however, there is a limit to the availability of qualified individuals.

Given the delay in construction projects that occurred during the shutdown, there is certainly increased demand for contractors, labor and materials. The average wages for those working in construction have increased at an annual rate of 3% over the last 12-month period.³

Index	2017	2018	2019	2020	2021 Q1	2021 ANNUALIZED
ENR–Building Cost Index ⁴	3.30%	3.30%	1.74%	3.96%	2.36%	9.44%
FM Global–U.S. Industrial Buildings Average ⁵	1.20%	5.20%	1.73%	1.42%	N/A	N/A
RSMeans–30-City Average ⁶	4.00%	5.50%	2.05%	1.71%	1.43%	5.72%
Marshall & Swift–U.S. Average ⁷	+2.7% to +3.7%	+3.2% to +6.0%	+0.0% to +1.3%	+3.0% to +6.1%	+1.1% to +1.7%	+4.4% to +6.8%

Note: The range of change shown by Marshall & Swift represents different classes of construction.

Sources

- 2. U.S. Bureau of Labor Statistics, Producer Price Indices for Lumber
- 3. U.S. Bureau of Labor Statistics, Employment Cost Index, Wages and Salaries for Private Industry Workers in Construction, 12-Month Percent Change
- 4. FM Global, Industrial Cost Trends
- 5. RSMeans, Construction Cost Indices, 30-City Average
- 6. Marshall & Swift/Boeckh, Marshall Valuation Service, Quarterly Cost Indices
- 7. U.S. Bureau of Labor Statistics, Producer Price Index for Finished Goods—Capital Equipment



Equipment Cost Indices

Three sources for equipment cost indices had significant increases in 2018 compared to the previous three years, with the annual increases in 2019 retreating toward historical averages in all three indicators during 2020. However, 2021 has been a different story, and the indices have significantly outpaced previous years.

Within the first quarter of 2021, we have hit our average annual increase for equipment costs, which is in the range of 1%–3%. If the indices continue to increase at this pace, 2021 will be a record year in recent history.

Index	2017	2018	2019	2020	2021 Q1	2021 ANNUALIZED
Marshall & Swift/Boeckh–Industrial Equipment Avg. ⁷	2.60%	4.80%	0.77%	2.54%	2.11%	8.44%
U.S. Bureau of Labor Statistics–Producer Price Index for Finished Goods, Capital Equipment ³	0.90%	2.70%	1.13%	0.95%	1.22%	4.88%
Global–Industrial Equipment Composite ⁵	1.20%	2.80%	1.93%	1.52%	1.52%	6.08%

Take care when selecting an index to track the rate of cost change for your company’s capital equipment. The three indices in the table above all track average capital equipment cost change percentages and indicate the differences that have occurred over the past four years. Developers—as well as insurance brokers, underwriters and valuation consultants—can all recommend appropriate indices for your facilities. Select one that represents your capital equipment as closely as possible;

there are significant differences between the average indices shown here and specific industrial-sector indices.

Always remember that cost indices are just average indicators of change; they are not absolutes, and there is no average building or average assemblage of equipment. After five to seven years, you should establish a new replacement cost basis by using a qualified valuation consultant.

Sources

- 3. U.S. Bureau of Labor Statistics, Employment Cost Index, Wages and Salaries for Private Industry Workers in Construction, 12-Month Percent Change
- 5. RSMeans, Construction Cost Indices, 30-City Average
- 7. U.S. Bureau of Labor Statistics, Producer Price Index for Finished Goods—Capital Equipment

International Cost Trend Update

United Kingdom

The COVID-19 pandemic has created a turbulent period for the UK construction industry, with numerous delays and halting of projects. Construction output has recovered somewhat, however it is still down on pre-pandemic levels. The availability—or rather, lack of availability—for certain materials, has caused costs to increase by 3.7% in 2021.

Going forward, material and labor costs are expected to increase at approximately 3% per annum, with tender prices expected to increase by 4% per annum.

Overall, average machinery and equipment prices increased by 0.3% in 2020, but saw a much greater increase of 1% in Q1 2021 alone. Some sectors have seen vastly different cost increases; metal forming machinery and machine tools increased by 7.9% in Q1 2021, while food, beverage, and tobacco processing grew by 1.3% in Q1 2021.

