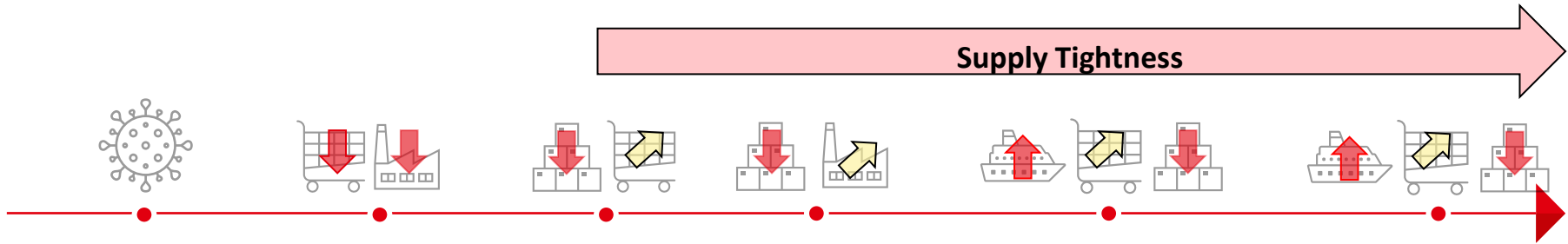


# ▶ ADHESIVES IMPACT TIMELINE



## Q1 2020

- COVID impacts material flow in & out of China
- Manufacturing shutdown in China

## Q2 2020

- Lockdowns curtail demand
- Production cut significantly by raw material suppliers

## Q3 2020

- Slow recovery begins – Demand up (mainly China)
- Signs of recovery seen in rest of the world, but pressure persists
- Inventories very low – Prices rise
- No COVID-19 vaccine

## Q4 2020

- Demand grows (COVID-19 situation in EU / NA became worse. China export order blooming)
- Supply lags
- Logistic channels start to see issues
- Markets tighten

## Q1 2021

- Supply chains susceptible to even minor disruptions
- Materials short – growing inflation
- Recovery strengthening

## Q2 2021

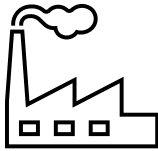
- Slow ramp up stressing inventories and supply chain
- Irrecoverable capacity loss from Texas freeze
- Materials short – continues
- Recovery continues

**Demand Ramp-up**

# ▶ AFTER TEXAS: THE EFFECTS

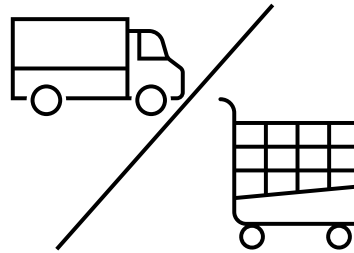
## THE EFFECTS TO BE FELT TILL END OF 2021

### Supply



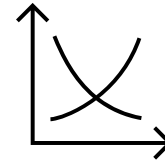
- Capacity lost because of unscheduled shutdowns
- Many plants back up and running but at lower capacity
- Catch-up expected to impact inventories for the rest of 2021

### Demand/Logistics



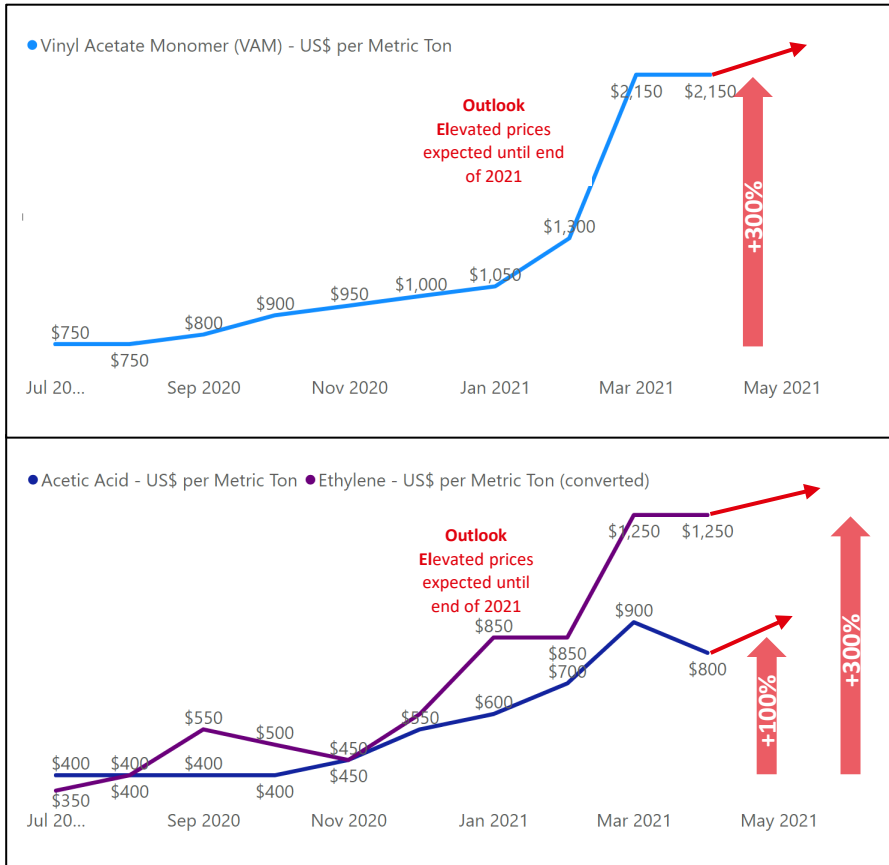
- COVID-19 vaccine in NAMX improving consumer confidence and demand for goods.
- Consumer spending increasing every month
- Though preferences shifted, consumables and durable goods sales increasing

