

ASK THE EXPERTS WEBINAR

*Strengthening the Global Supply
Chain in Uncertain Times*

April 9, 2020

THE RIVERON TEAM



Bill Maloney

EXECUTIVE MANAGING DIRECTOR

Bill brings over 20 years of experience in accounting and financial leadership roles including: complex deal-related US GAAP and IFRS accounting and reporting issues, and technical expertise in accounting for income taxes, revenue recognition and business combinations.



Udit Sharma

MANAGING DIRECTOR

Udit has over 20 years of industry and consulting experience in partnering with Fortune 500 company leadership to transform their end-to-end supply chain operations. He has worked with private and public companies to help them identify and capture EBITDA enhancement opportunities.



Adrian Sawczuk

MANAGING DIRECTOR

Adrian contributes more than 30 years of consulting, corporate and entrepreneurial experience, assisting and managing companies from early stage start-up to late stage cash flow optimization.



Eliza Wood

MANAGER

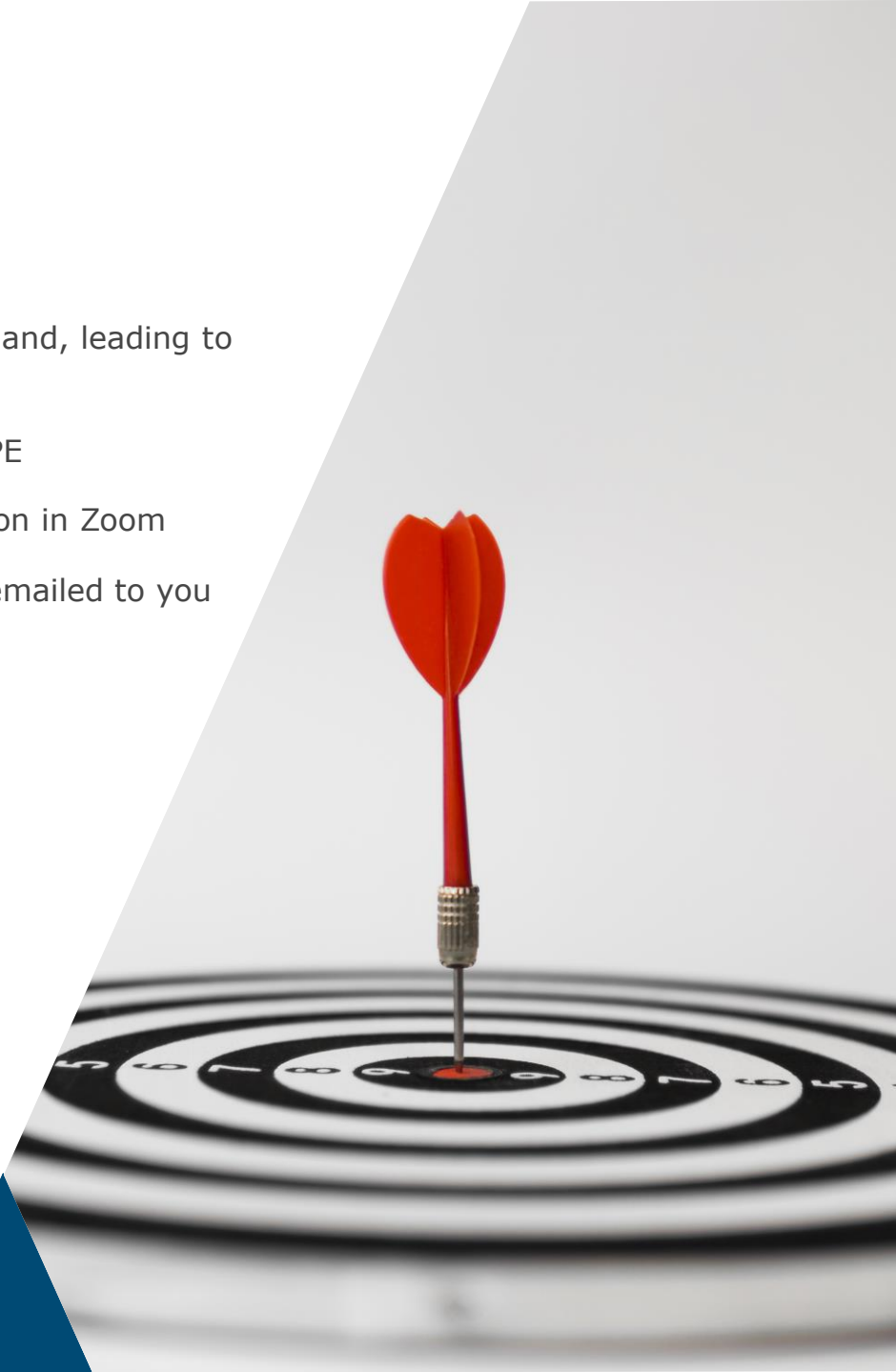
Eliza brings with her 10 years of experience in operations and financial leadership roles including: supply chain management, organizational design, and financial services operations.