Index	Source	2016	2017	2018	2019	2020	2021 Q1	2021 ANNUALIZED
BUILDINGS								
Building Cost Index	BCIS Indices Tables	3.5%	4.0%	3.3%	1.6%	1.8%	1.4%	4.1%
M&E								
Machinery & Equipment	ONS Producer price inflation time series	2.3%	1.3%	1.0%	1.3%	0.3%	1.0%	4.2%
Metal Forming Machinery & Machine Tools	ONS Producer price inflation time series	12.4%	5.7%	3.6%	-0.8%	5.0%	7.9%	35.7%
Food, Beverage & Tobacco Processing	ONS Producer price inflation time series	1.1%	5.4%	0.0%	0.7%	0.9%	1.3%	5.4%

Italy

After two years of near-zero growth, in the early months of 2021 there has been a major rebound in both industrial and residential Construction price indices. As for Machinery and Equipment, growth is generally stagnant if not for some exceptions such as

the Electrical Machines & Materials sector. Both in the case of construction prices and in the case of Machinery and Equipment, the price increase could be due to the difficult availability of raw materials that emerged during the spread of the pandemic.

Index	Source	2016	2017	2018	2019	2020	2021 Q1	2021 ANNUALIZED
BUILDINGS								
Building Cost Index–Residential Building	Italian National Institute of Statistics Producer	0.3%	0.6%	1.9%	0.0%	1.1%	1.2%	5.1%
Building Cost Index–Industrial Building	Italian National Institute of Statistics Producer	0.7%	2.5%	2.3%	-1.3%	1.5%	3.4%	14.1%
M&E								
Machinery & Equipment	EuroStat Producer prices in industry, domestic market, Monthly	0.3%	0.8%	2.4%	0.3%	0.7%	0.3%	1.1%
Metal Forming Machinery & Machine Tools	EuroStat Producer prices in industry, domestic market, Monthly	1.3%	1.8%	0.0%	1.1%	-0.6%	1.4%	5.9%
Electrical Machines & Materials	EuroStat Producer prices in industry, domestic market, Monthly	0.1%	0.3%	0.6%	-0.1%	1.3%	1.8%	7.3%

Brazil

Currently, civil construction in Brazil is still marked enormously by the difficulties imposed due to the COVID-19 pandemic, reflecting the uncertainty of most businesses in the sector. Construction stands as a barometer for the national economy because it distributes income and generates high tax values for the country. The year 2020, although challenging, was one of progress. Construction was the sector that generated more jobs in the first 10 months, creating 138,409 formal vacancies, according to the Ministry of Economy (the best result since 2013).

In addition, the imagined reduction in negative GDP (11%) did not materialize, remaining at a drop of 2.8%, and many investments in technologies modernized the sector, improving processes and material waste.

This scenario made it possible to project its greatest growth in 2021, for the first time in eight years. However, in this first quarter of 2021, the Brazilian Chamber of the Construction Industry (CBIC) reduced the growth projection for the sector's GDP this year. The indicator fell from 4% in January to 2.5% in March. The high prices of inputs and the lack of raw materials were factored into the analysis.

The second wave of the pandemic was stronger than expected, and the advance of reforms promised by the Government did not happen, generating stoppages of infrastructure works and lack of new investments. According to INCC-Materiais e Equipamentos, calculated by Fundação Getúlio Vargas (FGV), the price increase in the period from January to November of 2020 was 17.78%, the highest since Brazilian real* was introduced. Some inputs even registered increases of more than 50% in the same period. This shortage compromised the predictability of new contracts, hampering the pace of growth in the sector's activities. In this way, the sector's improvement in 2021 involves the resolution of these problems and the high tax burden, which appears in second place in the list, with 28.2% of entries among the business community.

The large housing deficit in Brazil, the dampened demand created by the insecurity of the economic and pandemic scenario, and the new cycle of increases in the Selic index rate, contributed to the record movement for new residential real estate financing. According to data from Abecip (the Brazilian Association of Real Estate Credit and Savings Entities), operations between January and March 2021 reached a record value of BRL 43.1 billion, with 187.6 thousand units sold.

