



***Outlook  
2022***

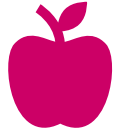
# Industry Outlook & Global Crop Report

August 18, 2022

Christopher Gerlach  
Director, Industry Analytics



# Roadmap



**U.S. Production Detail**



**U.S. Utilization Detail**



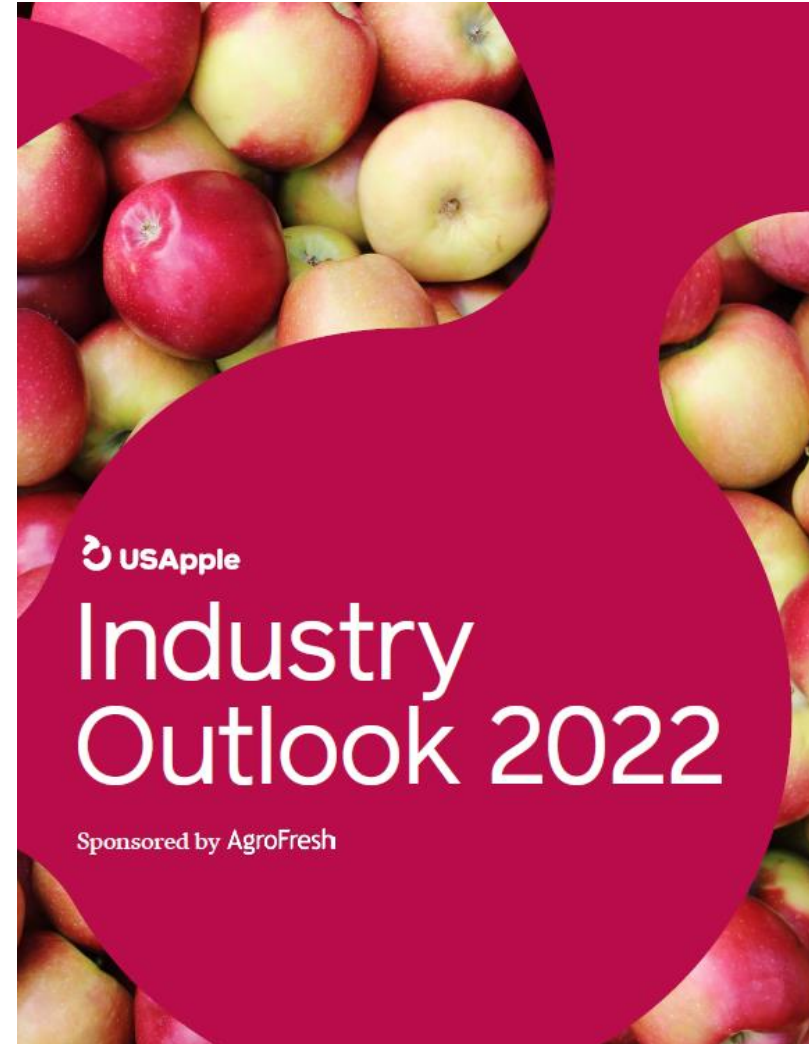
**U.S. Trade Detail**



**Global Production Detail**



**Other Trends & Forces**



# Roadmap



U.S. Production Detail



U.S. Utilization Detail



U.S. Trade Detail



Global Production Detail



Other Trends & Forces

#AppleOutlook2022

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## U.S. Apple Production

According to a USApple analysis of USDA data, total U.S. apple production for the 2022/23 CY will be more than 10.7 billion pounds or 255 million bushels.<sup>16</sup> This represents a 2.7% increase compared to last year's production figure and is 3.5% less than the five-year production average.

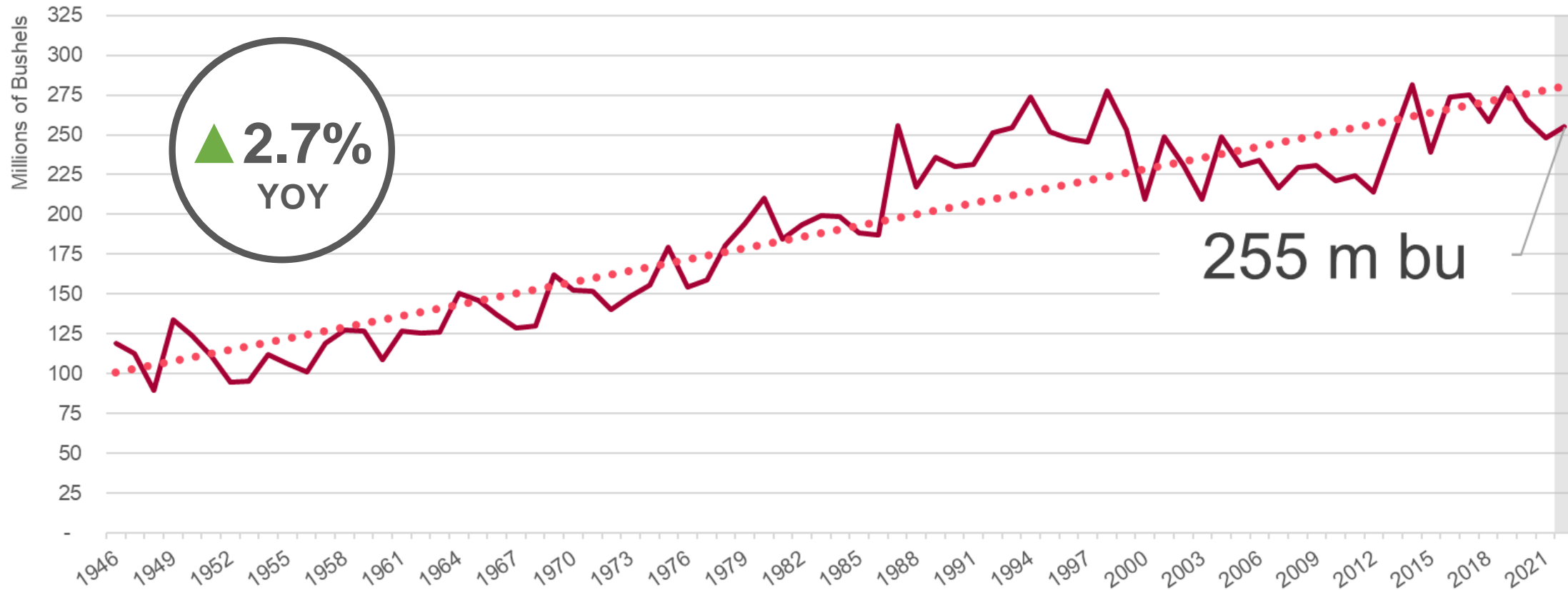


<sup>16</sup> Each August, USDA releases an estimate of apple production by state for the coming crop year. In 2018, it limited the number of estimates to only the top seven apple producing states: California, Michigan, New York, Oregon, Pennsylvania, Virginia and Washington. This means that, from 2018 onward, USDA's total national production figure only represents a sum of the seven states. Prior to 2018, USDA's total national production figure included data for a far greater number of states – 20 in 2017. In an effort to maintain continuity of the dataset, USApple has estimated production for the "Other" states from 2018–2022 and added it back to USDA's national production figures to arrive at a new, more comprehensive USApple production estimate.

USApple Industry Outlook 2022 – U.S. Apple Production

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# U.S. Apple Production



Sources: USDA, National Agricultural Statistics Service; USApple

# Washington Apple Production

5



**2022/23 (F) Production: 155 m bu**

**Year-Over-Year Change: ▼ 4%**

Washington State Tree Fruit Association 2022/23 (F)

**103.5 million 42-lb fresh bushels (108.7 m boxes)**

*Causes:* cold spring; poor pollination; hail events; June 2021 heatwave; low return bloom (smaller sizes/reduced tonnage)

Sources: USApple; USDA, NASS; WSTFA



# New York Apple Production

6



2022/23 (F) Production: **35 m bu**

Year-Over-Year Change: **▲ 8%**

Premier Advanced Forecast (June 2022)

**32 million bushels**

6% *below* than USDA official estimate

Sources: USApple; USDA, NASS

# Michigan Apple Production

7



2022/23 (F) Production: **26 m bu**

Year-Over-Year Change: **▲ 68%**

Premier Advanced Forecast (June 2022)

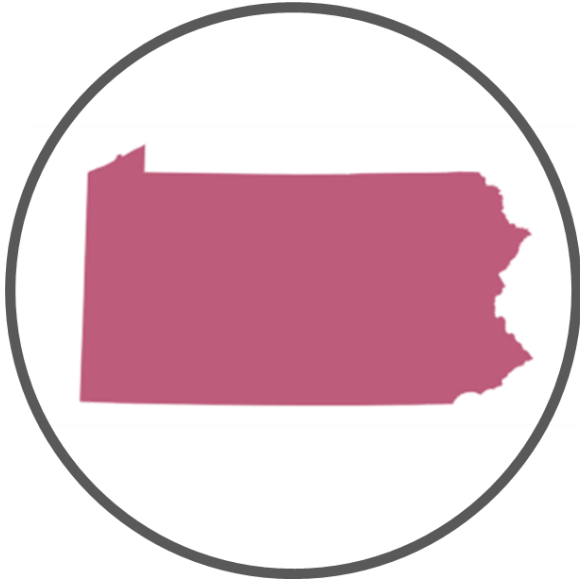
**29 million bushels**

*11% **above** than USDA official estimate*

Sources: USApple; USDA, NASS

# Pennsylvania Apple Production

8



2022/23 (F) Production: **11 m bu**

Year-Over-Year Change: **▼ 17%**

Premier Advanced Forecast (June 2022)

