

Connector Industry Sales and Orders Collapse with COVID-19

Regional Performance:

Bookings in all regions declined YTD except for China which was up +3.8%. Sales for all regions dropped precipitously YTD. April sales in Europe and ROW experienced the sharpest YOY declines, down -38.5% and -50.9% respectively.

2020 Connector Market Forecast Update:

Conditions in the connector industry continue to deteriorate in April as the world battled COVID-19 with a widely varying arsenal. Bishop looks at the pandemic's impact on connector markets, highlighting the automotive industry which has experienced some of the worst outcomes. Bishop reconsiders its forecast for the three-remaining quarters in 2020 as new data became available.

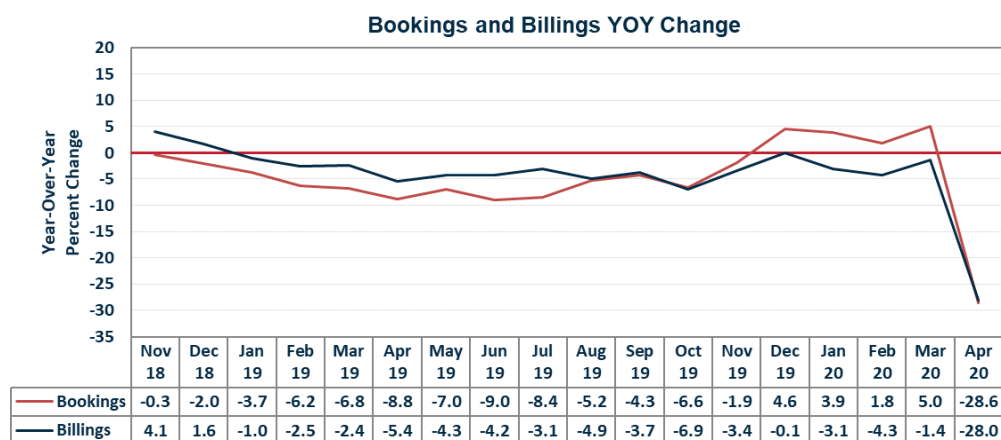
Currency Impact:

Strength in the US dollar continues to put downward pressure on the euro and the renminbi. In local currency, China's connector sales YTD were the least impacted by COVID-19, down a modest -0.5%.

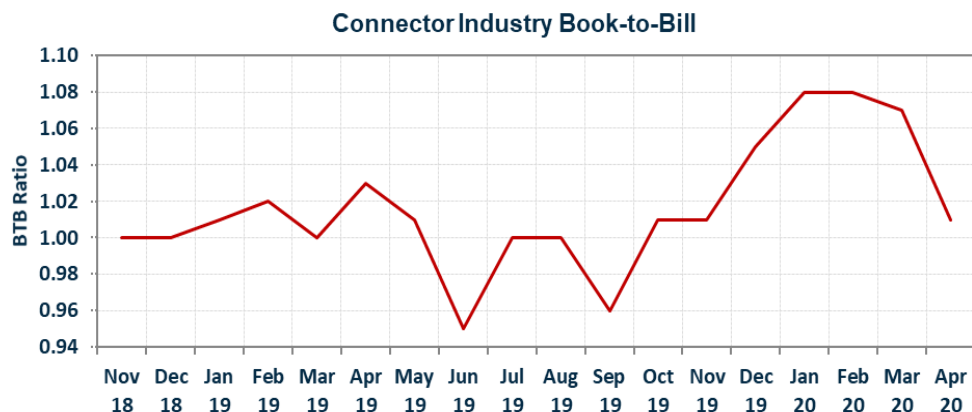
Merger and Acquisition Services Buy & Sell-Side

Contact Ron Bishop
bishop@bishopinc.com

April 2020 **billings** plummeted -28.0% as COVID-19 seriously impeded the connector industry. Sequentially, April billings were down a staggering -29.2% and YTD billings declined -9.2%. April 2020 **bookings** sunk -28.6% over April 2019 as demand suffered from the crisis. Sequentially, April bookings plunged -33.4%. Bookings for the first four months of the year dropped -4.3%.



In April, the book-to-bill ratio trended down 0.06 points to 1.01.

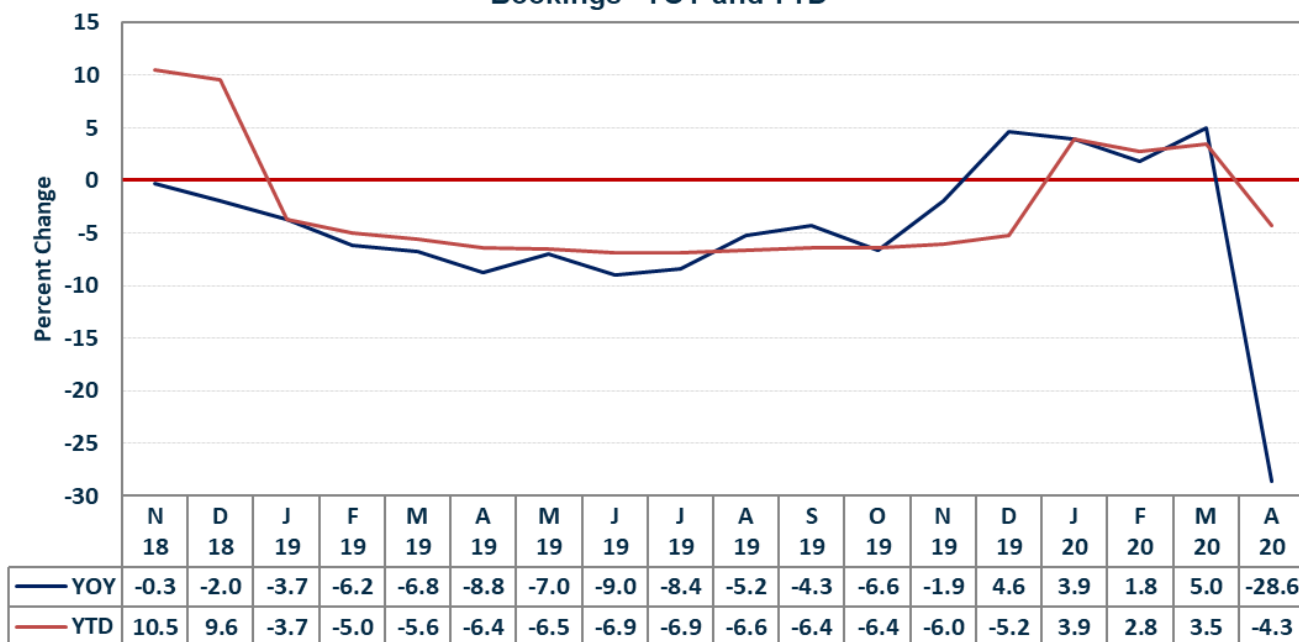


Booking Highlights and Conclusions

Sequential, Year-Over-Year, and Year-To-Date Bookings Percentage Change – 2018/2019/2020

Month	Sequential			Year-Over-Year			Year-To-Date		
	2018	2019	2020	2018	2019	2020	2018	2019	2020
Jan	2.8%	1.0%	0.2%	15.5%	-3.7%	3.9%	15.5%	-3.7%	3.9%
Feb	10.6%	7.7%	5.5%	17.5%	-6.2%	1.8%	16.5%	-5.0%	2.8%
Mar	-3.8%	-4.5%	-1.4%	17.7%	-6.8%	5.0%	16.9%	-5.6%	3.5%
Apr	-0.2%	-2.2%	-33.4%	17.7%	-8.8%	-28.6%	17.1%	-6.4%	-4.3%
May	4.9%	6.9%		15.7%	-7.0%		16.8%	-6.5%	
Jun	-7.0%	-8.9%		10.6%	-9.0%		15.8%	-6.9%	
Jul	-0.1%	2.8%		11.8%	-8.4%		15.2%	-6.9%	
Aug	6.4%	7.8%		7.1%	-5.2%		14.1%	-6.6%	
Sep	-7.9%	-7.1%		0.7%	-4.3%		12.5%	-6.4%	
Oct	3.0%	0.6%		6.8%	-6.6%		11.9%	-6.4%	
Nov	5.5%	10.8%		-0.3%	-1.9%		10.5%	-6.0%	
Dec	-13.6%	-7.8%		-2.0%	4.6%		9.6%	-5.2%	

