ACG & EWA Webinar

US-China Trade Tariffs: Driving Companies to Expand Beyond China

October 15, 2019



- A leading provider of commercial, operational & risk management solutions and detailed implementation to western companies competing in the ever-changing China & Asia markets
- Founded in 2005 with offices in the USA and in China
- All EWA executives have lived in China & Asia and held senior management positions with P&L responsibilities for western MNCs with operations in China & Asia, including Briggs & Stratton (NYSE: BGG), Bechtel Corporation and Littelfuse, Inc. (NASDAQ: LFUS)
- Extensive experience in numerous key industries:

Automotive	General Manufacturing	Durable Goods
------------	-----------------------	---------------

Metal Fabrication Consumer Goods	Filtration & Separation Equipment
----------------------------------	-----------------------------------

Chemicals Packaging Electronics

Semiconductors Food & Beverage Medical Devices

Specialty Metals Laboratory Equipment Food Technology

Energy & Natural Gas Industrial Textile & Apparel Costings & Building Materials





ALEX BRYANT

Founder & President

- Director of International Business Development for Barnhardt Manufacturing Company
- Attorney, Ogletree Deakins Nash Smoak & Stewart, P.C.



DAN MCLEOD

Director

- Former Asia Pacific Operations Director of Ashland Specialty Ingredients (NYSE: ASH)
- Former Director of Engineering for Hercules Asia Pacific



MARK PLUM

Director

- President of Briggs & Stratton Asia (NYSE: BGG)
- Vice President of Sales & Marketing, American Standard Thailand & American Standard China

- Today's webinar will focus on understanding how companies' perspectives and their retaliatory actions towards the US-China trade tariffs have changed since the trade tariffs were first imposed in March 2018 and what these changes mean for the future.
- The foundation for this analysis:
 - EWA survey of 200+ US manufacturers producing in / supplying from China: August 2018
 - EWA survey of 230+ US manufacturers producing in / supplying from China: August 2019
- The core objective of each survey was to explore how manufacturers perceive the potential impact of the US-China trade tariffs and what actions have / are being taken to mitigate risk to operations.
- Additionally, EWA will present 2 working example case studies of US companies expanding their manufacturing, supply chain and customer base into ASEAN, Central Eastern Europe and Mexico.





2018 Expectations

64%: The tariffs will have significant negative impact upon my business

58%: The tariffs will cause significant increases in my costs for raw materials & components

41%: The tariffs will create significant disruption to my business

2019 Realities

73%: The tariffs have had a moderate to severe negative impact upon my business

82%: The tariffs have caused moderate to severe increases in my costs for raw materials & components

65%: The tariffs have created moderate to severe disruption to my business



2018 Expectations

- 65%: The greatest threat of disruption caused by the trade tariffs is on supply chains
- **13%:** The greatest threat of disruption caused by the trade tariffs is on manufacturing
- 22%: The greatest threat of disruption caused by the trade tariffs is equal on supply chains & manufacturing

2019 Realities

- 32%: The greatest disruption caused by the trade tariffs was on supply chains
- 27%: The greatest disruption caused by the trade tariffs was on manufacturing
- 41%: The greatest disruption caused by the trade tariffs was on equal on supply chains & manufacturing



2018 Actions

48%: My company has implemented counteractive measures to offset the impact of the US-China tariffs

27%: My company is currently considering to implement counteractive measures to offset the impact of the US-China tariffs

2019 Actions

69%: My company has implemented counteractive measures to offset the impact of the US-China tariffs

43%: My company is currently considering to implement counteractive measures to offset the impact of the US-China tariffs
(34% = additional measures)
(9% = first time measures)



2018 Actions

- 1: Internal Cost Cutting
- 2: Temporarily Shifting Production
- 3: Pre-Payment to Offset Costs
- 4: Global Supply Chain Optimization
- 5: Temporarily Dropping Product Lines

2019 Actions

- 1: Global Supply Chain Optimization
- 2: Global Manufacturing Footprint Optimization
- 3: Global Customer Base Expansion
- 4: Process Optimization
- 5: Organizational Re-Design



2018 Expectations

57%: The trade tariffs will drive companies to move from / expand beyond China

41%: The tariffs will drive companies to relocate manufacturing operations outside China

84%: The tariffs will drive companies to establish supply chains outside China

1%: The tariffs will drive companies to expand customer bases outside China

2019 Expectations

86%: The trade tariffs will drive companies to move from / expand beyond China

69%: The tariffs will drive companies to relocate manufacturing operations outside China

