Live Chat with Tom Linton: The State of the Supply Chain

Moderated by

Glenn Wilensky

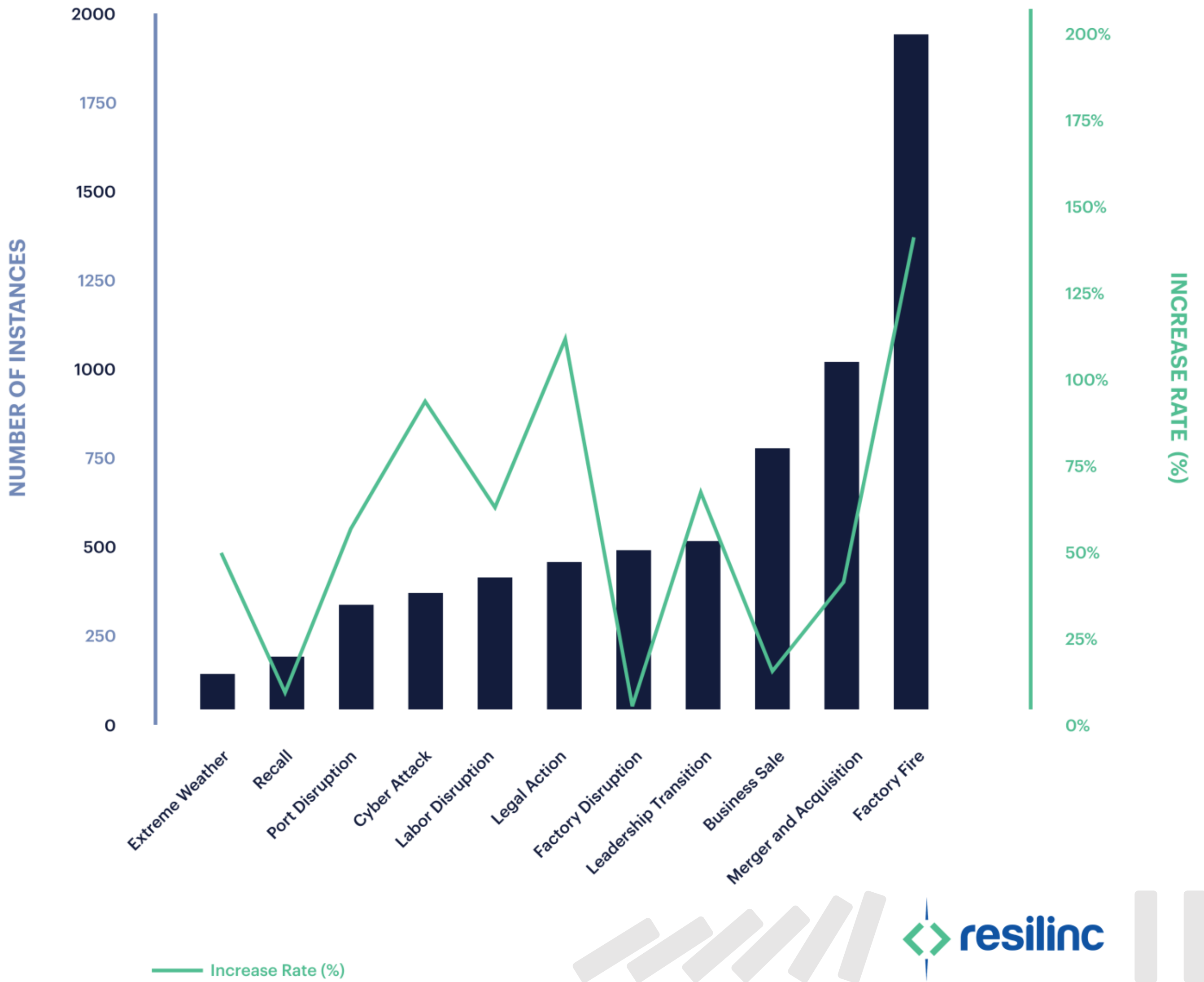
VP, Customer Success at Resilinc

THE PERFECT STORM

Multiple waves intersecting through the supply chain ecosystem

- COVID-19 Lockdowns: Still disrupting global supply chains
- **Russia/Ukraine War**
- Extreme and widespread demand shifts
- Dozens of large factory fires
- Forced Labor Act/ESG regulations
- Commodity Shortages
    - Semiconductor shortages
    - Metals and mineral shortages
    - Gas shortages
    - 3M coolant factory shutdown
- Logistics / Transportation Risk
- Driver shortage
    - Port and shipping disruptions
- Rising inflation and price increases
- Labor movement and shortages
    - Across the skills spectrum
    - Labor protests
    - Employee shortages