Bookings - YOY and YTD



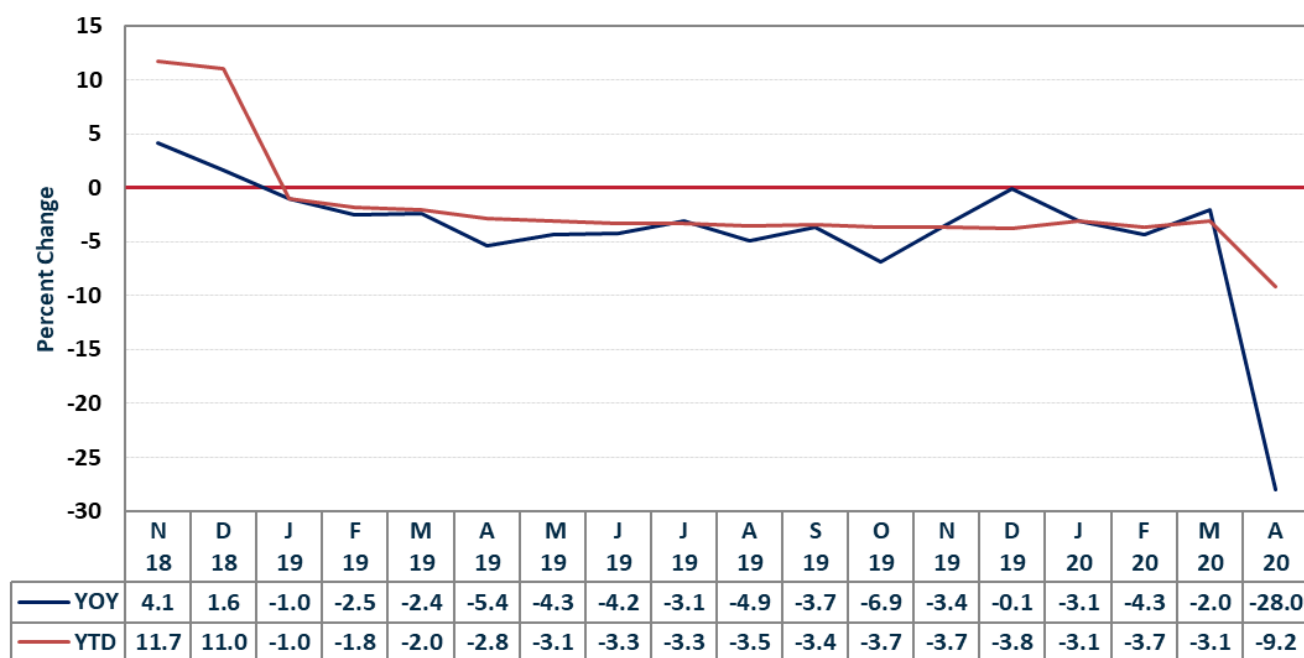
- April 2020 bookings fell -28.6% year-over-year (YOY).
- Orders contracted -4.3% year-to-date (YTD).
- Sequentially, orders collapsed -33.4% over the prior month.
- The book-to-bill ratio for April was 1.01.

Billing Highlights and Conclusions

Sequential, Year-Over-Year, and Year-To-Date Billings Percentage Change – 2018/2019/2020

Month	Sequential			Year-Over-Year			Year-To-Date		
	2018	2019	2020	2018	2019	2020	2018	2019	2020
Jan	2.9%	0.3%	-2.8%	17.2%	-1.0%	-3.1%	17.2%	-1.0%	-3.1%
Feb	8.4%	6.8%	5.5%	15.6%	-2.5%	-4.3%	16.2%	-1.8%	-3.7%
Mar	-3.2%	-3.2%	-0.9%	14.8%	-2.4%	-2.0%	15.8%	-2.0%	-3.1%
Apr	-2.3%	-3.7%	-29.2%	15.7%	-5.4%	-28.0%	15.7%	-2.8%	-9.2%
May	7.8%	9.0%		13.2%	-4.3%		15.1%	-3.1%	
Jun	-4.4%	-4.2%		14.9%	-4.2%		15.1%	-3.3%	
Jul	-3.1%	-2.0%		10.5%	-3.1%		14.4%	-3.3%	
Aug	9.0%	7.0%		9.4%	-4.9%		13.7%	-3.5%	
Sep	-4.1%	-2.9%		9.0%	-3.7%		13.2%	-3.4%	
Oct	-0.8%	-4.1%		7.6%	-6.9%		12.6%	-3.7%	
Nov	6.7%	9.8%		4.1%	-3.4%		11.7%	-3.7%	
Dec	-14.2%	-11.2%		1.6%	-0.1%		11.0%	-3.8%	

Billings - YOY and YTD

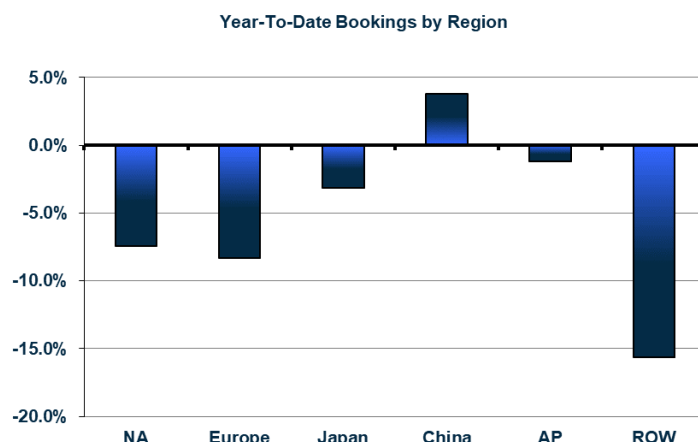


- Billings fell -28.0% in April 2020, measured against April 2019.
- Year-to-date sales fell -9.2%.
- Sequential billings contracted -29.2%.
- YOY and YTD sales have now declined for 16 consecutive months.

Regional Performance

April 2020 Bookings

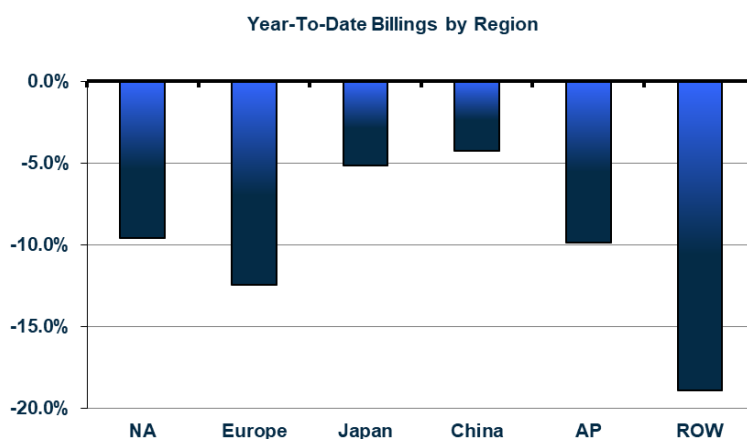
Region	Sequential	YOY	YTD
NA	-36.0%	-35.8%	-7.4%
Europe	-49.3%	-45.3%	-8.3%
Japan	-26.3%	-23.5%	-3.1%
China	-14.4%	-1.3%	3.8%
AP	-31.1%	-23.2%	-1.2%
ROW	-57.0%	-59.1%	-15.6%
Total	-33.4%	-28.6%	-4.3%



April bookings contracted -28.6% YOY and -4.3% YTD. Orders plunged -45.3% in Europe as the world shuttered businesses in the wake of the novel coronavirus. ROW experienced the greatest YOY decline of all the regions at -59.1%.

