

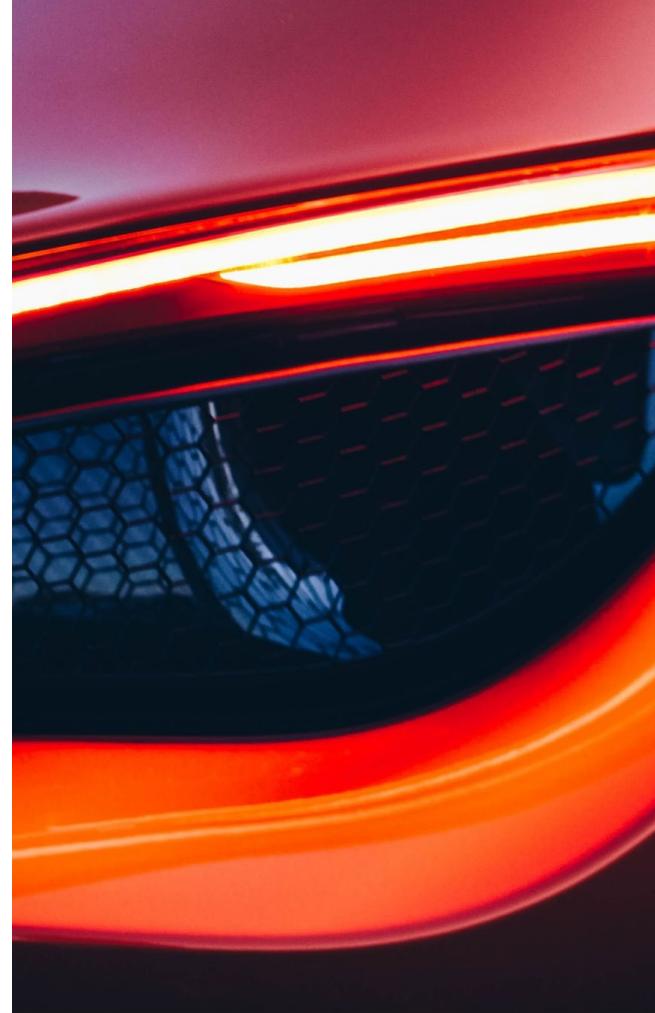
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Original Equipment Suppliers

Deloitte.

MEMA OE Suppliers Automotive Supplier Barometer Q2 2023

Supply Chain, Globalization & Sustainability

June 7, 2023



MEMA OE Supplier Barometer: Executive Summary

Supplier Barometer Index (SBI)

SBI Score = 44;
down from Q1 level of 46



The outlook for the second quarter of 2023 continued to deteriorate from the start of the year, for the fifth straight quarter of building pessimism on net. Firms with revenue less than \$50 mils. were the only cohort that showed net optimism, for the second straight quarter, while the outlook continued to deteriorate for larger firms.



Concerns related to weakness in the U.S. economy remained unchanged sequentially and remained the leading threat to the industry in the coming 12-months.

Risks of production shutdowns due to supply chain shortages and issues, the inability to fulfill customer volumes, and labor availability constraints, eased sequentially from Q1.

Suppliers indicate risks from rising interest rates have dampened somewhat, as they expect they are near a peak. Consequently, deterioration in sales of the programs that they supply is viewed as less of a risk.



New orders and production increased moderately from a year ago but have steadied over the past month.

Costs continue to rise, with 85% and 60% of suppliers, on net, indicating increased costs over the past 12-months and 1-month, respectively.



Financially stable suppliers are seeking to take over business from their struggling competitors.

Many suppliers expect volume growth from the BEV segment and new customers in addition to recovery in traditional programs. A substantial proportion of suppliers are focusing on cost recovery this year.

MEMA OE Supplier Barometer: Executive Summary



Sub-tier supplier distress grew in 2022 and into 2023, albeit at a decelerating pace.

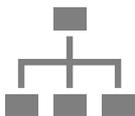
Suppliers indicate that material costs/shortages, labor related issues and financial distress, are the most common forms of distress withing their global direct supply base.

However, the percentage of sub-tier suppliers on “watch” fell to 4.0% on average, down from 6.3% in 2022.

The most concerning system area for sourcing remains electrical/electronics, with 91% of responses indicating at least minimal concern, while 31% indicate significant concern.



On average, 17.4% of sub-tier suppliers are directed buy as required by customers, essentially unchanged from last year. Suppliers are most concerned with pricing/cost control and continuity from their directed buy arrangements.



Over the past year, dual or multiple sourcing for components increased on net from supplier customers by 28% and down through the supply chain by 38%, down from 38% and 44%, respectively, from last year.



Localization efforts continue in compliance with USMCA.

Suppliers have witnessed a continued effort to localize production from their customers as they attempt to comply with the standards in place from USMCA.

Consequently, suppliers themselves look to localize within their own supply base in order to provide compliance value to their customers and minimize risk exposure from geopolitical events, with 43% of responses showing at least a minimal increase in localization efforts.

However, suppliers are running into labor/talent, cost and capacity issues in their localization efforts.



Formal sustainability plans primarily originated from customer requests, but internal initiatives were a close second. Sustainability programs have had little to no benefit in accessing new programs, as anecdotes indicate customers are prioritizing costs.

Most suppliers are concerned with either a lack of resources to execute their ESG initiatives or multiple/conflicting customer requirements.

The majority of suppliers feel at least somewhat prepared to report on proposed SEC climate-related disclosures.

Just under half of the automotive supply base has a carbon neutrality goal, with 2035 being the target date on average. The most ambitious suppliers hope to achieve carbon neutrality by 2030.

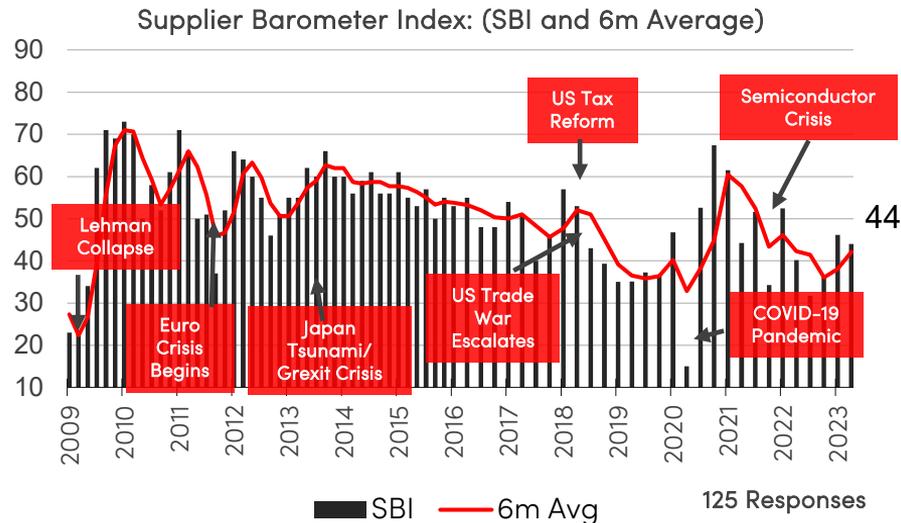
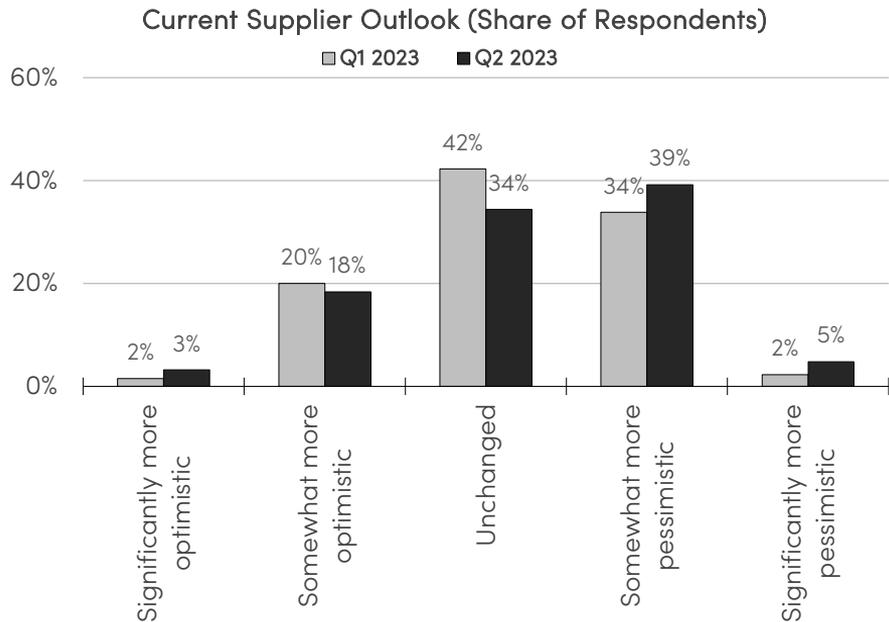


