



# Coronavirus and the bullwhip effect on the supply chain

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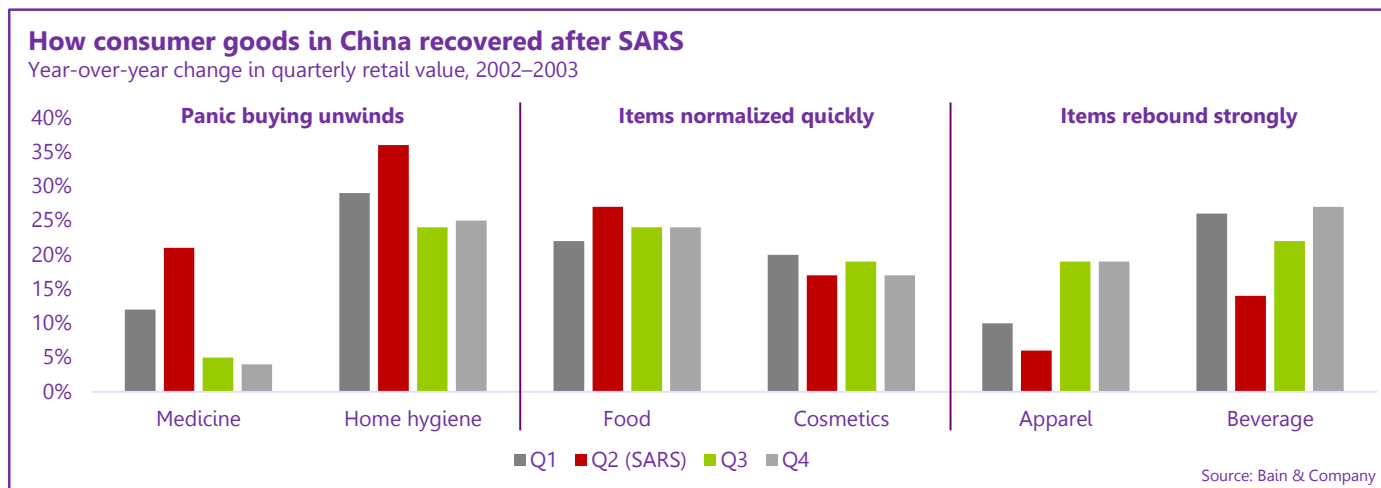
## An Apparel Perspective

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# Consumer and businesses reaction to the COVID-19 pandemic

## The outbreak

There are currently 531,806 confirmed cases from the COVID-19 outbreak as of March 27, 2020. With the worldwide measures to ban travel and social gatherings, the UN Conference on Trade and Development has forecasted that the global economy may see an impact of \$1-2 trillion in 2020. Aside from aviation and hospitality industries that have the largest hit, apparel and retail industries would have the 2nd biggest hit, especially during the crisis. The apparel, footwear and accessories industry is perceived to be "non-essential" to consumers. With that said, from what we learnt from SARS, the fashion industry will bounce back.



## Key development calendar of COVID-19 and business responses

Key event	Consumer response	Business response
Dec 1, 2019 ● 1 <sup>st</sup> case detected in Wuhan	❖ Panic buying in virus containment products e.g. face masks / hand sanitizer	<b>US / European brands concerned of delivery issues in China, urging for expedited shipment</b> before CNY. Some brands adopt "wait and see" approach
Feb 12, 2020 ● South Korea spike		<b>Supermarket prioritized essentials and food items</b> and, reduce textile on-shelf availability
Feb 19, 2020 ● Iran outbreak	❖ Stockpiling of shelf-stable foods, home entertainment, office supplies etc., grow in basket sizes with decline in store visits	<b>E-commerce companies like Amazon had plan to hire 100K Workers</b> as panic-buying intensifies. <b>US / Europe stores control operating hours</b>
Feb 21, 2020 ● Italy and Europe outbreak		Major brands started to cancel orders - <b>M&amp;S cut clothing orders by GBP100M. \$1.5B in Bangladesh orders were cancelled within a week</b> , representing 75% of orders till July. 80% of factories might not be able to sustain longer than 30 days
Mar 11, 2020 ● WHO declared COVID-19 as pandemic		
Mar 19, 2020 ● Almost all states in US declared emergency	❖ Increase in online shopping	<b>Stores in China</b> like Nike, started to <b>resume operation</b>

