The Bishop Report
Performance and Forecast of the World Connector Industry

Issue No. 379 | 2nd Quarter 2024 | May 2024

Connector Demand Continues to Improve
April YTD Bookings up +8.4% and Sales up +7.5%

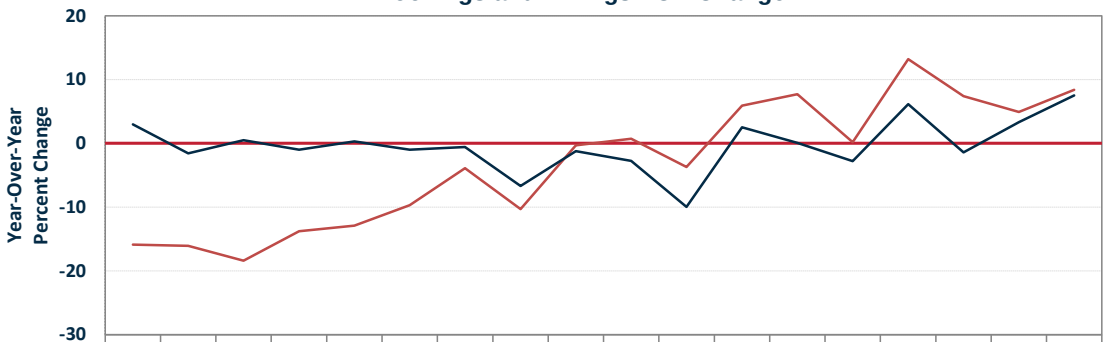
Regional Performance:
YTD, all regions except Japan are showing growth, with the greatest growth in Asia Pacific, where YTD billings have increased 10.0%, followed by North America where sales increased 6.4%. Japan, the only region exhibiting a decline, has YTD billings of –21.2%. See page 5.

Industry Backlog:
April backlog was $21,515 million (13.2 weeks). See page 13.

2024 Currency Impact:
The industry registered a YOY increase in sales in April 2024, of +4.2% in local currency and +7.5% in USD.

April bookings increased +8.4% and billings increased +7.5% year-over-year. The backlog in April increased to 13.2 weeks.

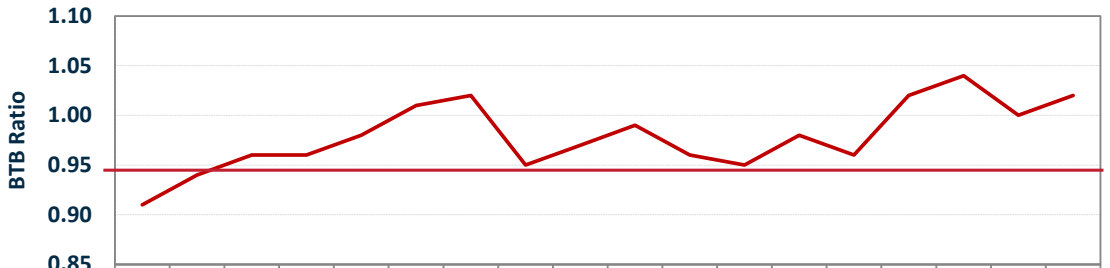
Bookings and Billings YOY Change



	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24
Bookings	-15.9	-16.1	-18.4	-13.8	-12.9	-9.7	-3.9	-10.3	-0.3	0.7	-3.7	5.9	7.7	0.2	13.2	7.4	4.9	8.4
Billings	3.0	-1.6	0.5	-1.0	0.3	-1.0	-0.6	-6.7	-1.2	-2.8	-10.0	2.5	0.0	-2.8	6.1	-1.4	3.3	7.5

The book-to-bill ratio in April was 1.02, up from 1.00 in March.

Connector Industry Book-to-Bill



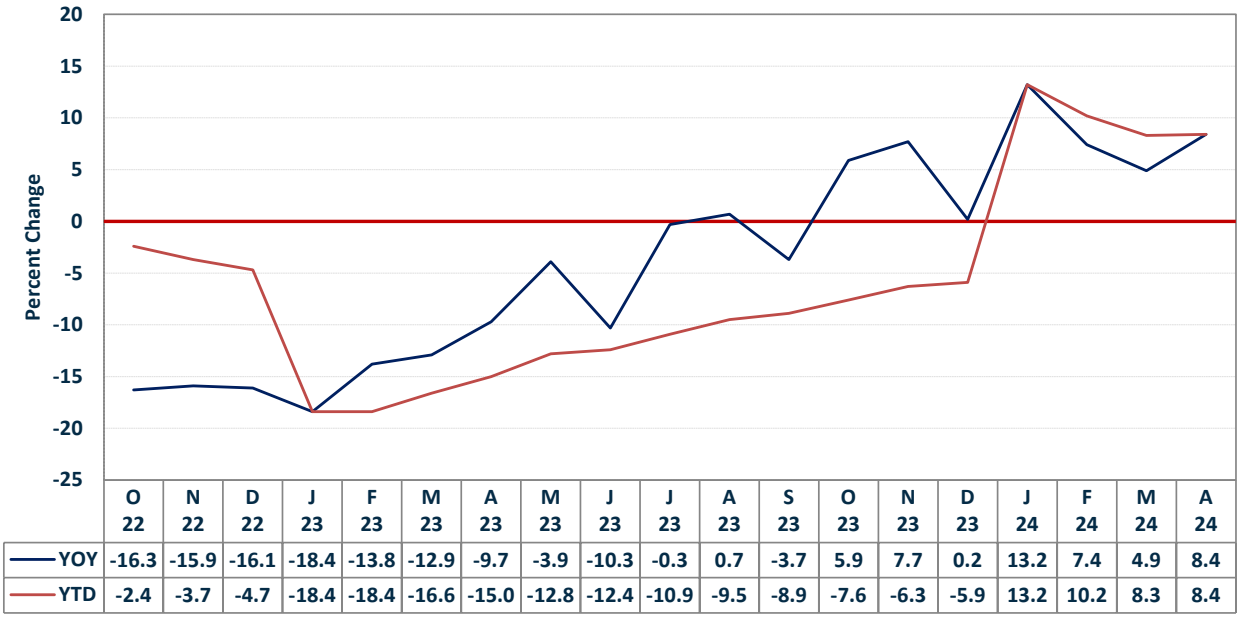
	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24
BtB	0.91	0.94	0.96	0.96	0.98	1.01	1.02	0.95	0.97	0.99	0.96	0.95	0.98	0.96	1.02	1.04	1.00	1.02

Booking Highlights and Conclusions

Sequential, Year-Over-Year, and Year-To-Date Bookings Percentage Change – 2022/2023/2024

	Sequential			Year-Over-Year			Year-To-Date		
Month	2022	2023	2024	2022	2023	2024	2022	2023	2024
Jan	1.6%	-1.3%	11.6%	14.8%	-18.4%	13.2%	14.8%	-18.4%	13.2%
Feb	10.0%	10.1%	4.4%	7.3%	-13.8%	7.4%	10.8%	-18.4%	10.2%
Mar	-5.1%	1.2%	-1.1%	7.1%	-12.9%	4.9%	9.1%	-16.6%	8.3%
Apr	-8.5%	-5.1%	-2.0%	-6.4%	-9.7%	8.4%	5.1%	-15.0%	8.4%
May	6.6%	13.5%		-5.1%	-3.9%		2.9%	-12.8%	
Jun	-6.5%	-12.7%		-3.2%	-10.3%		1.9%	-12.4%	
Jul	-9.7%	0.3%		-9.9%	-0.3%		1.1%	-10.9%	
Aug	8.2%	9.2%		-9.6%	0.7%		-1.2%	-9.5%	
Sep	-1.1%	-5.4%		1.6%	-3.7%		-0.9%	-8.9%	
Oct	-12.0%	-3.2%		-16.3%	5.9%		-2.4%	-7.6%	
Nov	10.0%	11.8%		-15.9%	7.7%		-3.7%	-6.3%	
Dec	-7.2%	-13.7%		-16.1%	0.2%		-4.7%	-5.9%	

Bookings - YOY and YTD



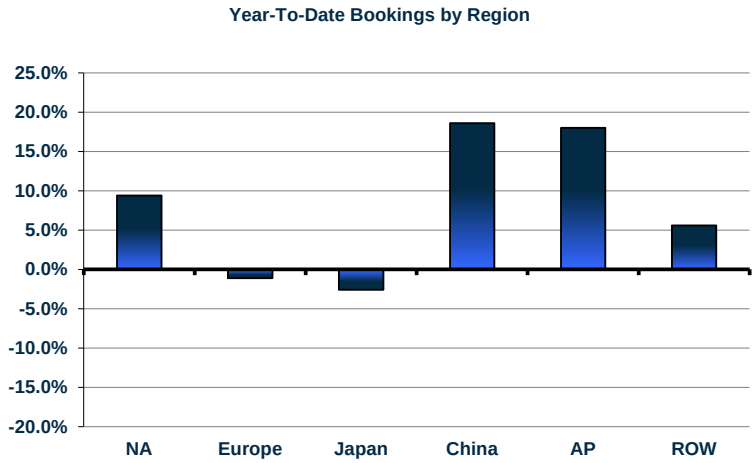
	O 22	N 22	D 22	J 23	F 23	M 23	A 23	M 23	J 23	J 23	A 23	S 23	O 23	N 23	D 23	J 24	F 24	M 24	A 24
YOY	-16.3	-15.9	-16.1	-18.4	-13.8	-12.9	-9.7	-3.9	-10.3	-0.3	0.7	-3.7	5.9	7.7	0.2	13.2	7.4	4.9	8.4
YTD	-2.4	-3.7	-4.7	-18.4	-18.4	-16.6	-15.0	-12.8	-12.4	-10.9	-9.5	-8.9	-7.6	-6.3	-5.9	13.2	10.2	8.3	8.4

- April bookings increased +8.4% year-over-year.
- Orders decreased -2.0% on a sequential basis.
- The book-to-bill ratio for April was 1.02, up from 1.00 in March.