Supplier Outlook

Q2 2023 Automotive Supplier Barometer

MEMA OE Supplier Barometer: Q2 2023 Results

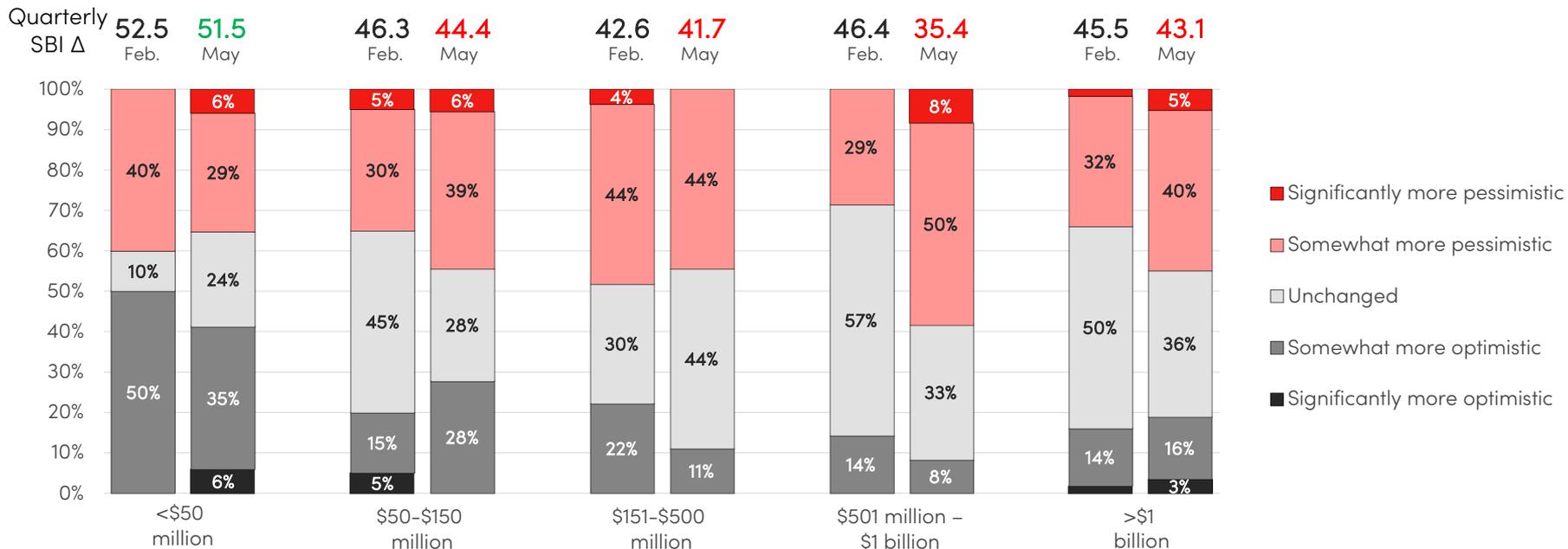
Describe the general twelve-month outlook for your business. Over the past three months, has your opinion become...?



The 12-month outlook for the second quarter reflects continued pessimism as concerns persist over weakness in the U.S. economy and production shutdowns due to supply chain issues and shortages.

MEMA OE Supplier Barometer: Q2 2023 Results by Revenue

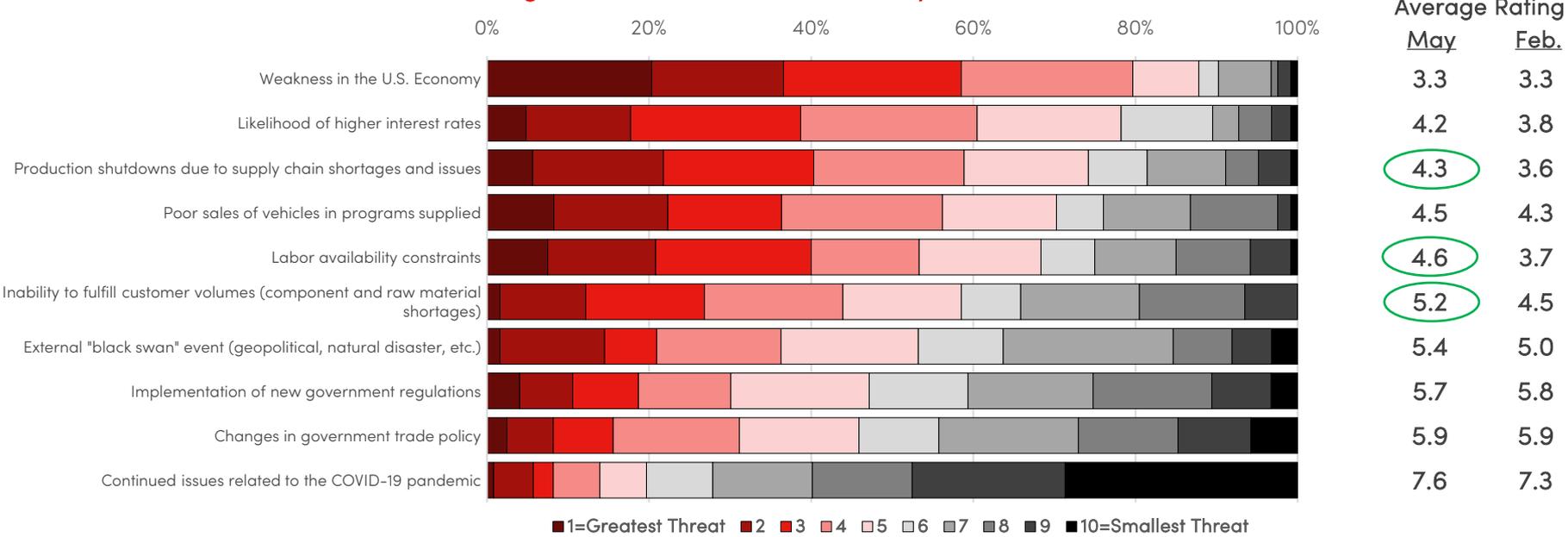
Describe the general twelve-month outlook for your business. Over the past three months, has your opinion become...?



The outlook reflects sequential deterioration in optimism for suppliers with greater than \$50 mils. in revenue. The smallest suppliers, less than \$50 mils. in revenue, held steady in marginally optimistic territory.

MEMA OE Supplier Barometer: Industry Threats

What are the greatest threats to the industry over the next 12 months?



Weakness in the U.S. economy remains the greatest threat to the industry over the next 12-months. Risk ratings improved sequentially for labor constraints and the inability to fulfill customer volumes.

MEMA OE Supplier Barometer: Industry Indicators

For the following indicators, please indicate what change, if any, your company has experienced over the following time frames.

	Total		Less than \$500 Mils.		Greater than \$500 Mils.	
	12-month Chg.	1-month Chg.	12-month Chg.	1-month Chg.	12-month Chg.	1-month Chg.
New Orders	135	98	144	98	127	100
Production	141	103	151	98	132	104
Employment	125	103	126	102	124	103
Supplier Deliveries	116	100	110	98	121	102
Inventories	115	108	110	98	119	115
Customers' Inventories	137	125	133	106	142	141
Costs	185	160	184	159	185	160
Backlog of Orders	113	100	114	102	111	97
New Export Orders	102	102	104	96	100	106
Imports	103	102	104	100	101	103

Diffusion Index = ((Pct. Increasing - Pct. Decreasing)+1) x 100

Lower Limit = 0

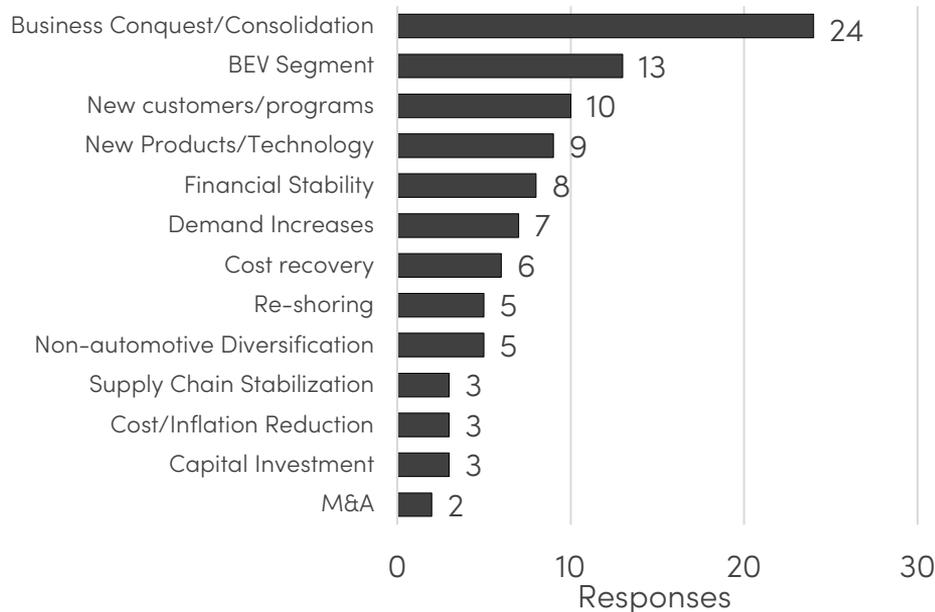
Neutral = 100

Upper Limit = 200

New orders and production increased moderately from a year ago but have steadied over the past month. On net, 85% and 60% of suppliers indicated increased costs over the past 12-months and 1-month, respectively.