## The bullwhip effect – Working Capital and Sales Impacts!

At the beginning of the outbreak, most companies were seeking to expedite and increase orders as they feared for possible shortfalls in supply. Quickly this changed to requests to reduce or cancel commitments and to stop shipments as consumers shifted spending to essentials and demand for fashion items contracted significantly. The challenge in managing these significant swings in demand and supply, is that each decision to cut or expedite orders is applied to tens of thousand's of SKUs across 100's if not 1000's of nodes (stores / DC's etc). From a retail perspective, rapid swings in supply and demand management such as these which we are seeing at the moment, may result in businesses achieving working capital targets, however careful planning is required so that product mix is not overly compromised. From a manufacturing perspective, the lack of a quality demand signal ultimately results in an ongoing process of adjusting and reacting to downstream requirements. Besides the physical bullwhip effect, companies should beware of the financial bullwhip effect, order cancellation and payment delays on existing orders adds cash flow pressure to the upstream suppliers, inclusive of the raw material, work in progress and finished goods that are committed for future orders.

# What business should do now to mitigate bullwhip effect

The bullwhip effect starts when supply and demand planning becomes unaligned to the extent where the up-stream is over-responding to downstream requirements, ultimately impacting all value chain participants. While for most a primary objective is to improve their inventory position through working capital management, the unintended impacts can include low availability in stores and liquidity issues across the entire value chain including; retailers, manufacturers and raw material suppliers. The other call out is the impact on product performance data in these extended period could lead to sub-optimal business decisions for future planning. Without proper correction to data, it could be challenging for companies to build assortment and allocate the right product to the right store at the right time.

Solutions we are recommending include an end-to-end value chain approach focusing on adjusting buying and demand plans, manufacturing scheduling, supply and raw material plans, network capacity optimization and people planning.

## 10 immediate actions to take to manage the associated impact from the pandemic

### 1 Employees' health & safety

The first priority of business is to ensure team safety. Most companies have set up flexible work arrangements, providing access to health support and clear guidelines around hygiene and restricting non-essential travel. Most importantly, companies need to acknowledge the psychological impact employees experience during times of crisis. Transparency on business situation and overcommunication can be helpful to drive and encourage positive thinking.

### 2 Organization

Companies should set up teams or a crisis committee that directly report to CEO to manage priorities across functions (e.g. supply chain stability, financial & contingency planning, employee safety, marketing, etc.). The teams should proactively plan for 3-6 weeks ahead, with special goals to achieve.

### 3 Demand planning

The uncertainty of COVID-19 and its economic impact have prompted consumers to tighten their wallets and prioritizing groceries and household cleaning supplies. However, retailers need to be aware of stock-pile demand (e.g. toilet paper) versus a possible paradigm shift in demand (e.g. masks). Apparel, footwear and accessories have dropped in demand in Q1-2 and the learnings from SARS indicated a ramp up with greater L4L results is likely to follow. However the rise of unemployment rate could result in a slower bounce back than SARS. A realistic demand forecast considering macro and regional trends need to be in place to prepare for the potential peak.

### 4 Product performance data

The current sales data being captured will naturally reflect abnormal events such as restrictions put on store operating hours, spike in e-commerce and work from home policies. The teams who rely on this data to determine demand, supply and assortments plans in the future will need to carefully consider how to set up their models. It is recommended for retailers and manufactures to initially assess this at a segmentation level (e.g. basics and fashion). Companies with mature data analytics practices could conduct scenario-based planning to calculate the risk that the business can bear in revenue loss and inventory cost.