Regional Performance: BOOKINGS

April 2024 Bookings

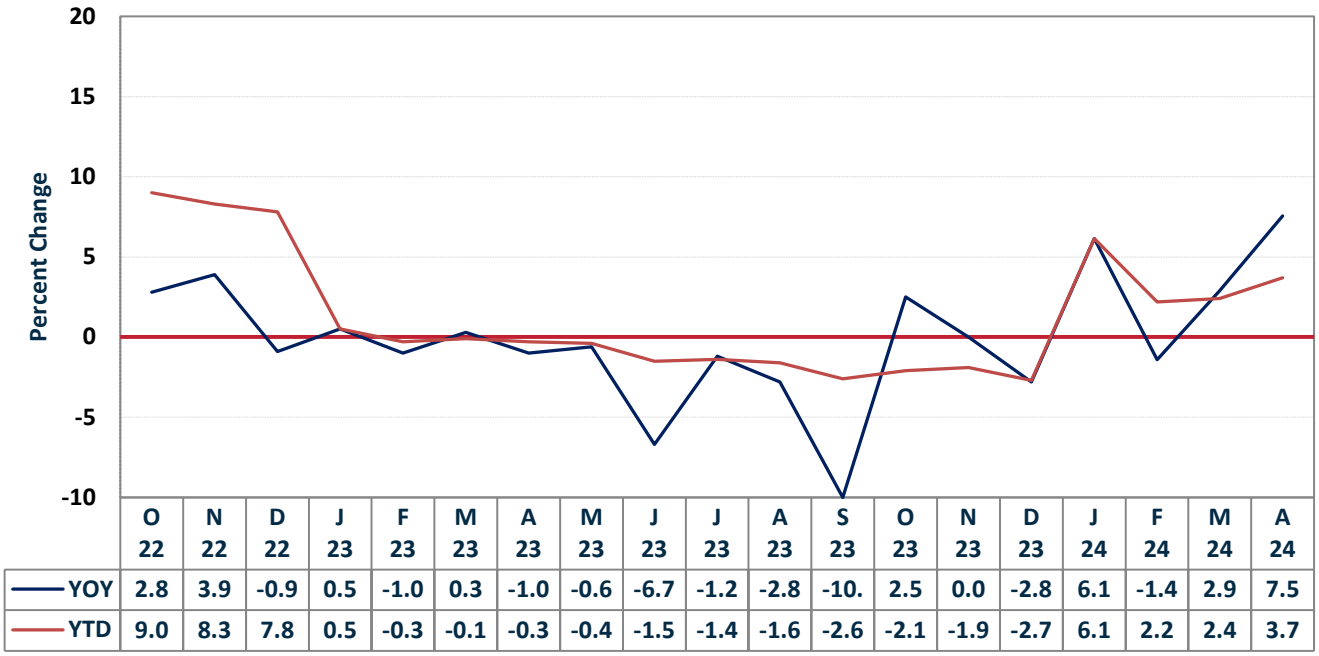
Region	Sequential	YOY	YTD
NA	-0.2%	11.5%	9.4%
Europe	-1.3%	-2.5%	-1.1%
Japan	-11.4%	-0.5%	-2.6%
China	-3.4%	16.9%	18.6%
AP	-1.1%	18.6%	18.0%
ROW	-2.6%	2.0%	5.6%
Total	-2.0%	8.4%	8.4%



- April bookings increased by +8.4% compared to the previous year.
- Year-over-year orders in April rose in four of the six regions. North America, China, Asia Pacific, and the ROW region saw increases with Asia Pacific showing the most growth at +18.6%, followed closely by China where bookings increased +16.9% YOY. Europe, and Japan showed a year-over-year decrease, declining -2.5% and -0.5% respectively.
- YTD, all regions increased but Japan and Europe, where orders declined -1.1% and -2.6% respectively.

Billing Highlights and Conclusions

Sequential, Year-Over-Year, and Year-To-Date Billings Percentage Change – 2022/2023/2024



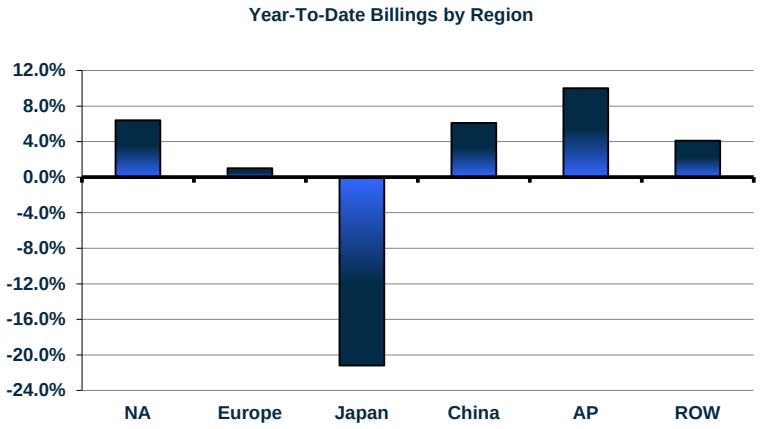
	Sequential			Year-Over-Year			Year-To-Date		
Month	2022	2023	2024	2022	2023	2024	2022	2023	2024
Jan	-5.1%	-3.1%	5.8%	11.4%	0.5%	6.1%	11.4%	0.5%	6.1%
Feb	11.4%	9.7%	1.9%	10.2%	-1.0%	-1.4%	10.8%	-0.3%	2.2%
Mar	-2.2%	-0.9%	3.4%	9.1%	0.3%	2.9%	10.2%	-0.1%	2.4%
Apr	-6.7%	-7.9%	-3.7%	3.0%	-1.0%	7.5%	8.4%	-0.3%	3.7%
May	11.6%	12.1%		7.4%	-0.6%		8.2%	-0.4%	
Jun	0.2%	-6.0%		11.9%	-6.7%		8.8%	-1.5%	
Jul	-7.1%	-1.7%		6.1%	-1.2%		8.4%	-1.4%	
Aug	8.9%	7.2%		6.3%	-2.8%		8.1%	-1.6%	
Sep	5.1%	-2.7%		14.4%	-10.0%		8.9%	-2.6%	
Oct	-14.0%	-2.1%		1.9%	2.5%		8.2%	-2.1%	
Nov	10.6%	7.9%		3.0%	0.0%		7.6%	-1.9%	
Dec	-9.8%	-12.4%		-1.6%	-2.8%		7.8%	-2.7%	

- April billings grew +3.7% year-to-date and +7.5% year-over-year.
- Sequentially, March billings decreased -3.7%.

Regional Performance: BILLINGS

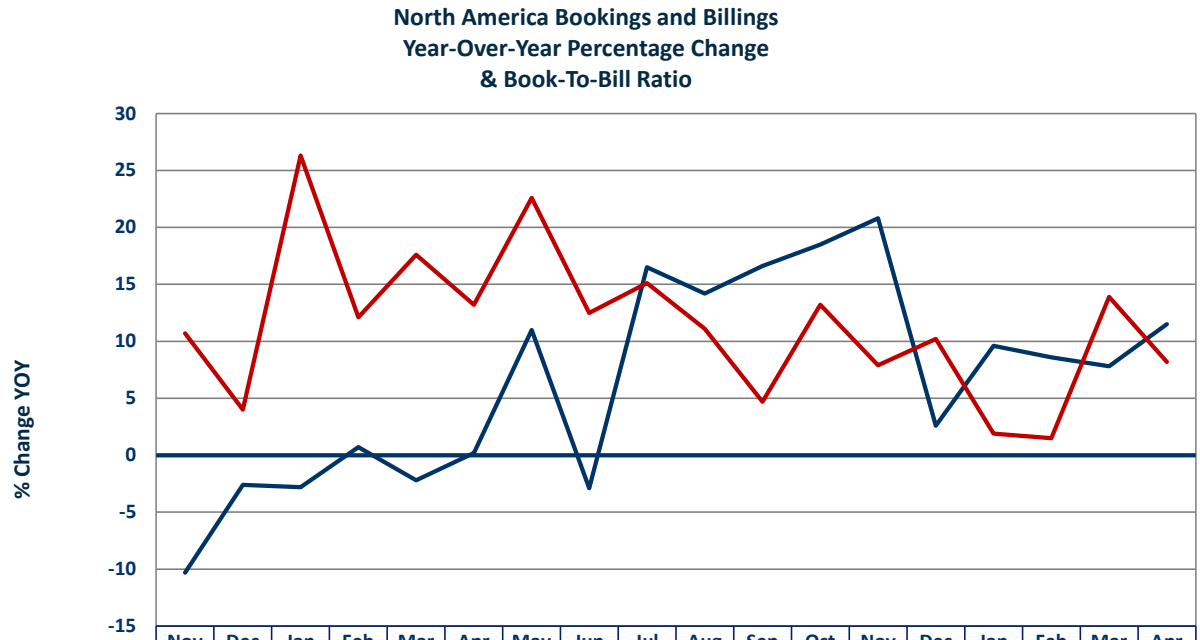
April 2024 Billings

Region	Sequential	YOY	YTD
NA	-11.2%	8.2%	6.4%
Europe	-0.6%	4.0%	1.0%
Japan	-2.9%	-21.1%	-21.2%
China	2.7%	13.2%	6.1%
AP	-1.0%	17.3%	10.0%
ROW	-1.7%	11.4%	4.1%
Total	-3.7%	7.5%	3.7%



- April connector sales increased by +7.5% compared to the same period last year.
- All but one region saw a sequential decline with North America experiencing a double-digit decline of -11.2%, followed by Japan at -2.9% in April. China, the only region to show sequential growth, grew +2.7%.
- Year-over-year, all regions but Japan saw an increase. Asia Pacific had the greatest growth, increasing +17.3%, followed closely by China with YOY growth of +13.2% and the ROW region with growth of +11.4%. Japan, the only region experencing a decline, saw YOY sales decrease -21.1%.
- Similiar to YOY results, year-to-date (YTD), all regions but Japan saw an increase, with Asia Pacific showing the greatest growth at +10.0%.

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.