Top 10 Event Types for First Half of 2022



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Disruption Types by Industry for First Half of 2022

Top 10 Contributing Factors to Commodity Volatility

1 · Geopolitical Unrest
2 · Manufacturing Disruption
3 · Higher Operational Cost
4 · Raw Material Disruption
5 · Shipping / Cargo Disruption
6 · Higher Consumption
7 · Law & Regulation
8 · Labor Disruptions
9 · Market Uncertainty/Fear
10 · Balance competition

IT ALL BEGINS WITH DATA

MAPPING SUB-TIER VISIBILITY

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Is time up for just-in-time car manufacturing?

Industry experts discuss whether recent supply chain disruptions will change the manufacturing business model

NEWS
by Piers Ward | 3 mins read | 26 April 2022

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April 11, 2022 | *Topic:* **Trade** | *Blog Brand:* **The Buzz** | *Tags:* **Global Commerce, Trade, Supply Chains, Production, Manufacturing**

How ‘Nearshoring’ Can Revitalize the U.S. Economy

The impacts of the COVID-19 pandemic have only accelerated the shift toward nearshoring production.

by Jerry Haar

Supply Chain Woes Prompt a New Push to Revive U.S. Factories

Companies are testing whether the United States can regain some of the manufacturing output it ceded in recent decades to China and other countries.

US ban on cotton from forced Uyghur labour comes into force

Fashion industry told to avoid cotton from Xinjiang, which accounts for 84% of China's exports of the product

A worker gathers cotton yarn at a textile plant in Xinjiang. Photograph: Mark Schiefelbein/AP

IMMEDIATE RELEASE

DoD Announces $117 Million Defense Production Act Title III Agreement With GlobalFoundries to Strengthen the Domestic Microelectronics Industrial Base

MAY 2, 2022

As part of the nation's effort to sustain the microelectronics manufacturing capability necessary for national and economic security, and in support of Executive Order 14017, *America's Supply Chains*, the Department of Defense (DoD) has awarded a $117 million agreement to GlobalFoundries (GF).

2 huge chip makers warn of expansion delays as subsidies bill languishes

Intel postpones Ohio groundbreaking as Congress faces a do-or-die moment on legislation to provide $52 billion for domestic computer chip production