AGENDA

- 01** INTRO & REMINDERS
- 02** SUMMARY OF IMPACT TO THE SUPPLY CHAIN
- 03** SUPPLY ACTIONS TO CONSIDER
- 04** KEY TAKEAWAYS
- 05** Q & A

KEY REMINDERS

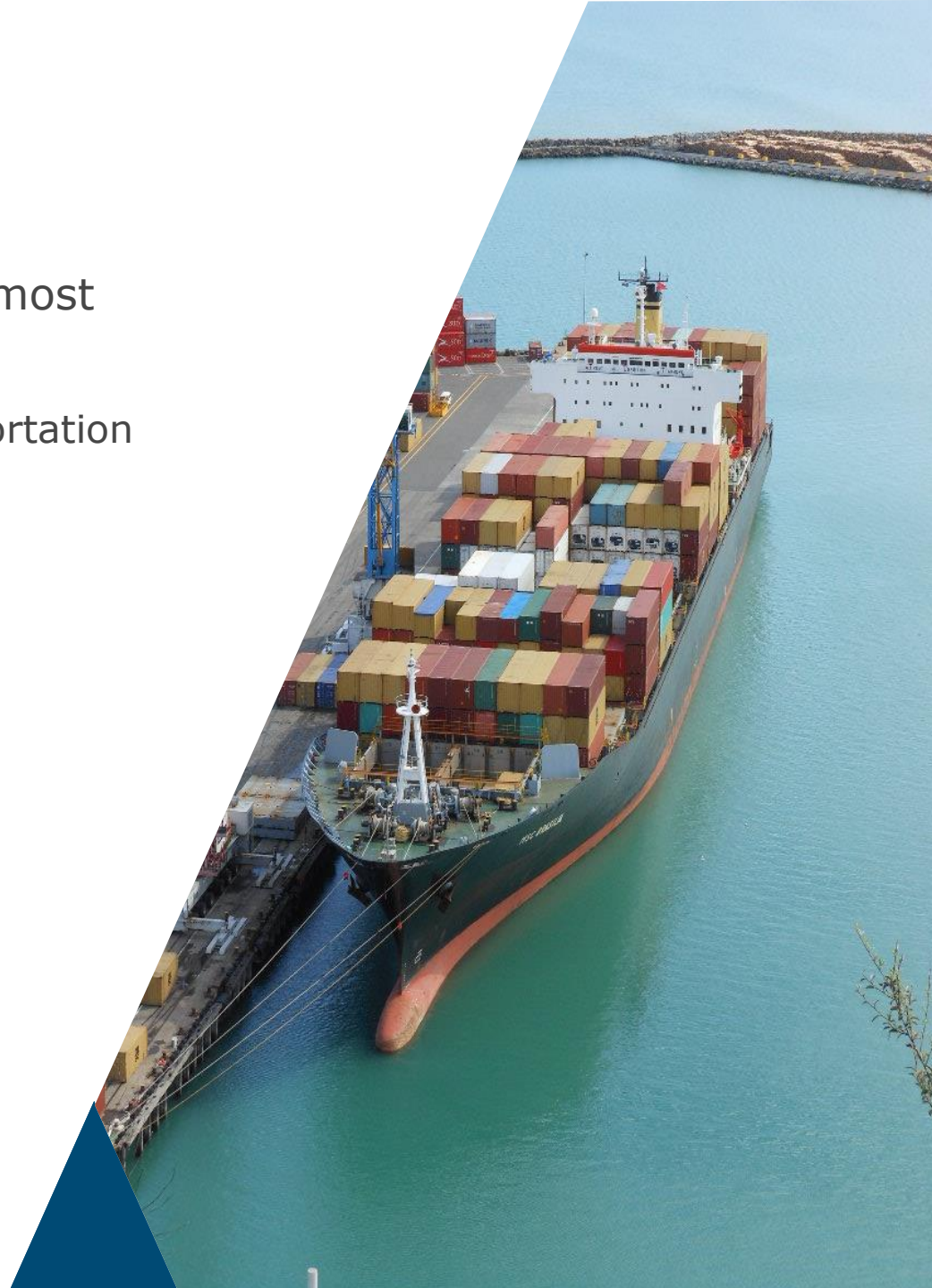
- ▶ Riveron webcasts – past and upcoming
- ▶ Zoom currently experiencing high amounts of demand, leading to some technical difficulties
- ▶ 4 polling questions must be answered to obtain CPE
- ▶ If you have questions, feel free to ask in Q&A option in Zoom
- ▶ Webinar evaluation form & CPE certificate will be emailed to you
- ▶ On demand video is not eligible for CPE
- ▶ You will receive a follow up email including:
 - ▶ Access to this webinar recording and deck
 - ▶ The ability to join our Webinars Mailing list to receive future invites
 - ▶ Presenter contact information