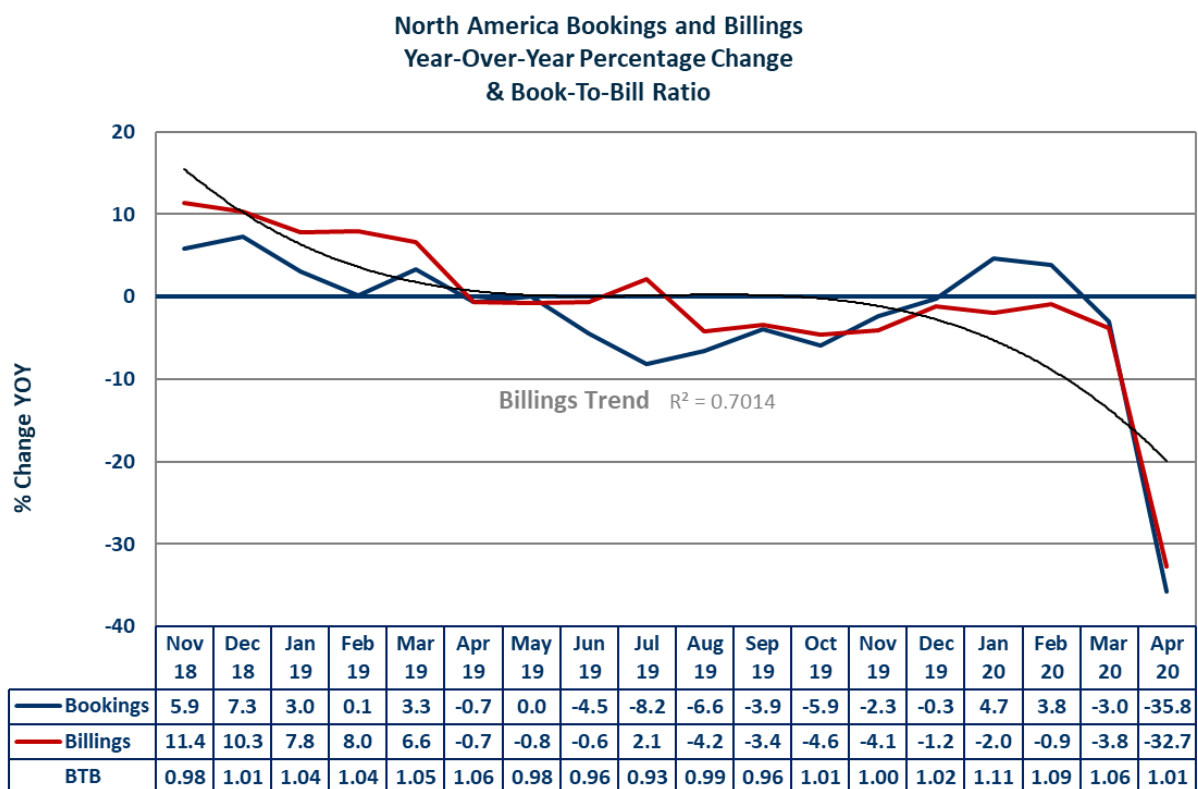
April 2020 Billings

Region	Sequential	YOY	YTD
NA	-33.4%	-32.7%	-9.6%
Europe	-38.2%	-38.5%	-12.4%
Japan	-27.5%	-24.8%	-5.2%
China	-16.3%	-9.9%	-4.3%
AP	-23.4%	-25.2%	-9.9%
ROW	-47.0%	-50.9%	-18.9%
Total	-29.2%	-28.0%	-9.2%



Worldwide, connector sales declined -9.2% YTD, with all regions experiencing steep contractions. Year-over-year billings slumped -28.0%. The steepest declines were in Europe, down -38.5%, and ROW, down -50.9%. These are among the worst connector sales performance since the Great Recession. Bishop anticipates April and May to be the industry's worst months on record. June will show improved performance as countries continue to loosen restrictions and businesses open.

North America: The following chart displays the year-over-year percentage change in bookings and billings for the last 18 months. The monthly book-to-bill (BTB) ratio is also displayed.



Note: Billing Trend R^2 = Goodness of Fit of data to the trend line, 1.0 is a perfect fit.

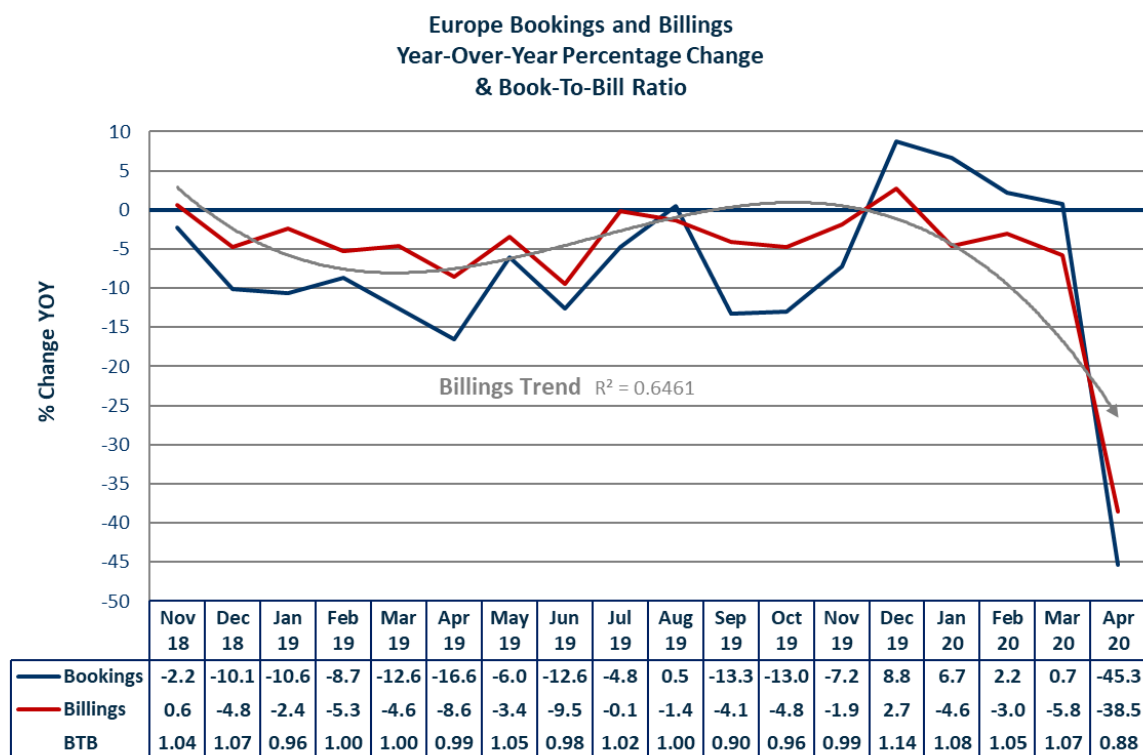
North America Performance

- Sales for the month dropped -32.7%. Orders declined -35.8% in April. The region registered a book-to-bill of 1.01 for the month.
- Industrial production fell 15% year-over-year in April 2020, the largest decline since June 2009.
- Unemployment in the US rose to 14.7% in April. Nearly 40 million Americans have applied for unemployment insurance since most states required non-essential businesses to discontinue operations in the second half of March.
- In April 2020, new US auto sales collapsed 55% year-over-year, a 30-year low, according to Edmund's.
- The Conference Board's Consumer Confidence index for May rose slightly to 86.6 from 85.

Conclusions

The novel coronavirus continues to impact the North American economy. However, good news is on the horizon, as many US states begin a phased-in approach to reopening. The US economy is expected to see month-over-month growth in June, but it is unlikely to see year-over-year growth until 2021. The rate of growth will be determined by the degree to which the economy opens – many small and medium sized enterprises will battle insolvency. US Congress is looking to pass legislation which will incentivize “essential” manufacturing to return home.

Europe: The following chart displays the year-over-year percentage change in bookings and billings for the last 18 months. The monthly book-to-bill ratio is also displayed.



Note: Billing Trend R^2 = Goodness of Fit of data to the trend line, 1.0 is a perfect fit.

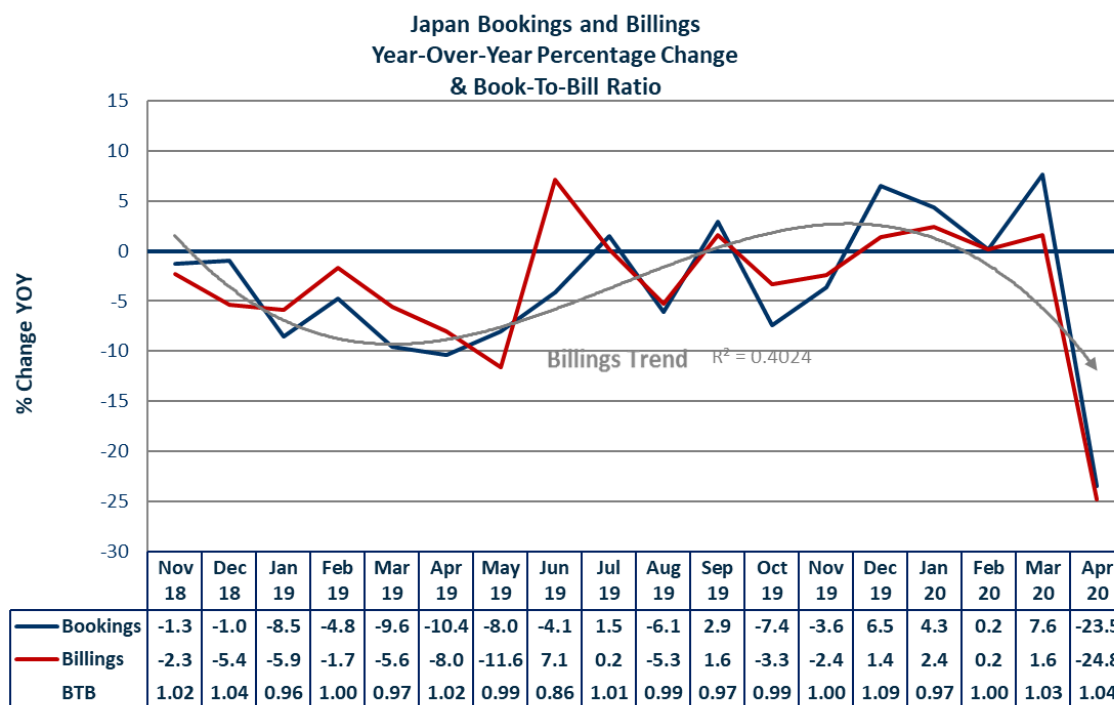
Europe Performance

- YOY billings declined -38.5%, while orders dropped -45.3% and the book-to-bill ratio was 0.88.
- Industrial production contracted 12.9% YOY in March, the steepest drop since March 2009.
- Retail sales in March fell 9.2% YOY, the largest decline since the series began in 1996.
- Euro Area car registrations contracted year-on-year 76.3% in April 2020.
- Business confidence fell to -1.81 points in April as compared to the lowest record of -3.34 in March 2009. The IHS Markit Eurozone Manufacturing PMI rose to 39.5 in May 2020 from 33.4 in the previous month.
- Consumer confidence in the Eurozone rose to 39.5 in May from 33.4 in the prior month.