By Jeanne Whalen and Marianna Sotomayor

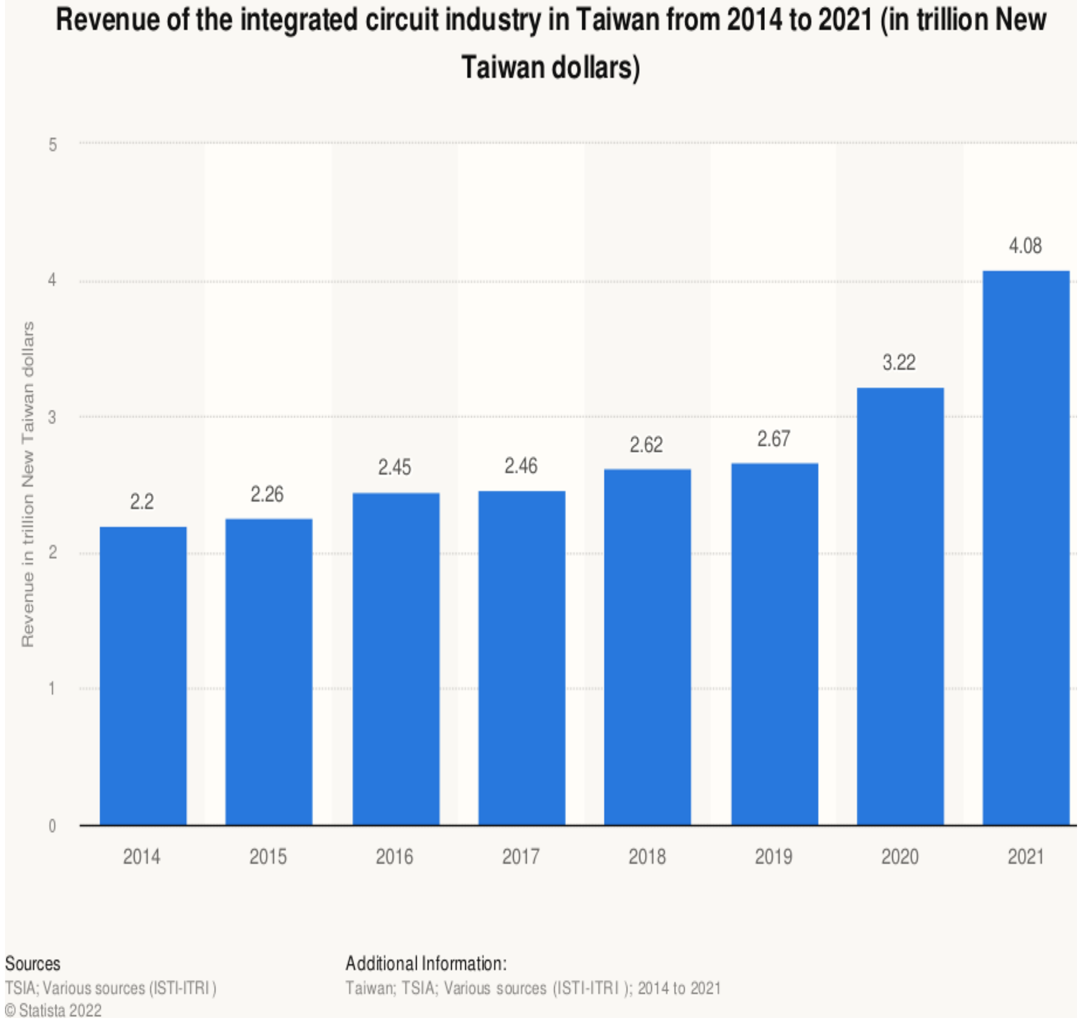
Updated June 23, 2022 at 2:05 p.m. EDT | Published June 22, 2022 at 12:21 p.m. EDT