MEMA OE Supplier Barometer: Current Opportunities

Based on the current business environment, what do you believe your biggest opportunities are at the moment?



Comments (Selected):

- Our OEM customers are coming to rely on our company, due to strong financial condition, as our competitors begin to flounder in EU markets and then cascade to their US operations. Also, we have invested in our NA operations since 2015 and finally paying dividends. Only OEM volumes will impact our awarded business conditions.
- Significant growth opportunity in electrical/electronics due the proliferation of EVs. However, limited cash for capex, ED&T, etc. may dampen growth.
- Long term it's to capitalize on transition to EVs but short term there is substantial chaos in the transition
- We rely on capital investing. Customers who are moving to gain share will spend money during high inflationary times. We need to be prepared to service these situations - quickly.

Financially stable suppliers are seeking to take over business from their struggling competitors.
Many suppliers expect volume growth from the BEV segment and new customers.



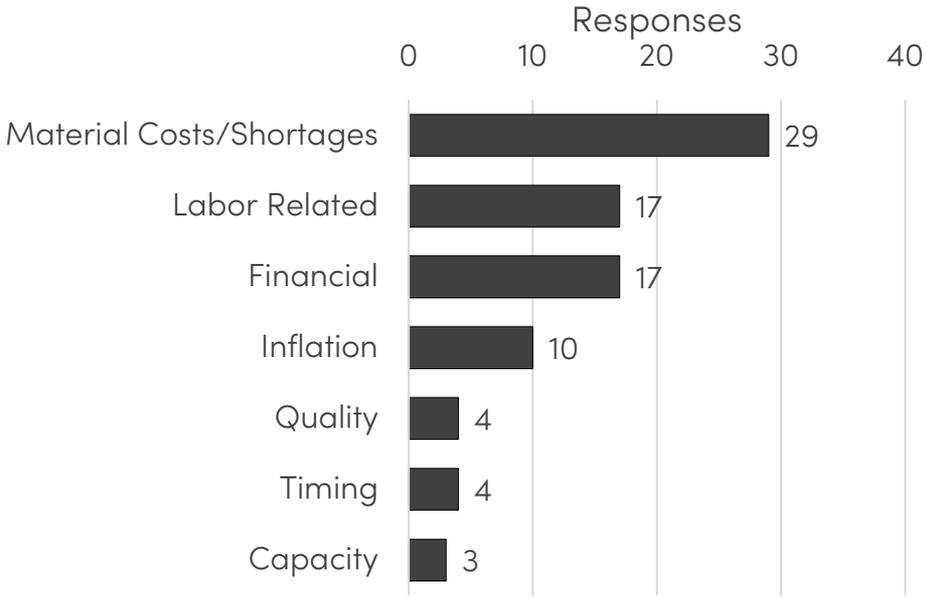
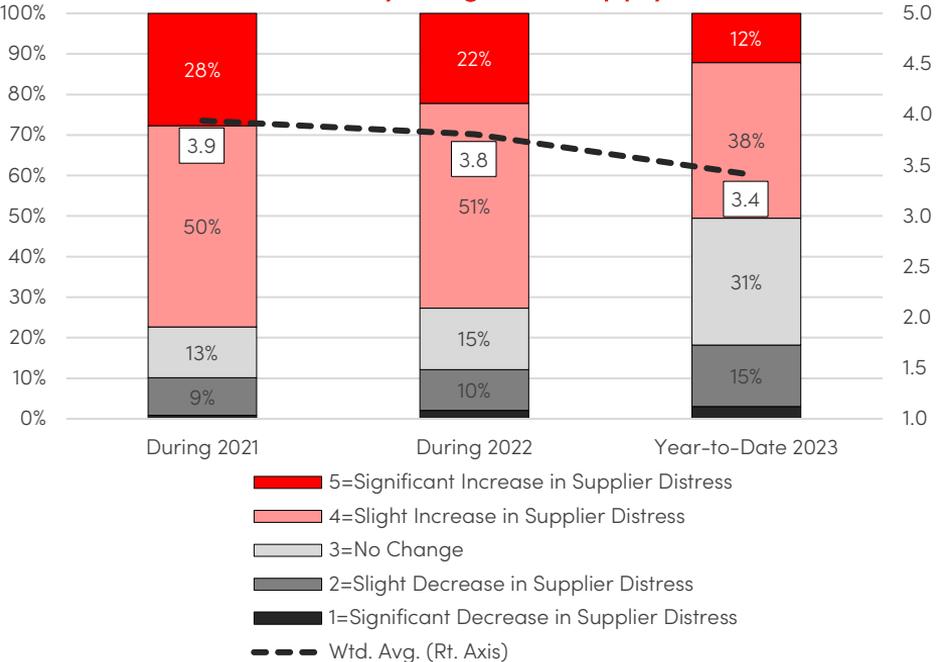
Supply Chain

Q2 2023 Automotive Supplier Barometer

Supply Chain: Sub-tier Supplier Distress

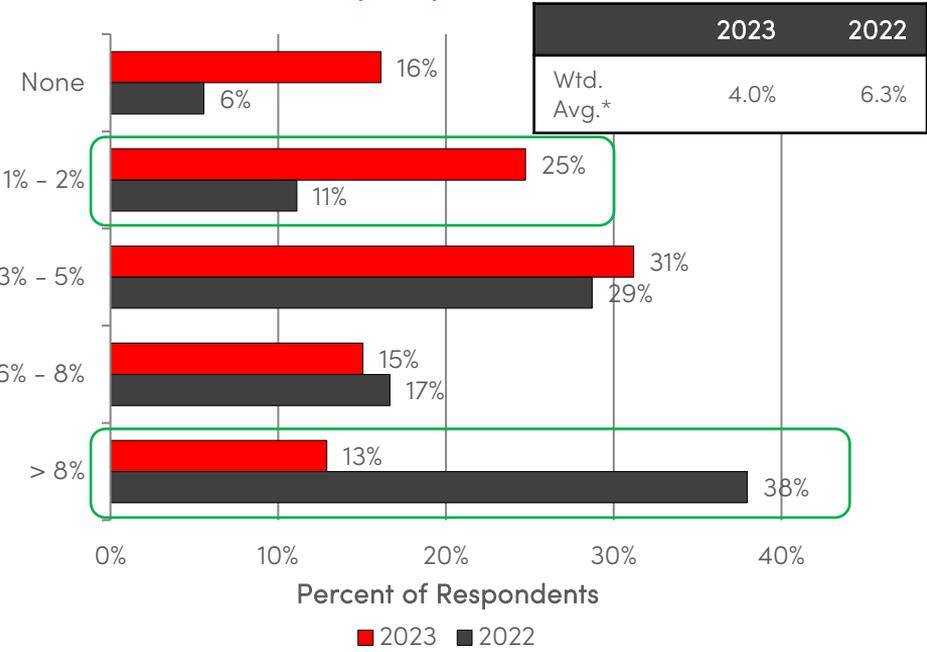
Considering your North American production facilities, over the following periods, have you witnessed an increase in distress within your global supply base?

What type(s) of supplier distress are currently most common?