Conclusions

COVID-19 has been especially brutal to the European region, with over 160,000 deaths as of May 26, 2020. When measured by deaths per 100,000, Belgium suffered the worst mortality rate in Europe, followed by the United Kingdom. Sweden's decision to leave its economy open during the crisis has proved ineffective. Its economy has performed as poorly as its neighbors, but its mortality rate is by far the worst of the Nordic nations. European countries are beginning to emerge from mandatory lockdowns. Germany will begin allowing cross border travel with all its neighbors by June 15. United Kingdom has designated that same date to open most non-essential businesses. Europe's connector sales will begin seeing moderate month-over-month growth in June and bookings will be bolstered.

Japan: The following chart displays the year-over-year percentage change in bookings and billings for the last 18 months. The monthly book-to-bill ratio is also displayed.



Note: Billing Trend R^2 = Goodness of Fit of data to the trend line, 1.0 is a perfect fit.

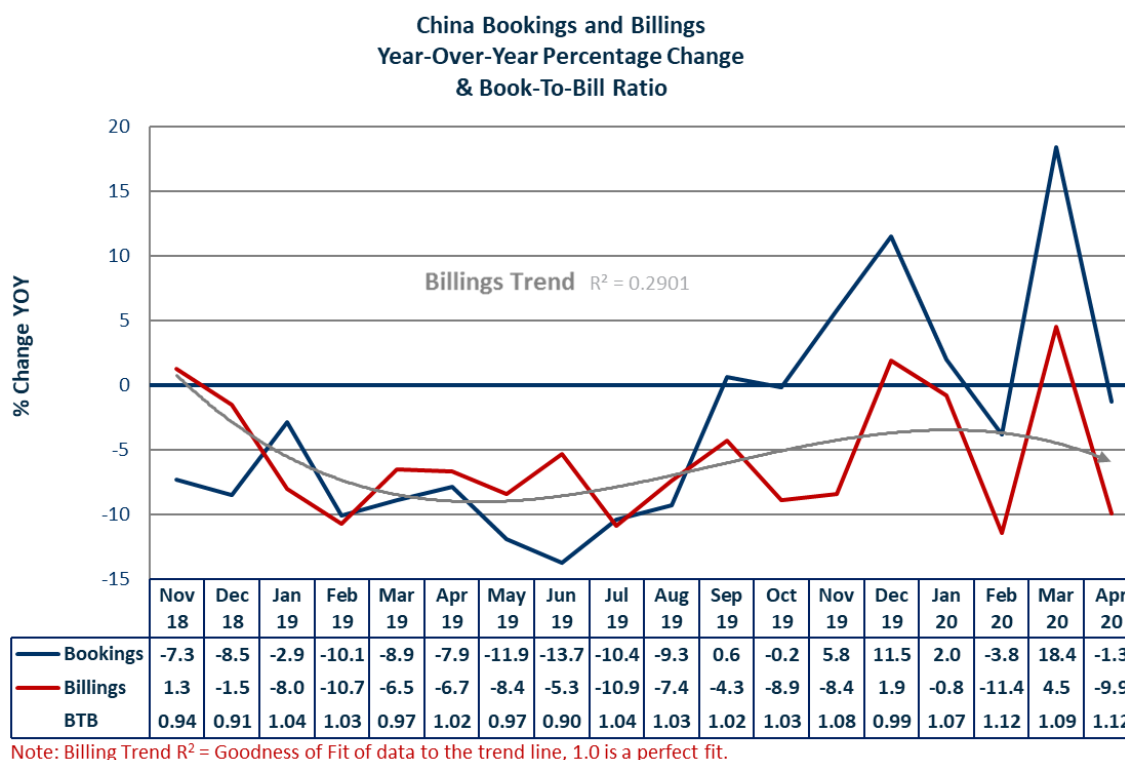
Japan Performance

- Japan's book-to-bill ratio inched up to 1.04 in April. Bookings and billings both declined significantly in April, -23.5% and -24.8%, respectively.
- Industrial output fell 5.2% in March YOY.
- Retail sales tumbled 4.6% YOY in March and 4.5% sequentially.
- Exports continued to fall in April, down 21.9% YOY. This was the 17th straight month of decline in exports.
- The manufacturing PMI fell to 38.4 in May vs. 41.9 in the previous month, the steepest pace of contraction in the manufacturing sector since March 2009.
- Consumer confidence declined to 21.6 in April, which is the lowest level since the series began in 1982.

Conclusions

Japan discontinued its state of emergency for all prefectures on May 25, 2020. Japan's COVID-19 outcome is among the best in the world. Japan's population is one of the most vulnerable in the region, approximately 33% of its citizens are over 70 years old, yet its COVID-19 death rate stands at 3.7 per million. Compare this to the United States, with an over-70 population of approximately 15%, but a death rate due to COVID-19 of 296.7 per million – 80 times more deaths per million than Japan. Industries in Japan, especially the capital goods industry, are anticipated to be the first to recover as demand for industrial equipment in the region will grow as manufacturers shift plants out of China. Japan will see an earlier rebound in connector bookings and billings as these shifts take place.

China: The following chart displays the year-over-year percentage change in bookings and billings for the last 18 months. The monthly book-to-bill ratio is also displayed.



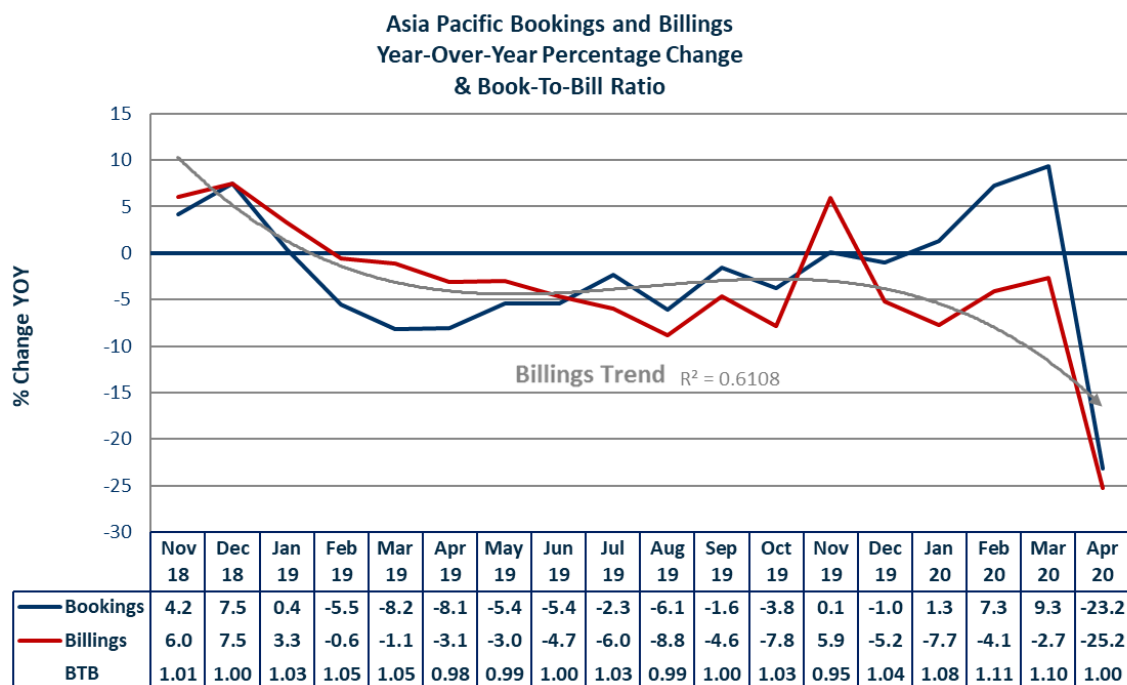
China Performance

- Sales YOY dropped -9.9% and orders dipped -1.3%. The BTB was 1.12.
- China's economy contracted 9.8% in the first quarter of 2020 when compared to the same quarter in 2019. This is the first quarterly contraction on record.
- April industrial production rose 3.9% YOY as the country emerged from strict COVID-19 lockdowns.
- Retail sales declined 7.5% YOY in April. This is the fourth recorded consecutive decline.
- China's auto sales in April grew for the first time in nearly two years, up 4.4% YOY.
- Exports increased 3.5% in April. Exports to the US increased 2.2%.
- Business confidence in China fell to 50.8 in April from 52 in March and new orders experienced a similar decline in April, at 50.2 points, down from 52 in March.

Conclusions

Bookings and billings reversed trends as demand collapsed in other regions. Positive economic data in China foreshadow hopeful economic outcomes for the rest of the globe. China, which has recorded 3.2 deaths per million from the coronavirus, has suffered mildly compared to her Western trading partners. Long term, some analysts predict that China will see up to 20% of its foreign manufacturers depart to other shores. China is looking to become technologically self-reliant, as it becomes aware of these shifting conditions. Countries, such as the United States, could implement export controls to protect against supply chain vulnerabilities and could put pressure on trading partners with US subsidies to comply.