63%: The tariffs will drive companies to establish supply chains outside China

16%: The tariffs will drive companies to expand customer bases outside China



- Companies still see cost increases as an important issue but no longer as the top issue
 - Focus change in actions: From cost management to operational optimization
- Companies are experiencing greater disruption than expected
 - Focus change in actions: From supply chain oriented to a more comprehensive approach
- Companies are less optimistic about a timely end to the trade war & the prolonged negative impact
 - Focus change in actions: From "stop gap" measures to long-term (permanent) strategies
- Companies view relocating from or expanding beyond China as a viable method to mitigating the impact of the US-China trade tariffs
 - Focus change in actions: From a selected few to a vast majority





Comprehensive, Long-Term, Global Optimization

Global
Manufacturing
Footprint
Optimization

Global
Supply
Chain
Optimization

Global
Customer
Base
Optimization

Changes the focus from being strictly counteractive in nature to also being about identifying & leveraging opportunities for growth development and risk diversification





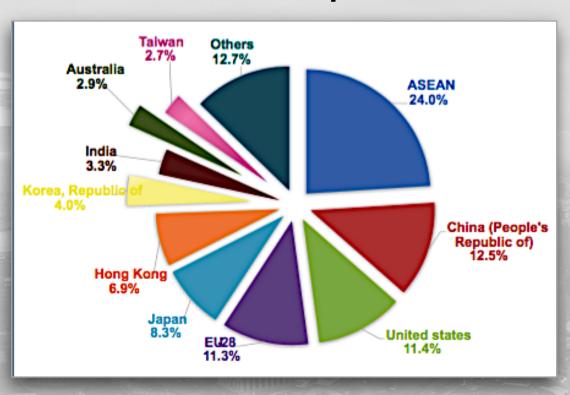




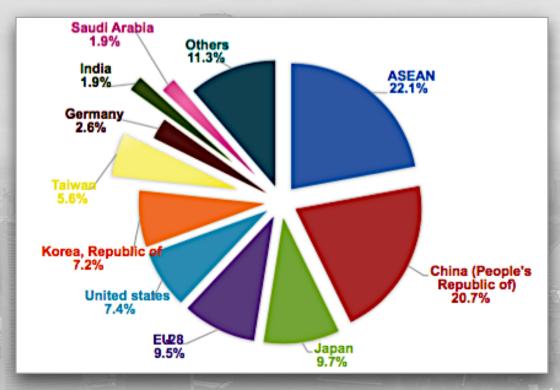




ASEAN Markets of Exports of Goods

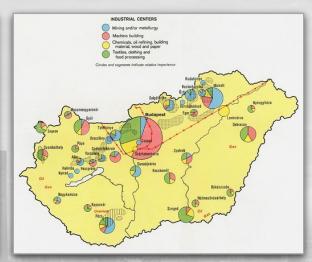


ASEAN Markets of Imports of Goods









Hungary

Poland

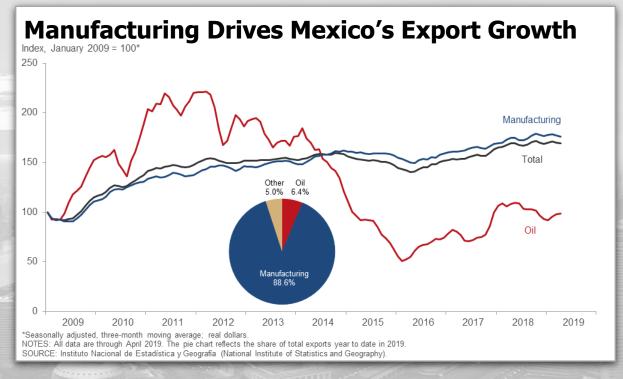


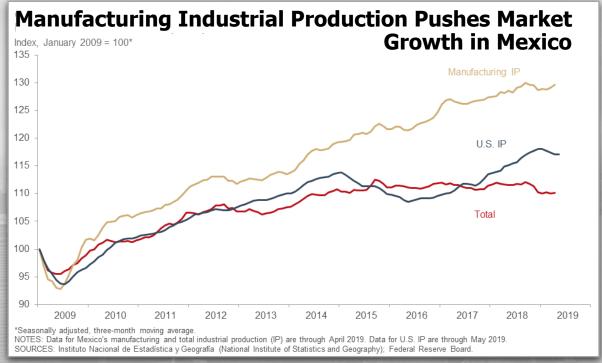


Slovakia



Czech Republic











- Wisconsin-based global manufacturer with operations in the US, China & Europe
- The Chinese manufacturing facility was located in the Fujian Province and in operation for 5 years
- Business had been growing 12-15% for the last 3 to 5 years
- The company was operating at maximum production capacity
- Given their growth in China/Asia Pacific, a significant increase in production capacity was mandatory
- The manufacturer required a new facility approximately 10 times larger than their current facility
 - Factory was to be approximately 200,000 square feet
 - Located on a 400,000 to 500,000 square foot site
 - 200 employees (150 production staff & 50 management/engineering)
- Although satisfied with the Fujian Province, the client accepted the EWA proposal to also investigate the benefits of an expansion into the ASEAN market