The final assessment is that despite the difficulties already described, the civil construction sector still had a positive performance as a result of housing developments aimed at the middle and upper classes.

*The Brazilian real is the official currency of Brazil which was introduced on 1 July 1994.

Index	Source	2016	2017	2018	2019	2020	2021 ANNUALIZED
BUILDINGS							
Building Cost Index	Brazilian Institute of Geopgraphy and Statistics. Producer Prices	6.1%	4.3%	3.8%	4.2%	8.8%	18.0%
M&E							
General Price Index	Brazilian Institute of Geopgraphy and Statistics. Producer Prices	7.2%	-0.5%	7.5%	7.3%	23.1%	35.3%
BR_IBGE_ME	Brazilian Institute of Geopgraphy and Statistics. Producer Prices	3.6%	4.2%	8.7%	4.5%	13.5%	53.8%
BR_IBGE_CI	Brazilian Institute of Geopgraphy and Statistics. Producer Prices	2.6%	5.0%	6.7%	3.9%	21.6%	27.8%
Mineral Coal	Brazilian Institute of Geopgraphy and Statistics. Producer Prices		2.4%	2.2%	5.8%	3.7%	71.9%
Metallic Minerals	Brazilian Institute of Geopgraphy and Statistics. Producer Prices		-10.5%	17.6%	26.7%	101.1%	154.0%

Spain

The Building Costs Index went down in 2020, compared to the continuous increases recorded years ago, mainly influenced by the uncertainty generated by the COVID-19 pandemic and the economic crisis it has caused. However, change in these trends should be taken with caution since they are highly influenced by the pandemic, and it is not clear that they will be maintained over time.

The annual rate of the overall Consumer Price Index (CPI) in March was 1.3%, nearly one and a half points higher than that registered in the previous month. It is the highest rate in the general index since April 2019.

In December 2020, the Industrial Price Index (IPRI) was -1.4%, almost one and a half points above that of November.

The following industrial sectors had the most influence on the variation in the annual rate of the general IPRI, by the economic destination of the goods:

- Energy, whose annual variation increased by more than three and a half points to -6.3%, mainly due to the rise in the prices of electric power generation, transmission and distribution, which decreased in December of the previous year.
- Intermediate goods, whose variation rate stood at 1.2%, more than one point above that of November. Worth noting in this behavior was the increase in the prices of manufacturing of basic chemicals, fertilizers and nitrogen compounds, plastics, and synthetic rubber in primary forms, compared to the decrease registered in the same month of 2019.
- Nondurable consumer goods, with a variation of 0.3%, five-tenths higher than that of the previous month. This is because the prices of meat processing and preserving and meat product production decreased this month, while they rose in December 2019.

Index	Source	2016	2017	2018	2019	2020	2021 ANNUALIZED
BUILDINGS							
Building Cost Index	Spain National Statistics Institute, Producer Price Index, Construction Cost Index monthly bulletin	2.0%	1.9%	2.7%	-0.9%		
M&E							
General Price Index	Spain National Statistics Institute, Producer Price Index	0.2%	1.3%	2.6%	0.3%	-0.9%	1.5%
Energy	Spain National Statistics Institute, Producer Price Index	-0.1%	1.5%	8.2%	-8.8%	-2.0%	0.3%
Industrial Consumer Goods	Spain National Statistics Institute, Producer Price Index	0.7%	1.3%	2.0%	2.0%	-1.3%	1.6%

Canada

Prices for residential building construction increased on average by 5.6% in the first quarter of 2021, the largest increase since 2017, led by a 6.9% gain for townhomes, followed closely by a 6.8% gain for single-detached houses. On the other hand, nonresidential building construction prices rose 1.5%, led mostly by higher construction costs for factories and warehouses. Higher construction costs overall were mostly attributable to a shortage of construction materials, especially softwood lumber prices, which rose 118.9% at their fastest year-over-year pace on record in March 2021, partially because of low stocks following the temporary shutdown of sawmills during the first wave of the COVID-19 pandemic.

The surge in residential construction costs was also spurred by historically low interest rates and a desire for more living space during the pandemic.