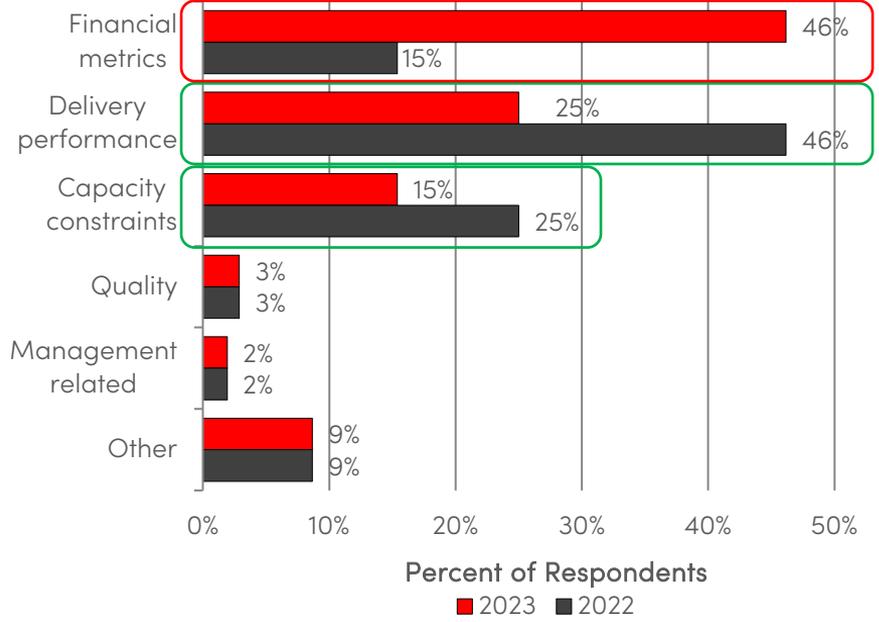
Supply Chain: Direct Supplier Risk

What percent of your global direct material suppliers are currently on your "watch list?"



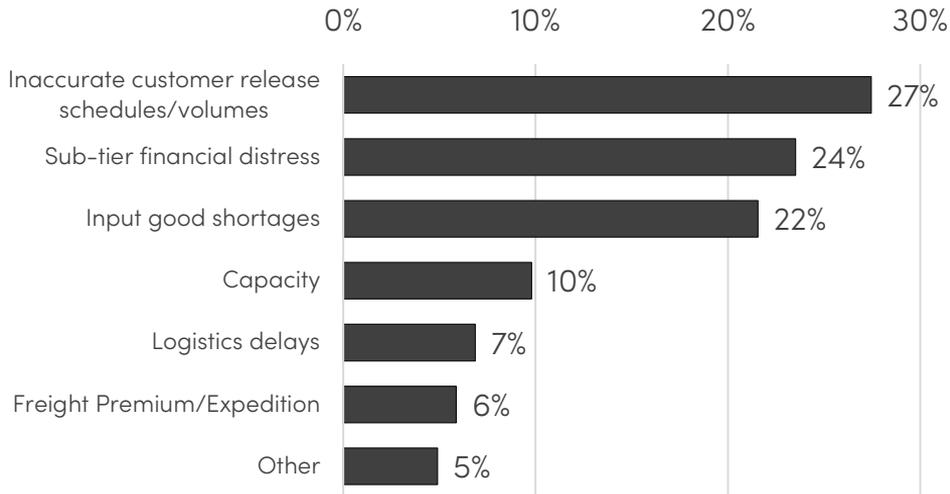
*Assumes mid-point of each range, greater than 8% equals 10%

What is the primary reason companies are being added to or continuing on the supplier "watch list?"



Supply Chain: Supply Chain Risk

What is your greatest supply chain risk in meeting customer production requirements?



Other:

- Credit availability, Taiwan war risk
- Quality issues
- None
- Microchip supply, resins
- Labor at our plants

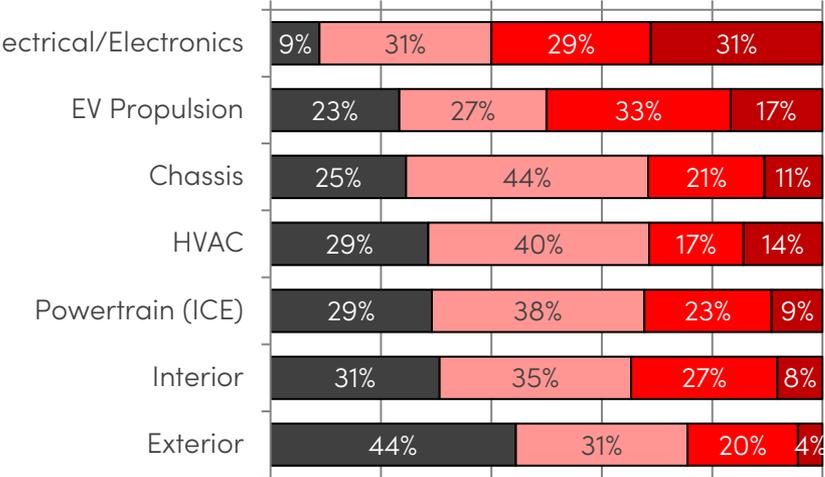
Comments:

- Freight is a close second
- Logistic delays from Railroads and Freight premiums are also important risks in our operation.
- Our OEM customer volumes are varying significantly from their forecasted volumes.
- Frequent requests for price increases regardless of commodity
- Releases change too often. Most of the time the volumes are reduced.
- Capacity but input good shortage is almost there as well
- Input good shortages, caused by several of the other choices
- [Inaccurate customer release schedules/volumes] Which impacts delivery, freight premiums and sub-supplier costs
- Financial distress is equal risk.
- Equally concerning is financial metrics and labor.
- OE last minute demand drops and OE demand fluctuation in 2022 de-stabilized the supply chain
- Releases not stable. Start high 2-3 months out, reduced when ship date approaches.
- Raw material shortages are real, and the primary impact for distress.

Supply Chain: Sourcing Constraints

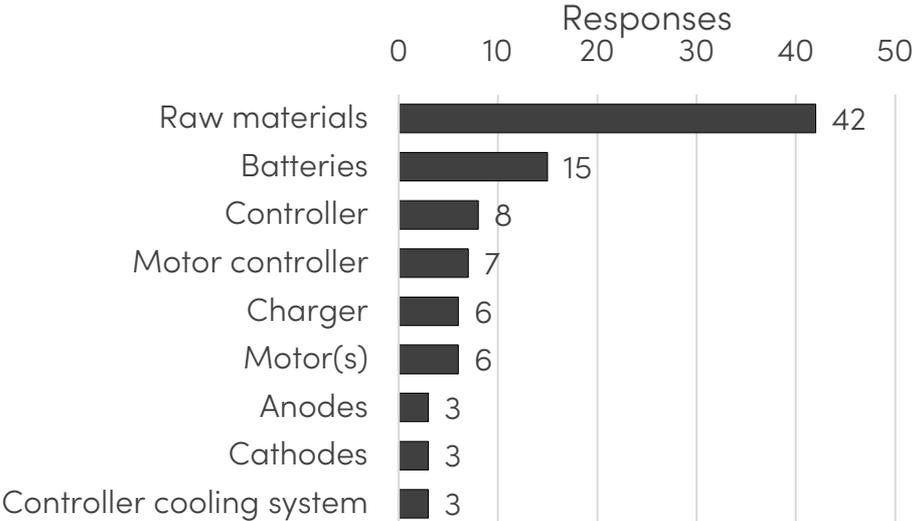
Considering the North American marketplace, for each of the following system areas, select your level of concern in having future sourcing constraints to meet customer demand.

0% 20% 40% 60% 80% 100%



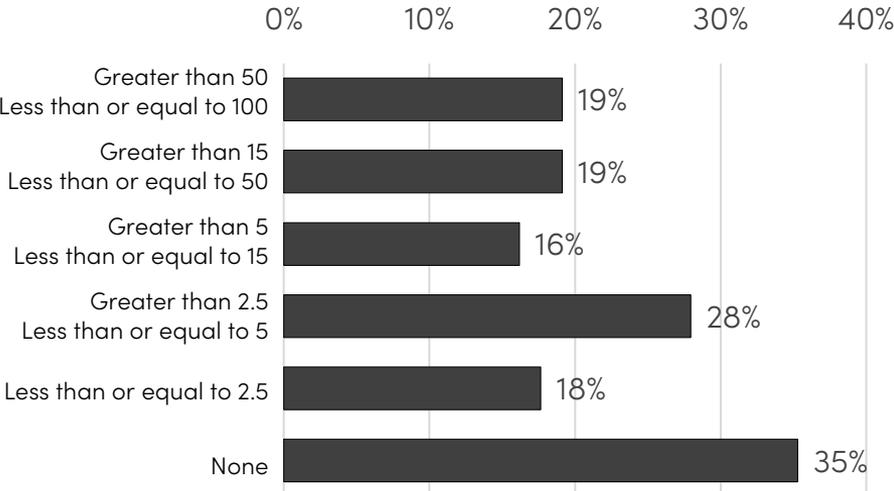
No Concern
 Minimal Concern
 Moderate Concern
 Significant Concern

To provide further detail to concerns over EV Propulsion components and/or materials, please indicate which of the following you are concerned in having future sourcing constraints.