### 5 Channel & selling strategy

Traditional retailers that rely heavily on bricks & mortar face the biggest sales decline. There is heavy swing to e-commerce that requires an entirely different operating model. As retailers, how should the distribution model change and the floor plan evolve? For wholesaler and distributors, how should selling tools be adjusted? Manufacturers should also watch out for the change in channel mix to prepare the sales team to adjust.

### 6 Assortment & allocation planning

Though the seasonal clothing business is expecting at least a 50% drop in sales, businesses should still look for the change in product mix (e.g. intimates, sleepwear, workout, babywear and socks). A segmented approach should be developed accordingly based on product and channel to manage sales and inventory. Though the majority of the focus now is on cutting inventory, businesses should look ahead and ensure the right mix and product availability when the market is back to normal.

## 7 Order management & commitment

The apparel industry traditionally operates with long lead times, from product development to production. While many retailers are cutting current orders that are already produced and future orders for next season, it is important to take a holistic view on all the commitment made on fabric, raw material and finished goods. Order cancellation should be carefully considered since it will create chain effect on suppliers and with the knowledge that a capacity shortage is expected to happen once economy is ramping up.

## 8 Capacity management

While waiting for the manufacturers to regain full capacity after the disruption, brands should prioritize orders based on a customer centric approach. The product portfolio should represent the customer during decline and be adjusted during ramp up. To prevent bullwhip effect, collaboration between retailers and factories which considers sharing of demand data and capacity utilization along with an understanding of cash flow and business risk is recommended.

## 9 Distribution & transportation

There has been significant increases in some freight modes and lanes and the profile of the transport task has more than likely shifted dramatically from original commercial agreements. Business should conduct impact analysis to understand transportation and distribution channel changes. The status quo may not work anymore and both retail and manufactures should take a proactive approach to seek opportunities to reduce cost at each touch point.

The global supply chain is getting increasingly complicated and there are benefits in understanding the end-to-end value chain to manage it. Every company's situation is unique in its supply chain and customer base. Whilst the market is consolidating currently and the priority is looking after our teams, community and business sustainability, history tells us the market will bounce back, yet for those companies which have stronger financial position, it is important to have a measured and expedient action plan to avoid the bullwhip and to fast track the path to profitability. Both retailers and manufacturers have complex businesses built on providing 1000's of different items to the market, a broad group of leaders will need to work together to ensure the best outcome for all involved.

## 10 Scenario based planning

From a financial perspective, businesses should model different scenarios in relation to revenue, cost and cash flow. Projected solutions on cost reduction or cash flow improvement initiatives can be made based on variables identified from each scenario. From an operation standpoint, the financial perspective should reflect on the merchandise financial plan – implication to product mix, budgeted buy and markdown for each product category. The merchandise plan needs to be carefully managed as it could take up to 6 months to rebalance the inventory mix. Geographical factors should be added since some markets will rebound sooner than the others.