Step 1: Identifying the expansion criteria

- Company analysis
 - 15% of their entire Asian consumption was consumed in China
 - Sales projections indicated strong growth
 - Price is a major influencer within the competitive environment
 - Large products with labor intensive production process
- Expansion criteria: labor supply/costs, government incentives, inflation rates, availability of raw materials, transport & export logistics, supply chain vendor availability

Step 2: An in-depth comparative analysis of 6 selected countries

- Philippines, Malaysia, Indonesia, Vietnam, Thailand & China
- Weighted areas of focus:
 - Government incentives, labor supply/costs, inflation rates, availability of raw materials, land costs, utility costs, ease of doing business, corruption index, domestic market size, transport & export logistics
- Expansion recommendation: Thailand



Step 3: On the ground interaction

- Met with two of the largest industrial zone developers, visited 5 potential sites & selected 2 sites for soil testing
- Negotiated conditions for property purchase & property management (waste removal, perimeter security, etc.)
- Negotiated investment incentives with Secretary General of Royal Thailand Board of Investment
- Interviewed, evaluated & qualified:
 - 3 architect and engineering firms
 - 3 general contractors
 - 4 project management firms
 - 3 executive recruiters and manpower staffing firms capable of staffing the 200 person facility
- Qualified local Thai vendors to support the company's manufacturing location
- Met with local legal and accounting firms to identify the necessary criteria for establishing a business entity
- Presented a 360° recommendation to the US Board of Directors which was approved for implementation

Step 4: Hands-on implementation

- Property was purchased and all pre-construction permits/licenses/registrations were acquired by October 2017
- Plant designs, construction budget/timeline & all construction partner contracts were finalized in November 2017
- Plant and equipment installation began in January 2018 and was completed in April 2019
- Identification and recruitment of supply chain, distribution & logistics partners was completed in February/March 2019



Government Incentives

• 8 year tax holiday from CIT, 50% for an additional 5 years

Cost Reduction*

- \$22.0M tax savings over 10 years
- \$4.3M annual labor savings after 5 years
- \$1.8M annual raw material savings after 3 years
- \$120/unit average freight savings

Market Growth Development*

- 42% increase in sales over 5 years
- 53% increase in revenue over 5 years

*Company Forecasts





- Client is an Illinois-based manufacturer of consumer products with operations in US and China
- Approximately half of manufacturing was relocated to China in mid-2000's to reduce costs; achieved 40% cost reductions initially
- Business has continued to grow, with strong growth in Europe to 35% of total.
- The European Market was supplied from both the US and China.
- This created several challenges:
 - Cost advantage of China had decreased with escalating labor, energy, and raw material costs
 - Logistics costs had risen to >25% of product cost
 - Inventories were excessive, averaging 5 months supply
 - Prices for key raw materials became significantly higher in US
 - Responsiveness to changes in demand very slow as a result of long supply chain



- Volume growth had absorbed available production capacity in China. The client was faced with investing in new production assets to meet the demand.
- The introduction of tariffs added a \$40MM cost to continuing to supply from China
- The client completed a cost analysis indicating significant opportunities by localizing European supply and outsourcing component supply to Mexico.
- EWA was engaged to:
 - Validate the savings assumptions (from previous 3rd party economic analysis)
 - Develop and implement European manufacturing & supply chain footprint strategy
 (conduct multiple country analysis, select site for a new factory, negotiate tax incentives,
 oversee construction of the new facility, hire local senior management, evaluate existing
 DCs and qualify local suppliers)
 - Develop and implement Mexican manufacturing & supply chain footprint strategy
 (qualify local suppliers, assess assembly operations, identify 3rd party logistics providers,
 negotiate tax incentives, hire local senior management and evaluate existing DCs)



Step 1: Identify the Expansion Criteria

- Validated client cost savings and feasibility assumptions around relocating production to CEE
- Worked with client to develop a phased approach that front-loads savings into the initial investment, while allowing for expansion
- Developed requirements for property that will support the phased approach

Step 2: Location Strategy Development

- Scorecard was developed prioritizing client requirements
 - Technical/Professional Labor Supply/Cost
 - Transport Logistics
 - Access to established Supplier Base
 - Government Incentives
 - Ease of Doing Business transparency, local support
 - Speed of Project Execution
- Information gathered through EWA local staff, desktop research, external research, face-to-face meetings with government agencies, property developers, HR service providers.
- Recommendation of southern Poland