Polling Question # 1

What area of your company is most impacted by COVID-19?

- A. Inbound and outbound transportation
- B. Demand planning
- C. Manufacturing
- D. Distribution
- E. Does not apply



IMPACT OF COVID-19 TO THE GLOBAL SUPPLY CHAIN

WHEN CHINA, THE WORLD'S SUPPLIER, IS IMPACTED, GLOBAL SUPPLY CHAINS ARE IMPACTED

SUPPLY BASE

- ▶ China remains a major player in the global value chain
- ▶ As China's Hubei province ramps up production, there increasingly is becoming a large variation in supply with supply outstripping demand in certain industries

INBOUND & OUTBOUND TRANSPORTATION

- ▶ Transportation issues are arising as China increases production in a short period of time
- ▶ Pressures are building at US ports as some shippers fail to pick up containers because warehouses are full/closed or because retailers have requested delayed deliveries at distribution centers

DEMAND – SUPPLY PLANNING

- ▶ Prices for consumables are rising as a result of increased demand and supply shortage
- ▶ Smaller suppliers and manufacturers may not be able to survive the cash flow challenges, leading to further disparity in the supply chain

MANUFACTURING

- ▶ Economic activity contracted in the manufacturing sector during the month of March
- ▶ As COVID-19 winds it way through the economy, it is leading to a decrease in staffing and thereby a decrease in output

DISTRIBUTION

- ▶ Labor shortages are disrupting warehousing operations
- ▶ Even as China's manufacturing ramps up, shippers faced with plummeting demand and labor shortages have begun a process of slowing the supply chain — canceling orders, requesting containers not be loaded on ships, and seeking to store cargo at the destination port