**11 million bushels**

*equal to USDA official estimate*

Sources: USApple; USDA, NASS



# California Apple Production

9



2022/23 (F) Production: **6 m bu**

Year-Over-Year Change: **▲ 11%**

Premier Advanced Forecast (June 2022)

**1.1 million 42-lb fresh bushels (1.2 m boxes)**

*adjusted for total production ~5.4 m bu*

*5% **below** than USDA official estimate*

Sources: USApple; USDA, NASS; CAC

# Virginia Apple Production

10



2022/23 (F) Production: **4 m bu**

Year-Over-Year Change: **▲ 13%**

Premier Advanced Forecast (June 2022)

**5 million bushels**

*11% **above** than USDA official estimate*

Sources: USApple; USDA, NASS

# Oregon Apple Production

11



2022/23 (F) Production: **4 m bu**

Year-Over-Year Change: **▲ 13%**

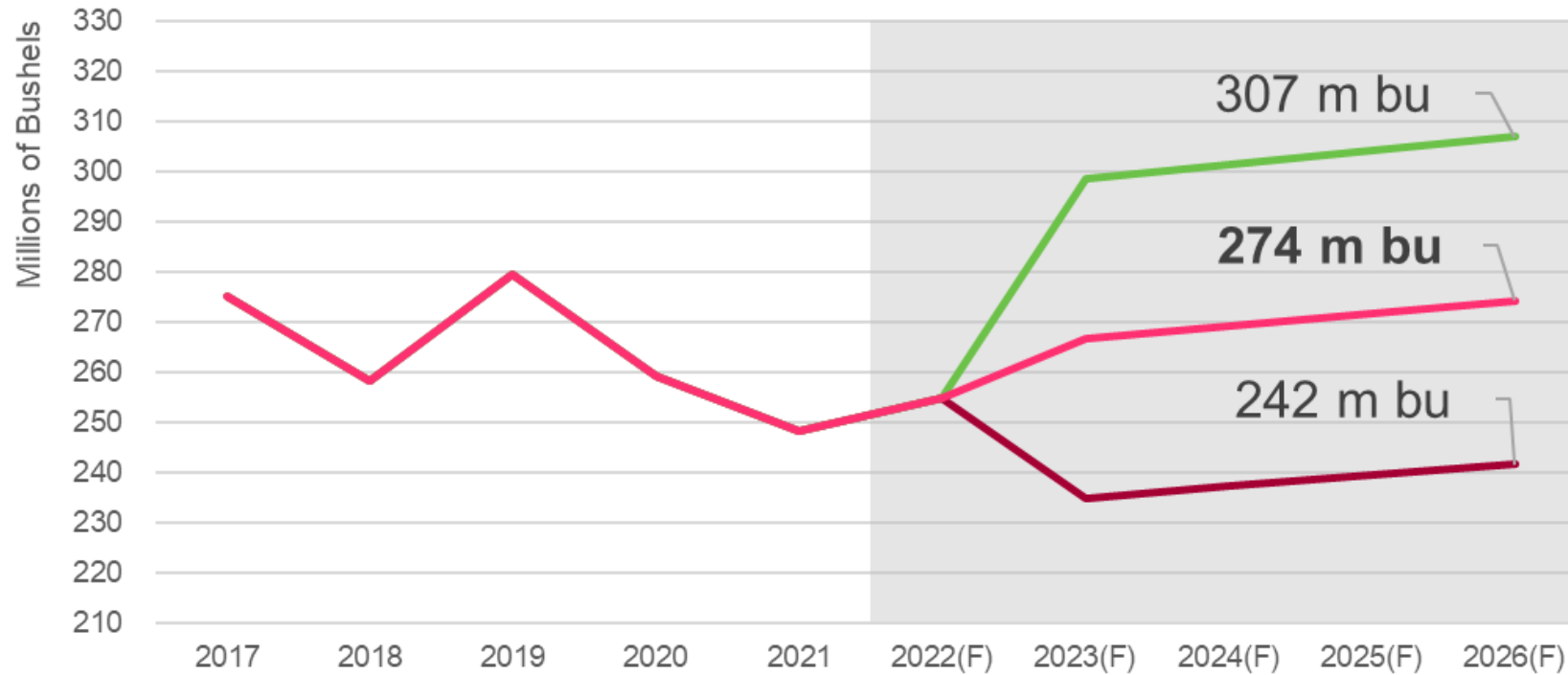
Premier Advanced Forecast (June 2022)

**N/A**

Sources: USApple; USDA, NASS

# U.S. Apple Production Forecast

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Source: USApple

MAPE: 4.9%

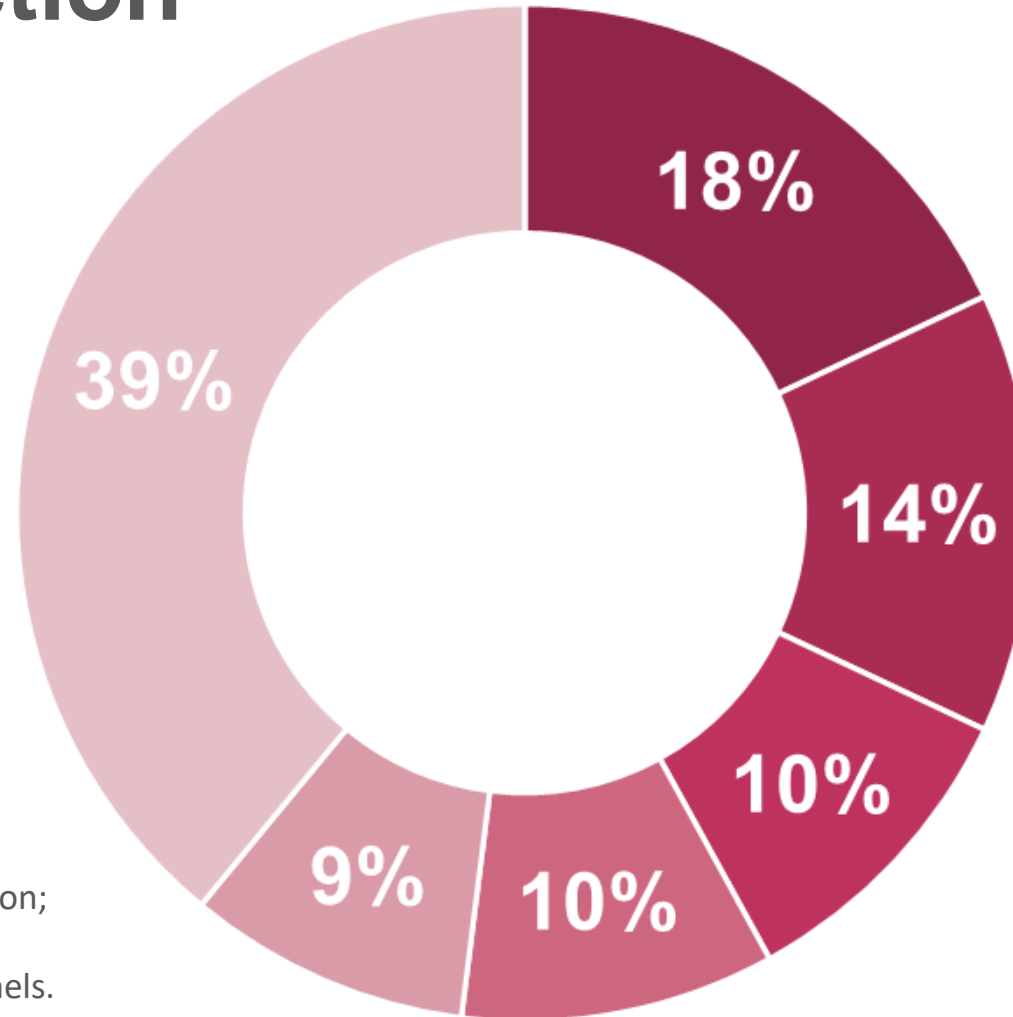
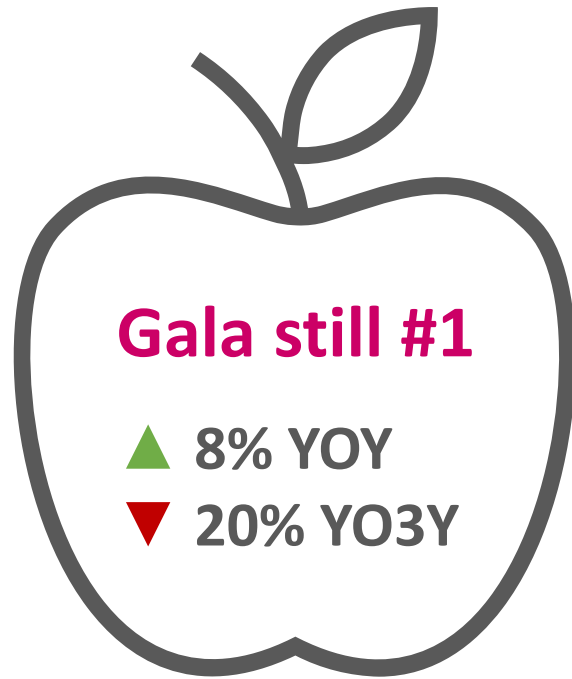


95% CI: ~32 m bu



# U.S. Apple Production

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- Gala
- Red Delicious
- Fuji
- Honeycrisp
- Granny Smith
- Others