Sources

1. FM Global (Canada Cost Trends, Industrial Buildings—Canadian Average)
2. M&S, Marshall & Swift Valuation Service (Canadian National Average—Comparative Cost Multipliers)
3. StatsCan, Statistics Canada (Building Construction Price Indices—Composite trends based on 11 census metropolitan areas)
4. StatsCan, Statistics Canada (Industrial Product Price Index [IPPI] by North American Product Classification System)
5. StatsCan, Statistics Canada (Machinery and Equipment Price Index (MEPI), by industry of purchase)

Index	Source	2016	2017	2018	2019	2020	2021 Q1	2021 ANNUALIZED
BUILDINGS								
Residential (apartment, house, townhouse)	Statistics Canada, Building construction price indexes			5.2%	2.3%	6.4%	5.6%	20.0%
Non-residential (commercial, industrial, institutional)	Statistics Canada, Building construction price indexes	1.7%	2.7%	4.9%	2.2%	1.2%	1.5%	5.0%
Industrial buildings	FM Global Cost Trends-Industrial Buildings	0.5%	1.0%	2.6%	4.5%	1.0%		
M&E								
Industrial product price index (IPPI), Total	Statistics Canada, Industrial product price index	2.1%	2.4%	2.1%	0.5%	2.0%	6.7%	29.5%
Industrial product price index (IPPI), excl. energy and petroleum products	Statistics Canada, Industrial product price index	1.2%	1.0%	3.0%	-0.2%	4.9%	5.1%	21.9%
Machinery & equipment price index (MEPI), domestic	Statistics Canada, Machinery and equipment price index	-1.1%	-0.2%	2.0%	0.5%	0.5%		
Machinery & equipment price index (MEPI), imported	Statistics Canada, Machinery and equipment price index	-3.0%	-3.4%	3.6%	0.9%	-0.6%		



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Leveraging Property Valuations for Tax and Financial Reporting to Establish Insurable Values

We are often asked whether a proposed, ongoing or completed valuation project done for financial reporting, tax or other purposes can also be used to help establish insurable values. This question typically arises from tax and financial reporting managers, risk managers or insurance underwriters.

When answering this question, we must first gain a thorough understanding of the property insurance need, and then consider how the existing valuation work could be used.

When evaluating the property insurance need, we must keep the following in mind:

- If detailed insurable value data is needed for an underwriter or for a specific property insurance placement, the typical data that is developed and presented—usually as a by-product of valuations performed for financial reporting or tax purposes—may be insufficient or different from what is required in an actual underwriting situation.
- If the objective is to capture whatever data might be available from a valuation performed for another purpose, some relevant data can probably be extracted and summarized for this type of review at minimal or no additional cost or effort.

With respect to leveraging existing work product to serve an insurance need, it's equally important to consider how the work product was developed to determine if it can be leveraged. For instance, in a federal tax or financial reporting setting, where fair market value estimates for tangible assets are often developed for purchase price allocation needs, we must review the scope of service, methods and procedures, and approaches to value.

The question could also come from a risk manager who learns that a fair value study was completed for a recent business acquisition. In that situation, the risk manager would likely ask if there was some replacement cost data in our fair value work files that could be extracted and used for the client's insurable value needs. Again, this would require a review of the original scope of service that was performed, as well as the approaches to value and the methods and procedures used.



Review of the scope of service, approaches to value, and methods and procedures is needed because these variables can vary significantly depending on whether we are developing replacement cost estimates for property insurance or fair market value for federal tax (financial) reporting. Some of the variances include:

- **Amount of site inspection work performed**
For a fair market value (fair value) service, the amount and extent of site inspections can vary from the inspection of all assets to no inspection at all. For insurance services, an inspection of all assets is generally preferred, if not required, for underwriting purposes.
- **On-site procedures and targeted data gathered during site inspections**
On-site procedures for an insurance service focus on the variables that would help to refine the replacement cost estimate. However, for a fair market value service, on-site procedures focus on collecting the data that will most impact the fair market value estimate. Sometimes fair market values are estimated directly with less focus on replacement cost estimates.

On-site procedures for insurance services tend to focus the data gathering on identifying and matching individual assets to specific locations within a building or facility. This is typically important for underwriting but is not normally done for tax or financial reporting.