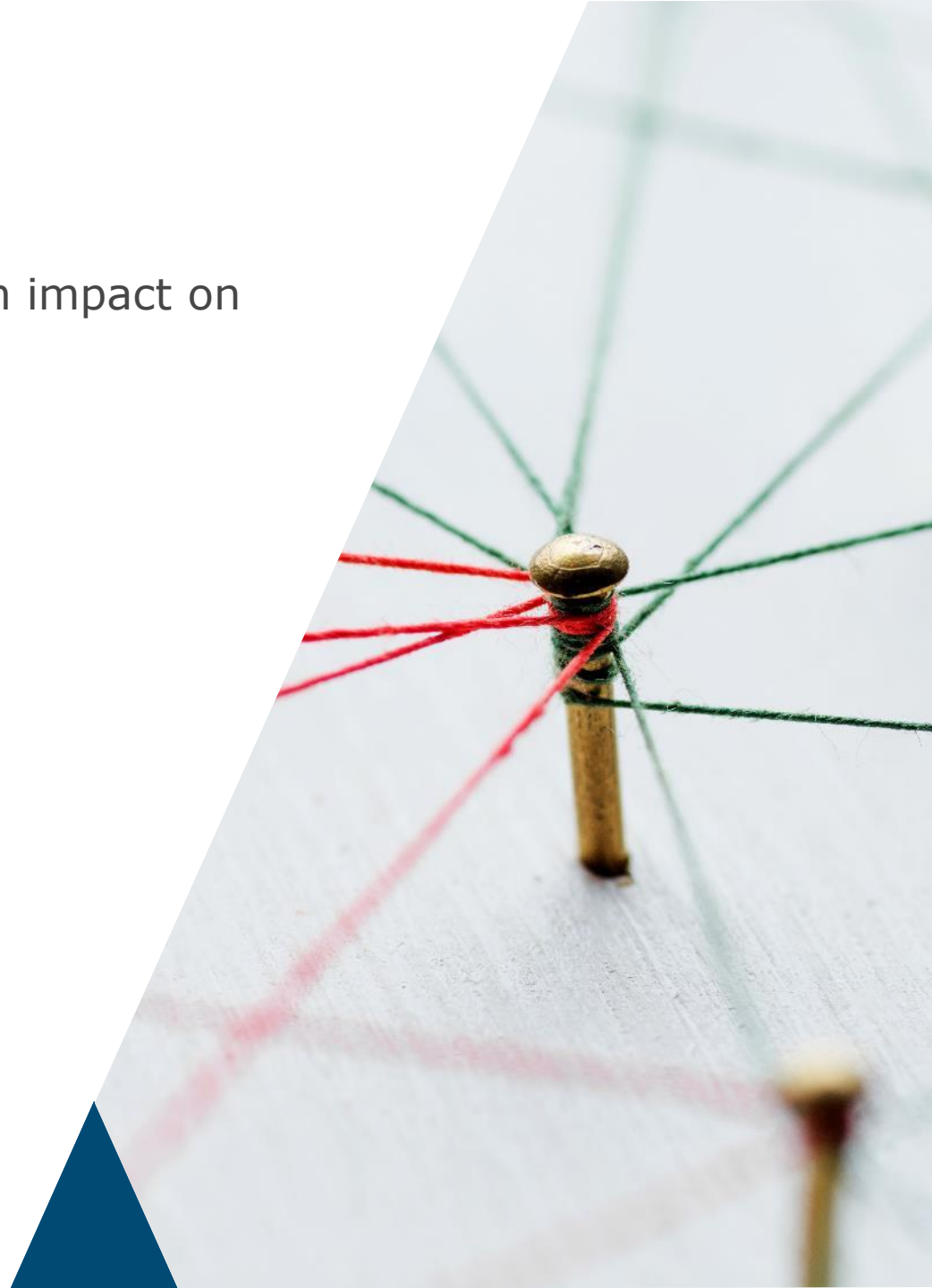
PREPARING YOUR ORGANIZATION FOR DISRUPTION IN THE SHORT AND LONGER TERM

- ▶ Some companies are better prepared than others to mitigate the impact of this disruption
- ▶ We will share our point of view on what companies should do in the short term to address COVID-19 related disruption
- ▶ We will also share our recommendations on what companies should do in the longer term to be prepared for such events

Polling Question # 2

How has your company seen an impact on your supply chain?