Asia Pacific: The following chart displays the year-over-year percentage change in bookings and billings for the last 18 months. The monthly book-to-bill ratio is also displayed.



Note: Billing Trend $R^2 = 0.6108$ = Goodness of Fit of data to the trend line, 1.0 is a perfect fit.

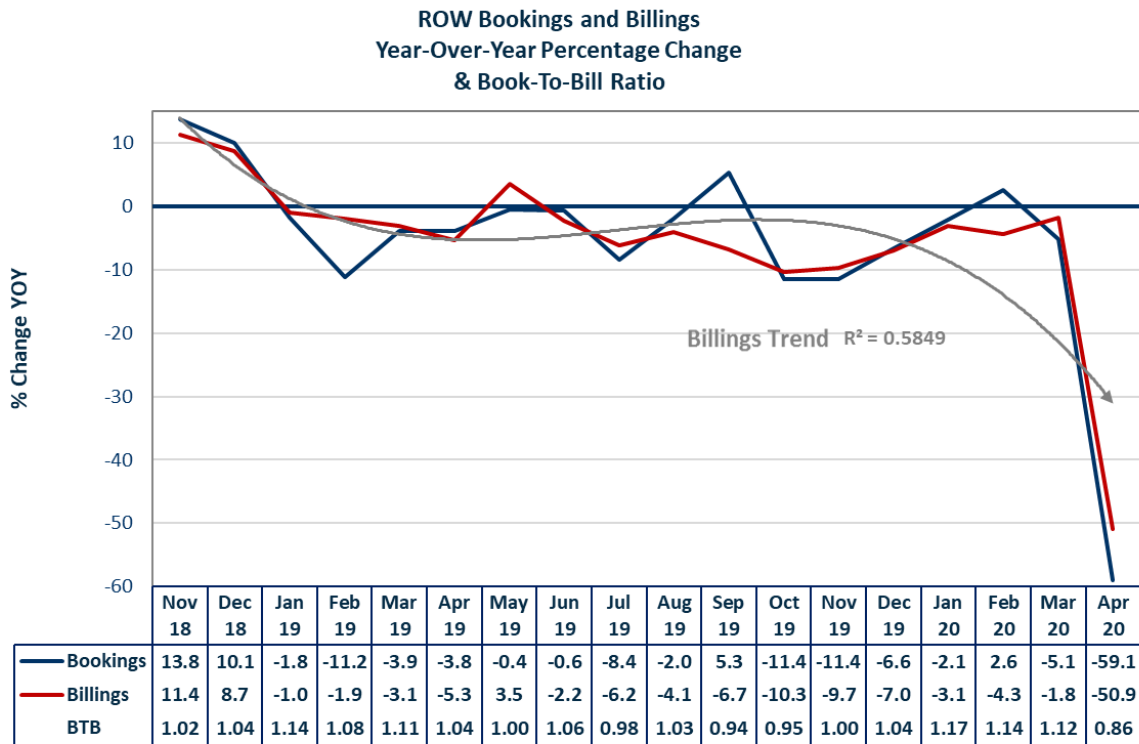
Asia Pacific Performance

- Orders and sales fell sharply, -23.2% and -25.2%, respectively. The book-to-bill ratio dropped to 1.00.
- India's March industrial production plummeted 16.7%, the steepest decline on record. Manufacturing production slumped 20.6% YOY in March. The March inflation rate dipped to 5.8%. March exports plunged 51.6%, with the deepest declines registered in gems and jewelry (-98.7%), engineering goods (-64.7%), and electronics (-71.0%).
- Exports in South Korea tumbled 24.3% in April from a year earlier. This was the steepest decline since May 2009. In April, semiconductors fell 14.9% YOY. Automotive sales increased 6.5% YOY in April. The manufacturing PMI slipped to 41.6 in April from 44.2 in March.

Conclusions

At the time of this reporting, many of the region's April economic indicators have yet to be reported. South Korea's economy appears to be performing above expectations, and only a few new cases of COVID-19 have been reported. South Korea's exemplary handling of the pandemic will be a case study for future outbreaks. India has the second largest population in the world, many of whom live below the poverty line and in crowded conditions. India's opposite approach from South Korea to the outbreak has also been a success when measured by deaths per million, three vs. five for South Korea. The Asia Pacific region's connector industry sales and orders for the month declined dramatically. Bishop anticipates May and June will see some improvements month-over-month.

Rest of World: The following chart displays the year-over-year percentage change in bookings and billings for the last 18 months. The monthly book-to-bill ratio is also displayed.



Note: Billing Trend R^2 = Goodness of Fit of data to the trend line, 1.0 is a perfect fit.

Rest of World Performance

- Bookings collapsed -59.1% and billings tumbled -50.9% YOY in April. This was the worst performing region in April.
- Russia's industrial production dropped 6.6% YOY in April. Exports increased 5.3% YOY in March following modest declines in February. Russia's trade surplus narrowed to \$9.3 billion in March from \$16.1 billion in the previous month. The inflation rate increased to 3.1% in April YOY.
- Brazil's industrial production dropped 3.8% YOY in March while retail sales decreased 1.2%. The inflation rate continued to fall to 2.4% in April. The manufacturing PMI recorded the sharpest contraction since the series began in 2006, plunging to 36 in April from 48.4 in the previous month.

Conclusions

Most of the economies in ROW export to the European Union and the United States where lockdowns have deeply diminished demand. Western importers will look to countries in this region as candidates for manufacturing hubs as they shift supply chains out of China. The countries most likely to win new business will have to have developed infrastructure to handle the increased manufacturing output. One candidate to be considered is Morocco, where many of Europe's automotive manufacturers currently reside. It is strategically located, has a stable political environment, and a skilled workforce. In South America, Brazil may be the best candidate, with its pro-business president, Jair Bolsonaro. Unfortunately, the citizens of Brazil are deeply distrustful of Bolsonaro because of his perceived lack of response to the COVID-19 crisis, which is escalating in that country. The ROW connector industry will continue to see significant year-over-year declines in sales and orders over the next several months as COVID-19 continues to disproportionately impact this region.

2020 Connector Market Forecast Update

The continuing global pandemic and its impact on the electronics industry has compelled us to revise our 2020 forecast for the connector industry. The situation is continuing to unfold, but it is now clear that its conclusion will not come quickly or easily. Every market will see a significant impact.

April 2020 connector sales were down -28.0% and bookings were down -28.6%. These are horrible results, but compared to what we had originally anticipated, these numbers are palatable. After all, much of the world shut down in mid-March and remained closed through April.

China is now open, and many European countries, the UK, and the United States are going through the first phase of business openings. Some US states and European countries are beginning the second phase of openings, which includes restaurants, churches, personal services, and small businesses. In some parts of Europe, schools have even partially reopened, primarily for young children and with a limitation on class sizes. Some countries are easing border restrictions with reciprocal travel deals that are creating “travel bubbles” between countries with similar infection risks.

The automotive industry in China is back in operation. European auto makers began to open in early May, with the balance opening throughout the month. The US auto industry announced plant openings in mid-May, although some may initially open with a reduced staff. Most companies anticipate production levels will increase as product demand increases. Some auto plants that were reconfigured in April to make ventilators will gradually transition back to automotive assembly, once delivery of the ventilators is completed this summer. Demand for cars, pickup trucks, and commercial aircraft must increase for the connector industry to achieve sales growth. After all, transportation vehicles account for a third of the world connector market.

The automotive industry has suffered disproportionately. For example, top 10 connector manufacturer Yazaki, through its subsidiary, Yazaki North America, announced the layoff of 14,500 workers in its Mexico assembly plant. This translates to a reduction of nearly 20%, leaving it with a workforce of about 58,000. According to Brad Warner, director of corporate communications, “Yazaki must adjust its production capacity to match customer demand, which has dramatically reduced.”

Another major connector supplier, Amphenol Aerospace, also saw production decline in April in Mexico. “Production levels at our Nogales, Mexico, facility is currently at 35%, but we expect to be at 65% by the end of May, and at 100% by the end of June,” the company announced on April 23. The company also plans to start bringing employees who have been working at home back into the offices in phases beginning at the end of May.

In early May, TE Connectivity’s Aerospace, Defense, and Marine (AD&M) business announced opening dates for production sites in India and Mexico. “All other TE AD&M manufacturing plants are open and operational; however, we continue to experience supply chain and logistics disruptions globally,” they noted. “All recently re-opened sites will be producing at limited capacity for several weeks to ensure the site is operating safely and in accordance with local regulations.”

Several other connector suppliers in a variety of locations also started to come back online this month. Factories throughout the Asia Pacific region, including those in Malaysia, Indonesia, and India, began the reopening process in early May. Although many, like Hirose’s plant in Malaysia, are still on extended “conditional movement control,” which means travel between Malaysia’s 13 states is banned except for work purposes through June 9, most companies hope to have output at normal levels by the end of June.