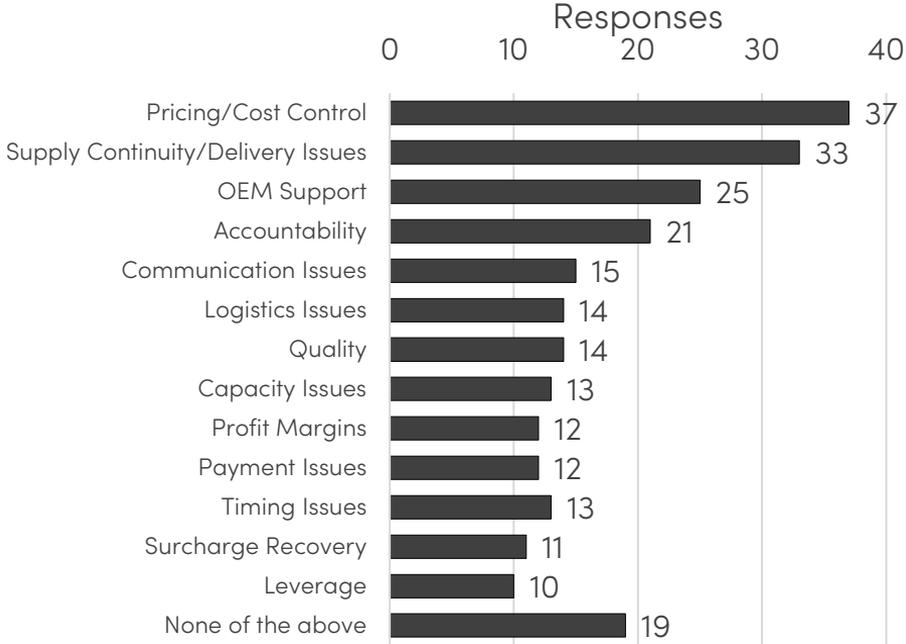
Supply Chain: Directed Buy

What percent of your suppliers are customer required directed buy arrangements?



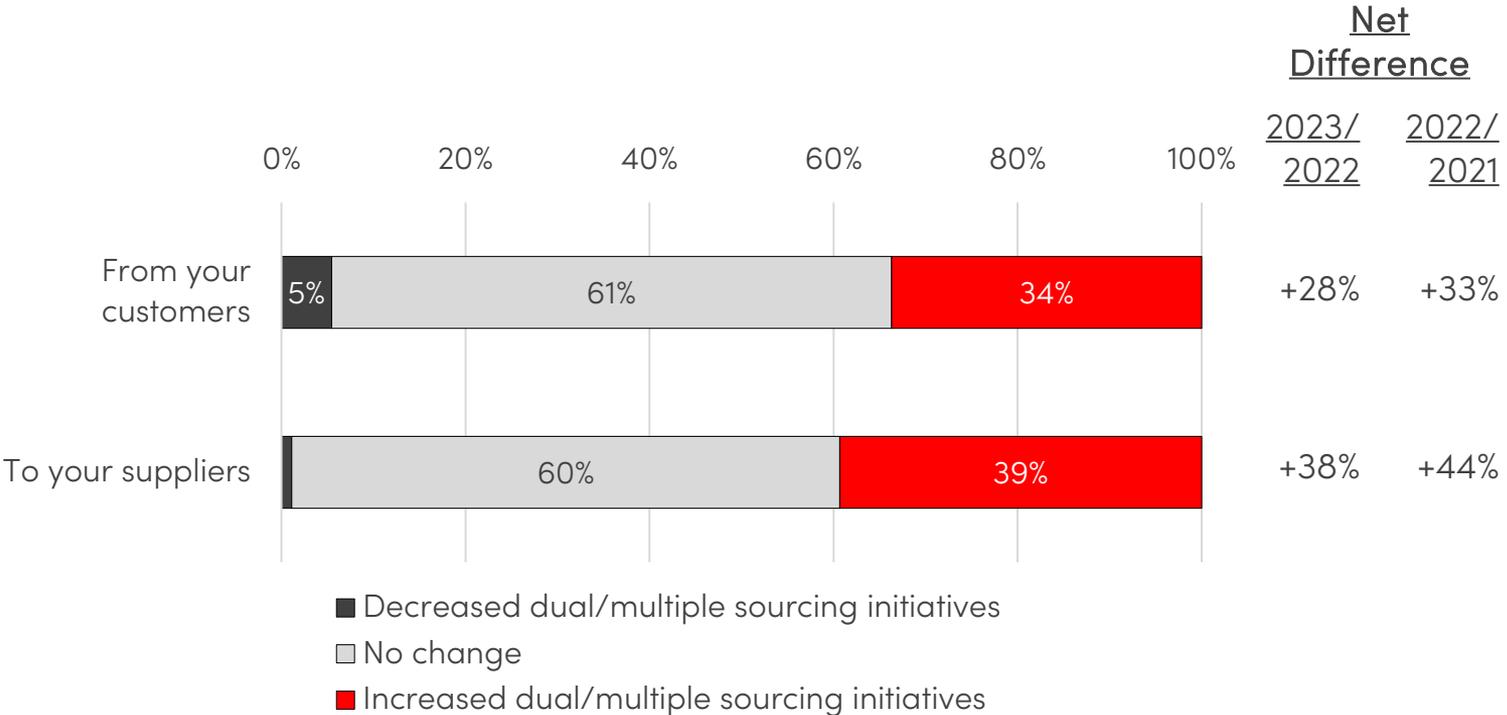
	2023	2022
Median	5.0%	5.0%
Mean	17.4%	17.8%

What are your biggest issues with your directed buy arrangements?



Supply Chain: Dual Sourcing

Over the past year in North America, has your company experienced a change in dual/multiple sourcing initiatives from your customers or implemented dual/multiple sourcing initiatives with your suppliers?



- Comments:**
- Customer are moving to a different and more competitive alternatives.
 - Our customers are telling us they would like dual PPAP's; however, when it comes time to invest in a second source, (even our own company different plant location) they don't want to invest in a second tool or approve two PPAP's
 - Customers talk about it but no action engaged
 - OE customer not willing / able to support risk mitigation by dual sourcing of strategic component. Especially for ICE, the engineering work force and test bench availability at OE are reducing



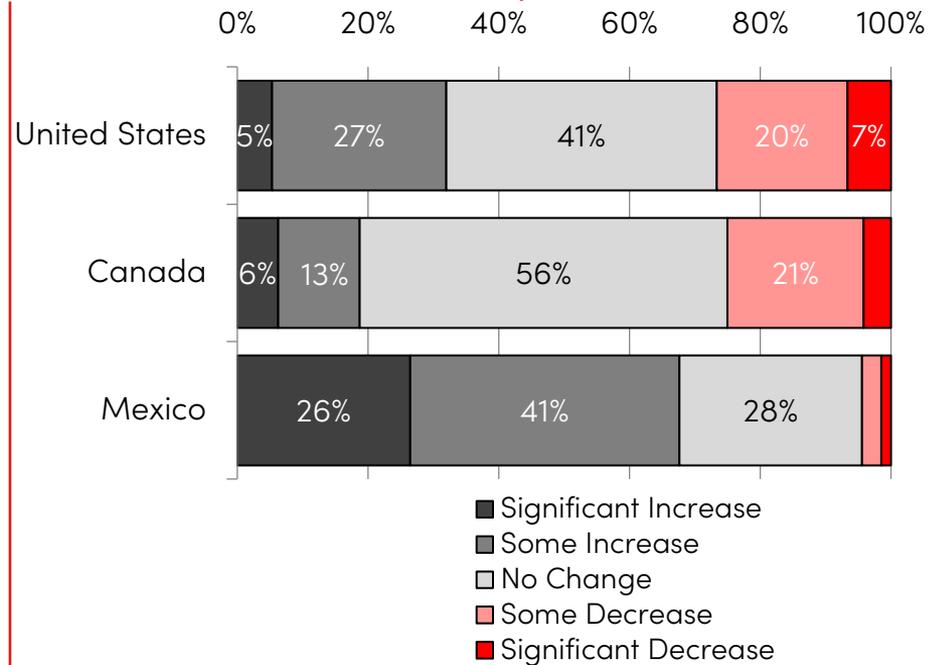
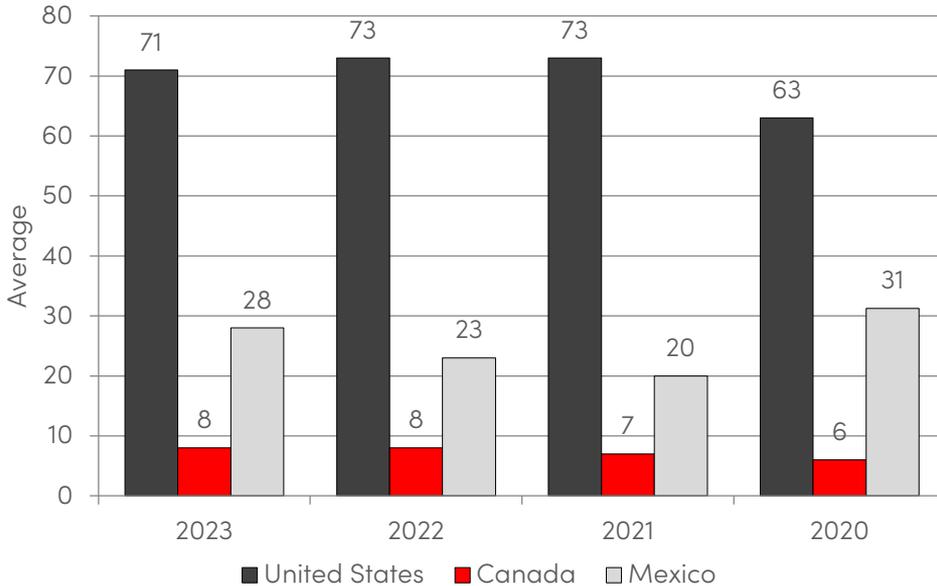
Globalization