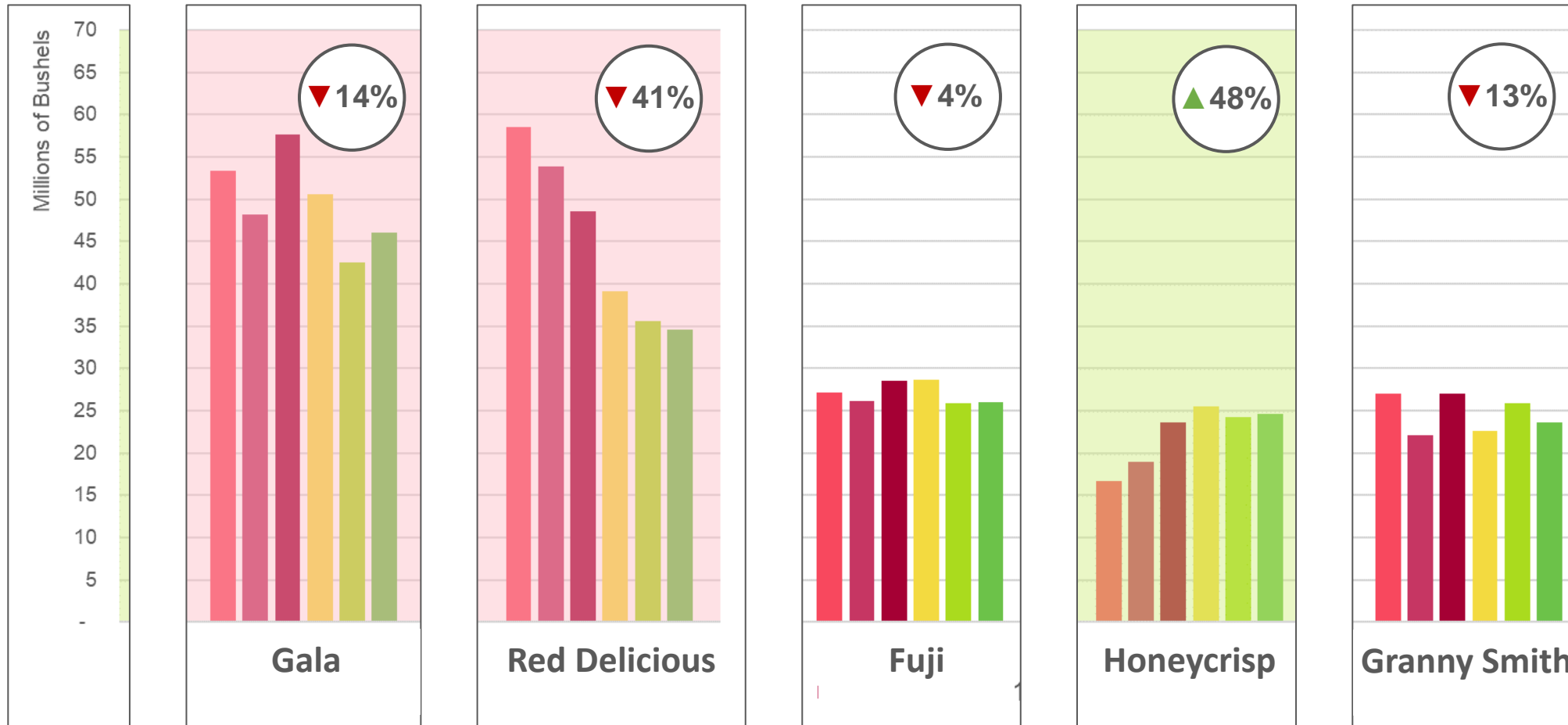
Sources: USApple; Washington State Tree Fruit Association;  
California Apple Commission

Note: Production levels are in millions of 42-pound bushels.  
Five-year averages do not include 2022/23 (F) data.

# U.S. Apple Production

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2017/18 – 2022/23 (F)



Sources: USApple; Washington State Tree Fruit Association; California Apple Commission



# Roadmap



U.S. Production Detail



U.S. Utilization Detail



U.S. Trade Detail



Global Production Detail



Other Trends & Forces

## U.S. Apple Utilization

The ratio of fresh to processing apples has remained remarkably consistent over the last decade (or more). In 2021, fresh apples made up around 67% of total apples produced while processing apples accounted for around 30%. The remaining 3% of apples produced went unsold.

67%  
FRESH

US Apple Industry Outlook 2022 - U.S. Apple Utilization

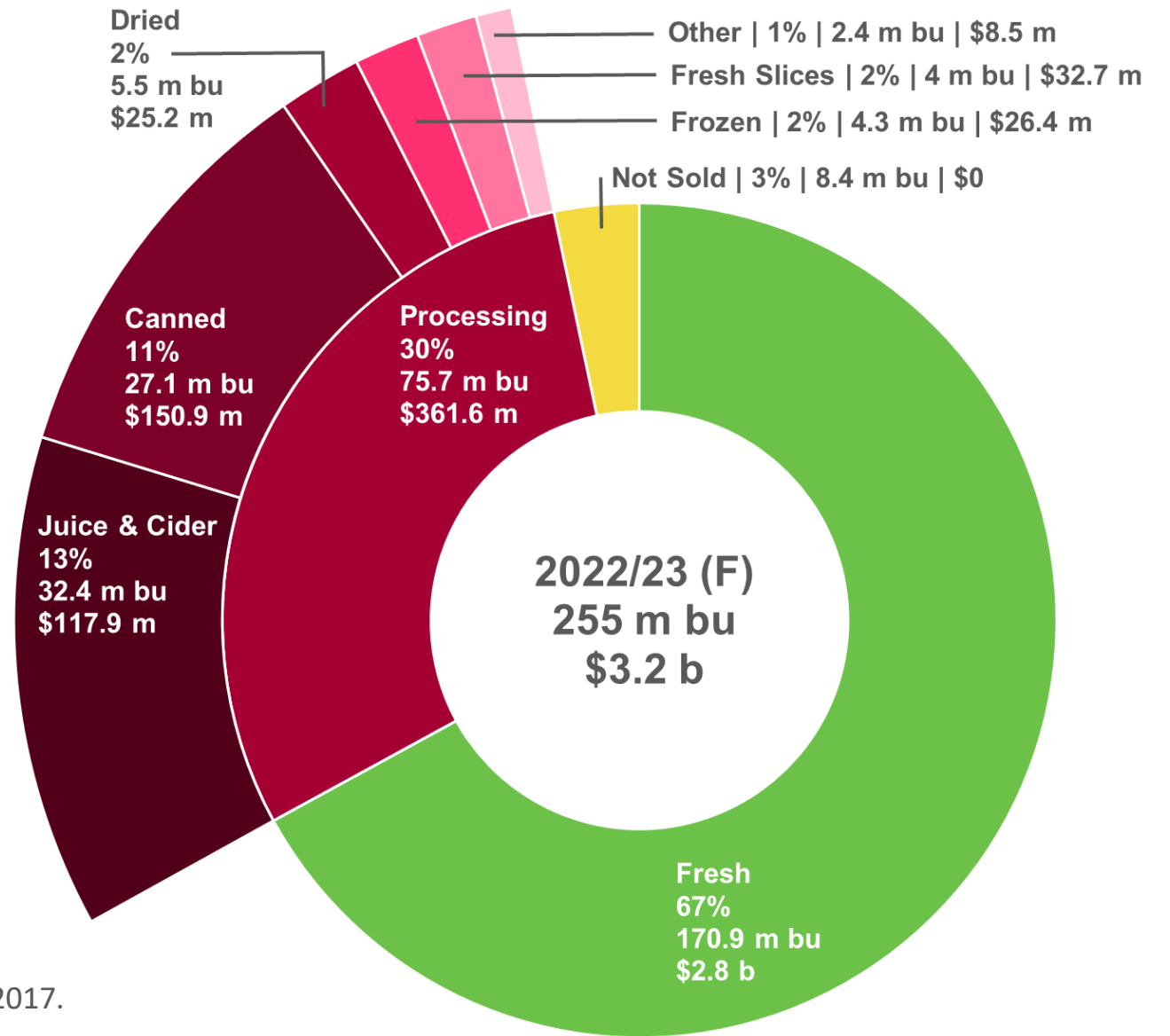
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# U.S. Apple Utilization

*Stable 5-year  
utilization ratios ...*

<b>Fresh</b>	<b>67%</b>
<b>Processing</b>	<b>30%</b>
<b>Not Sold</b>	<b>3%</b>

Sources: USDA, National Agricultural Statistics Service; USApple  
Notes: Fresh, processing and not sold utilization shares are based on five-year averages: 2017-2021.  
Sub-processing utilization shares are based on five-year averages: 2013-2017.



# U.S. Apple Utilization

17



Sources: USDA, National Agricultural Statistics Service; USApple

Notes: Fresh and processing production shares are based on five-year averages: 2017-2021.

# Roadmap



U.S. Production Detail



U.S. Utilization Detail



U.S. Trade Detail



Global Production Detail



Other Trends & Forces

## U.S. Apple Trade

According to USDA trade data, fresh apple exports totaled 39.2 million bushels in 2021 – a 7% decline over 2020 levels. At the same time, fresh apple imports increased by 7.2% to 6.1 million bushels. This resulted in a 3.3-million-bushel decrease in the year-over-year balance of trade.