- A. Extended lead times
- B. Reduction in quality
- C. Change of suppliers
- D. Alternative supply routes
- E. No change
- F. Unsure



MANAGING SUPPLY BASE RISK

Shares of China in Global Exports by Commodity Groups (in %)									
	2000	2015	2016	2017	2018	2019	2020	2021	2022
Animal Products	4.0	5.2	5.2	5.4	5.4	5.4	5.5	5.7	5.7
Beverages and Oils	0.9	1.1	1.2	1.2	1.4	1.4	1.5	1.6	1.6
Chemicals and Related Products	3.0	8.6	8.7	9.0	9.2	9.3	9.4	9.8	10.0
Computers, Office, Communications and Professional Equipment	6.7	35.4	34.9	34.2	33.7	34.1	34.2	35.5	35.7
Energy and Mining	1.4	1.2	1.4	1.3	1.5	1.6	1.5	1.6	1.6
Glass and Non-Metallic Products	7.1	25.3	24.0	23.9	23.5	23.8	24.2	24.7	24.9
Machinery and Electrical Equipment	3.6	18.1	18.0	17.6	18.4	18.7	18.9	19.2	19.5
Metals and Metal Products	3.8	12.4	11.9	10.8	11.0	11.2	11.3	11.5	11.7
Miscellaneous	10.4	21.9	20.8	20.5	20.8	20.9	21.0	21.3	21.5
Textiles, Leather and Apparel	16.3	35.2	34.0	33.2	32.9	32.8	32.6	32.9	32.9
Transportation Equipment and Parts	0.8	5.0	4.5	4.6	5.2	5.2	5.3	5.6	5.8
Vegetable Products	4.2	3.7	3.8	3.9	4.0	4.1	4.1	4.2	4.3
Wood, Paper, and Related Products	2.2	8.9	9.0	9.1	9.1	9.4	9.6	10.0	10.1
Total Commodities	4.2	13.5	13.1	12.9	13.2	13.4	13.5	13.9	14.1

SUPPLY BASE CHALLENGES

- ▶ China's share in the global economy increased by 221% from 2000 to 2020
- ▶ The impact on different industries is disproportionately affecting global value chains
 - ▶ As a key example, despite the relatively low share that China has in the exports of transportation equipment/parts (5.3%), the outages in the production of key parts are already severely impacting the automobile industry

SHORT TERM SOLUTIONS | LONG TERM SOLUTIONS

Align demand with Chinese suppliers	Develop geographically diverse supply base
Identify critical suppliers	Co-invest with suppliers to develop supply
Share increased supplier costs, if critical	Develop joint business planning processes
Partner with suppliers to manage demand	Explore emerging technology

Source: IHS Market

BEWARE THE BULLWHIP EFFECTS



Source: The New York Times

TRANSPORTATION CHALLENGES

- ▶ On March 25th, the Chinese province of Hubei, began allowing most of its 60 million residents to return to work
- ▶ As China begins ramping up production after months of shut-down, inbound and outbound transportation challenges are increasing
- ▶ In this time of crisis, understanding the current and future logistics capacity by mode, along with the associated trade-offs, will be ever more important

SHORT TERM SOLUTIONS

Pre-book capacity

Collaborate with freight forwarders

Find alternative routes

LONG TERM SOLUTIONS

Create sustainable alternative routes

Develop partnerships with peers/customers

Partner with 3rd party logistics providers

LANDSCAPE OF INBOUND & OUTBOUND TRANSPORTATION

Air Freight Capacity by Tradeline

Origin	Destination (Region)	Current Capacity Status	% Tradeline Capacity Impacted by Passenger Flight Cancellation	% Capacity Impacted by Freighter Cancellations	Charter situation
China	Intra-Asia	Significantly constrained	90-100% cargo capacity reduction	More freighters than normal	More charter movements than normal
China	USA	Significantly constrained	90-100% cargo capacity reduction	More freighters than normal	More charter movements than normal
China	Europe	Significantly constrained	90-100% cargo capacity reduction	More freighters than normal	Charter market as normal
China	India	Significantly constrained	90-100% cargo capacity reduction	90-100% capacity reduction	Charter market as normal

Ocean Freight Capacity

Origin	Destination (Region)	Current Capacity Status	Container Availability
China	Africa	Available	Normal
China	Americas	Constrained	Normal
China	Asia Pacific	Constrained	Normal
China	Europe-MED	Available	Normal
China	Middle East	Available	Normal

Port Capacity

Port	Port Operations
L.A.	Port operating but some depots are closed / restrictions in place
Miami	Port operating but some depots are closed / restrictions in place
NY and NJ	Port operating normally (100% depots resumed)
San Diego	Port operating but some depots are closed / restrictions in place
San Francisco	Port operating normally but with lower efficiency due to manpower reduction

Source: Agility

Polling Question # 3

How long of a supply chain disruption does your business continuity plan account for?