Q2 2023 Automotive Supplier Barometer

Globalization: North American Production Allocation & Planning

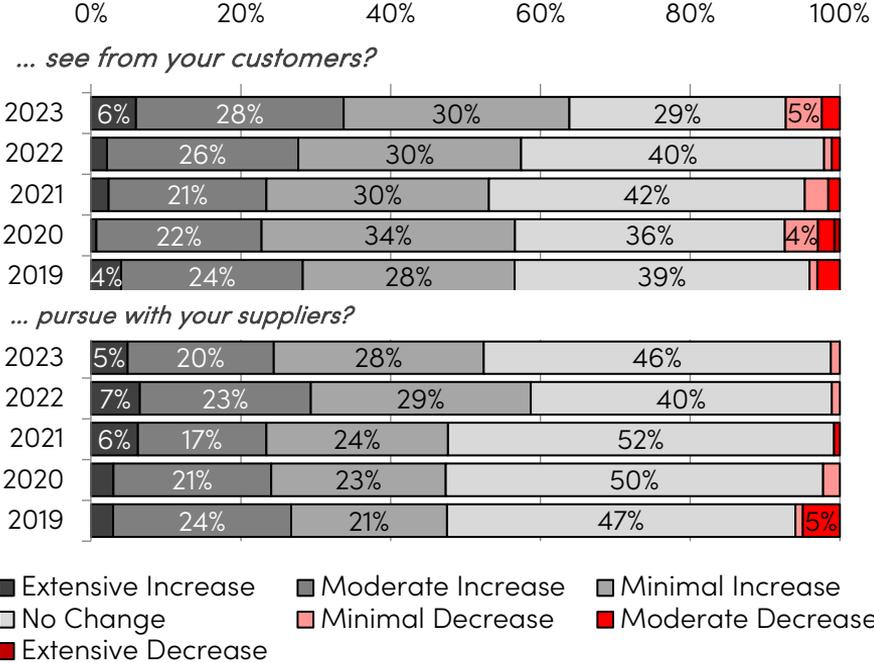
For your products produced in North America, identify the percent manufactured in each of the following countries.

How do you expect that these percentages will change over the next 5 years?



Globalization: Localization Efforts

Over the past year, what level of manufacturing localization activity/effort did you...



Has your company experienced any challenges to its North American localization efforts?

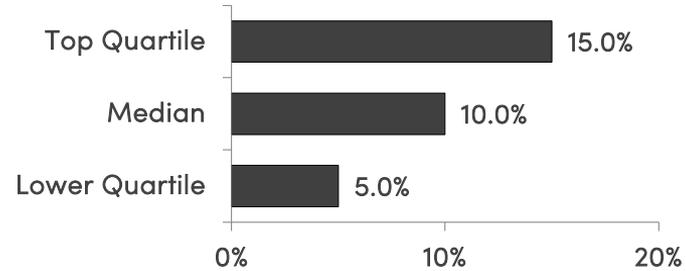
- No (15)
- N/A (4)
- Cost (3)
- People
- Finding qualified suppliers at the price points expected by our OEM customers.
- Lack of NA capacity, higher costs compared to China/Thailand, supply base for components not as cost effective.
- Availability of labor is a concern to localizing higher labor content processes.
- Capacity constraints across the board
- Forgings and castings seem to be at capacity. Difficult to find available supply.
- Investing in new capacity, lead time 12 - 18 months for new equipment
- Minimal issues, mainly tied to workforce experience/training
- Timing and support with OEM approvals
- Yes, they still want to pay the off-shore pricing
- Costs are much higher in N.A. vs. RoW supply
- Yes, adding labor is a roadblock in US
- Material costs, labor shortages and costs
- Finding ample capacity/supply
- Delays in getting EPA approval for certain raw materials.
- Lack of capacity
- Supplier capacity for several commodity. Outrageous price compared to Rest of the World
- Yes, pricing levels are higher in NA than Europe and Asia therefore putting roadblocks in sourcing
- OEMs unwilling to pay for localization.
- US tariffs on raw materials really forces any NA manufacturing to happen outside of the US.
- Supplier competitiveness
- Yes, ability and capability
- OE customer approval is an issue
- Companies that supply EV market also supply Green Energy Production / Utility market and they are at times prioritizing Utilities over Automotive
- We have always tried to source within North America.

Globalization: U.S. Exports

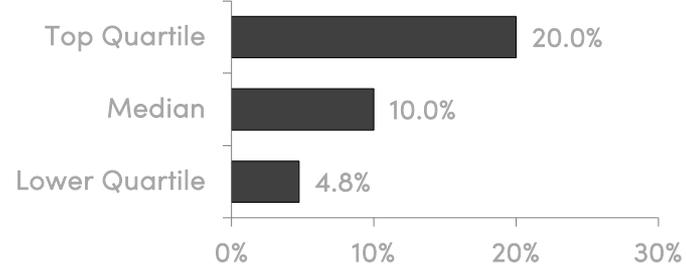
What is the estimated split of these exports (in percent) to each of the following regions?

Estimate the percent of your current U.S. production that is exported outside of the United States.

2023



2022

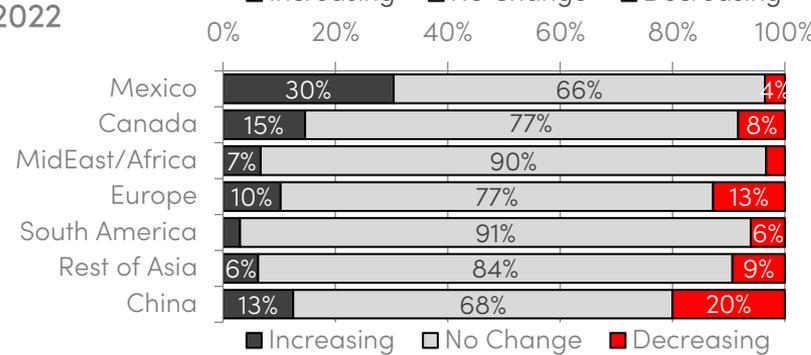
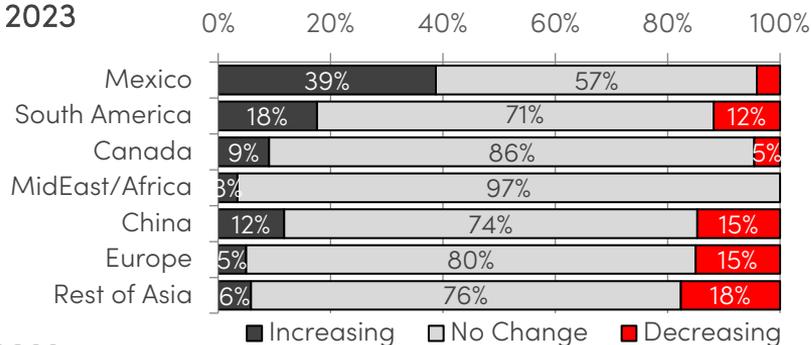


2023	Lower Quartile	Median	Upper Quartile	Number of respondent companies exporting to each region
Canada	0%	5%	10%	32
Mexico	1%	20%	75%	39
Europe	0%	5%	14%	30
China	0%	2%	5%	22
Rest of Asia	0%	3%	6%	22
South America	0%	5%	10%	19
MidEast/Africa	0%	0%	0%	4

2022	Lower Quartile	Median	Upper Quartile	Number of respondent companies exporting to each region
Canada	3%	10%	28%	48
Mexico	5%	20%	50%	58
Europe	0%	5%	10%	37
China	0%	2%	15%	30
Rest of Asia	0%	0%	5%	16
S. America	0%	0%	2%	15
Mid-East/Africa	0%	0%	0%	7

Globalization: U.S. Exports

Estimate the percent of your current U.S. production that is exported outside of the United States.