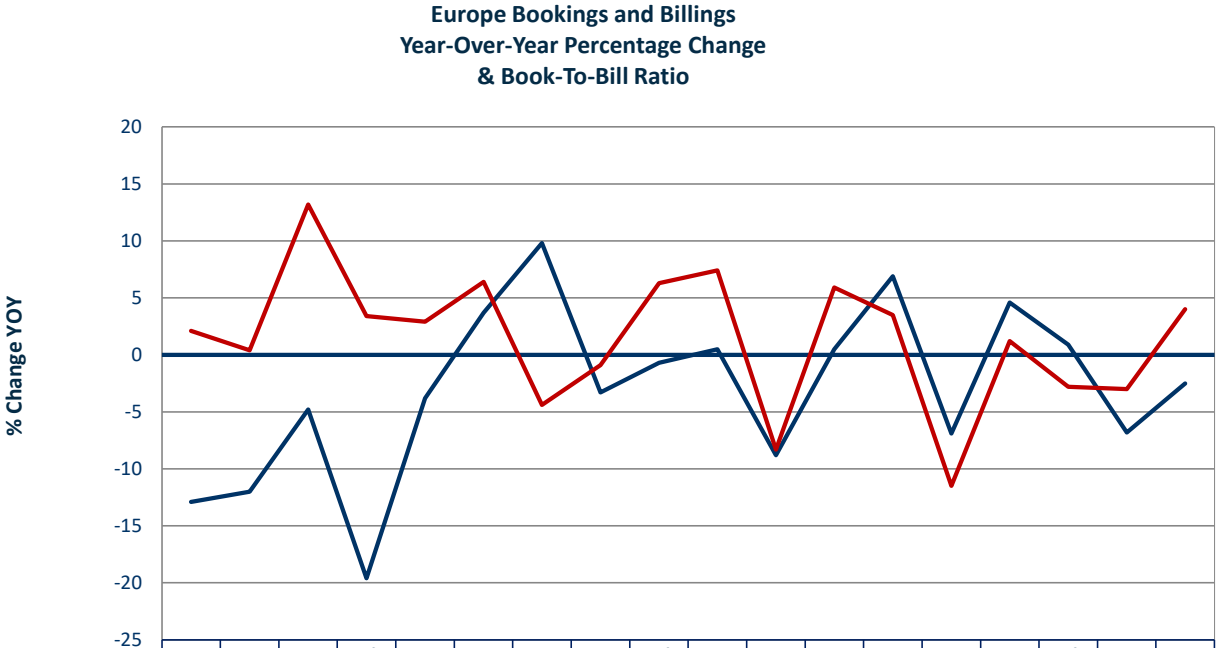


	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24
Bookings	-10.3	-2.6	-2.8	0.7	-2.2	0.2	11.0	-2.9	16.5	14.2	16.6	18.5	20.8	2.6	9.6	8.6	7.8	11.5
Billings	10.7	4.0	26.3	12.1	17.6	13.2	22.6	12.5	15.1	11.1	4.7	13.2	7.9	10.2	1.9	1.5	13.9	8.2
Billing SEQ	9.4	-7.9	12.7	5.6	0.1	-6.5	23.3	-13.9	-1.6	8.8	-4.7	-6.9	4.3	-5.9	4.2	5.3	12.3	-11.2
BTB	0.89	1.00	0.97	0.98	0.95	0.98	0.95	0.88	0.95	0.97	0.97	0.96	0.99	0.93	1.04	1.05	0.90	1.01

North America Performance

- Sales increased +8.2% year-over-year in North America in April, while orders grew +11.5%. Sequentially, North American billings decreased -11.2%. The book-to-bill ratio was 1.01.
- According to the US Bureau of Labor Statistics, the US inflation rate for April was 3.4%, a smaller increase than the 3.5% in March.
- Industrial production came in unchanged in April, after inching up by a downwardly revised 0.1% in March.
- Manufacturing PMI stood at 49.2 in April, after registering 50.3 in March and 52.2 in February.
- US unemployment increased slightly to 3.9% in April, after falling to 3.8% in March.
- April retail trade sales were virtually unchanged (±0.4%) from March 2024, but up 2.7% (±0.5%) above last year.
- According to MarkLines', "Light vehicle seasonally adjusted annualized sales (SAAR) for April 2024 was 15.9 million units versus 15.77 million units one year ago. General Motors monthly sales decreased 2.2%, Ford sales decreased 2.2%, but Stellantis sales dropped 25.9%."
- The Consumer Price Index for All Urban Consumers (CPI-U) increased 0.3% in April on a seasonally adjusted basis, after rising 0.4% in March, according to the U.S. Bureau of Labor Statistics.

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.



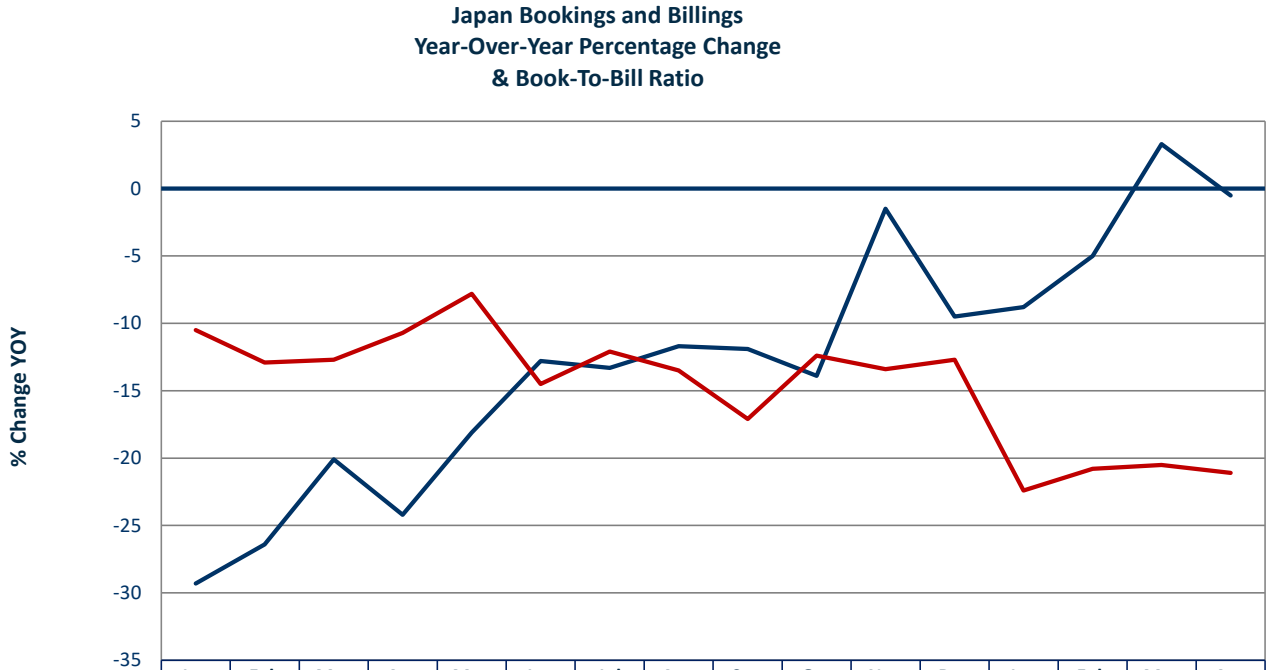
	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24
Bookings	-12.9	-12.0	-4.8	-19.6	-3.8	3.7	9.8	-3.3	-0.7	0.5	-8.8	0.5	6.9	-6.9	4.6	0.9	-6.8	-2.5
Billings	2.1	0.4	13.2	3.4	2.9	6.4	-4.4	-0.9	6.3	7.4	-8.3	5.9	3.5	-11.5	1.2	-2.8	-3.0	4.0
Billing SEQ	16.1	-10.7	7.7	11.4	-5.5	-7.1	4.1	0.7	-5.1	13.2	-3.1	-11.1	13.5	-23.6	23.1	12.2	-9.8	-0.6
BTB	0.96	0.99	0.99	0.96	1.06	1.07	1.21	0.99	0.96	0.90	0.86	0.91	1.00	1.04	1.03	0.95	1.01	1.01

Europe Performance

- Bookings decreased -2.5% year-over-year in April, while billings increased +4.0%. Sequentially, sales decreased -0.6%. The book-to-bill ratio remained at 1.01.
- In March* 2024, compared with February 2024, seasonally adjusted industrial production increased by 0.6% in the euro area and by 0.2% in the EU, according to first estimates from Eurostat. Year-over-year, industrial production decreased by 1.0% in both the euro area and the EU.
- The euro area annual inflation rate remained stable at 2.4% in April 2024.
- The seasonally adjusted retail trade volume increased by 0.8% in the euro area and by 1.2% in the EU in March* 2024, compared with February 2024, according to first estimates from Eurostat.
- The euro area's seasonally adjusted unemployment rate was 6.5% in March*, stable compared with February 2024 and down from 6.6% in March 2023.
- DG ECFIN's flash estimate of the consumer confidence indicator remained stable in the EU and broadly stable in the euro area (±0.0 percentage points (pps.) and +0.2 pps.) compared to March, respectively.

**April readings not published at the time of this reporting.*

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.