ERNI Electronics, CommScope, and Hirose plan to return to traditional manufacturing practices in the next few months. For ERNI Electronics – America, this means realigning their production line and personnel

back to their previous roles, after a period of producing cable assemblies for medical equipment needed to treat COVID-19.

Hirose has a long history of providing connectors to the medical industry, and the company was asked to increase production levels and lower lead times to expedite these critical products, said Bill Kysiak, product marketing manager for Hirose Electric USA. In Japan, Hirose Corporate employees have been working from home since April 8 and will continue this through May 31.

CommScope, a manufacturer of connectors, cable, cable assemblies, antennas, and other enterprise and network system equipment, contributed to the response efforts by creating face shields using 3D laser printers. The company also “donated products and expedited delivery of in-building wireless systems as new hospitals were built to support COVID-19 patients.” The company also worked with school districts in Indiana and Pennsylvania to assist with distance learning. CommScope “extended coverage outdoors and equipped school buses with outdoor access points with LTE backhaul and PoE switching.” This allowed school buses to park in strategic locations so students could connect to the internet to complete schoolwork.

Our connector industry outlook follows these high-level assumptions:

2Q20 April sales were down -28.0%. We believe May results will also be in this range, probably a little worse from a billing standpoint. From a booking standpoint, we feel orders will improve because of increased order placement as companies come back online. We anticipate orders will continue to grow, improving sequentially during the quarter.

Bishop anticipates 2Q20 connector sales to decline between -30% and -40%, with the greatest decline in automotive connectors.

3Q20 This will be a quarter in transition, with most of the world reopening for business. Spending will start slowly, and activity will not return to pre-COVID levels. Consumer spending will remain cautious, and most will continue to defer major purchases such as automobiles.

Bishop anticipates 3Q20 connector sales to decline -20% to -35%.

4Q20 All businesses that survive will be open. These businesses will probably be at 80% to 90% of pre-COVID levels. The economy will not be shut down again. If there are virus flare-ups, government intervention will focus on protecting those in assisted-living facilities, the elderly, and persons with comorbidities. Large gatherings and sporting events will be restricted, social distancing enforced, and face masks will be mandatory in many public situations.

Bishop anticipates 4Q20 connector sales to decline -10% to -15%.

Full Year 2020

For full year 2020, Bishop anticipates connector sales will be down in the 22-25% range. Not all market sectors will be affected equally. We anticipate the automotive industry will suffer the most, followed by the transportation sector. The industrial sector, which spans factory automation to the energy markets and building and civil engineering applications, will also see a substantial decline in certain sub-sectors.

Currency Impact on Regional Industry Growth

The Euro and the Chinese yuan continued to decline in value against the US dollar. The Japanese yen rose 4.3% in April. The following table measures the impact for April 2019 versus April 2020 and shows the YTD results for these three currencies.

Local Currency to One USD YTD April 2019 versus April 2020

Currency	2019	2020	% Change
Euro	0.8902	0.9179	-3.0%
Yuan	6.7147	7.0726	-5.1%
Yen	111.6952	107.1224	4.3%

Europe, China, and Japan account for 60% of world connector sales. Currency fluctuation to the US dollar can have a significant impact on our reporting of sales performance in US dollars.

The following table shows year-to-date sales performance by region in US dollars and local currencies.

Industry Sales Performance April YTD 2020 USD-vs-Local Currencies

Region	U.S.\$	Local Currency
North America	-9.6%	-9.6%
Europe	-12.4%	-9.8%
Japan	-5.2%	-6.9%
China	-4.3%	-0.5%
Asia Pacific	-9.9%	-9.9%
ROW	-18.9%	-18.9%
World	-9.2%	-7.7%

The Japanese yen strengthened during the first four months of the year impacting sales in this region negatively. Connector sales are 1.5 percentage points higher when stated in local currencies rather than in US dollars, putting industry performance at -7.7% YTD in April (versus -9.2% YTD in US dollars).

In some regions, there is a larger discrepancy in the value of the US dollar to the local currency, e.g. Korean won. These regions are listed in the following table.

**Local Currency to One USD
April YTD 2019 versus 2020**

Currency	2019	2020	% Change
Swiss Franc	0.9995	0.9684	3.2%
S. K. Won	1129.1216	1199.3262	-5.9%
Russian Ruble	65.7151	68.7972	-4.5%
Taiwan Dollar	30.8349	30.0958	2.5%
Indian Rupee	70.2371	73.4445	-4.4%
Singapore Dollar	1.3559	1.3934	-2.7%

World Cable Assembly Market

The **2020 World Cable Assembly Market** report offers an in-depth analysis of this growing and thriving industry. The worldwide cable assembly market is forecast to grow at a compound annual rate of 14.6% from 2020 to 2025. However, the economic damage that will occur from the 2020 COVID-19 pandemic, which is severely rocking the world economy, is unknown. Past and forecasted regional GDP growth and market sector performance were primary drivers for the projections of the industry's contraction and anticipated growth. Worldwide market share in the cable assembly market is beginning to stabilize, and the shift overseas has slowed. The fastest growing market segment is Telecom/Datacom with a five-year CAGR of 16.4%. This market growth is primarily the result of the need for expanded network infrastructure and conversion to 5G. The automotive market, the largest cable assembly market sector, will also continue to grow after the 2020 downturn, and will spur growth in the industrial sector in 2021. After two decades of strong growth, China's cable assembly industry is now the largest in the world, holding a market share of 28.9% in 2019. Will China's market share continue to grow?



This 17-chapter, 203-page, report provides a detailed analysis, in US dollars, for the years 2019 through 2025, by region, end-use equipment sector, and cable assembly type. Our analysis is provided numerically and graphically, allowing the reader to easily view and understand upcoming trends.

The **2020 World Cable Assembly Market** report includes analyses of important factors impacting the worldwide cable assembly market, as well as the economic trends and technology affecting each market sector within individual regions.

Benefits realized from this report include:

- A better understanding, in US dollars, of the size of the cable assembly market by region, market sector, and product type.
- Insight into five-year growth rates by region, market sector, and product type, allowing the reader to adjust, or realign, current business strategies to maximize future sales potential.
- A greater appreciation for the underlying economic elements that are driving and shaping the various market sectors.

The following tables and graph, with numbers redacted, show the type of analysis included in this report.

World Cable Assembly Market

World Cable Assembly Market by Region 2019 to 2025

Region	2019	2020	2021	2022	2023	2024	2025	5 Year CAGR
North America	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Europe	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Japan	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
China	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Asia Pacific	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Rest of World	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%

\$ Millions

World Cable Assembly Market Market Share by Region – 2019 to 2025

Region	2019	2020	2021	2022	2023	2024	2025	5 Year CAGR
North America	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Europe	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Japan	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
China	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Asia Pacific	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Rest of World	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

\$ Millions

World Cable Assembly Market by Market Sector 2019 to 2025

Market Sector	2019	2020	2021	2022	2023	2024	2025	5 Year CAGR
Computer/Peripheral	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
Business/Office Equipt	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
Instrumentation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
Medical	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
Industrial	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
Automotive	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
Transportation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
Military/Aerospace	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
Telecom/Datacom	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
Consumer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
Other Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%