While the U.S. still maintains a healthy net positive balance of trade, there is still much work needed to get back to the high-water mark set in 2018. In that year, total exports were 48.5 million bushels and the trade balance was 41.6 million bushels. That represents a decline in net exports of almost 8.5 million bushels in just three years with an estimated value of almost \$73 million.

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MILLION BUSHELS  
EXPORTED

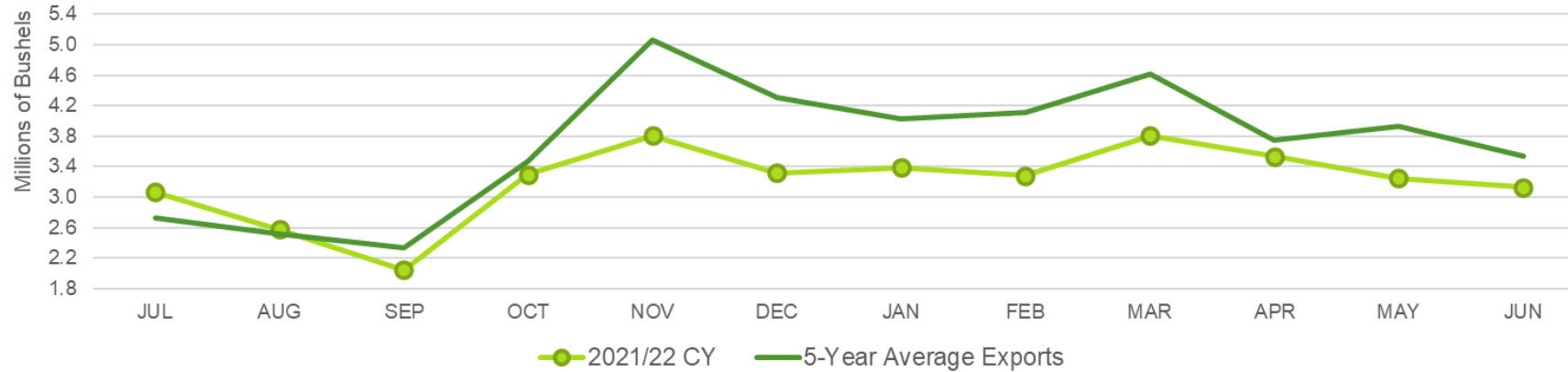
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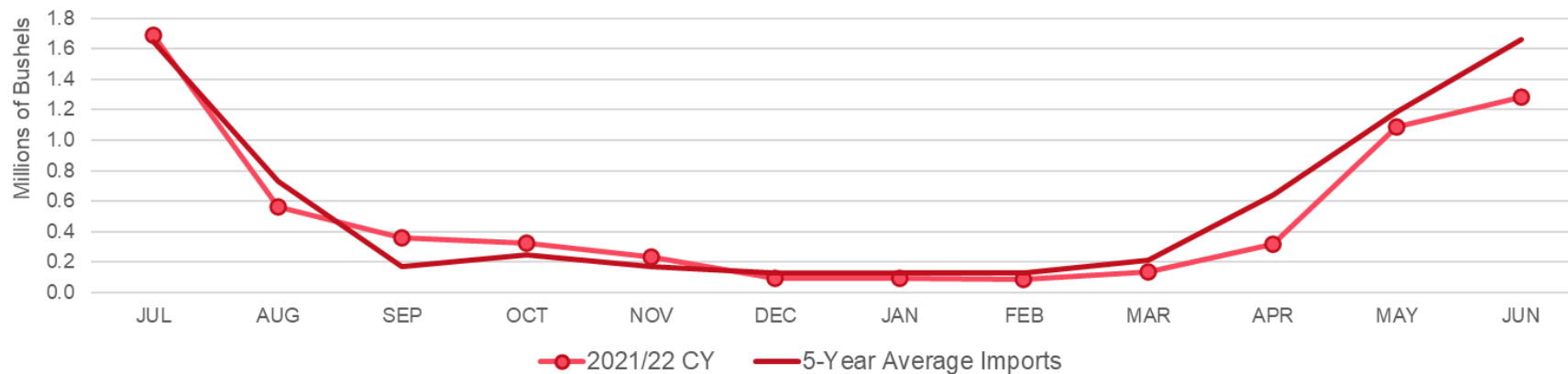
# U.S. Fresh Apple Trade

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EXPORTS



IMPORTS



**2021**

**Exports**

**39 M BU**

▼ 7% YOY

**Net Trade**

**33 M BU**

▼ 9% YOY

**Imports**

**6 M BU**

▲ 7% YOY

Sources: USDA, Foreign Agricultural Service; USApple

# U.S. Fresh Apple Trade

20

In **2018**, India became the #2 export market for U.S. fresh apples – 7.9 million bushels.

In **2021**, that figure is down to 1.1 million bushels – an **86% decline**.

*Since 2018, the loss of the Indian market is estimated to have cost U.S. growers in excess of **\$500 million**.*

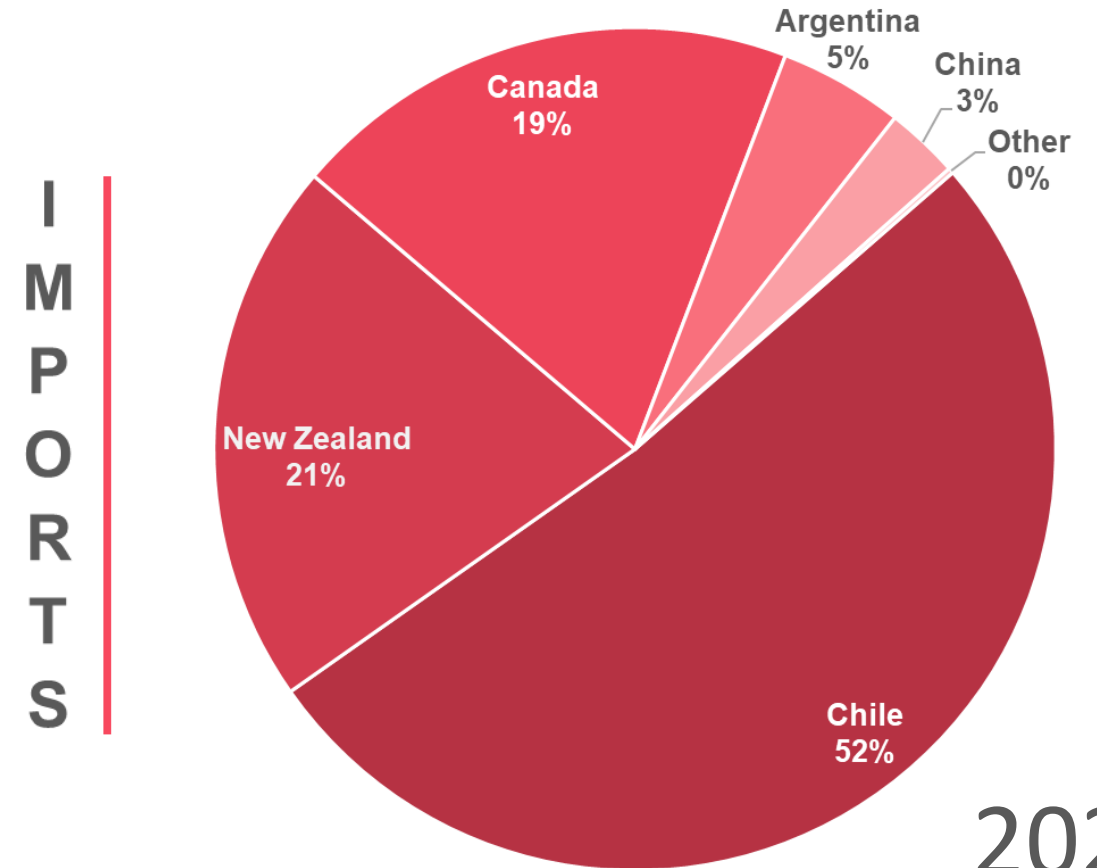
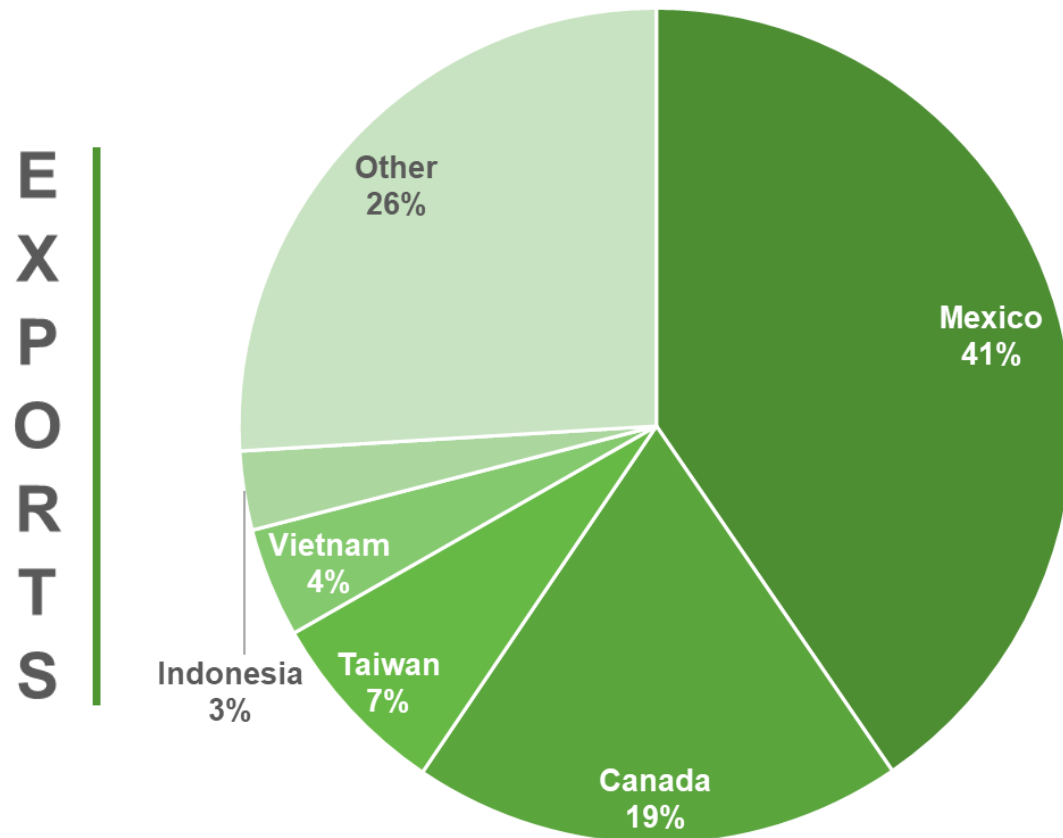
Sources: USDA, Foreign Agricultural Service; USApple