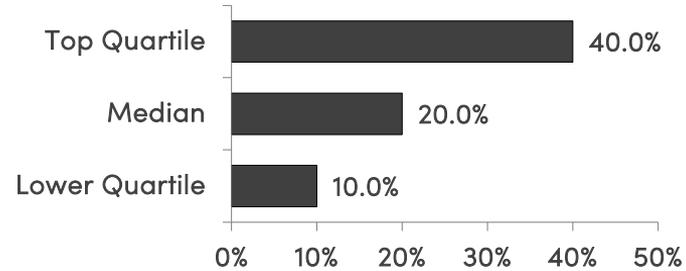
What major factors drive this regional export plan?	
Canada	<ul style="list-style-type: none"> OEM's moving out of Canada
Mexico	<ul style="list-style-type: none"> OEM's expanding in Mexico Market growth in this region due to better lead times than Competitors.
Europe	<ul style="list-style-type: none"> The tooling is only located in US Target is to relocate this business from USA to Europe
China	<ul style="list-style-type: none"> No comments provided
Rest of Asia	<ul style="list-style-type: none"> No comments provided.
S. America	<ul style="list-style-type: none"> Production forecasts decreasing
Mid-East/ Africa	<ul style="list-style-type: none"> No comments provided

Globalization: U.S. Imports

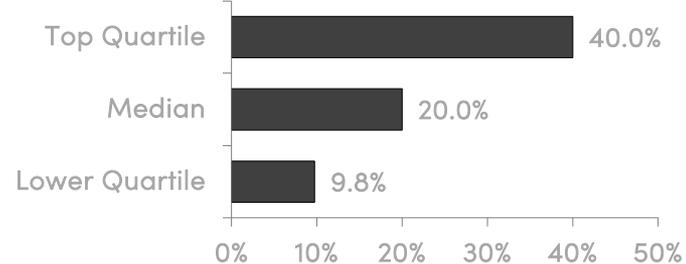
What is the estimated split of these imports (in percent) to each of the following regions?

Estimate the percent of your current U.S. production that is imported outside of the United States.

2023



2022

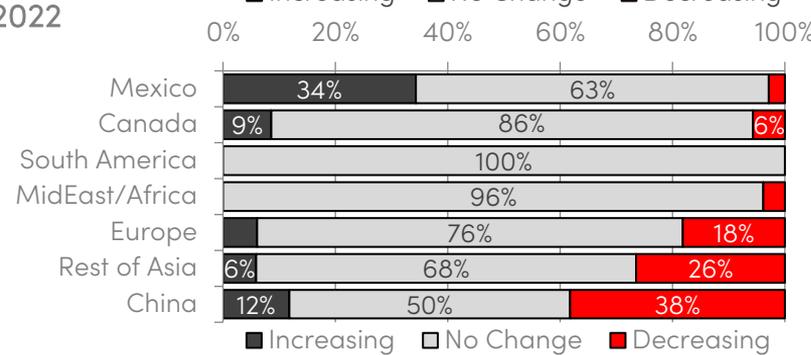
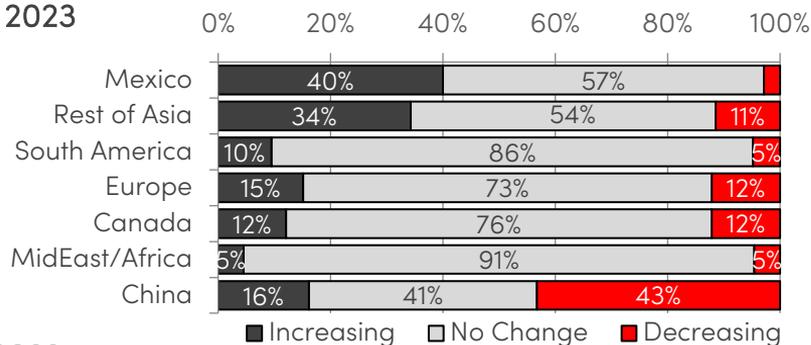


2023	Lower Quartile	Median	Upper Quartile	Number of respondent companies exporting to each region
Canada	0%	1%	15%	19
Mexico	0%	10%	30%	22
Europe	1%	10%	25%	28
China	1%	20%	45%	32
Rest of Asia	4%	20%	49%	29
S. America	0%	0%	0%	1
Mid-East/Africa	0%	0%	0%	1

2022	Lower Quartile	Median	Upper Quartile	Number of respondent companies exporting to each region
Canada	0%	5%	25%	26
Mexico	0%	10%	30%	32
Europe	0%	5%	30%	27
China	5%	15%	38%	46
Rest of Asia	0%	13%	50%	30
S. America	0%	0%	0%	4
Mid-East/Africa	0%	0%	0%	4

Globalization: U.S. Imports

Estimate the percent of your current U.S. production that is imported outside of the United States.



What major factors drive this regional import plan?	
Canada	<ul style="list-style-type: none"> No comments provided
Mexico	<ul style="list-style-type: none"> Suppliers expected to localize more in Mexico USMCA and Tariff penalty
Europe	<ul style="list-style-type: none"> Technology
China	<ul style="list-style-type: none"> Tariffs, escalating US-China conflict Cost Shipping costs expected to decrease USMCA and Tariff penalty
Rest of Asia	<ul style="list-style-type: none"> China tariffs, escalating US-China conflict Cost
S. America	<ul style="list-style-type: none"> No comments provided
Mid-East/ Africa	<ul style="list-style-type: none"> No comments provided

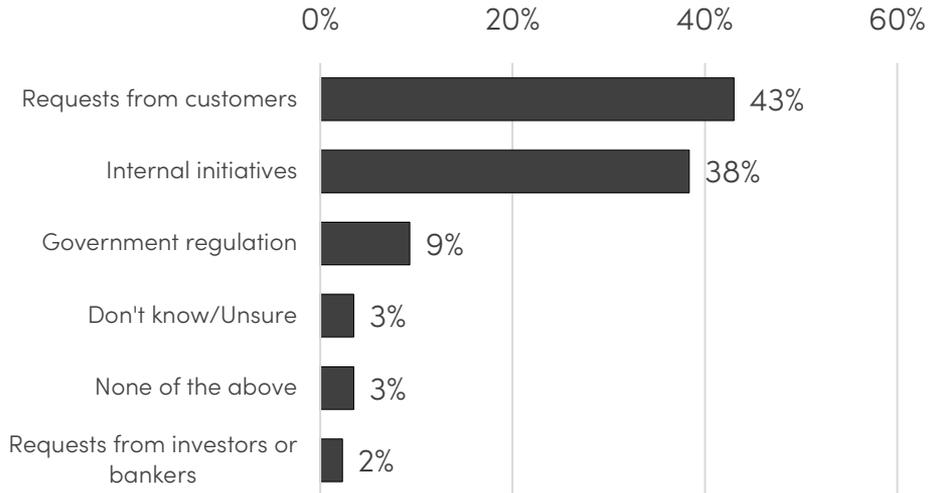


Sustainability

Q2 2023 Automotive Supplier Barometer

Sustainability: Sustainability Program Origination

What was or will be the primary motivation for your company to initiate a sustainability program?

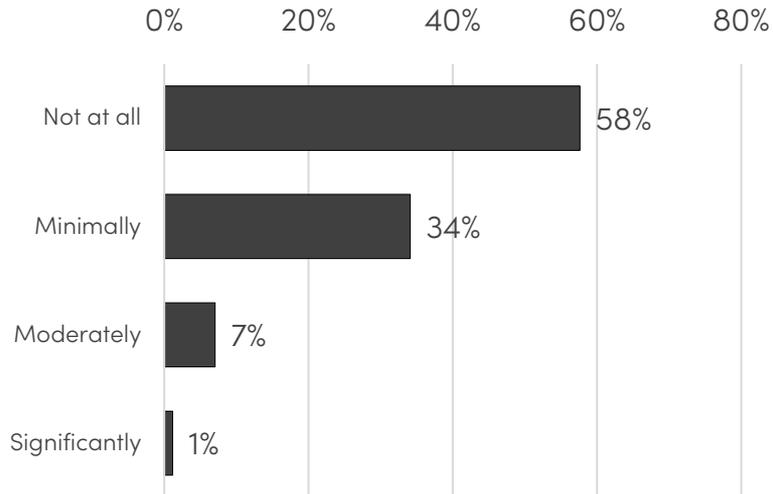


Comments:

- No significant pressure yet.
- Customer mandates for such program(s) would be the main reason, other than potential government regulation.
- Sustainability is the basis for our new carbon-free manufacturing plant in Germany.
- While we value the internal benefits of our sustainability program, the driving force has largely been meeting customer requirements
- Customers are driving this change with little thought from a cost perspective and logic. The customers do not want to pay for the increased cost but demand you implement the systems and increased cost to satisfy their targets.
- Internal, but also some pressure from customers
- Commitment to the world and our families
- This was a focus of our company before customers started asking for it.
- Our sustainability program is driven by internal initiatives and requests from customers.
- We already have it in place.
- We produce plastic products - sustainability considerations are a must.
- Customers are requiring compliance with their OEM Sustainability Programs for sourcing consideration
- Staffing cost

Sustainability: Opportunity to New Customers

Has your company's sustainability program helped to gain access to new customer programs?