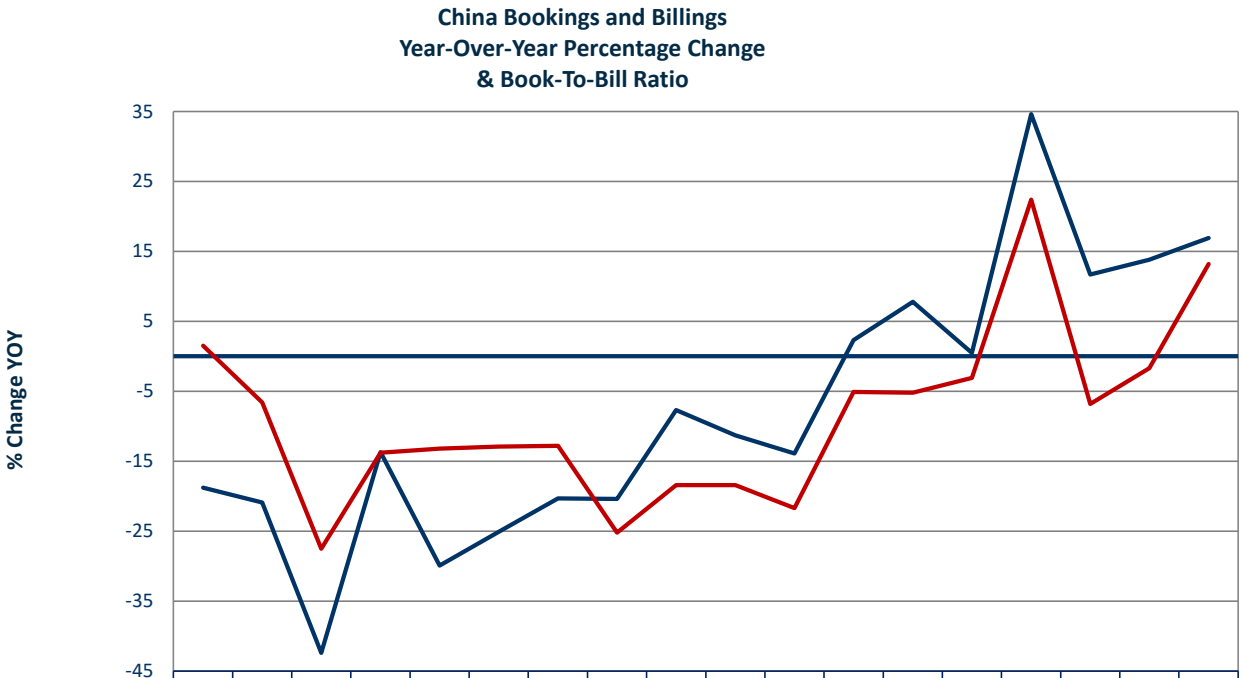
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24
Bookings	-29.3	-26.4	-20.1	-24.2	-18.1	-12.8	-13.3	-11.7	-11.9	-13.9	-1.5	-9.5	-8.8	-5.0	3.3	-0.5
Billings	-10.5	-12.9	-12.7	-10.7	-7.8	-14.5	-12.1	-13.5	-17.1	-12.4	-13.4	-12.7	-22.4	-20.8	-20.5	-21.1
Billing SEQ	-7.6	12.0	-4.8	-2.1	3.1	-2.7	-7.1	-0.6	2.4	-2.7	6.8	-8.1	-17.9	14.3	-4.4	-2.9
BTB	0.92	0.94	0.99	0.93	0.93	1.01	1.01	1.01	1.02	0.98	1.06	1.02	0.90	0.95	1.28	1.17

Japan Performance

- April, year-over-year bookings declined -0.5%, while sales dropped -21.1%. Sequentially, sales declined -2.9%. Japan's book-to-bill ratio was 1.17, the highest book-to-bill of all regions in April.
- "The core consumer price index in Tokyo, a leading indicator of nationwide figures, increased 1.6% in April from a year earlier, slowing from a 2.4% gain in March. It compared with a median market forecast for a 2.2% rise“, according to Nikkei Asia.
- As reported by Trading Ecoomics, "industrial production in Japan increased 4.4% month-over-month in March 2024, compared with flash data of a 3.8% rise and after a 0.6% fall in the prior month. It was the steepest growth in industrial outpout since June 2022.“ Manufacturing PMI in Japan increased to 49.90 points in April from 48.20 points in March of 2024.
- Japanese retail sales rose 1.2% in March* from a year earlier, slowing significantly fro an upwardly revised 4.7% gain in February and coming in way below market expectations for a 2.5% growth. It was also the 25th consecutive month of increase. Japan unemployment rate remailed flat at 2.6% in March*.
- The inflation rate for Japan is anticipated to be 2.24% in 2024, down from 3.27% in 2023.

**April readings not published at the time of this reporting.*

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.



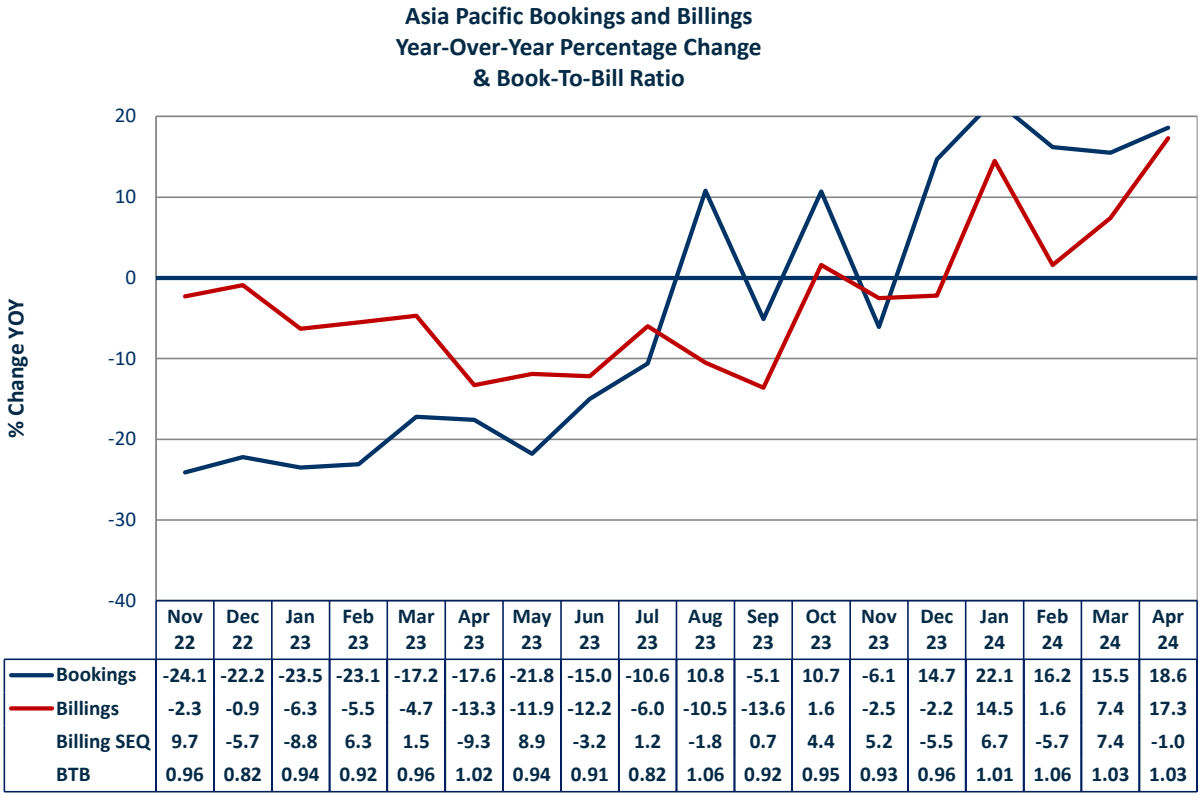
	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24
Bookings	-18.8	-20.9	-42.4	-13.7	-29.9	-25.1	-20.3	-20.4	-7.7	-11.3	-13.9	2.3	7.8	0.5	34.6	11.7	13.8	16.9
Billings	1.5	-6.6	-27.5	-13.8	-13.2	-12.9	-12.8	-25.2	-18.4	-18.4	-21.7	-5.1	-5.2	-3.1	22.4	-6.8	-1.7	13.2
Billing Seq	8.0	-12.7	-24.7	14.5	3.7	-10.9	9.9	-3.6	2.0	5.2	-1.3	12.6	7.9	-10.8	-4.8	-12.9	9.4	2.7
BTB	0.85	0.87	0.89	0.93	0.92	0.97	0.98	1.00	1.06	1.08	1.06	0.95	0.97	0.91	0.98	1.11	1.06	1.00

China Performance

- China's April sales grew +13.2% on a year-over-year basis, while orders grew +16.9%. Sequentially, sales increased +2.7%. The BTB was 1.00, down from March's 1.06.
- According to CNBC, "worldwide, China's exports rose by 1.5% year-on-year in April in U.S. dollar terms, while imports climbed by 8.4%." China's Purchasing Managers' Index (PMI) nudged down to 50.4 from 50.8 in March* and up from 49.2 one year ago. Urban unemployment rate in China stood at 5% in April, down 0.2 percentage points from a month ago.
- The Consumer Price Index in China rose 0.1% from the previous month, beating a forecast fall of 0.1% in the poll and reversing a drop of 1% in March. Core inflation, excluding volatile food and fuel prices, grew 0.7% in April, up from 0.6% in March.
- According to the National Bureau of Statistics, "retail sales rose by 2.3% in April from a year ago and industrial production rose by 6.7%, beating expectations for 5.5% growth."
- In April, vehicle production and sales volumes totaled 2.406 million units and 2.359 million units, an increase of 12.8% and 9.3% year-over-year respectively. Year-to-date production and sales volumes were 9.012 million and 9.079 million units, up 7.9% YoY and 10.2% YoY, respectively.

**April readings not published at the time of this reporting.*

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.