Taiwan’s Role in Semiconductor Production

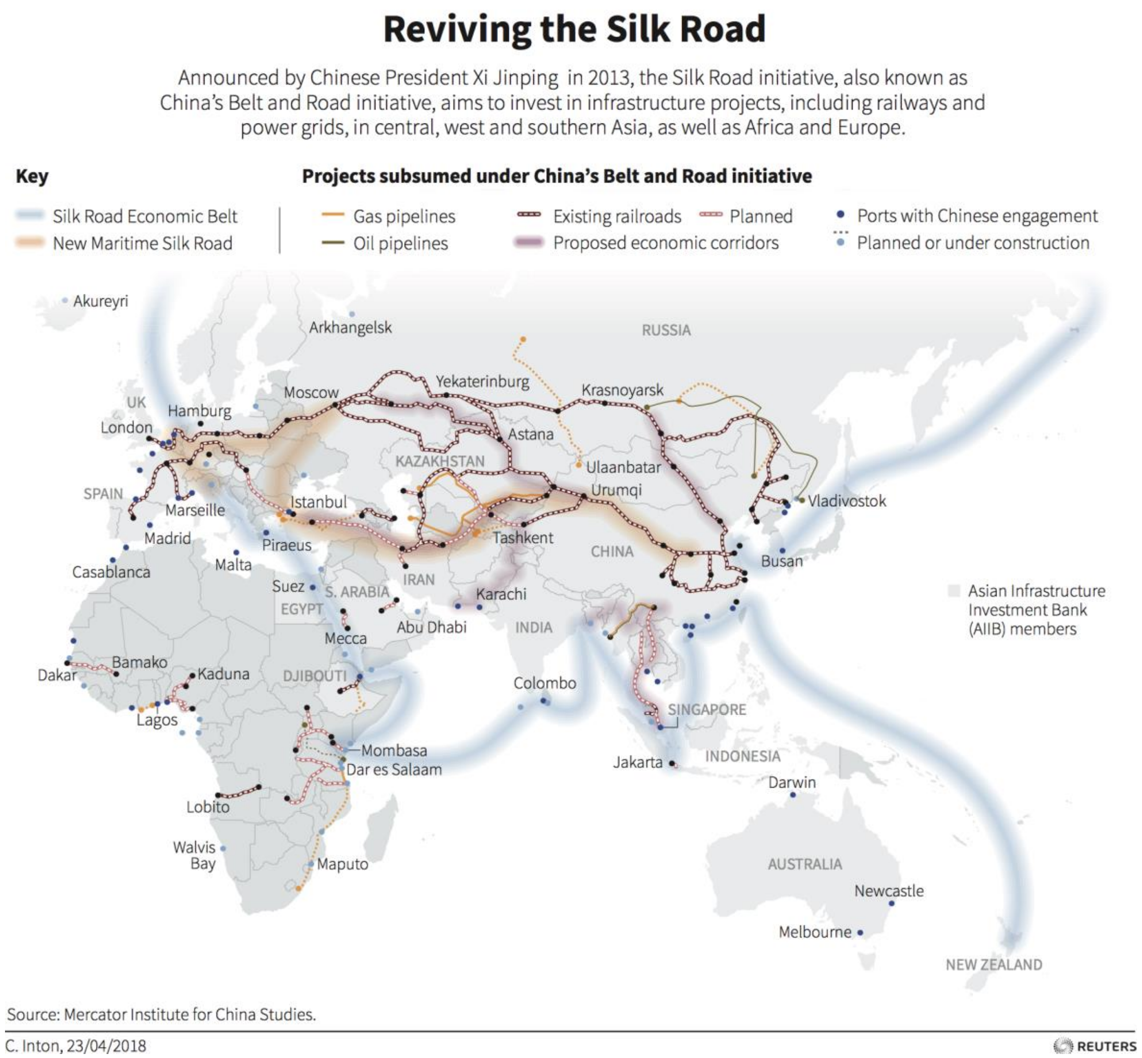
In 2022 Taiwan’s contract chipmakers are set to expand their global market share to 66% by revenue

- Six new plants are expected to be built in Taiwan
- A rise in foundry capacity means that the country will rise to a 58% share for advanced chips

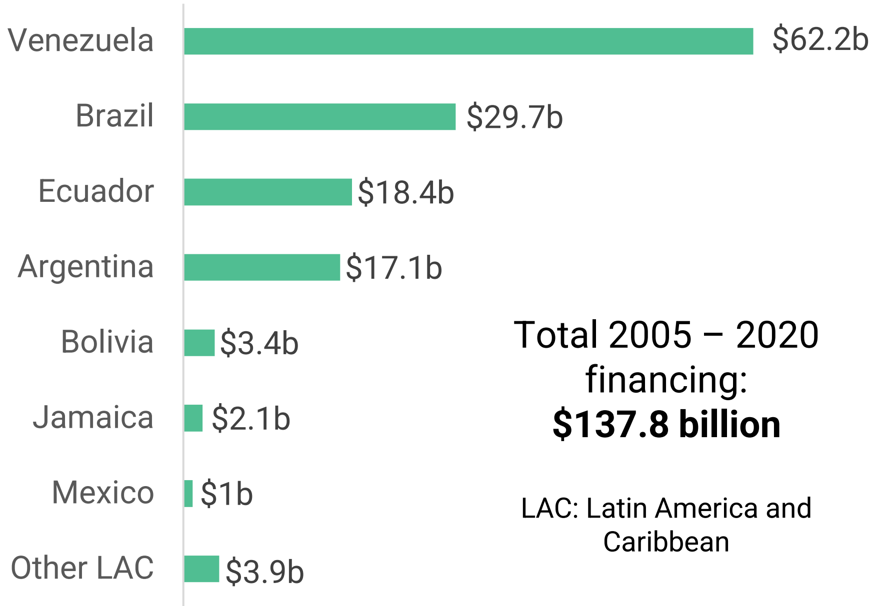
"A hostile takeover of Taiwan by China would end life as we know it."
Bindiya Vakil, CEO, Resilinc