# U.S. Fresh Apple Trade

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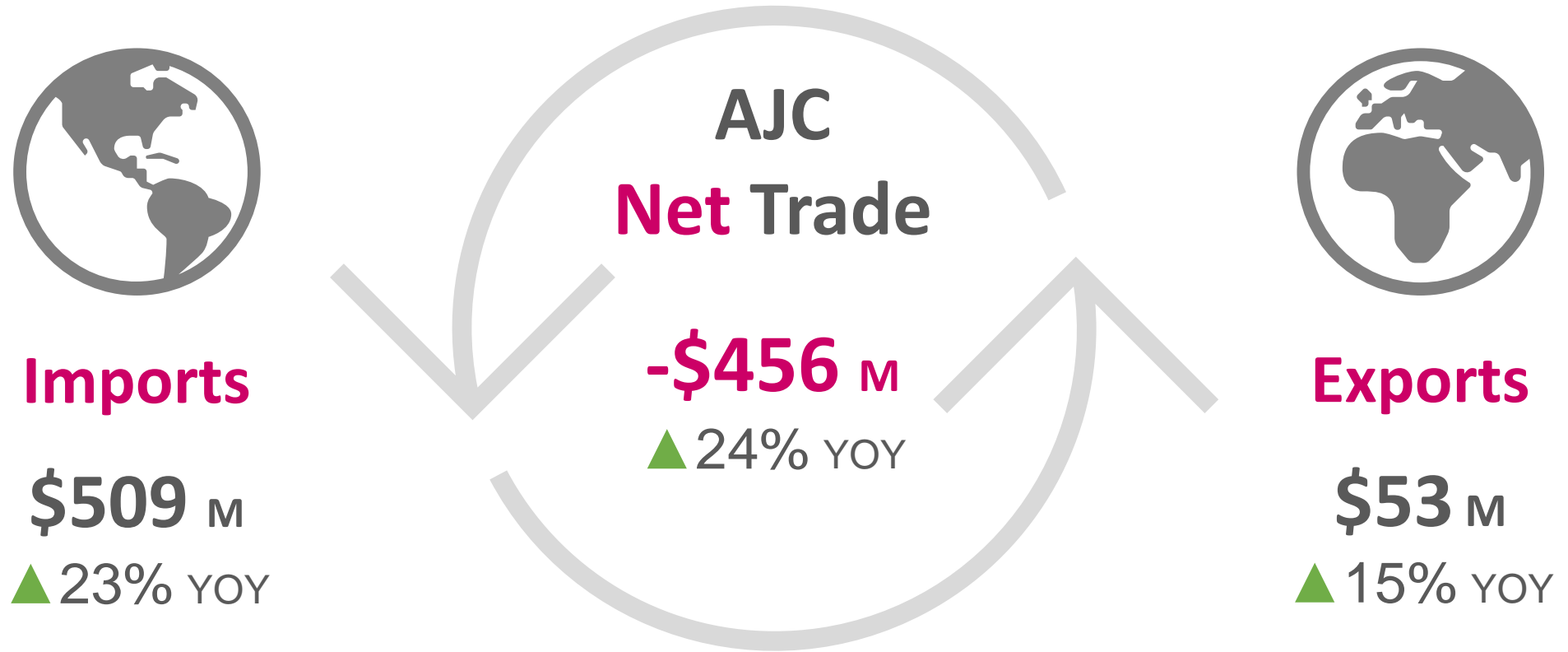


2021

Sources: USDA, Foreign Agricultural Service; USApple

# U.S. Apple Juice Concentrate Trade

22



Sources: USDA, Foreign Agricultural Service; USApple

# Roadmap



U.S. Production Detail



U.S. Utilization Detail



U.S. Trade Detail



Global Production Detail



Other Trends & Forces

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## Global Apple Production

Global apple production has been steadily increasing since 1961. In 2020, the most recent year for which the UN has data, worldwide apple production totaled around 4.5 billion bushels. These apples were grown on slightly more than 11.4 million acres resulting in an average yield of about 397 bushels per acre.

4.5

BILLION BUSHEL  
PRODUCED

USApple Industry Outlook 2022 - Global Apple Production

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# Global Apple Production

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These regions account for *more than 70%* of total global production.

▼ 14%  
YOY

▼ 475  
M BU



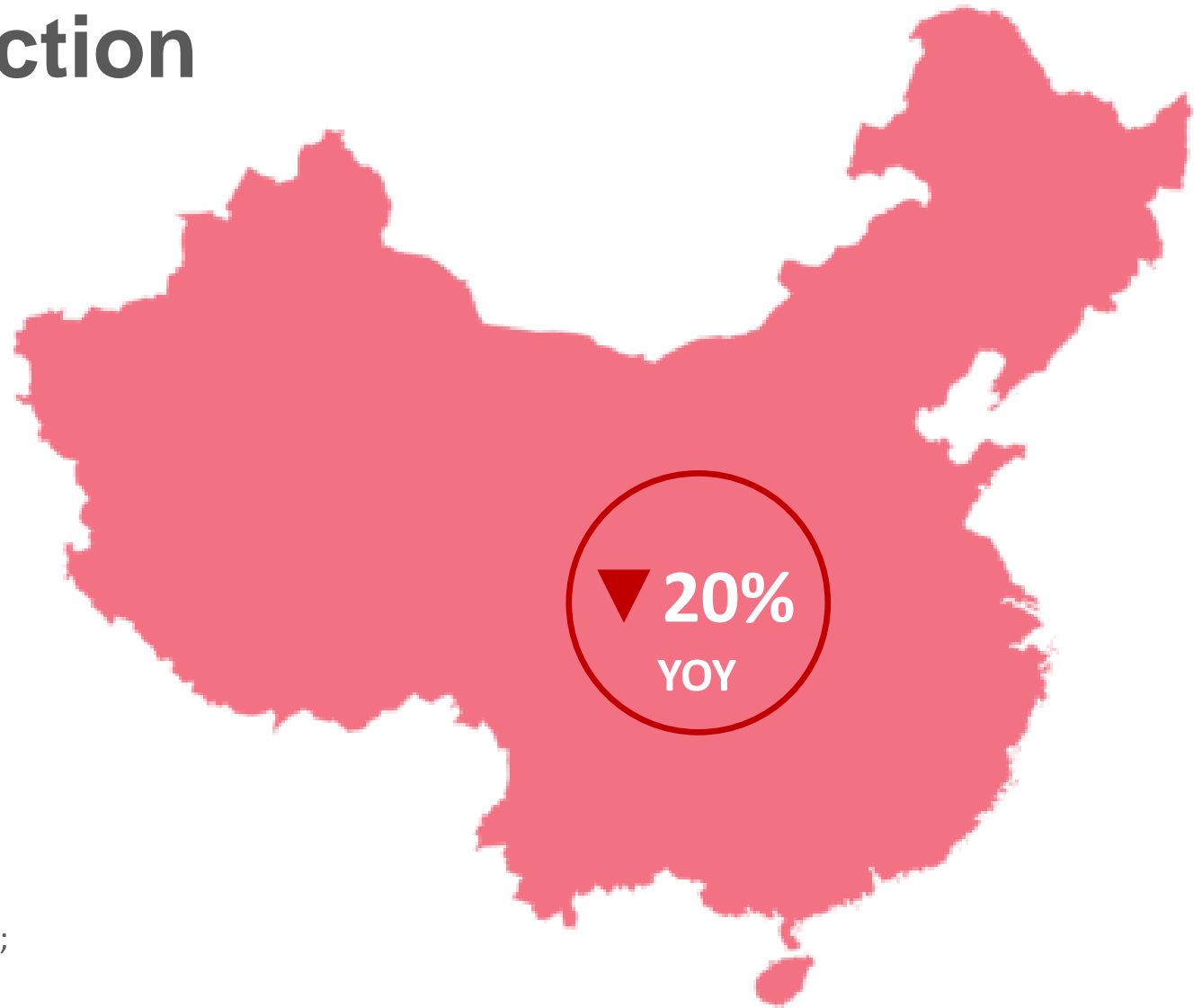
Sources: USDA, Foreign Agricultural Service; USApple;  
United Nations Food and Agricultural Organization;  
World Apple and Pear Association; Canadian Horticultural Council

# Global Apple Production

25

China's **2022** production is estimated to be 1.9 billion bushels.