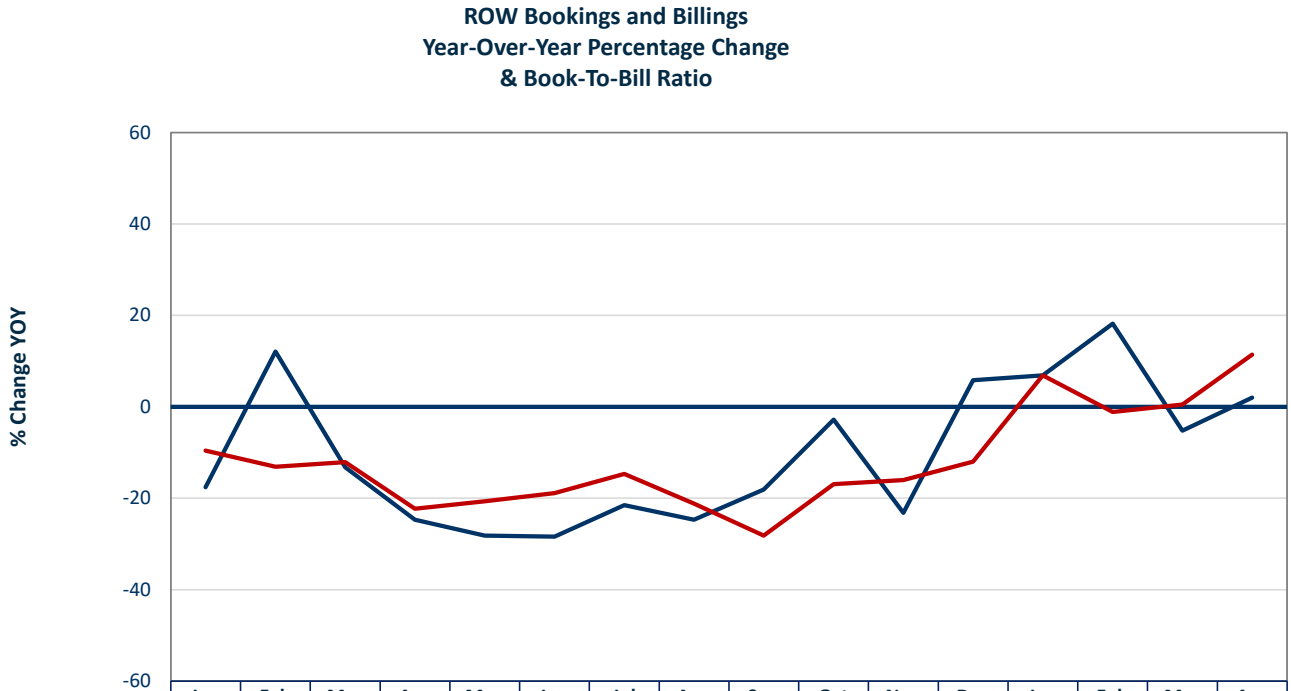
	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24
Bookings	-24.1	-22.2	-23.5	-23.1	-17.2	-17.6	-21.8	-15.0	-10.6	10.8	-5.1	10.7	-6.1	14.7	22.1	16.2	15.5	18.6
Billings	-2.3	-0.9	-6.3	-5.5	-4.7	-13.3	-11.9	-12.2	-6.0	-10.5	-13.6	1.6	-2.5	-2.2	14.5	1.6	7.4	17.3
Billing SEQ	9.7	-5.7	-8.8	6.3	1.5	-9.3	8.9	-3.2	1.2	-1.8	0.7	4.4	5.2	-5.5	6.7	-5.7	7.4	-1.0
BTB	0.96	0.82	0.94	0.92	0.96	1.02	0.94	0.91	0.82	1.06	0.92	0.95	0.93	0.96	1.01	1.06	1.03	1.03

Asia Pacific Performance

- Year-over-year, April orders were up +18.6%, while billings increased 17.3%. Sequentially, sales decreased -1.0%. The book-to-bill ratio was 1.03, flat compared to March.
- India's purchasing managers index (PMI) decreased to 58.80 points in April from 59.10 points in March of 2024. Manufacturing PMI in India is expected to be 57.00 points by the end of this quarter, according to Trading Economics global macro models and analysts' expectations. The annual year-over-year inflation rate based on all India Consumer Price Index (CPI) number was 4.83% (provisional) for the month of April. The corresponding inflation rate for rural and urban was 5.43% and 4.11%, respectively.
- Consumer Price Index in South Korea increased to 113.99 points in April from 113.94 points in March of 2024. Core CPI, excluding volatile food and energy items, rose 2.4% in March* on an annual basis, slightly off the 2.5% pace in February and the slowest increase since December 2021.
- The S&P Global South Korea Manufacturing PMI fell to 49.4 in April 2024 from 49.8 in March, signaling a sharper deterioration in operating conditions. South Korea's seasonally adjusted unemployment rate stood at 2.8% in March* 2024, up 0.1% from the year prior and up from 0.2% from the month prior.

**April readings not published at the time of this reporting*

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.



	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24
Bookings	-17.6	12.1	-13.2	-24.7	-28.2	-28.4	-21.5	-24.7	-18.1	-2.8	-23.2	5.8	6.9	18.2	-5.2	2.0
Billings	-9.6	-13.1	-12.1	-22.3	-20.7	-18.9	-14.7	-21.2	-28.2	-16.9	-16.0	-12.0	6.9	-1.1	0.5	11.4
Billing SEQ	-19.2	14.3	-2.2	-11.3	15.1	-4.4	2.9	1.3	-7.0	2.3	8.6	-7.2	-1.9	5.8	-0.7	-1.7
BTB	1.07	1.06	1.05	1.07	0.96	0.89	1.02	0.88	0.98	1.03	0.86	1.06	1.07	1.27	0.99	0.98

Rest of World Performance

- Orders increased 2.0% while billings increased 11.4% year-over-year in April. Sequentially, sales declined -1.7%. The book-to-bill ratio was 0.98, down from 0.99 in March.
- According to Trading Economics, “The Central Bank of Brazil lowered its key Selic rate by 25 basis points to 10.5% in its May meeting, in line with expectations. This decision reflects global uncertainties and a domestic environment of strong economic activity and unanchored inflation expectations. Employment Rate in Brazil decreased to 57.10 percent in February* from 57.30 percent in January of 2024. Consumer Price Index in Brazil increased to 6895.24 points in April from 6869.14 points in March of 2024. Consumer Price Index CPI in Brazil averaged 2231.05 points from 1979 until 2024, reaching an all-time high of 6895.24 points in April of 2024 and a record low of 0.00 points in January of 1980.
- Brazil’s Industrial production rose 2.3 % YoY in March* 2024, following an increase of 1.9 % YoY in the previous month.
- “The S&P Global Brazil Manufacturing PMI increased to 55.9 in April of 2024, indicating a strong expansion for the fourth consecutive month, a marked improvement from March's 53.6 level, and marking the highest level since July 2021”, according to Trading Economics.

**April readings not published at the time of this reporting.*

Regional Summary Snapshot

The following table shows a snapshot of the performance of each region. The table displays the latest metric available, and the trend of the metric compared to prior months/quarters.

	North America	Europe	Japan	China	Asia Pacific	ROW
GDP Growth YOY	2.6% Growing	0.8% Growing	0.8% Growing	4.6% Slowing	N/A	N/A
Industrial Production Growth	0.4% Up	-0.6% Up	4.4% Up	6.7% Up	N/A	N/A
Manufacturing PMI*	49.2 Down	45.6 Down	49.9 Up	50.4 Down	N/A	N/A
Inflation Rate	3.4% Steady	2.4% Steady	2.24 Down	0.7% Up	N/A	N/A
Unemployment Rate	3.9% Up	6.5% Steady	2.6% Flat	5.0% Steady	N/A	N/A
Retail Sale Growth YOY	0.8% Up	1.2% Up	1.2% Up	2.3% Down	N/A	N/A
April Connector Sales	8.2%	4.0%	-21.1%	13.2%	17.3%	11.4%
YTD Connector Sales	6.4%	1.0%	-21.2%	6.1%	10.0%	4.1%
April Connector Orders	11.5%	-2.5%	-0.5%	16.9%	18.6%	2.0%
YTD Connector Orders	9.4%	-1.1%	-2.6%	18.6%	18.0%	5.6%

* Purchasing Manager Index - Below 50 is contracting factory activity

Industry Backlog Is 13.2 Weeks

The industry shipped $1,625 million per week in April. As the table below displays, in April the ending backlog is $21,515. Assuming the industry's weekly sales of $1,625 million remain constant, the backlog represents 13.2 weeks of sales.

The following table shows the world connector backlog of orders ending April 2024.

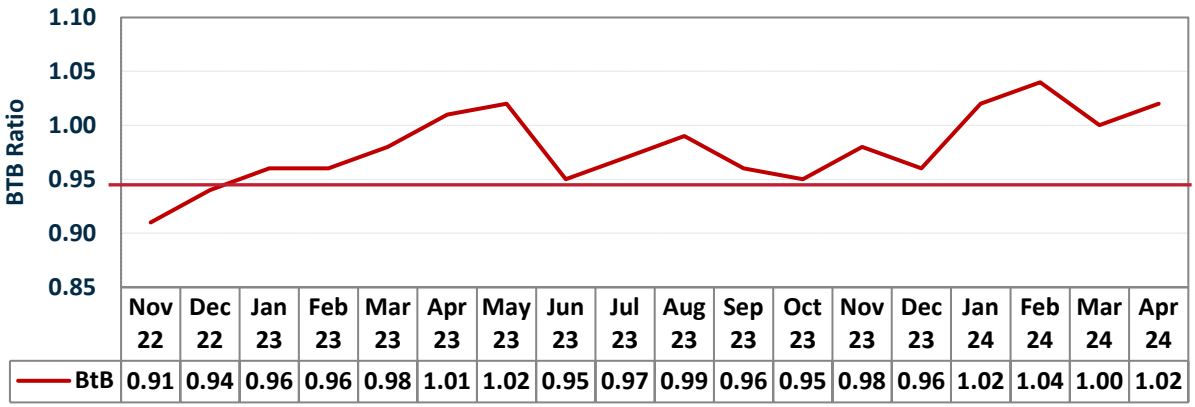
Industry Backlog

	2023	April 2024
BtB Ratio	0.98	1.02
Beginning Backlog	$22,983.0	$21,017.0
Bookings	$79,888.0	$29,091.0
Billings	$81,854.0	$28,593.0
Ending Backlog	$21,017.0	$21,515.0
Backlog in Weeks	13.4	13.2

$ Millions

The book-to-bill ratio in April was 1.02. The following displays the trend of BTB ratios since November of 2022.

Connector Industry Book-to-Bill



	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24
BtB	0.91	0.94	0.96	0.96	0.98	1.01	1.02	0.95	0.97	0.99	0.96	0.95	0.98	0.96	1.02	1.04	1.00	1.02

The April 2024 ending backlog of $21,515 million is just $498 million from the 2023 ending backlog of $21,017 million.

Change in Backlog

2023 Ending Backlog	$21,017
2024 April Ending Backlong	$21,515
Backlog Growth	$498

$ Millions

Currency Fluctuations Reduce Performance between USD and Local Currency

The dollar has been fluctuating against the euro, the yen, and the yuan. The following table measures the impact for April 2023 versus April 2024 and shows results for these three currencies.