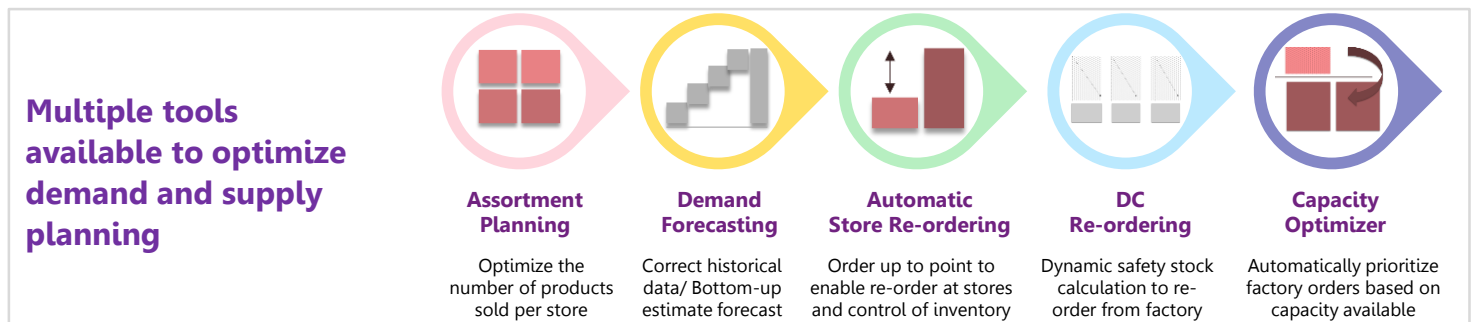
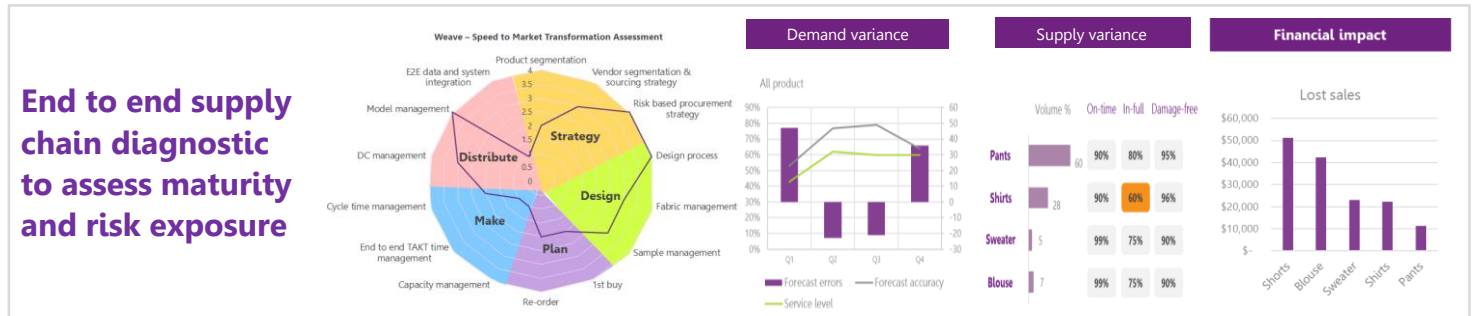
### What is the industry working on?

- **Global apparel companies leveraging supply chain capacity to produce PPE**
  - H&M is mobilizing its supply chain to produce personal protective equipment to hospitals and health care workers.
  - Inditex is studying to covert part of its textile manufacturing capacity in Spain to produce hospital gowns.
- **Brands / manufacturers are moving to mask production**
  - Hanesbrands, Fruit of the Loom, American Giant, Los Angeles Apparel, AST Sportswear, Sanmar, America Knits, Beverly Knits and Riegel Linen formed part of the coalition.
  - Kering's Balenciaga and Yves Saint Laurent workshops in France will begin to manufacture masks.
- **Global e-commerce pricing movement**
  - Nike sent a 25% sitewide discount code out via email
  - Macy's new campaign "Relax, recharge & WFH," is extending loyalty offering to the public - free shipping on purchases of at least \$25
  - American Eagle's Aerie is offering free returns and is giving shoppers 40% to 60% off bras and underwear online.
  - Sephora has extended its online return policy to 60 days.

# Weave – your partner of choice during this turbulence period

Weave has customers and sister companies with operations across the entire value chain, including manufacturing, sourcing, distribution, retail VMI and tech business's, with these entities located across North America, South East Asia, China and HK. ***This has created a unique position to see how the coronavirus is impacting different parts of the value chain across different parts of the globe***

Weave toolkit and case studies will enable you to effectively embark on the journey to supply chain risk management:



Weave is an impact focused services, capability and consulting firm, our consultants will be available to provide instant problem solving and analytical support to your business issues.

In our next whitepaper, we will be sharing strategic long term considerations to build your supply chain resilience.

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- End to end digital speed solutions
- Considerations of building global manufacturing footprint

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#### REPLENISHMENT & ANALYTICS

A market leader in **supply chain planning & outsourcing** with expert **data scientists** who drive insights and enable effective business decision making

#### CAPABILITY BUILDING

**Certified APICS trainers**, proven change agents and leaders in competency improvement

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