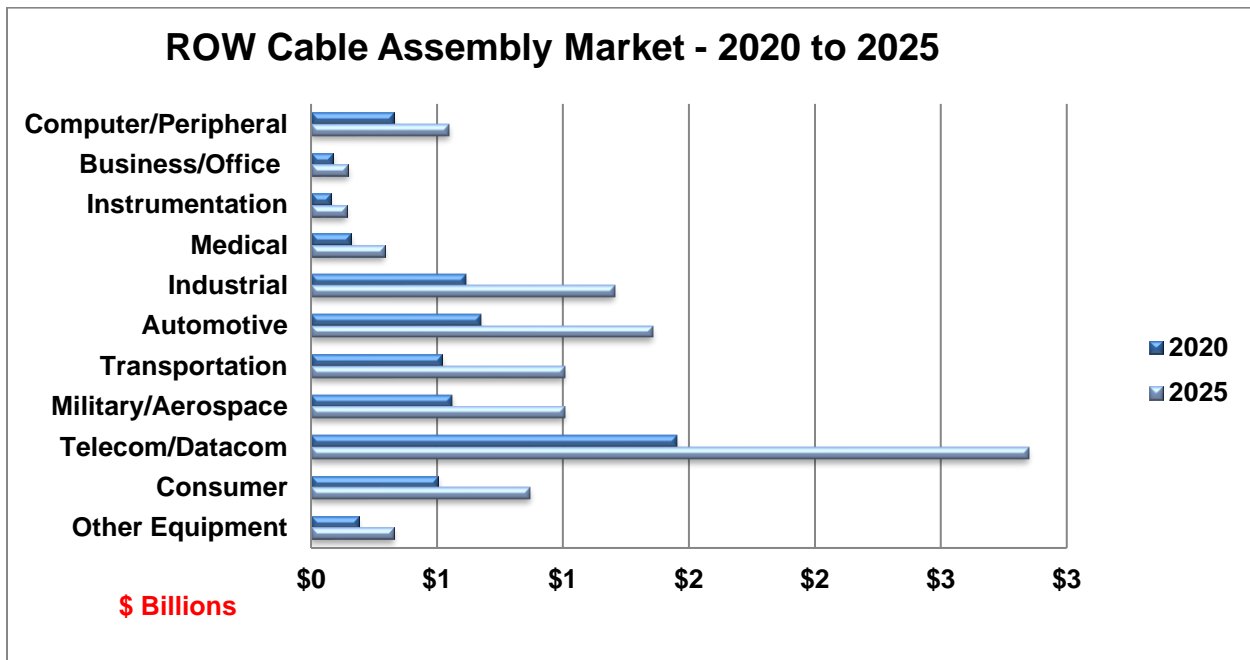
\$ Millions

World Cable Assembly Market

World Cable Assembly Market by Product Type
2020

2020 Total Market	PCB	Rect- angular	RF	Circular	Telephone	Fiber Optics	Heavy Duty	Power/Hi Voltage	Appl. Specific	Other	Total
Market Sector											
Computer/Peripheral	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Business/Office Eqpt	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Instrumentation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Medical	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Industrial	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Automotive	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transportation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Military/Aerospace	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Telecom/Datacom	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Consumer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

\$ Millions



World Cable Assembly Market

The following table of contents shows the detail provided in this new report.

Table of Contents

Chapter 1 Scope, Objectives and Methodology

Chapter 2 Executive Summary

Worldwide Tables

Worldwide Cable Assembly Market by Region - 2019 to 2025

Worldwide Cable Assembly Market - Market Share by Region

Worldwide Cable Assembly Market – Market Sector Performance

Worldwide Cable Assembly Market – Year-Over-Year Growth

Summary of Trends Impacting the Industry

Chapter 3 Introduction - World Cable Assembly Market

The World Cable Assembly Market by Region

Worldwide Cable Assembly Market by Region - 2019 to 2025

Worldwide Cable Assembly Market by Region - Year-Over-Year Growth

Worldwide Cable Assembly Market by Region - Market Share by Region

Worldwide Cable Assembly Market by Region - Market Value by Region, 2019 to 2025

The World Economy and the Cable Assembly Market

Projected Annual GDP Growth - 2018 through 2028

Worldwide Distribution of GDP - 2018 through 2028

Key Statistics for the Top 25 Countries, Descending Order by Gross Domestic Product

Consumer Confidence

The North American Cable Assembly Market

The European Cable Assembly Market

The Japanese Cable Assembly Market

The Chinese Cable Assembly Market

The Asia Pacific Cable Assembly Market

The Rest of World (ROW) Cable Assembly Market

Summary of Trends Impacting the Industry

Chapter 4 World Cable Assembly Market by Market Sector by Region

Worldwide Cable Assembly Market

Worldwide Cable Assembly Market Value by Market Sector - 2019 to 2025

Worldwide Cable Assembly Market Share by Market Sector - 2019 to 2025

Total Cable Assembly Market Value - 2019 versus 2024

North American Cable Assembly Market

European Cable Assembly Market

Japanese Cable Assembly Market

Chinese Cable Assembly Market

Asia Pacific Cable Assembly Market

Rest of World Cable Assembly Market

Summary of Regional Market Sector Trends

Chapter 5 Cable Assembly Market by Region by Product Types and Market Sector

World Market Tables

2020 World Market Value for Cable Assemblies by Market Sector by Product Type

2020 World Market Value for Cable Assemblies

Percent of Market by Market Sector by Product Type

2025 World Market Value for Cable Assemblies by Market Sector by Product Type

2025 World Market Value for Cable Assemblies

Percent of Market by Market Sector by Product Type

2020-2025 World Market Value for Cable Assemblies

Percent of Total Market by Product Type

World Market by Product Type by Market Sector – Delta 2020 to 2025

North American Market Tables

2020 North American Market Value for Cable Assemblies by Market Sector by Product Type

2025 North American Market Value for Cable Assemblies by Market Sector by Product Type

European Market Tables

2020 European Market Value for Cable Assemblies by Market Sector by Product Type

2025 European Market Value for Cable Assemblies by Market Sector by Product Type

World Cable Assembly Market

Chapter 5 Cable Assembly Market by Region by Product Types and Market Sector (continued)

Japanese Market Tables

2020 Japanese Market Value for Cable Assemblies by Market Sector by Product Type
2025 Japanese Market Value for Cable Assemblies by Market Sector by Product Type

Chinese Market Tables

2020 Chinese Market Value for Cable Assemblies by Market Sector by Product Type
2025 Chinese Market Value for Cable Assemblies by Market Sector by Product Type

Asia Pacific Market Tables

2020 Asia Pacific Market Value for Cable Assemblies by Market Sector by Product Type
2025 Asia Pacific Market Value for Cable Assemblies by Market Sector by Product Type

ROW Market Tables

2020 ROW Market Value for Cable Assemblies by Market Sector by Product Type
2025 ROW Market Value for Cable Assemblies by Market Sector by Product Type

Chapter 6 Computers and Peripherals Market for Cable Assemblies

Computers & Peripherals Market for Cable Assemblies - 2019 to 2025

Computers & Peripherals Market for Cable Assemblies Market Share for 2019 to 2025

Computers & Peripherals Market for Cable Assemblies Year-Over-Year Growth for 2020 to 2025

Computers & Peripherals Market by Product Type 2019 to 2025

Overall Computer & Peripheral Market Sector Trends

North American Market by Product Type 2019 to 2025

European Market by Product Type 2019 to 2025

Japanese Market by Product Type 2019 to 2025

Chinese Market by Product Type 2019 to 2025

Asia Pacific Market by Product Type 2019 to 2025

ROW Market by Product Type 2019 to 2025

Trends and Comments by Cable Assembly Type

Chapter 7 Business/Office Equipment Market for Cable Assemblies

Business/Office Market for Cable Assemblies - 2019 to 2025

Business/Office Market for Cable Assemblies Market Share 2019 to 2025

Business/Office Market for Cable Assemblies Year-Over-Year Growth for 2020 to 2025

Business/Office Market by Product Type 2019 to 2025

Overall Business/Office Market Sector Trends

North American Market by Product Type 2019 to 2025

Chapter 7 Business/Office Equipment Market for Cable Assemblies (continued)

European Market by Product Type 2019 to 2025

Japanese Market by Product Type 2019 to 2025

Chinese Market by Product Type 2019 to 2025

Asia Pacific Market by Product Type 2019 to 2025

ROW Market by Product Type 2019 to 2025

Trends and Comments by Cable Assembly Type

Chapter 8 Instrumentation Market for Cable Assemblies

Instrumentation Market for Cable Assemblies - 2019 to 2025

Instrumentation Market for Cable Assemblies Market Share for 2019 to 2025

Instrumentation Market for Cable Assemblies Year-Over-Year Growth for 2020 to 2025

Instrumentation Market by Product Type 2019 to 2025

Overall Instrumentation Market Sector Trends

North American Market by Product Type 2019 to 2025

European Market by Product Type 2019 to 2025

Japanese Market by Product Type 2019 to 2025

Chinese Market by Product Type 2019 to 2025

Asia Pacific Market by Product Type 2019 to 2025

ROW Market by Product Type 2019 to 2025

Trends and Comments by Cable Assembly Type

Chapter 9 Medical Market for Cable Assemblies

Medical Market for Cable Assemblies - 2019 to 2025

Medical Market for Cable Assemblies Market Share for 2019 to 2025

Medical Market for Cable Assemblies Year-Over-Year Growth for 2020 to 2025

Medical Market by Product Type 2019 to 2025

Overall Medical Market Sector Trends

North American Market by Product Type 2019 to 2025

European Market by Product Type 2019 to 2025

Japanese Market by Product Type 2019 to 2025

Chinese Market by Product Type 2019 to 2025

Asia Pacific Market by Product Type 2019 to 2025

ROW Market by Product Type 2019 to 2025

Trends and Comments by Cable Assembly Type

Chapter 10 Industrial Market for Cable Assemblies

Industrial Market for Cable Assemblies - 2019 to 2025

Industrial Market for Cable Assemblies Market Share for 2019 to 2025

Industrial Market for Cable Assemblies Year-Over-Year Growth for 2020 to 2025

Industrial Market by Product Type 2019 to 2025

Overall Industrial Market Sector Trends

North American Market by Product Type 2019 to 2025

World Cable Assembly Market

Chapter 10 Industrial Market for Cable Assemblies (continued)

European Market by Product Type 2019 to 2025
Japanese Market by Product Type 2019 to 2025
Chinese Market by Product Type 2019 to 2025
Asia Pacific Market by Product Type 2019 to 2025
ROW Market by Product Type 2019 to 2025
Trends and Comments by Cable Assembly Type