Local Currency to One USD
2023 YTD versus 2024 YTD

Currency	2023	2024	% Change
Euro	0.9110	0.9323	-2.3%
Yuan	6.8833	7.2369	-4.9%
Yen	133.4201	153.8385	-13.3%

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

The following table shows April YOY performance by region in US dollars and local currencies.

Industry Sales Performance
April 2024
USD-vs-Local Currencies

Region	U.S.$	Local Currency
North America	8.2%	8.2%
Europe	4.0%	3.6%
Japan	-21.1%	-31.3%
China	13.2%	0.6%
Asia Pacific	17.3%	17.3%
ROW	11.4%	11.4%
World	**7.5%**	**4.2%**

Connector sales in April of 2024 increased +4.2% when measured in local currencies, versus +7.5% in US dollars.

2024 Outlook: A Historical Perspective

Over the past decade, year-to-date (YTD) April sales represented, on average, 32% of full year sales. The most YTD April represented of full year sales was 33.6% and the least was 30.8%.

Year-to-date April 2024 sales were $28,593 million. Using historical sales results, we can project a forecast range of possibilities for 2024.

2024 Historical Analysis

	Historical Percentage	Sales YTD April	2024 Forecast	Percent Growth
Low	30.8%	$28,593	$92,834	13.4%
Medium	32.0%	$28,593	$89,353	9.2%
High	33.6%	$28,593	$85,098	4.0%

$ Millions

Industry sales were $81,554 million in 2023, which translates to a forecast range of +13.4% to +4.0%.

Forecast Range

	2024 Forecast	2023 Actual	Percent Growth
Low	$92,834	$81,854	13.4%
Medium	$89,353	$81,854	9.2%
Bishop	$86,602	$81,854	5.8%
High	$85,098	$81,854	4.0%

$ Millions

Our 2024 forecast of $86,602 million achieves growth of +5.8%. The reason for our optimism is order growth. We are now in our seventh consecutive month of year-over-year growth in orders. This started in October 2023 and has continued with orders up +8.4% in April (see page 2).

The following table provides our 2024 forecast by geographic region.

2024 Bishop Forecast

Region	2023	2024F	Percent Change
North America	$18,840.8	$20,313.5	7.8%
Europe	$17,992.7	$18,582.6	3.3%
Japan	$4,683.7	$4,822.2	3.0%
China	$24,977.1	$26,606.2	6.5%
Asia-Pacific	$11,310.0	$12,113.2	7.1%
ROW	$4,049.8	$4,164.1	2.8%
Total World	**$81,854.1**	**$86,601.8**	**5.8%**

$ Millions

You will notice we project North America to achieve better growth than China or Asia.

Significant Events

April 2024 News

Quantic Electronics Announces Acquisition of M Wave Design

Quantic® Electronics ("Quantic"), a portfolio company of Arcline Investment Management, today announced the acquisition of M Wave Design ("M Wave"), a leading supplier of ferrite-based RF and Microwave components for aerospace, defense, and quantum computing applications.

Founded in 1988, M-Wave designs and manufactures passive waveguide and coaxial components, including isolators, circulators, adapters and terminations. The company has a long history of supporting leading-edge development in high power and low loss passive designs. M-Wave's product portfolio is uniquely positioned to supply components that perform at cryogenic temperatures used in quantum computing applications.

"We are delighted to add M-Wave to the Quantic portfolio of businesses," said Ross Sealfon, Chief Executive Officer, Quantic Electronics. "The M-Wave product portfolio perfectly complements our current product line up. Additionally, M-Wave's deep expertise in quantum computing and long history supporting military and space programs further enhances our ability to solve our customers' difficult design challenges."

"We have proudly served the RF and Microwave industry for almost forty years," said Ken Boswell, Chief Executive Officer, M-Wave Design. "As part of Quantic, we are excited to further advance our product, technology, and growth goals to better support our customers."

M-Wave will be featured in Quantic Electronics' booth, #1251, at the upcoming International Microwave Symposium, June 18-20, 2024, in Washington, DC.

Components Sales Continue to Climb in April

Sales sentiment regarding electronic components continued its upward climb in April as the ECIA's ECST survey exceeded its growth threshold of 100 to reach 124.1. The outlook for May shows continued improvement as the overall index moves up to 127.4, which would be the highest score since February 2022.

All major component categories saw improvement in April. The index score for semiconductors grew more than 31 points to 131. Passive and electromechanical (EM) components increased their index scores by 11 and 9 points, respectively. As a result, the sales sentiment for all three categories delivered highly positive results with scores ranging between 113 and 131, according to the ECIA.

North American PCB Industry Sales Down 23.8 Percent in March

IPC announced the March 2024 findings from its North American Printed Circuit Board (PCB) Statistical Program. The book-to-bill ratio stands at 1.13.

Total North American PCB shipments in March 2024 were down 23.8 percent compared to the same month last year. Compared to the preceding month, March shipments were up 12.2 percent.

PCB bookings in March were down 1.9 percent compared to the same month last year. March bookings were down 19.4 percent compared to the preceding month.

Electronics Industry Sentiment Rose in April, Hitting New High

According to IPC's April Sentiment of the Global Electronics Manufacturing Supply Chain, April 2024 marked the third consecutive month of sentiment growth among electronics manufacturers.

When asked if they expected labor costs for hourly workers to rise over the next month, manufacturers in the United States, Mexico, and Europe predicted a five percent increase, while manufacturers in Asia predicted a slightly lower four percent increase.

Approximately 54 percent of electronics manufacturers are experiencing rising labor costs, and just over 43 percent are reporting rising material costs. At the same time, ease of recruitment and profit margins are presently declining.

Additional survey data show:

- The Demand Index slipped 0.23 percent in April, the New Orders Index recorded a two-point decline, and the Shipments Index and Capacity Utilization Index each fell one point.
- The Cost Index declined to its lowest level despite persistent inflationary pressures. The index remains in expansionary territory but continues to ebb lower.
- Both the Labor Costs Index and the Material Costs Index declined four points.
- IPC Chief Economist and survey author Shawn DuBravac said, "The industry outlook remains strongly positive, though it has slightly softened over the last month due to a more moderate demand forecast. Over the next six months, electronics manufacturers expect labor and material costs to remain relatively stable. Notably, orders, shipments, and capacity utilization are all expected to rise considerably over the next six months."

North American EMS Industry Down Four Percent in March

IPC announced the March 2024 findings from its North American Electronics Manufacturing Services (EMS) Statistical Program. The book-to-bill ratio stands at 1.31.

Total North American EMS shipments in March 2024 were down 4.0 percent compared to the same month last year. Compared to the preceding month, March shipments increased 0.1 percent.

EMS bookings in March increased 5.0 percent year-over-year and decreased 5.3 percent from the previous month.

US Manufacturing Faces Bumpy Recovery

U.S. manufacturing is facing a bumpy ride on its way to recovery. After 1 month of expansion, the U.S. PMI declined in April by 1.1 percent to 49.2 – just below the growth threshold of 50.0, the Institute for Supply Management (ISM) reported. New orders, an indicator of demand, also contracted by 2.3 percent to 49.1.

Electrical equipment and components manufacturing expanded in April and the computer segment hovered around parity, according to the ISM. "Some small indications of market improvement in China for our instruments and technology," a computer and electronics manager said. "Recovery is still slower than we had hoped, and macroeconomic uncertainty remains in Europe and the Middle East, as well as domestically in the U.S. with ongoing inflationary pressures and anticipation for the [upcoming] election."

April inputs — defined as supplier deliveries, inventories, prices, and imports – had a negative impact on the PMI. Supplier deliveries increased 1 percent to 48.9. (Supplier deliveries are the only ISM index that is inversed; a reading of above 50 percent indicates slower deliveries, which is typical as the economy improves and customer demand increases.) The inventories Index registered 48.2 percent, the same reading as in March. The portion of manufacturers paying higher prices in April increased 5.1 percent to 60, indicating price hikes are more widespread. The April price reading was the highest since June 2022.

While the ISM's imports index continued in expansion territory, registering 51.9 percent, it was 1.1 percentage points lower than the 53 percent reported in March and February.

Although demand improvement slowed, output – measured by production and employment — remains positive. Panelists' companies slightly increased their production levels month over month, and head-count reductions continued but showed signs of easing in April. ISM's production index declined 3.3 percentage points to 51.3, moderating from the prior month. ISM's employment index registered 48.6 percent, up 1.2 percentage points from March.

Thirty-four percent of manufacturing gross domestic product (GDP) contracted in April, up from 30 percent in March. More importantly, the share of sector GDP registering a composite PMI calculation at or below 45 percent — a good barometer of overall manufacturing weakness — was 4 percent in April, higher than the 1-percent figure in March, but an indication of better health than the 27 percent recorded in January.

PC Market Recovery Leads to Increased Client CPU Shipments, But Server Sales Lag

According to a new report from Jon Peddie Research (JPR), the client PC CPU market reached 62 million units in Q1, 2024, representing a healthy 33 percent growth from the same period last year. However, the shipments are still down 9.4 percent sequentially from Q4, 2023, when the manufacturers shipped 69 million units globally.

Total iGPU shipments, which hit 56 million units last quarter, also show a similar trend. While it grew 30 percent year-over-year, it still represents a reduction from Q4, 2023 which saw the shipment of 62 million units. Looking forward, the report predicts that iGPU penetration in the PC sector will grow significantly to reach 98 percent.

Another interesting trend confirmed by the report is the increasing preference for laptops among most PC users. While demand for notebooks has far outstripped desktop sales for years, the latest data suggests that this is now more pronounced than ever. In Q1 2024, desktop processors accounted for 27 percent of the market, down from 32 percent in Q1 2023, as mobile CPUs increased their market share from 68 percent to 73 percent.

Meanwhile, despite the growth in client PCs, it's not all good news for companies like Intel and AMD. According to the report, server CPU shipments fell 13 percent from last quarter and as much as 17 percent from the same period last year, suggesting server farms and data centers are not upgrading as fast as the PC hardware industry would want.