A *decrease* of almost 500 million bushels from 2021 – *almost 2x U.S. production*.



Sources: United Nations, Food and Agriculture Organization; World Apple and Pear Association; USApple

# Global Apple Production

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European Production: **639 m bu**



Poland	236 m bu	▲ 5% YOY
Italy	113 m bu	▲ 5% YOY
France	77 m bu	▲ 6% YOY
Germany	56 m bu	▲ 6% YOY

**Turkey**      **244 m bu**      ▲ 6% YOY



Sources: World Apple and Pear Association; USApple



# Global Apple Production

27

**Chile**  
66 m bu



▼ **3%**  
YOY

**Brazil**  
56 m bu



▼ **15%**  
YOY

**Argentina**  
26 m bu

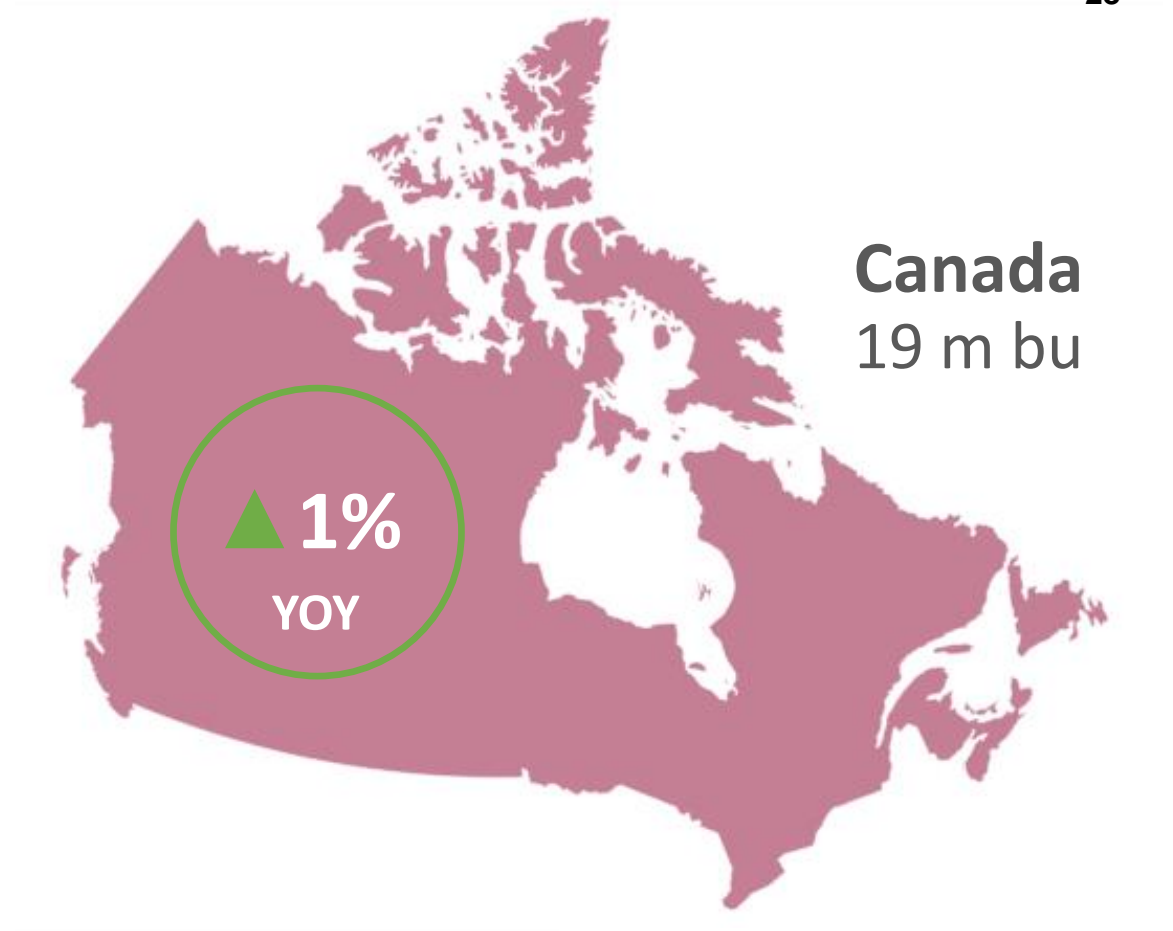


▼ **6%**  
YOY

Sources: World Apple and Pear Association; USDA, Foreign Agricultural Service; USApple

# Global Apple Production

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Sources: World Apple and Pear Association; USApple

# Roadmap



U.S. Production Detail



U.S. Utilization Detail



U.S. Trade Detail



Global Production Detail



Other Trends & Forces

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## Introduction

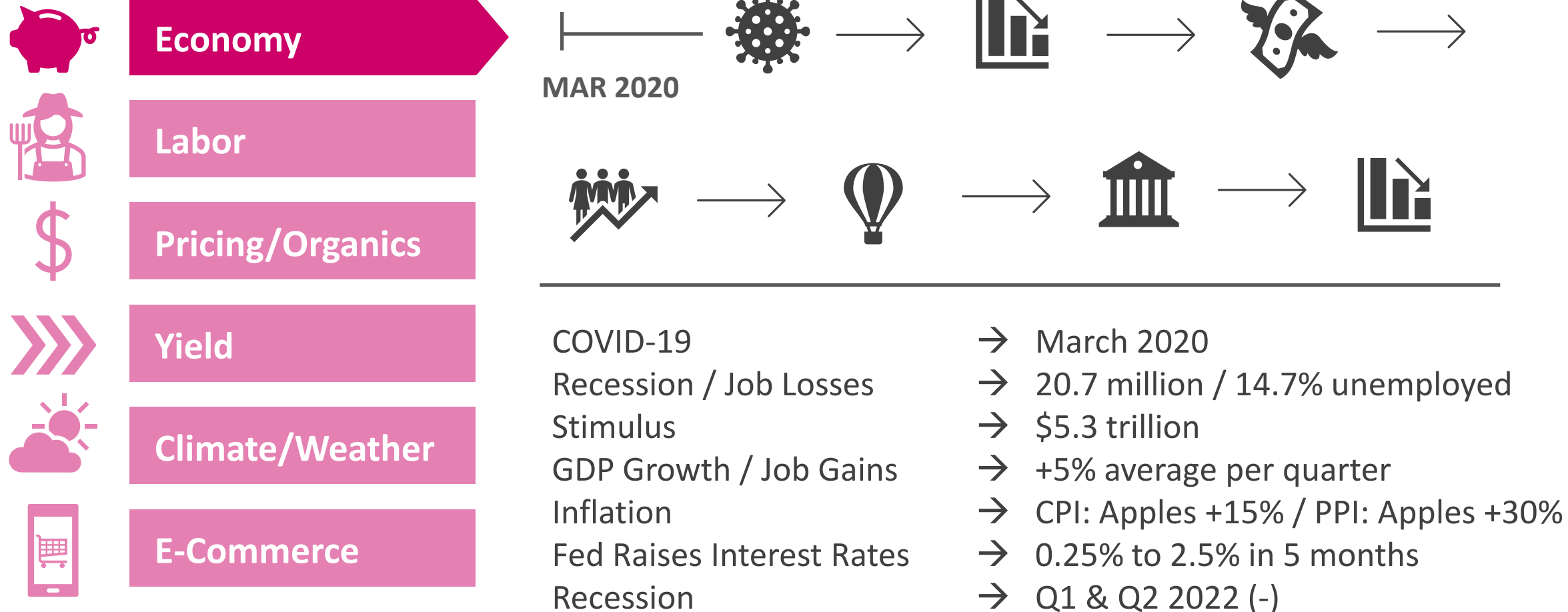
Despite the challenges of the past two and a half years, the U.S. apple industry is alive and well in 2022. First, the COVID-19 pandemic tested the industry's ability to adapt to supply chain disruptions, additional labor regulations, and changing consumer buying behaviors. Second, and due in part to the first, the U.S. has been experiencing significant price inflation and a slowdown in overall economic growth. While these issues have put pressure on operating margins, the apple industry continues to adjust, learning from challenges and taking advantage of opportunities as they arise. To assist in that endeavor, the following report provides users with the most up-to-date data and analysis on U.S. and global apple production, utilization and trade. The remainder of this section is intended to provide those data and analyses with relevant context.