Chapter 11 Automotive Market for Cable Assemblies

Automotive Market for Cable Assemblies - 2019 to 2025
Automotive Market for Cable Assemblies Market Share for 2019 to 2025
Automotive Market for Cable Assemblies Year-Over-Year Growth for 2020 to 2025
Automotive Market by Product Type 2019 to 2025
Overall Automotive Market Sector Trends
North American Market by Product Type 2019 to 2025
European Market by Product Type 2019 to 2025
Japanese Market by Product Type 2019 to 2025
Chinese Market by Product Type 2019 to 2025
Asia Pacific Market by Product Type 2019 to 2025
ROW Market by Product Type 2019 to 2025
Trends and Comments by Cable Assembly Type

Chapter 12 Transportation Market for Cable Assemblies

Transportation Market for Cable Assemblies - 2019 to 2025
Transportation Market for Cable Assemblies Market Share for 2019 to 2025
Transportation Market for Cable Assemblies Year-Over-Year Growth for 2020 to 2025
Transportation Market by Product Type 2019 to 2025
Overall Transportation Market Sector Trends
North American Market by Product Type 2019 to 2025
European Market by Product Type 2019 to 2025
Japanese Market by Product Type 2019 to 2025
Chinese Market by Product Type 2019 to 2025
Asia Pacific Market by Product Type 2019 to 2025
ROW Market by Product Type 2019 to 2025
Trends and Comments by Cable Assembly Type

Chapter 13 Military/Aerospace Market for Cable Assemblies

Military/Aerospace Market for Cable Assemblies - 2019 to 2025
Military/Aerospace Market for Cable Assemblies Market Share for 2019 to 2025
Military/Aerospace Market for Cable Assemblies Year-Over-Year Growth for 2020 to 2025

Chapter 13 Military/Aerospace Market for Cable Assemblies (continued)

Military/Aerospace Market by Product Type 2019 to 2025
Overall Military/Aerospace Market Sector Trends
North American Market by Product Type 2019 to 2025
European Market by Product Type 2019 to 2025
Japanese Market by Product Type 2019 to 2025
Chinese Market by Product Type 2019 to 2025
Asia Pacific Market by Product Type 2019 to 2025
ROW Market by Product Type 2019 to 2025
Trends and Comments by Cable Assembly Type

Chapter 14 Telecom/Datacom Market for Cable Assemblies

Telecom/Datacom Market for Cable Assemblies - 2019 to 2025
Telecom/Datacom Market for Cable Assemblies Market Share for 2019 to 2025
Telecom/Datacom Market for Cable Assemblies Year-Over-Year Growth for 2020 to 2025
Telecom/Datacom Market by Product Type 2019 to 2025
Overall Telecom/Datacom Market Sector Trends
North American Market by Product Type 2019 to 2025
European Market by Product Type 2019 to 2025
Japanese Market by Product Type 2019 to 2025
Chinese Market by Product Type 2019 to 2025
Asia Pacific Market by Product Type 2019 to 2025
ROW Market by Product Type 2019 to 2025
Trends and Comments by Cable Assembly Type

Chapter 15 Consumer Market for Cable Assemblies

Consumer Market for Cable Assemblies - 2019 to 2025
Consumer Market for Cable Assemblies Market Share for 2019 to 2025
Consumer Market for Cable Assemblies Year-Over-Year Growth for 2020 to 2025
Consumer Market by Product Type 2019 to 2025
Overall Consumer Market Sector Trends
North American Market by Product Type 2019 to 2025
European Market by Product Type 2019 to 2025
Japanese Market by Product Type 2019 to 2025
Chinese Market by Product Type 2019 to 2025
Asia Pacific Market by Product Type 2019 to 2025
ROW Market by Product Type 2019 to 2025
Trends and Comments by Cable Assembly Type

World Cable Assembly Market

Chapter 16 Other Market for Cable Assemblies

Other Market for Cable Assemblies - 2019 to 2025
Other Market for Cable Assemblies Market Share for 2019 to 2025
Other Market for Cable Assemblies Year-Over-Year Growth for 2020 to 2025
Other Market by Product Type 2019 to 2025
North American Market by Product Type 2019 to 2025
European Market by Product Type 2019 to 2025
Japanese Market by Product Type 2019 to 2025
Chinese Market by Product Type 2019 to 2025
Asia Pacific Market by Product Type 2019 to 2025
ROW Market by Product Type 2019 to 2025

Chapter 17 Definitions

Cable Assembly Types

Printed Circuit Board Cable Assemblies
Rectangular Cable Assemblies
RF Cable Assemblies
Circular Cable Assemblies

Chapter 17 Definitions (continued)

Telephone/Modular Cable Assemblies
Fiber Optic Cable Assemblies
Heavy Duty Assemblies
Power/High Voltage Assemblies
Application Specific Assemblies
Other Assemblies

End-Use Equipment Segments

Computers & Peripheral Equipment
Business/Office/Education/Retail Equipment
Medical Equipment
Instrumentation Equipment
Industrial Equipment
Automotive
Transportation Electronics
Military/Aerospace
Telecom/Datacom
Consumer
Other Equipment

Regions of the World

To Order 2020 World Cable Assembly Market



Research Report P-799-20, **2020 World Cable Assembly Market** is available for \$3,950. Additional print copies of this report are available for \$395. If you would like additional information about this report, or would like to place an order, please complete the following information and e-mail, fax or mail it to Bishop & Associates, Inc. To place your order on our website: <https://store.bishopinc.com/>.

Fax No. 630-443-2704

Name:		
Title:		
Company:		
Address:		
City:	State:	Zip:
Phone:	Fax:	
E-Mail Address:		
Signature:		

2020 World Cable Assembly Market

- ☐ Individual Print Copy @ \$3, 950
☐ Corporate License - Electronically Delivered PDF @ \$5,135

☐ Invoice Me ☐ Check Enclosed ☐ Visa ☐ Master Card ☐ American Express

Additional \$85.00 for International Airmail
Illinois Customers Add 8.0% Sales Tax

Credit Card No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Expiration Date

--	--

--	--

Mo. Yr.



1209 Fox Glen Drive - St. Charles, IL 60174
Phone: 630.443.2702 Fax: 630.443.2704
E-mail: bishop@bishopinc.com
Website: www.connectorindustry.com
Online Store: <https://store.bishopinc.com/>

For Questions in **Europe:**
Mr. Arthur Visser
Bishop & Associates, Inc.
Phone: (32) 2.660.3696
[Email Arthur Visser](mailto:Arthur.Visser@bishopinc.com)

What's New ?

Bishop & Associates has recently completed several new research reports about the worldwide connector industry. A table of contents for each report can be found at <https://store.bishopinc.com>.

- ❑ **Report P-799-20** **2020 World Cable Assembly Market (May 2020) NEW**
- ❑ **Report M-700-20** **World Connector Market Handbook (April 2020) NEW**
- ❑ **Report M-4100-20** **Non-Automotive Transportation Market for Connectors (February 2020) NEW**
- ❑ **Report F-2020-01** **Connector Industry Forecast (January 2020) NEW**
- ❑ **Report P-606-19** **Connector Types and Technologies Poised for Growth (October 2019) NEW**
- ❑ **Report M-1010-19** **World Automotive Connector Market (August 2019)**
- ❑ **Report C-122-19** **2019 Connector Industry Yearbook (August 2019)**
- ❑ **Report M-121-19** **2019 Top 100 Connector Manufacturers (July 2019)**
- ❑ **Report M-970-19** **World Consumer Market for Connectors - 2019 (June 2019)**
- ❑ **Report M-799-19** **2019 World Cable Assembly Market (May 2019)**
- ❑ **Report CA-785-19** **Top 100 Cable Assembly Companies (February 2019)**
- ❑ **Report M-607-19** **World Industrial Market for Connectors 2019 (January 2019)**
- ❑ **Report M-960-18** **Electronic Industry and Connector Outlook 2018 and Beyond (November 2018)**
- ❑ **Report C-150-18** **History of M&A in the Connector Industry (*Shrinking Footprints: Connector Industry Consolidation 1954-2018*) (October 2018)**

THE BISHOP REPORT - CONNECTOR INDUSTRY YEARBOOK

An annual subscription to [THE BISHOP REPORT](#) (12 issues) is available for \$1,150. As part of your Bishop Report subscription, you have access, through Bishopinc.com, to prior issues of The Bishop Report, News Briefs, Financial Benchmarks, and various connector industry indices. An annual corporate subscription is available for \$2,950, which includes an unlimited number of subscribers and one PDF version of the Yearbook.

The [CONNECTOR INDUSTRY YEARBOOK](#) is available for \$1,500. However, Bishop & Associates offers a special combined price of \$1,750 for [THE BISHOP REPORT and the CONNECTOR INDUSTRY YEARBOOK](#) (an annual savings of \$900).

[Click here](#) to view an expanded report description, and a complete table of contents, for all Bishop & Associates' research reports.



1209 Fox Glen Drive • St. Charles, IL 60174

Phone: 630.443.2702 • Fax: 630.443.2704 • bishop@bishopinc.com • ConnectorIndustry.com

Online Ordering: <https://store.bishopinc.com>