Beyond Taiwan: The Belt and Road Initiative



China: Financing in LAC, 2005 - 2020



Total 2005 – 2020 financing:
$137.8 billion

LAC: Latin America and Caribbean

Source: Created by CRS with data from Kevin P. Gallagher and Margaret Myers, "China-Latin America Finance Databases," Inter-American Dialogue, 2021, at https://www.thedialogue.org/map_list/

Looking forward

12 Month Outlook

Sector Specific Disruptions

- Global energy crisis
- Russia/Ukraine war and trade instability
- Cybersecurity incidents
- Continued transportation delays and disruptions
- Semiconductor issues to continue
- Commodity pricing volatility
- EU emissions regulatory changes
- Labor violations, Child labor (ESG issues) crackdowns
- Emerging posture of China
- Labor shortages and aging demographics in many countries

18 Month Outlook

Adapted New Normal

- Depends on climate readiness strategies in place
- Stabilization of JIT/Lean adjustments
- Established trend for regionalization and supply chain structural changes
- Pan-America vs. EU-Africa vs. Asian regional collaboration agreements
- Compliance for ESG audits/regulatory measures (E.g. Expanded 10K, Germany new law)
- Establishment of new trade partnerships regional agreements
- Emerging re-design of the global supply chain

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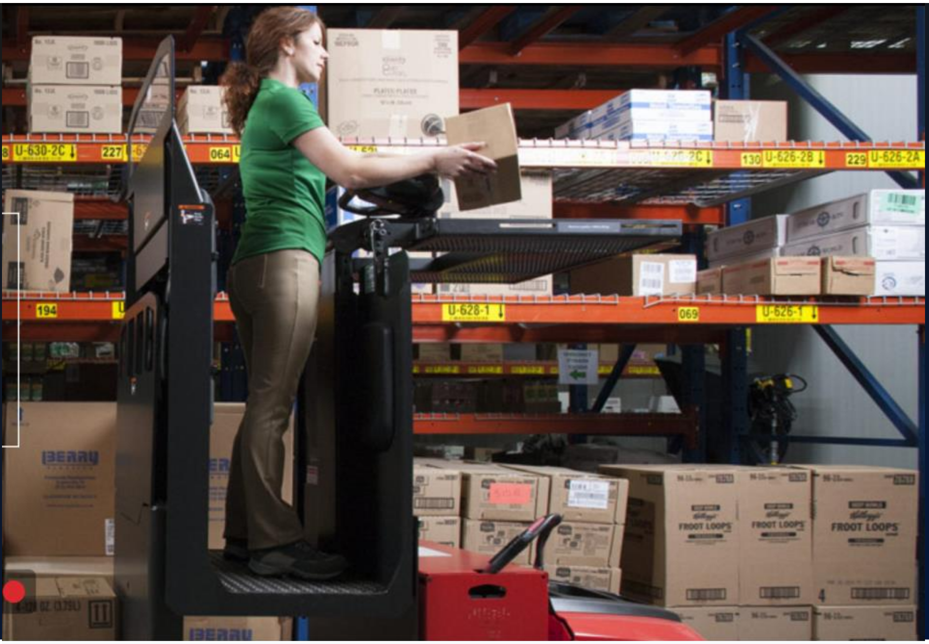
MULTI-TIER CASE STUDY

How Toyota Raymond engages suppliers, drives transparency and resiliency



How The Raymond Group Uses Resilinc

- Mapping top 100 suppliers to 1500+ sub-tiers
- Part-site mapping for 3500 parts
- Analyzing suppliers, sites and parts with highest risk/revenue impact
- Monitoring over 2,000 sites for disruptions

- **Event Response:** Automated supplier impact confirmation during events
- **Proactively:** Engaging suppliers proactively to discuss supply continuity goals and finding solutions jointly

Raymond (Toyota Material Handling Group)
Manufacturer of manual and electric forklifts for material handling, end to end warehouse management, fleet management and warehouse optimization system; automated lift truck solutions for the warehouse of the future
Revenue: $4 billion
HQ: Greene NY
CEO: Michael G Field

Digitalized supply chain to drive predictability, greater velocity and consistent operational performance in an uncertain environment

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Q&A