Step 3: Selection Process

- Visited and Evaluated 13 Potential Sites, Short-listed 6 sites for negotiation
- Evaluated purchase vs lease options
- Negotiated conditions of property purchase, property management
- Met with local government agencies, legal and accounting firms to 'roadmap" process for establishing business entity
- Assisted client with application for investment incentives and negotiated incentives with regional government
- Interviewed, Evaluated and Recommended
 - Engineering and Design Firms
 - Property Developers
 - General Contractors
 - Executive Recruiters and Staffing Firms
- Provided analysis and recommendation to senior management which was accepted by Board of Directors



Step 4: Hands-On Implementation

- Coordinated selection of engineering, construction management, and general contractor for the new site
- Provided Owners Representative on site through the construction
- Identified local component suppliers and assisted with qualification to establish the supply chain for the new factory
- Selected HR partner; assisted with recruiting site management
- Equipment installation and commissioning of new facility
- Insured inspections and approvals of new factory were completed in timely manner



Step 1: Define specific project objectives and requirements

- Extensive interviews with senior management and project technical team
 - Overall company background and objectives for the project
 - Understand products, process and cost breakdown.
- Volume requirements, growth plans
- Develop a strong working relationship and communications

Step 2: Deploy formal process and develop core elements for analysis

- Identify Products to be considered for outsourcing
 - One product line represented nearly half of units supplied from China
 - 90% of components for this product were outsourced and then assembled in-house
- Perform high level evaluation of product cost
 - Which components to source in Mexico?
 - Where to assemble the product?
- Strategy Development
 - 80% of component spend can be supplied from Mexico
 - Strong supplier base for stamping, coating, injection molding
 - Assembly to be done in Mexico to take advantage of 1) lower labor costs 2) good logistics to DC's in the US
 - Assembly operation (rather than manufacture in-house) fastest to implement



Step 3: ID potential suppliers and obtain analytical data

- Identified potential component suppliers within Mexico
 - Desktop research, government agencies, EWA local staff experience
- Detailed, standardized template developed for Supplier Qualification
 - Completed by each potential supplier candidate
 - Technical specifications shared, including QC and testing procedures
- Interviews to develop "short list" of suppliers
- Each finalist required to provide extensive, detailed project proposals with:
 - Projected unit costs
 - Quality Control plans, Failure history
 - Productivity commitments/price breaks for increased volumes
 - Samples for performance and life-cycle testing
- Followed similar process for identifying and qualifying 3rd Party Logistics providers for:
 - Inbound Freight Management from Suppliers
 - QA Inspection/Return of Non-Conforming Products
 - Warehousing
 - Assembly and Packaging
 - Freight Forwarding and Customs



Step 4: Final Negotiation and Recommendation

- Final negotiations conducted with suppliers:
 - Initial unit manufacturing cost, payment terms, and projected productivity improvements
 - Sharing of productivity/volume benefits
 - Inventory holding/stocking
 - Lead times/forecasting requirements
 - Warrantee/Failure Policies
- Negotiated Value-Add services from 3PL in addition to warehousing and shipping:
 - Provide incoming QA Inspection
 - Manage QA return process
 - Monitor and expedite deliveries from suppliers (minimize language difficulties)
 - Assemble and package product
 - Ship to customers or distribution centers in USA
- Recommendation accepted by client management



Poland – New Plant

Cost Reduction

- \$3.3M annual logistics cost savings
- \$3.0M annual labor savings after 3 years
- \$7.4M annual raw material savings after 3 years
- \$12.6M tax savings over 10 years

Other Benefits

- \$15M inventory reduction
- Greatly improved responsiveness to market demand changes in Europe

Mexico - Outsourced Product Line

Cost Reduction

- Reduced inventory vs China (\$21MM cash) and shorter lead times, better cash flow
- Cost reduced 5% (\$6MM) vs sourcing from USA,
 with potential for additional reductions
- Eliminated tariff impact
- Lower landed cost vs USA for major components, raw material and freight

Other Benefits

- Good quality outsourced assembly and packaging
- Elimination of 2 DC's from proximity to Western USA customers
- Response to NA demand changes improved



Contact Information

For further information as to how East West Associates can improve your business, please contact:

Alex Bryant President

Charlotte, NC, USA abryant@eastwestassoc.com Direct +1.704.807.9531

Jon B. Anderson
VP & Managing Director — China

Shanghai, PRC janderson@eastwestassoc.com World Mobile +1.312.952.8255 China +86 137 6434 7001