- A. Less than 2 weeks
- B. 2 weeks to 1 month
- C. 1-3 months
- D. Greater than 3 months
- E. Unsure



SUPPLY CHAINS EXPERIENCING DEMAND-SUPPLY IMBALANCE

Production Levels

	% Higher	% Same	% Lower	Net	Index
Mar-20	21.5	53.7	24.8	-3.3	47.7
Feb-20	26.4	53.5	20.1	6.3	50.3
Jan-20	25.3	55.9	18.8	6.5	54.3

Inventory Levels

	% Higher	% Same	% Lower	Net	Index
Mar-20	20.5	55	24.5	-4	46.9
Feb-20	14.9	66.6	18.5	-3.6	46.5
Jan-20	18.2	61.2	20.6	-2.4	48.8

Customer Inventory Levels

	% Reporting	% Too High	% About Right	% Too Low	Index
Mar-20	75	11.4	64	24.6	43.4
Feb-20	76	6.6	70.4	23	41.8
Jan-20	77	10.1	67.5	22.4	43.8

Source: Institute for Supply Chain Management

DEMAND – SUPPLY PLANNING

- ▶ The ISM's Production Index dropped to 47.7 in March, 2.6 percentage points lower than February, indicating a contraction
 - ▶ Lack of new orders, insufficient backlog and supplier delivery restrictions are contributing to reduced production output
- ▶ In order to adequately prepare in the short term, companies must work with suppliers to assess demand while simultaneously identifying alternative supply base

SHORT TERM SOLUTIONS

Develop various demand and supply scenarios

Implement predictive KPIs

Develop controls for supply/demand lag

Create relief budget

LONG TERM SOLUTIONS

Leverage IoT

Align key stakeholders

Invest in end-to-end supply chain tools

Utilize machine learning

MANUFACTURING SECTOR ENTERS CONTRACTION

Manufacturing at a Glance (March 2020)

Index	Series Index Mar	Series Index Feb	% Point Change	Direction	Rate of Change	Trend in Months
PMI	49.1	50.1	-1	Contracting	From Growing	1
New Orders	42.2	49.8	-7.6	Contracting	Faster	2
Production	47.7	50.3	-2.6	Contracting	From Growing	1
Employment	43.8	46.9	-3.1	Contracting	Faster	8
Supplier Deliveries	65	57.3	7.7	Slowing	Faster	5
Inventories	46.9	46.5	0.4	Contracting	Slower	10
Customers' Inventories	43.4	41.8	1.6	Too Low	Slower	42
Prices	37.4	45.9	-8.5	Decreasing	Faster	2
Backlog of Orders	45.9	50.3	-4.4	Contracting	From Growing	1
New Export Orders	46.6	51.2	-4.6	Contracting	From Growing	1
Imports	42.1	42.6	-0.5	Contracting	Faster	2
OVERALL ECONOMY				Growing	Slower	131
Manufacturing Sector				Contracting	From Growing	1

MANUFACTURING CHALLENGES

- ▶ U.S. Manufacturing officially contracted in March, from 50.1 to 49.1, due to COVID-19 and blows to the global energy market
- ▶ According to the ISM, sentiment regarding near-term growth in March is strongly negative, by a 2-to-1 ratio
- ▶ Creating transparency on a multi-tier supply chain will be critical to understanding the flow of goods through the global value chain

SHORT TERM SOLUTIONS

- Create cross-functional task force
- Expedite raw material deliveries
- Plan for decline of workers per shift while adding shifts
- Outsource non-specialized sections

LONG TERM SOLUTIONS

- Automate factory floor
- Invest in IoT operating technology
- Develop diverse manufacturing sites
- Create a disruption risk mgmt. strategy