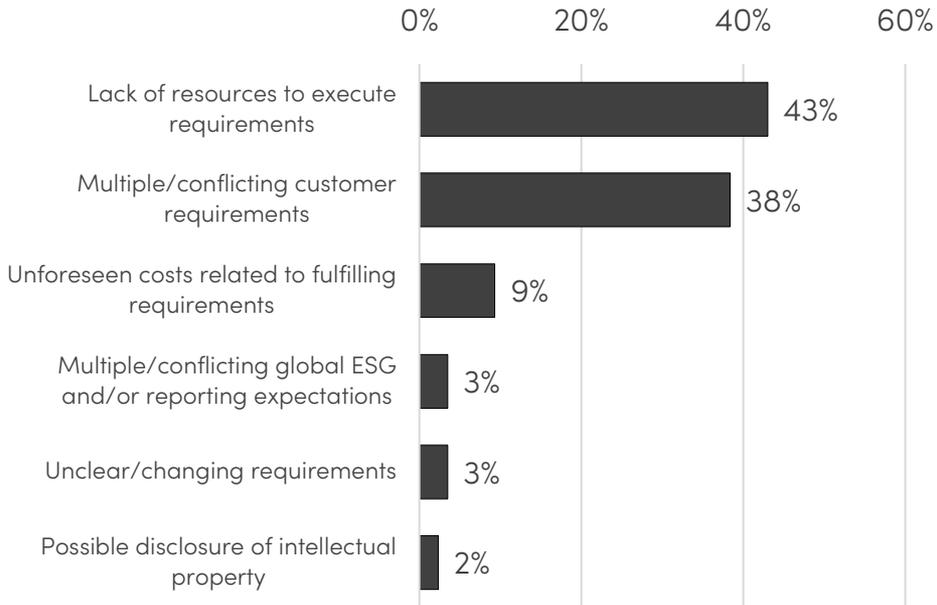
Comments:

- Once production ramps up at the new facility, it will help to gain access to new programs, at least minimally.
- Our sustainability program was put in place to appease the OEM's where we already have business. Have not seen any interest in our SGE plans from a new customer.
- There is currently no evidence of our sustainability program providing access to new customer programs. However, we have seen examples of our sustainability program keeping us in the running on several opportunities.
- Didn't really gain, but helped solidify
- It's becoming more effective but not a top priority item for clients yet.
- OE customer are increasing their focus on sustainability
- OEMs still consider cost first.
- Customers are requiring compliance with their OEM Sustainability Programs for sourcing consideration

Sustainability: Concerns with ESG Program Implementation

What are your largest areas of concern related to implementing ESG initiatives?

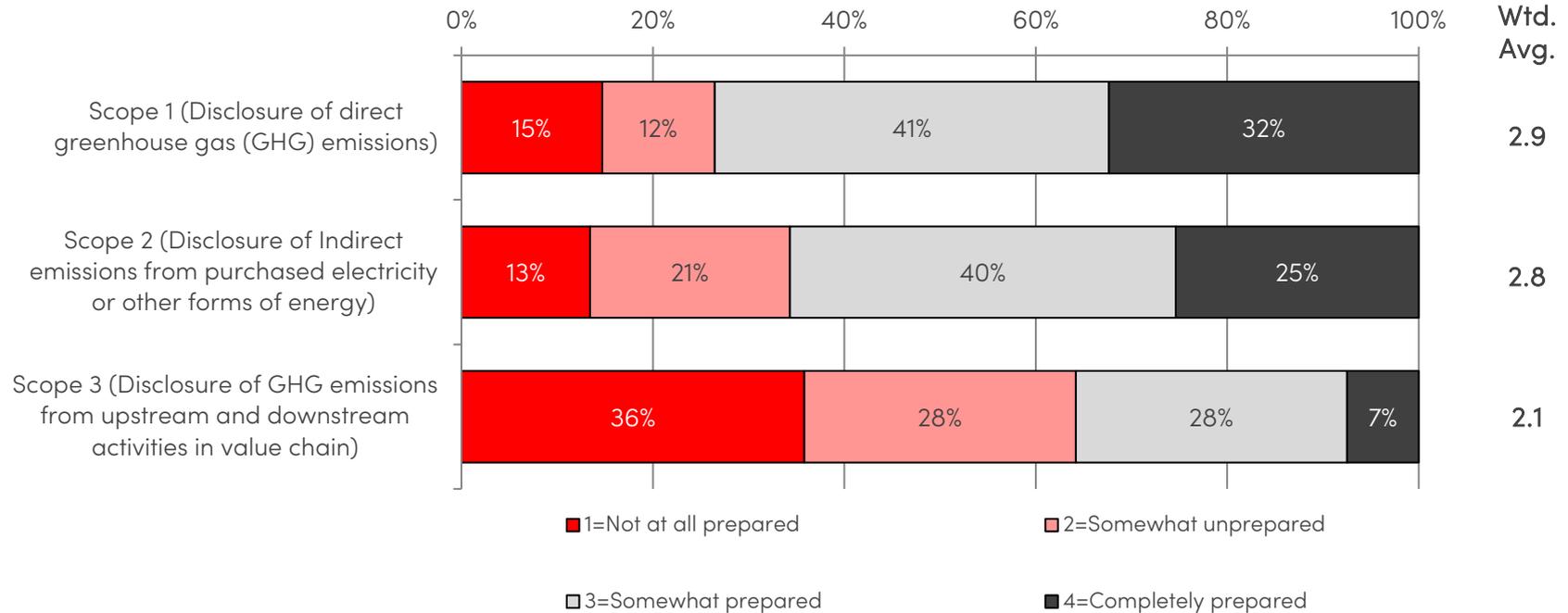
Comments:



- Additional unrecovered costs
- Our largest concern is the cost and manpower associated with executing these initiatives.
- Also, total cost (not just unforeseen)
- Local Mexico government not on board for the global change as the main concern
- Customers are requiring adherence to overly broad ESG requirements.
- Unclear what the workload impact will be on the organization

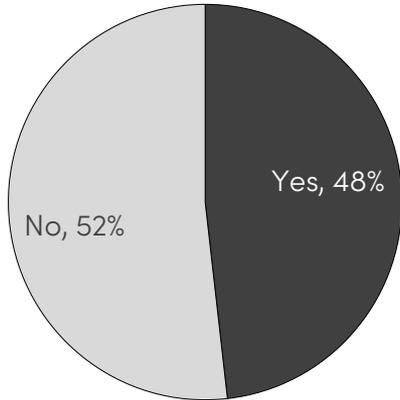
Sustainability: SEC Climate Related Disclosure Preparedness

How prepared is your company to report on the proposed SEC rules on climate-related disclosures?



Sustainability: Carbon Neutrality Goals

Does your company have a carbon neutrality goal?



Comments:

- It is being developed.
- [We] commit to being carbon neutral on operationally controlled emissions by 2035
- We have emission targets but not defined yet when to become carbon neutral.

By what year does your company hope to achieve carbon neutrality?

Upper Quartile	2030
Median	2035
Lower Quartile	2040
Range	2020 - 2050

Comments:

- Scope 1/2
- We have committed to becoming carbon-neutral in our global operations by 2030 and to achieve net carbon neutrality by 2040 as we transition away from carbon-intensive energy and processes in our global operations.
- All Scopes for Automotive Markets

MEMA OE Supplier Barometer: Appendix



MEMA OE Automotive Supplier Barometer is a survey of the top executives of MEMA regular member companies. The MEMA OE Automotive Supplier Barometer takes the pulse of the suppliers' twelve-month business sentiment. In addition, it provides a snapshot of the industry commercial issues, business environment and business strategies that influence the supplier industry. mema.org

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Survey Methodology

- Data collected April 26– May 16 via invitation to online survey.
- Executives of MEMA supplier companies.
- 87 complete survey responses were received, with 125 responses total.

The information and opinions contained in this report are for general information purposes. Comments are edited only for spelling and may contain grammatical errors due to their verbatim nature. Responses to this survey are confidential. Therefore, only aggregated results will be reported, and individual responses will not be released or shared.

Antitrust Statement:

Respondents/participants should not contact competitors to discuss responses, or to discuss the issues dealt with in the survey. It is an absolute imperative to consult legal counsel about any contacts with competitors. All pricing and other terms of sale decisions and negotiating strategies should be handled on an individual company basis.

Contacts

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