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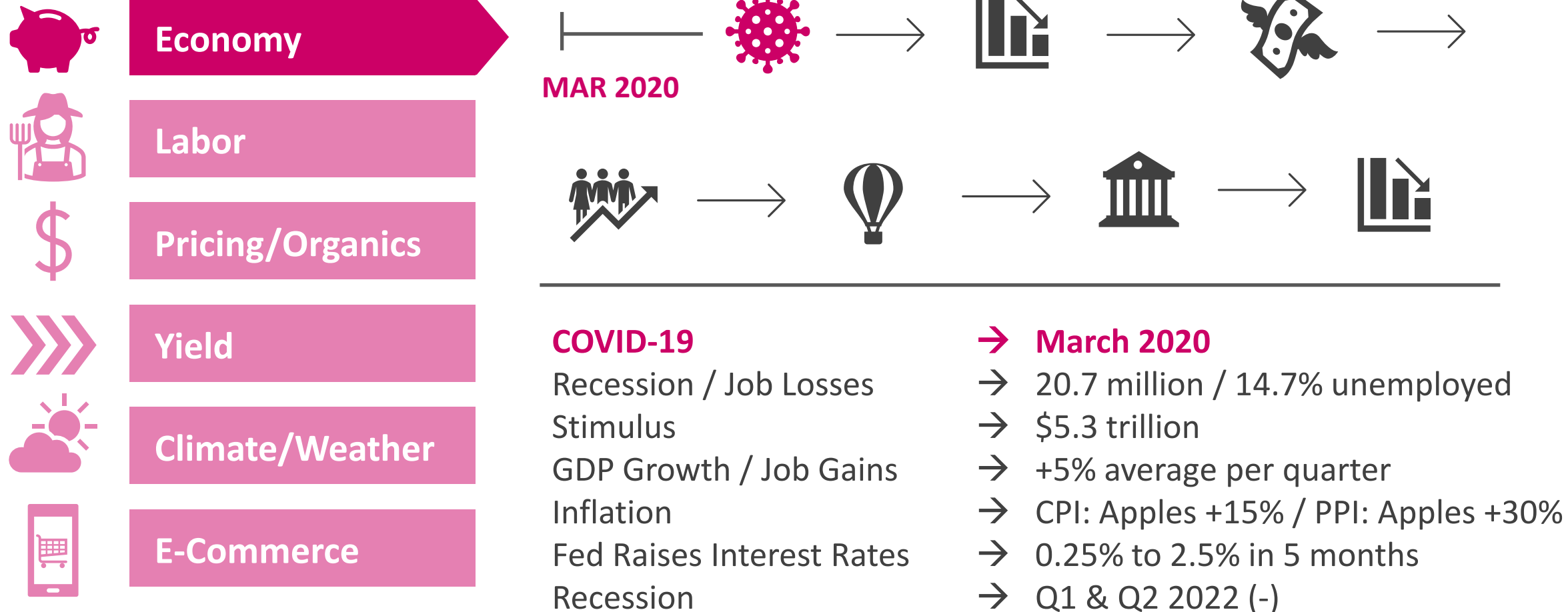
# Other Trends & Forces

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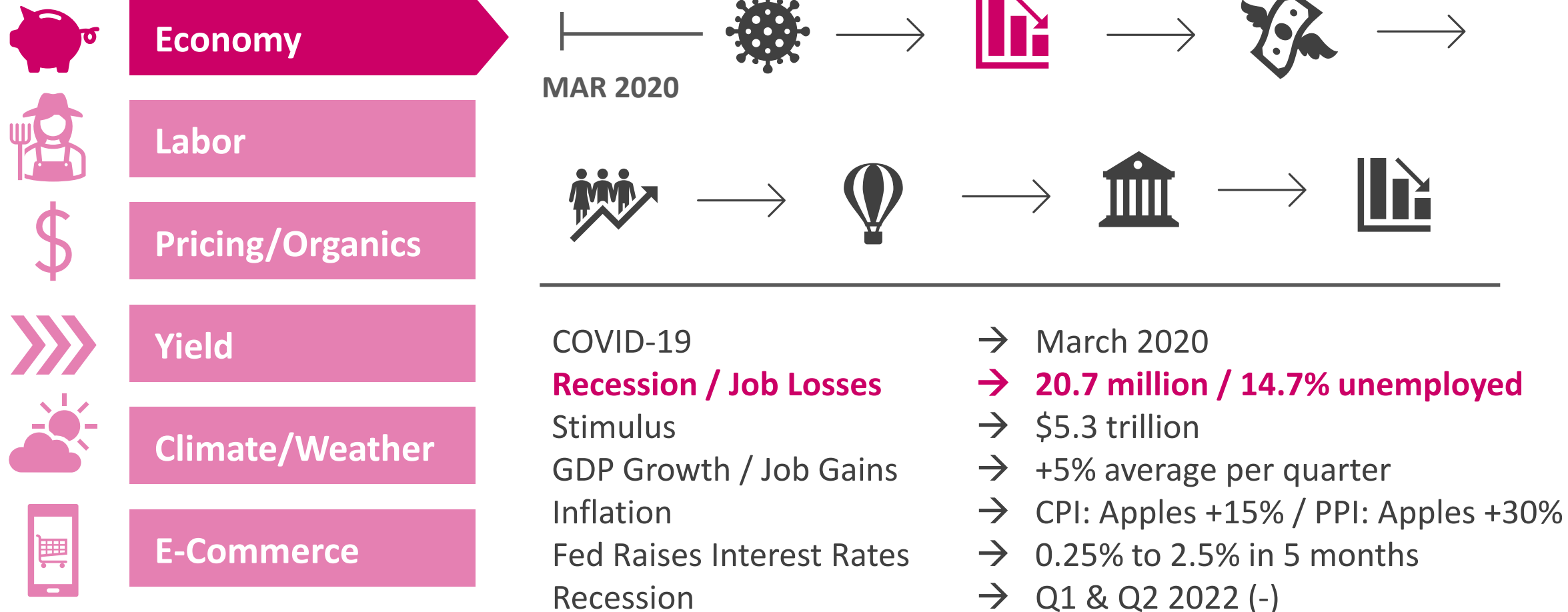
# Other Trends & Forces

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# Other Trends & Forces

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# Other Trends & Forces

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Economy



Labor



Pricing/Organics



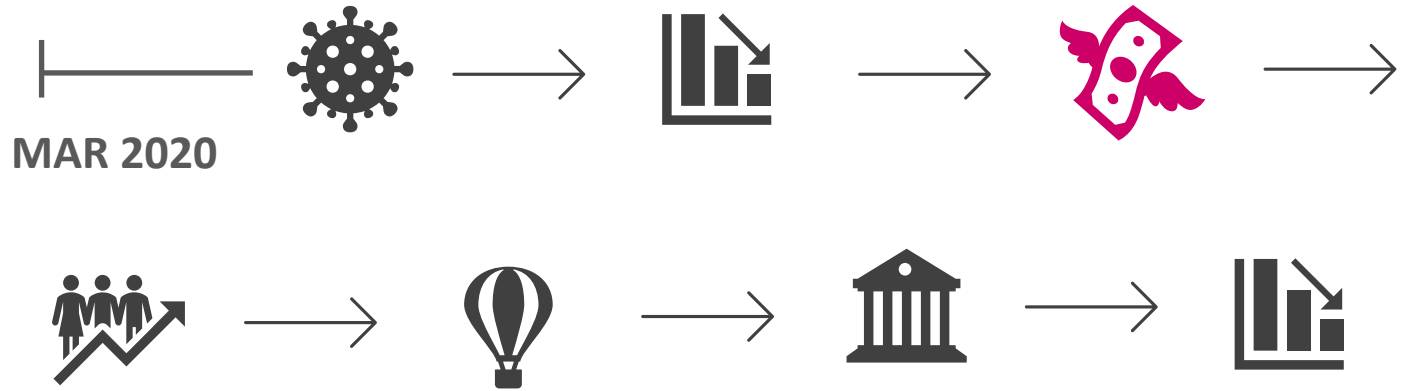
Yield



Climate/Weather



E-Commerce



COVID-19

Recession / Job Losses

**Stimulus**

GDP Growth / Job Gains

Inflation

Fed Raises Interest Rates

Recession

→ March 2020

→ 20.7 million / 14.7% unemployed

→ **\$5.3 trillion**

→ +5% average per quarter

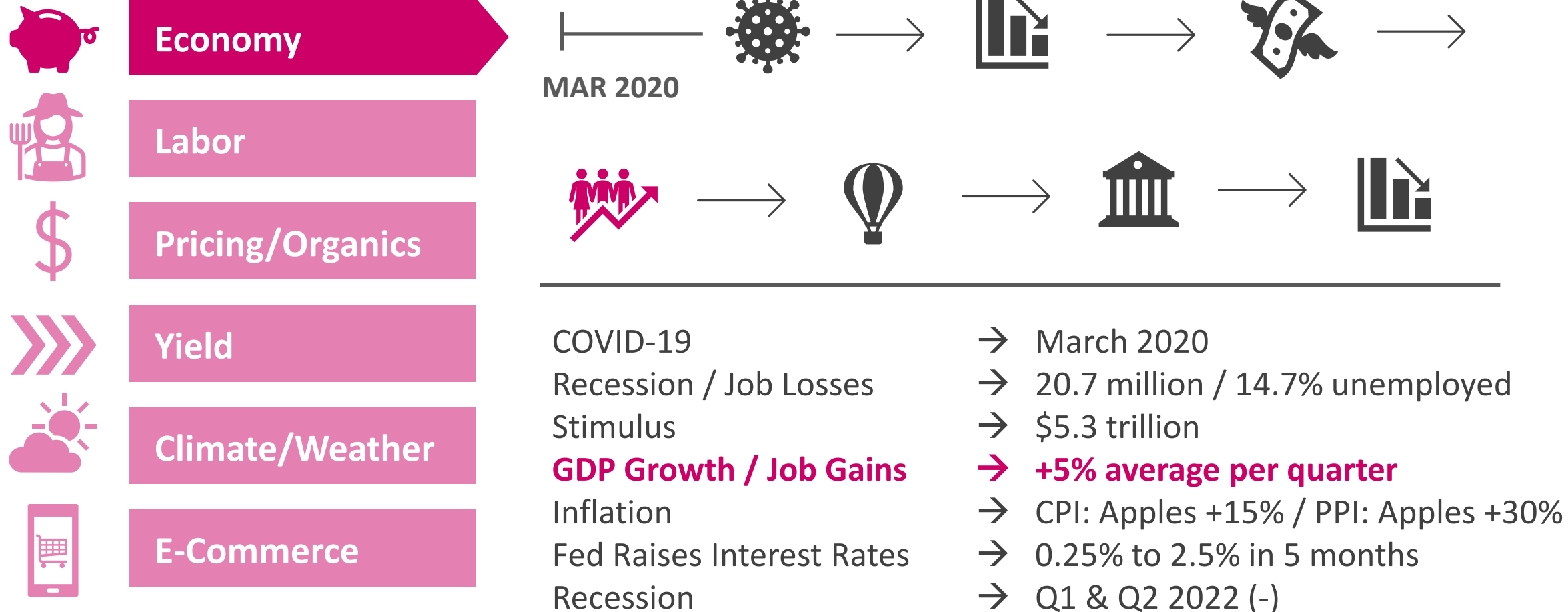
→ CPI: Apples +15% / PPI: Apples +30%

→ 0.25% to 2.5% in 5 months

→ Q1 & Q2 2022 (-)