Tablet Shipments Show Signs of Recovery in Q1 2024

After more than two years of decline, worldwide tablet shipments posted modest year-over-year growth of 0.5% in the first quarter of 2024 (1Q24), totaling 30.8 million units, according to preliminary data from the International Data Corporation (IDC) Worldwide Quarterly Personal Computing Device Tracker. The last time the market recorded growth was in the second quarter of 2021, after which shipments began to slow due to

saturation. While macroeconomic issues persist, the rebound in shipments this quarter was driven by the start of a refresh cycle though long-term volumes are unlikely to match the surge seen during the pandemic. However, the shift towards premium tablets is a silver lining as consumers seek productivity-oriented devices.

Worldwide Smart Vacuum Market Shipped 18.5 million Units in 2023

Worldwide shipments of smart vacuum devices reached 18.5 million units in 2023 with a total market value of $7.8 billion, according to new data from the International Data Corporation (IDC) Worldwide Quarterly Smart Home Device Tracker. IDC defines smart vacuums as robotic vacuums capable of cleaning autonomously and designed for home use.

As the market surged forward, the United States and China represented roughly half the overall market, followed by Western Europe and Asia/Pacific (excluding Japan and China) (APeJC). China surpassed the U.S. to become the world's largest market in early 2023 and ended the year with 4.6 million smart vacuums shipped. Consequentially, Chinese brands also climbed the vendor rankings as Roborock, Ecovacs, and Xiaomi were all part of the global Top 5, although iRobot maintained the leading position by a narrow margin in 2023.

Hon Hai Sales Increase 19.03% in April

Hon Hai Precision Industry Co reported strong growth in sales in Apil, potentially raising expectations for iPhone sales while artificial intelligence (AI)-related business booms.

The company, which assembles the majority of Apple Inc's smartphones, reported a 19.03 percent rise in monthly sales to NT$510.9 billion (US$15.78 billion), from NT$429.22 billion in the same period last year. On a monthly basis, sales rose 14.16 percent, it said.

The company in a statement said that last month's revenue was a record-breaking April performance.

Hon Hai Net Profit Rises 72% Annually

Hon Hai Precision Industry, a major iPhone assembler, reported annual growth of 72 percent in net profit last quarter, due to a dramatic decrease in losses from Sharp Corp's display business.

Net profit surged to NT$22 billion (US$678.7 million) last quarter, from NT$12.83 billion a year earlier, as Hon Hai booked a non-operating loss of NT$4.24 billion, an improvement from NT$20.12 billion in the first quarter of last year. A major portion of its non-operating loss came from Sharp's large flat-screen business Sakai Display Products Corp.

On a quarterly basis, Hon Hai's net profit sank 59 percent from NT$53.15 billion.

Apple Developing Chips to Run AI Software in Data Centers

Apple has been developing chips to run artificial intelligence software in data centers, the Wall Street Journal reported.

Project ACDC (Apple Chips in Data Center), which has been in the works for several years, has no clear timeline, WSJ reported, citing people familiar with the matter.

The iPhone maker has been working with Taiwan Semiconductor Manufacturing Co. on the chip's design and production, though it remains uncertain whether the efforts have yielded any positive results, the report said.

WSJ said Apple's server chip will likely be focused on AI inference, rather than on training AI models — an area which experts have said will continue to be dominated by American chip giant Nvidia.

Apple Enters AI Race with Powerful Processor

Much of the attention in AI hardware has centered on Nvidia's latest GPU and how Intel and AMD would counterpunch. Not to be left out of the foray, Apple has jumped into the race to develop AI-centered processors as well, with the company taking a major step when it unveiled its new M4 processor.

Apple has hinted in recent months it would make a bigger push into AI, particularly after it dropped its troubled Apple car program. The introduction of the M4 chip clearly indicates the company continues to march down the homegrown silicon path to power its products for graphics and processor-intensive future computing tasks.

According to Apple, the M4 delivers up to 1.5x faster CPU performance than the powerful M2 in the previous iPad Pro. Coupled with AI features in iPadOS like Live Captions for real-time audio captions, and Visual Look Up, the new iPad Pro allows users to accomplish amazing AI tasks quickly and on the device.

The M4 also features a new display engine to drive the precision, color, and brightness of the breakthrough Ultra Retina XDR display in the iPad Pro. The M4's media engine can support most popular video codecs, like H.264, HEVC, and ProRes. It also brings hardware acceleration for AV1 to iPad for the first time. This provides more power-efficient playback of high-resolution video experiences from streaming services.

Microsoft Takes Over Troubled Foxconn Wisconsin Site with New AI Data Center

Microsoft is putting $3.3 billion toward the construction of a new AI data center in Racine, Wisconsin, on the same land where Foxconn planned to operate a display screen factory before largely abandoning it years ago.

The new data center is expected to create around 2,300 union construction jobs and 2,000 permanent jobs. Microsoft will also establish a "Datacenter academy" in Wisconsin to train 1,000 people in the state for STEM jobs, according to a White House press release. Microsoft will also build a "Co-Innovation Lab" in the state as part of the plans.

Amazon Says More Packages are Arriving in a Day or Less After Hefty Investment in Speedy Fulfillment

Amazon says it is getting even more packages to customers in one day or sooner, a metric the e-retailer is promoting to customers as it faces heightened competition in online shopping.

The company said nearly 60% of orders placed through Prime in the top 60 U.S. metro areas in the first quarter arrived the same or next day. That is up from roughly 50% in the second quarter of 2023.

It is a topic that will be of notable interest to investors when Amazon reports first-quarter earnings. Wall Street expects the company to post another quarter of double-digit revenue expansion and for profits to more than double from a year earlier.

Cost-cutting efforts, cloud-computing demand and faster fulfillment have driven higher profits in recent quarters.

Speedy delivery is a hallmark of Amazon's Prime subscription offering, which charges members $139 a year for benefits such as two-day shipping and video streaming. The company has said it wants to make same-

and next-day delivery the standard, and it plans to double the number of same-day delivery facilities in the U.S. within the next few years.

Warren Buffett Compares AI to Nuclear Weapons in Stark Warning

The so-called Oracle of Omaha acknowledged to his audience that he has little idea about the tech behind AI, but said he still fears its potential repercussions. His image and voice were recently replicated by an AI-backed tool, he said, and they were so convincing that they could have fooled his own family. Scams using these deep fakes, he added, will likely become increasingly prevalent.

“If I was interested in investing in scamming, it’s going to be the growth industry of all time,” he told the crowd.

Berkshire Hathaway has started employing some AI in its own business to make employees more efficient, said Greg Abel, the expected successor to Buffett who runs Berkshire’s non-insurance operations, on Saturday.

“At times it displaces the labor, but then hopefully, there’s other opportunities,” said Abel, who didn’t reveal much detail about how the company plans to use AI.

Buffett also acknowledged that the technology could change the world for the better, but said he isn’t sold yet. “It has enormous potential for good and enormous potential for harm,” he said. “And I just don’t know how that plays out.”

The AI explosion has already transformed workplaces across the world and nearly 40% of global employment could be disrupted by AI, according to the International Monetary Fund. Industries from medicine to finance to music have already felt its effects.

Shares of companies associated with the AI boom have soared. Chipmaker Nvidia (NVDA) is up about 215% over the last 12 months, while Microsoft (MSFT) is up about 34%.

AT&T Wants to Turn Every Smartphone into a Satellite Phone by No Later Than 2030

AT&T and AST SpaceMobile announced they entered an official commercial partnership extending to 2030. The two companies have worked together since 2018 under a "Memorandum of Understanding." Their goal is to bring satellite connectivity to standard 5G phones.

Last year, the partners reached their first milestone by completing a satellite call from Texas to Tokyo using an unmodified Samsung Galaxy S22. It subsequently demonstrated text and video communications in the latter part of 2023. The next step is to launch AST's first five commercial satellites into low-Earth orbit sometime this summer. The collapsible vehicles measure almost 700 square feet when unfolded.

As part of their commercial agreement, Chris Sambar, AT&T's network head, will take a seat on AST's board of directors. The telecom giant will work closely with its satellite provider to test, troubleshoot, and further develop its space-based network, initially targeting the continental US.

SpaceMobile and AT&T are not the only ones in the direct-to-cell space race. SpaceX and T-Mobile are also working on a similar network using the existing Starlink satellite swarm. They completed their first satellite-to-smartphone call last October, just months after AT&T/AST's milestone.

While AT&T promises that its network will eradicate dead zones in the "not-too-distant future," it cannot provide a window for when the service will launch. However, you can bet it will not be free or cheap. The cellular provider is well-known for nickel and diming its customers.

The best-case scenario is that satellite coverage will be an à la carte charge based on how much you use it. In the worst case, it will be an expensive add-on service that customers will pay for regardless of how much they access the satellites. Optimistically, AT&T will try to find a middle ground to accelerate its ROI while making the service affordable enough to attract subscribers.

High-Speed Rail Finally Coming to the U.S

In late April, the Miami-based rail company Brightline Trains broke ground on a project that the company promises will give the United States its first dedicated, high-speed passenger rail service. The 350-kilometer (218-mile) corridor, which the company calls Brightline West, will connect Las Vegas to the suburbs of Los Angeles. Brightline says it hopes to complete the project in time for the 2028 Summer Olympic Games, which will take place in Los Angeles.

Brightline has chosen Siemens American Pioneer 220 engines that will run at speeds averaging 165 kilometers per hour, with an advertised top speed of 320 km/h. That average speed still falls short of the Eurostar network connecting London, Paris, Brussels, and Amsterdam (300 km/h), Germany's Intercity-Express 3 service (330 km/h), and the world's fastest train service, China's Beijing-to-Shanghai regional G trains (350 km/h).

There are currently only two rail lines in the U.S. that ever reach the 200 km/h mark, which is the unofficial minimum speed at which a train can be considered to be high-speed rail. Brightline, the company that is about to construct the L.A.-to-Las-Vegas Brightline West line, also operates a Miami-Orlando rail line that averages 111 km/h. The other is Amtrak's Acela line between Boston and Washington, D.C.—and that line only qualifies as high-speed rail for just 80 km of its 735-km route. That's a consequence of the rail status quo in the United States, in which slower freight trains typically have right of way on shared rail infrastructure.