### Impact



- Raw material prices seeing unprecedented increases beginning in March driven by supply/demand imbalance
- Feedstock and RM prices expected to stabilize much slower than anticipated.
- Potential for impact to get worse as demand improves over summer

# ▶ HOTMELT - DETAILS ON EVA



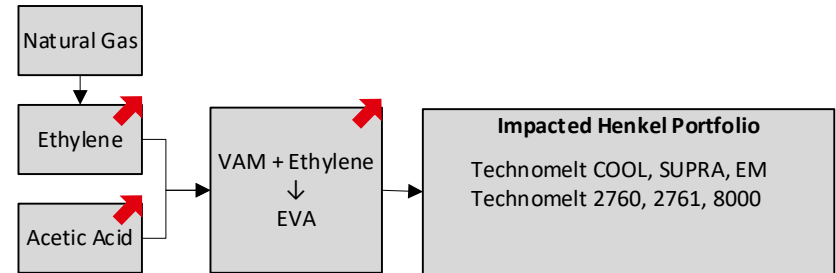
Source: IHS

## Overview:

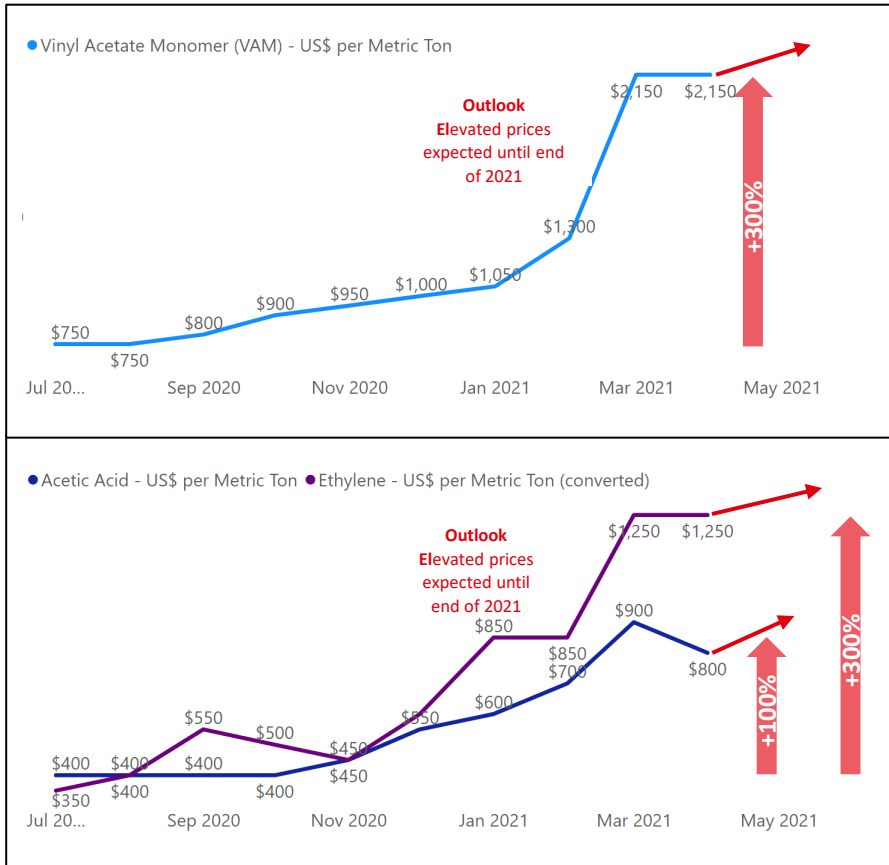
- **Increased US automotive demand pulling from supply.** US automotive industry sales went up, boosted by some pent-up demand and new vehicle models. EVA goes into bumpers and other molded parts.
- **Increase logistics costs.** Sea freight rates are further impacting global prices. China supply + ocean freight costs → US price baseline.
- **Irrecoverable capacity loss** from Texas freeze expected to impact supply/inventory availability for the rest of the year.

## Outlook:

- **Allocation continues. Tight supply in USA and LA until later part of 2021,** with high risk of further price increases.
- **Suppliers expected to pass logistics costs from Q2 onward.** They absorbed logistics costs in Q1.



# ▶ WATER BORNE - DETAILS ON VAM



Source: IHS

## Overview:

- **Increased US automotive demand pulling from supply.** US automotive industry sales went up, boosted by some pent-up demand and new vehicle models. VAM → PVOH → PVB. PVB is used to laminate safety glass in automotive industry. EVA goes into bumpers and other molded parts.
- **Increased logistics costs.** Sea freight rates are further impacting global prices. China supply + ocean freight costs → US price baseline.
- **Irrecoverable capacity loss** from Texas freeze expected to impact supply/inventory availability for the rest of the year.

## Outlook:

- **Plants coming online. Higher prices/tight supply expected till end of 2021.** APAC VAM plant maintenance causing further shortage.
- **Suppliers expected to pass logistics costs from Q2 onward.** They absorbed logistics costs in Q1.