Source: Institute for Supply Chain Management

SUPPLIERS CONTINUE TO STRUGGLE

Supplier Deliveries

	% Slower	% Same	% Faster	Net	Index
Mar-20	35.7	58.6	5.7	30	65
Feb-20	20.3	74	5.7	14.6	57.3
Jan-20	16.8	72.3	10.9	5.9	52.9

Manufacturing Employment

	% Higher	% Same	% Lower	Net	Index
Mar-20	8.6	70.1	21.3	-12.7	43.8
Feb-20	11.7	69.1	19.2	-7.5	46.9
Jan-20	11.7	66	22.3	-10.6	46.6

DISTRIBUTION CHALLENGES

- ▶ Deliveries slowed in March as suppliers struggled to deliver at a much higher clip than February
- ▶ Suppliers from all industries point to COVID-19 challenges and supply chain constraints from China as to the reason for slowing deliveries
- ▶ These material shortages due to upstream impacts on the supply chain combined with labor shortages due to increased government restrictions are creating an uneven pressure on distribution

SHORT TERM SOLUTIONS

Scenario planning

Arrange temporary leases

Partner with 3rd party to temporary lease warehousing space

LONG TERM SOLUTIONS

Develop flexible warehousing contracts

Invest in existing automation

Explore emerging technologies



KEY TAKEAWAYS

Polling Question # 4

What type of short term solutions do you see your company implementing (select all that apply)?

- A. Identifying alternative supply routes
- B. Working with suppliers to share manufacturing costs
- C. Assembling a cross-functional task force
- D. Developing various demand/supply scenarios
- E. Arranging temporary warehouse leases



SHORT TERM SUPPLY ACTIONS IN RESPONSE TO COVID-19

Manage demand fluctuations

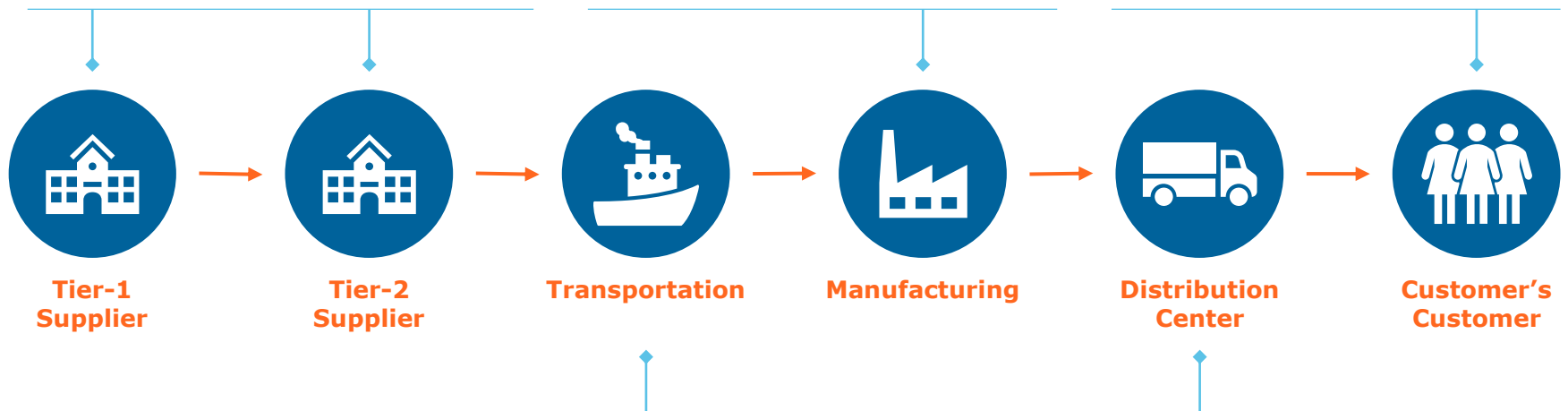
- ▶ Identify critical materials and confirm supply origin
- ▶ Look to alternative sources, if suppliers are in severely impacted areas
- ▶ If suppliers are critical, work with them in the short term to share increased manufacturing costs

Refine production plans

- ▶ Assemble cross-functional taskforce comprised of leaders from manufacturing, procurement, supply chain and finance
- ▶ Expedite raw materials
- ▶ Update and refine productions plans