- **Use of the cost approach**

Not all fair market value analyses involve the cost approach, and if the cost approach is not used, replacement cost data may not be available. When a fair market value service is expected to use the cost approach on a limited basis or not at all, adding an insurable value will require additional work to develop the supplemental replacement cost estimates.

If, however, the cost approach is used for a fair market value service, reproduction cost, replacement cost or functional replacement cost estimates may be developed. Therefore, on any given project, the cost approach estimates may be inconsistent with the replacement cost estimates required for an insurance service.

For a fair market value service, the assets (or groups of assets) analyzed using the cost approach may be aggregated for analysis and reporting purposes to a greater extent than what would be preferred for an insurance service. The latter may require more granular asset delineation.

- **Confirmation that the assets analyzed for the original service are the same that need to be analyzed for a different service**

The assets that should be included/excluded in the insurable value estimate for an insurance service could vary significantly from inclusions/exclusions for a fair market value service.

Examples of assets that would be included in a fair market value setting but would potentially need to be excluded from an insurance service are land, assets located underground, licensed vehicles and computer software.

If an insurer is required to insure the real or personal property assets owned by others and leased to the insured, this type of replacement cost data would not typically be available from a fair market value service.

A fair market value service may exclude some assets entirely or rely on limited means to complete an analysis of certain assets. This could happen when assets are identified as held for sale, when reliable data is not available, or when the asset (or group of assets) is less material to the overall valuation. In these situations, either no value is assigned or the net book value may be used as a proxy for fair value. Neither situation would yield usable replacement cost data for an insurance service.

In order to be in the best position to leverage fair market valuations done for financial reporting or tax purposes to help establish insurable values, it is best to consider all of these needs at the outset of the project. However, if the question is posed after the conclusion of a fair market value service, understanding the scope of service, the methods and procedures used, and the approaches to value applied should help risk managers better determine if and how they might leverage prior valuations.

The New Digital Age for Insurers

The Fixed Asset Management group 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 access critical data themselves to ensure compliance with regulations, accurate pricing and alignment with industry best practices.

Portfolio Review Services

Our fixed asset valuation team works with insurance companies to analyze very large portfolios by entering property information into our proprietary software to check 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.

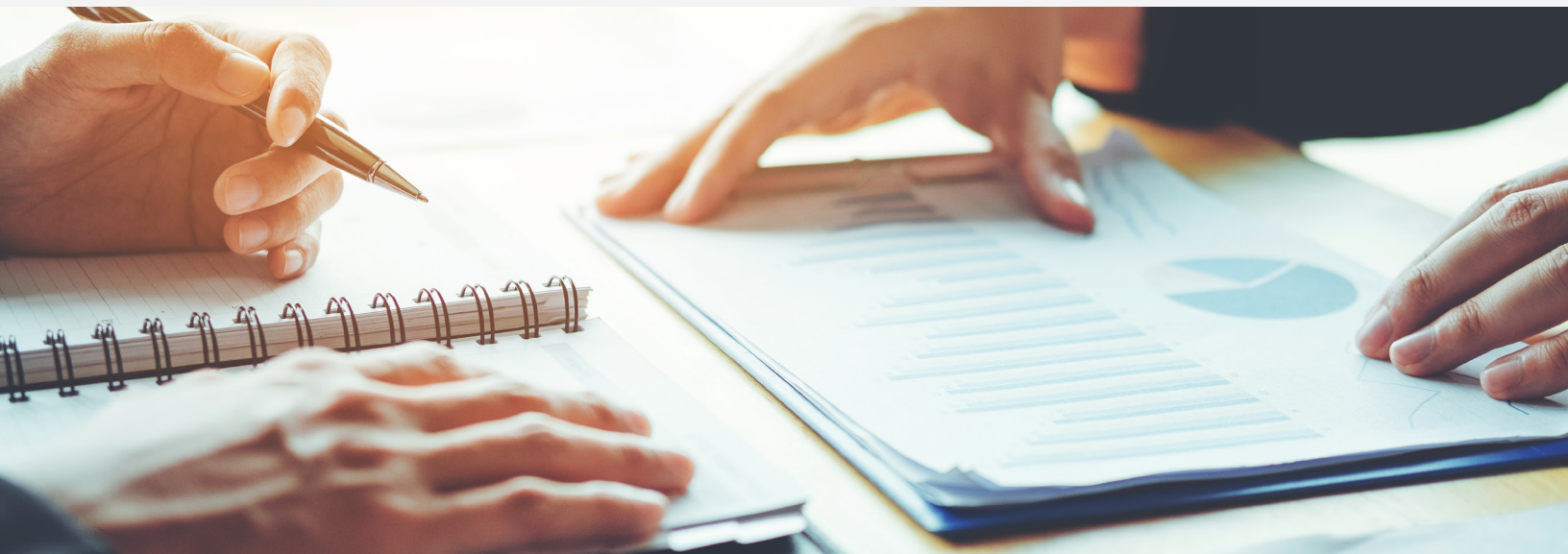
Our team joined the virtual survey with the client, insurance and risk teams. We were able to gain 360-degree clarity of the asset values, insurance policy and risk profile—a position we historically could only have imagined.