World Connector Market Handbook

WORLD CONNECTOR STATISTICS

REGIONS – PRODUCTS – MARKET SECTORS
2014 – 2024F and 2029 FORECAST

Bishop & Associates has just released the 2024 edition of the World Connector Market Handbook. This comprehensive seven-chapter, 229-page report analyzes all aspects of the world electronic connector market. This report provides detailed connector statistics by equipment sector and product category for North America, Europe, Japan, China, Asia Pacific, and the ROW region. Included is a complete chapter on worldwide connector industry results by region, equipment sector, and product category. Data is provided for the years 2014 – 2023, and projections for 2024 and 2029 (including five-year CAGRs).

ANALYSIS OF THE WORLD ELECTRONIC CONNECTOR MARKET

Decreasing over $2.2 billion in US dollars, connector industry sales decreased -2.7% from 2022 to 2023. All regions except Europe and ROW experienced a decrease in sales, with Japan showing the greatest decrease, declining -9.5% followed by the Asia Pacific region where sales declined -7.3%. Europe, which had the greatest increase, saw sales grow +3.8%, while sales in the ROW region increased 0.9%.

World Connector Market by Region
2022 to 2023 with Percent Change

Region	2022	2023	Percent Change
North America	$18,889.0	$18,840.8	-0.3%
Europe	$17,328.5	$17,992.7	3.8%
Japan	$5,172.8	$4,683.7	-9.5%
China	$26,494.3	$24,977.1	-5.7%
Asia-Pacific	$12,194.7	$11,310.0	-7.3%
ROW	$4,011.7	$4,049.8	0.9%
Total	**$84,091.0**	**$81,854.1**	**-2.7%**

$ Millions

Regional Summary

As the tables below indicate, the mixed results based on region of the world in 2023, created a variety of changes to the five, 10-, and 20-year compounded annual growth rates (CAGR). Comparing 2023 to 2024F with 2022 to 2023, you see that the total world CAGR dropped for each period, but individual regions saw their CAGR's increase based on their growth. For example, Europe who had growth in 2023, saw their five, 10- and 20-year CAGR increase while, in China, where sales declined in 2023, the CAGR during those same periods declined. In regions where the growth or decline was under 1.0%, in many instances, the CAGR remained unchanged or fluctuated very little.

Regional Growth Rates
2023 – 2024F

Region	2023	2024F	% Change	Past 5 Year CAGR	Past 10 Year CAGR	Past 20 Year CAGR
North America	$18,840.8	$XX,XXX.X	X.X%	X.X%	Y.Y%	Z.Z%
Europe	$17,992.7	$XX,XXX.X	X.X%	X.X%	Y.Y%	Z.Z%
Japan	$4,683.7	$X,XXX.X	X.X%	X.X%	Y.Y%	Z.Z%
China	$24,977.1	$XX,XXX.X	X.X%	X.X%	Y.Y%	ZZ.Z%
Asia-Pacific	$11,310.0	$XX,XXX.X	X.X%	X.X%	Y.Y%	Z.Z%
ROW	$4,049.8	$4,102.5	1.3%	X.X%	Y.Y%	Z.Z%
Total	**$81,854.1**	**$XX,XXX.X**	**X.X%**	**X.X%**	**Y.Y%**	**Z.Z%**

$ Millions

Regional Growth Rates
2022 – 2023

Region	2022	2023	% Change	Past 5 Year CAGR	Past 10 Year CAGR	Past 20 Year CAGR
North America	$18,889.0	$18,840.8	-0.3%	10.2%	6.7%	3.1%
Europe	$17,328.5	$17,992.7	3.8%	10.3%	4.5%	4.4%
Japan	$5,172.8	$4,683.7	-9.5%	1.3%	-2.8%	0.7%
China	$26,494.3	$24,977.1	-5.7%	8.7%	6.8%	12.4%
Asia-Pacific	$12,194.7	$11,310.0	-7.3%	6.4%	4.2%	6.7%
ROW	$4,011.7	$4,049.8	0.9%	10.9%	2.8%	4.7%
Total	**$84,091.0**	**$81,854.1**	**-2.7%**	**8.6%**	**4.8%**	**5.3%**

$ Millions

End-Use Equipment Sectors

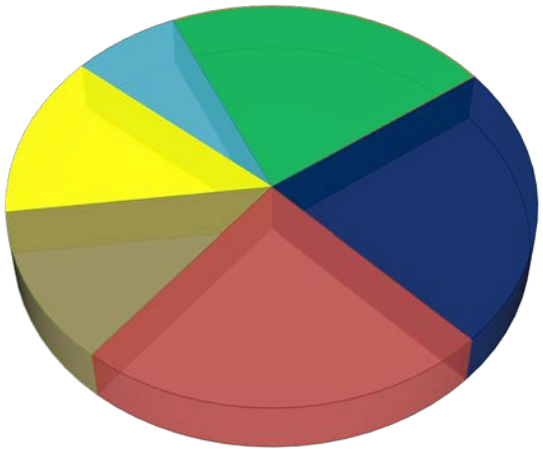
Telecom/datacom was the largest end-use equipment sector for electronic connector products with 2023 shipments of $1X,XX1.4 million. Telecom/datacom was followed by automotive, where 2023 sales grew X.X% to $1X,XXX.7 million. It is anticipated in 2024 that telecom/datacom will remain the largest end-use equipment sector, once again followed by automotive. Business/office equipment showed the smallest growth in 2023 and sales declined to $XXX.X million, a decrease of -Y.Y%, from 2022.

World Connector Market by Equipment Sector

Sector	2023	2024F	Percent Change
Computers & Peripherals	$X,XXX.X	$X,XXX.X	Y.Y%
Business/Office Equipment	$875.4	$X,XXX.X	Y.Y%
Instrumentation	$2,364.8	$X,XXX.X	Y.Y%
Medical Equipment	$X,XXX.X	$X,XXX.X	Y.Y%
Industrial	$XX,XXX.X	$X,XXX.X	Y.Y%
Automotive	$XX,XXX.X	$XX,XXX.X	Y.Y%
Transportation (non-auto)	$5,857.4	$X,XXX.X	Y.Y%
Military/Aerospace	$X,XXX.X	$X,XXX.X	Y.Y%
Telecom/Datacom	$XX,XXX.X	$XX,XXX.X	Y.Y%
Consumer	$X,XXX.X	$X,XXX.X	Y.Y%
Other	$3,043.8	$X,XXX.X	Y.Y%
Total	**$81,854.1**	**$X,XXX.X**	**Y.Y%**

$ Millions

World Connector Market - Top Five Equipment Sectors – 2023



Automotive - 22.6%

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

Table of Contents

To Order World Connector Market Handbook

Research Report M-700-24, ***World Connector Market Handbook - 2024*** is available for $5,285. If you would like additional information about this report, or would like to place an order, please complete the following information, and e-mail or mail it to Bishop & Associates, Inc. To place your order on our website: **https://bishop-research.com/**.

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

World Connector Market Handbook - 2024

☐ **Multi-User Corporate License @ $5,285**

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

Illinois Customers Add 8.0% Sales Tax

Credit Card No. | | | | | | | | | | | | | | | | | | | |

Expiration Date | | | **Mo.** | | | **Yr.**

Bishop & associates, inc.
Performance and Forecast of the World Connector Industry

1209 Fox Glen Drive - St. Charles, IL 60174
Phone: 630.443.2702
E-mail: bishop@bishopinc.com
Website: www.connectorindustry.com
Online Store: https://bishop-research.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://bishop-research.com**.

☐	**Report M-700-24**	**World Connector Market Handbook (March 2024) NEW**
☐	**Report P-799-24**	**World Cable Assembly Market (February 2024) NEW**
☐	**Report F-2023-02**	**Connector Industry Forecast (December 2023) NEW**
☐	**Report P-606-23**	**Connector Types and Technologies Poised for Growth (October 2023) NEW**
☐	**Report M-121-23**	**2023 Top 100 Connector Manufacturers (August 2023) NEW**
☐	**Report M-720-23**	**European Connector Market 2021, 2022, 2023F and 2028F (June 2023) NEW**
☐	**Report C-122-23**	**2023 Connector Industry Yearbook (June 2023) NEW**
☐	**Report P-430-23**	**World Circular Connector Market 2023 (May 2023) NEW**
☐	**Report P-780-23**	**World RF Coax Connector Market (January 2023)**
☐	**Report M-1200-22**	**Military Ground Vehicle Market for Connectors (October 2022)**
☐	**Report P-675-22**	**Copper and Fiber Connectivity in the Data Center (July 2022)**
☐	**Report T-800-22**	**2022 North American Cable Assembly Manufacturers (May 2022)**
☐	**Report M-1010-22**	**World Automotive Connector Market (April 2022)**
☐	**Report P-420-22**	**IC Sockets – Systems & Connector Forecast 2020-2030 (January 2022)**
☐	**Report P-520-21**	**The World I/O Rectangular Connector Market 2021 (October 2021)**
☐	**Report M-310-21**	**Instrumentation Market for Connectors (June 2021)**
☐	**Report P-410-21**	**Computer Server Market Trends and Connector Use 2020 – 2030 (May 2021)**

THE BISHOP REPORT - CONNECTOR INDUSTRY YEARBOOK

An annual corporate subscription to *THE BISHOP REPORT* (12 issues) is available for $2,950, which includes an unlimited number of subscribers and one PDF version of the ***Connector Industry Yearbook*** report (normally $1,500). ***The Bishop Report*** subscription includes access, through ***Bishopinc.com***, to prior issues of The Bishop Report, 30-40 yearly News Briefs, Industry Financial Benchmarks, and various connector industry indices.

Click here to view expanded report descriptions, and a complete table of contents, for all Bishop & Associates' research reports.

Bishop & associates, inc.
Performance and Forecast of the World Connector Industry
Bishop & Associates Inc.
1209 Fox Glen Drive • St. Charles, IL 60174
Phone: 630.443.2702 • bishop@bishopinc.com • Bishopinc.com