Assess final demand

- ▶ Work with sales, operations and finance teams to develop demand and supply scenarios for coming 6-9 months
- ▶ Use market insights/external databases to estimate customer's customer final demand



Identify and procure capacity

- ▶ Evaluate available logistics capacity
- ▶ Change mode of transport and procure carrier capacity
- ▶ Identify alternative routes for port of entry and departure

Plan for unplanned spikes in demand

- ▶ Account for large variations in inventory
- ▶ Plan for a surge in supply by arranging temporary leases for warehouse space

LONG TERM SUPPLY ACTIONS IN RESPONSE TO COVID-19

Prepare for the future

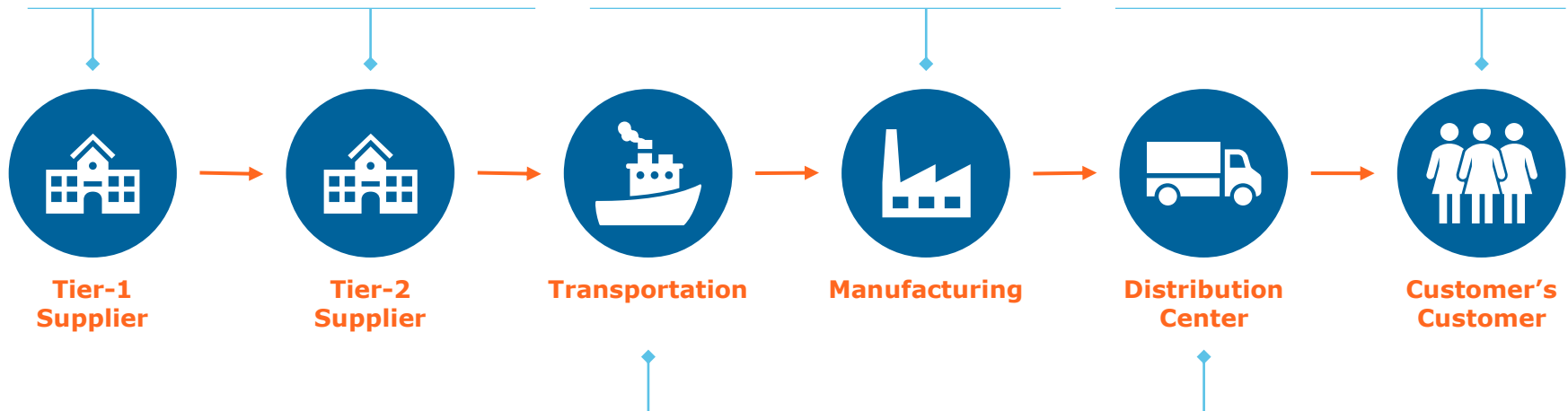
- ▶ Develop a geographically diverse supply base
- ▶ Co-invest with suppliers to make upstream supply more robust
- ▶ Create systematic joint business planning processes
- ▶ Explore emerging technologies

Invest in technology

- ▶ Invest in IoT-based operating technology to reduce the dependence on manufacturing operations
- ▶ Cultivate a strategic network of geographically diverse manufacturing locations

Seamlessly integrate

- ▶ Develop joint business planning processes with key suppliers, using IoT-based supply/demand warning signals amongst suppliers and customers
- ▶ Invest in end-to-end supply chain visibility and planning tools



Create sustainable alternatives

- ▶ Work with freight forwarders and shipping companies that have contracted rates for alternative routes
- ▶ Develop partnerships with peers/customers to utilize combined volume guarantees to drive long-term contracts

Increase flexibility

- ▶ Develop warehousing space contracts that can be ramped up/down depending on supply/demand
- ▶ Identify opportunities for warehouse automation

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Q&A

ADDITIONAL RESOURCES

Related Thought Leadership

- ▶ [*Strengthening the Global Supply Chain in Uncertain Times*](#)
- ▶ Related COVID-19 articles [HERE](#)

Additional Resources

[PREPARING FOR THE NOW, THE NEXT AND THE NEW NORMAL](#)

[*The NOW: A Guide to Dealing With Disruption*](#)

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