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 into their own intelligent underwriting systems. 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.



How to Put Together a Vendor Cyber Risk Program Before the End of the Year

Due to the events of 2021, many organizations have been forced to use new and different third parties to solve business needs. Many of these new vendors have not been properly vetted for their potential cyber risk exposure, and even fewer have been examined for their ability to respond to cyber incidents. As you plan your 2022 risk management priorities, third parties need to be on that list.

But how can you do that as budgets have been reduced due to COVID-19? While building a dedicated [third-party cyber risk program](#) requires time, resources and technical skill, you can start outlining a program on a reduced budget. Consider the below plan to be the first step in building a program. It will help you understand your third-party cyber ecosystem, initiate some of the processes you will need to enhance in a formal program and hopefully reduce some of the risks to your organization.

The first step, which is often the hardest, is to inventory your third parties. Whose help do you utilize to achieve your organization's mission? Anyone you share data with, give access to or directly associate with your organization should be on this list.

Once you have that list, you need to identify what info or access they have. Do any of the contractors on staff have "admin" access, thereby allowing them to change or edit programs? If they do, you are only as secure as their home organization's network. What information are you sharing with marketing, outside counsel and application developers? Is any of that data customer-related or protected by regulation? If so, if they suffer a breach, under many regulations, it is considered a breach for you as well. After organizing the list of who has what, you should organize them into categories to see how big your inherent risk is before applying any controls. This will help you prioritize as we move into the next step.

Now that you have a list, it is time to survey your third parties' cyber security. While there are different assessment standards and questionnaires you can use, we suggest asking the following at the base level:

- Do you have an information security policy?
- Does it require you to use appropriate encryption for data identified as sensitive?
- Does it require all users to use two-factor authentication for accessing accounts or systems?

These types of questions should be easily answered by most third parties. Even if your contact doesn't know, they can easily reach out to the appropriate security or compliance teams within their organization to get an answer. There may be some delays, or even hesitation, as many organizations do not like to share information on their cyber security policies. Still, the three questions listed above fall under many standard cyber security requirements, and many organizations already must certify that they meet them. Encryption, for example, falls under the New York State Department of Financial Services and Payment Card Industry regulations, which all require appropriate encryption controls to be in place for sensitive data.

The purpose of these questions is to understand your third parties' general level of cyber security maturity and if they have any specific controls in place. Not having policies is a red flag indicating a lack of maturity. Failure to have either of the two specific controls in place increases the likelihood of a breach or the possibility that your data may be impacted if the vendor is breached.

After sending these questions, be prepared to answer your vendors' questions, such as, "Why do you need this information? What are you going to do with it? Does any evidence need to be shared? How will answers and any evidence be stored?" How you answer these questions will be unique to your organization, the vendors' roles and your resources.

With these answers in hand, you can move toward the next phases of validation and analysis. These may require more resources, technical sophistication and time. With this first round, though, you will have established an inventory of your vendors, what data or access they have, and a rough idea of their cyber security maturity, hopefully before the end of 2021. This plan is a good start for you to understand your vendor ecosystems' cyber security and make decisions on your program as 2022 approaches.

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