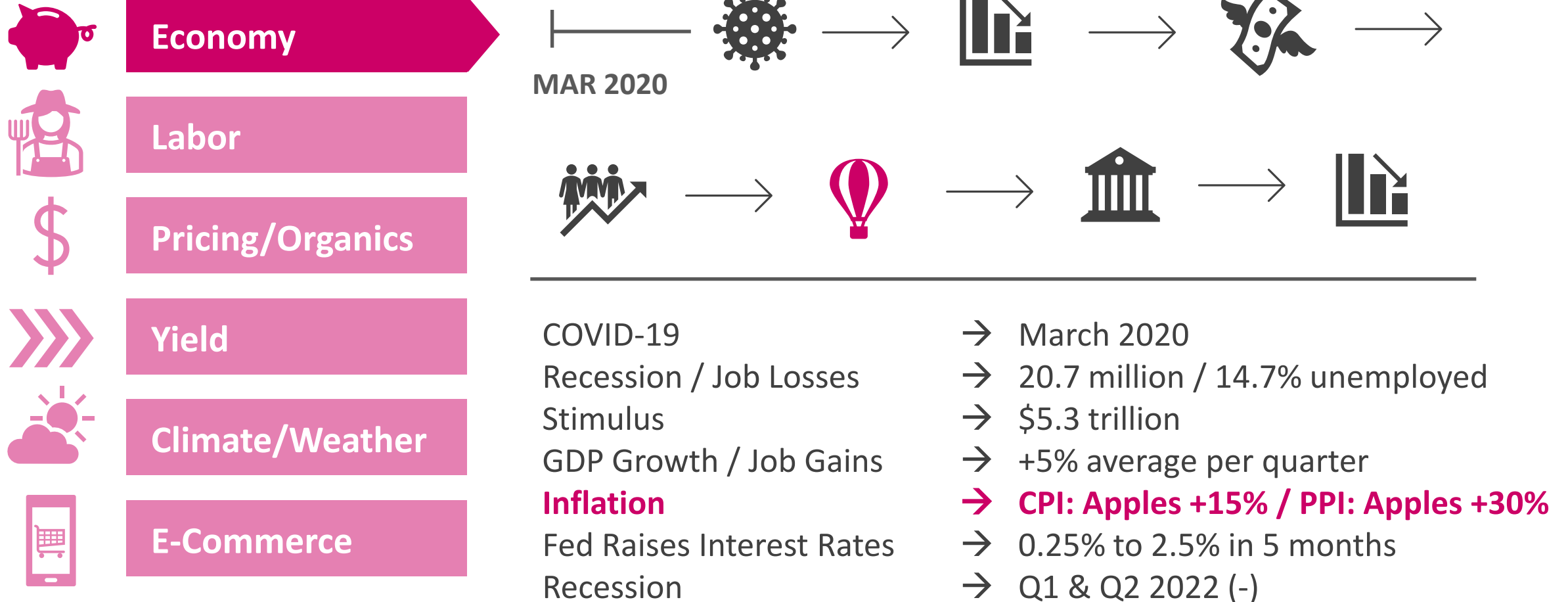
# Other Trends & Forces

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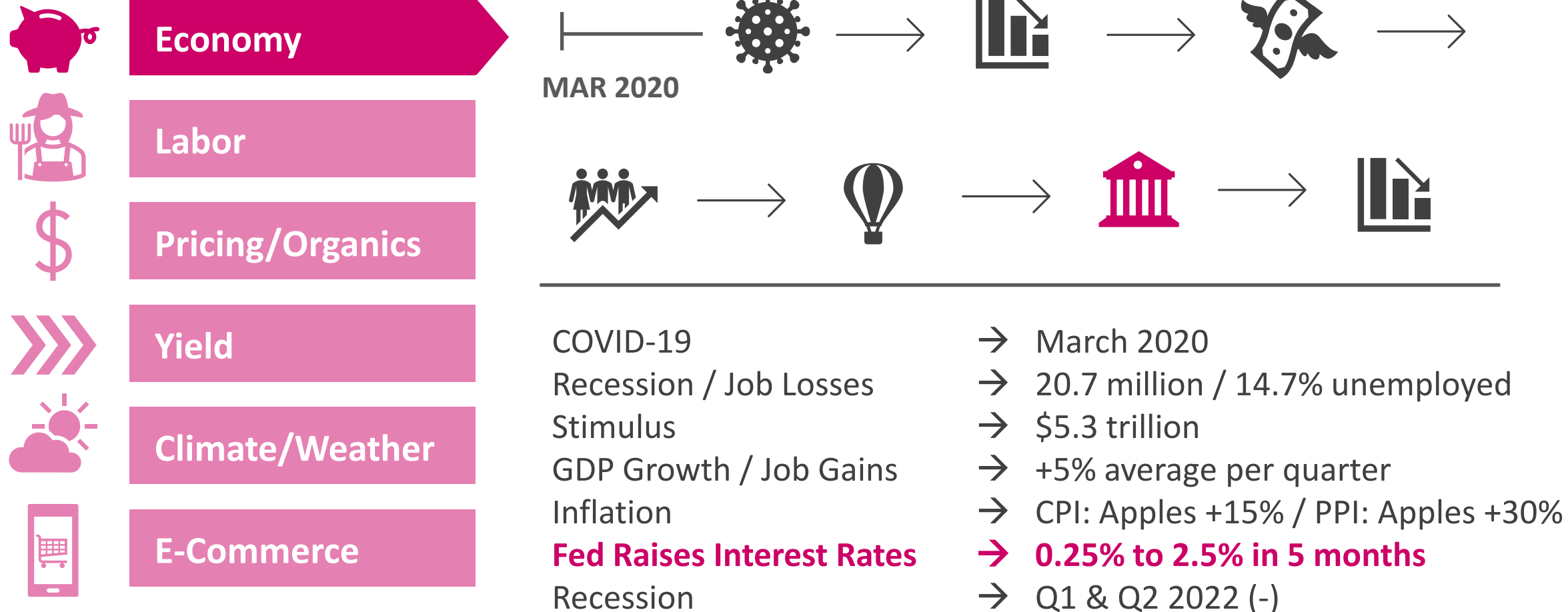
# Other Trends & Forces

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# Other Trends & Forces

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# Other Trends & Forces

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Economy



Labor



Pricing/Organics



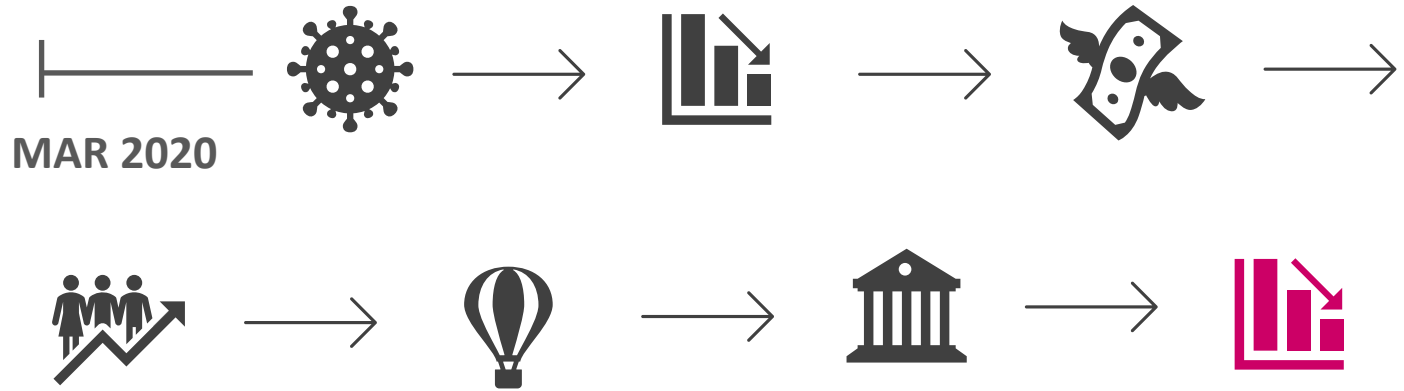
Yield



Climate/Weather



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**Recession**

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→ 0.25% to 2.5% in 5 months

→ **Q1 & Q2 2022 (-)**

# Other Trends & Forces

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## Economy

Domestic agricultural labor aging out and not being replaced by new immigrants.



## Labor

From 2016 to 2021, U.S. crop production employment down **3%** – apple orchard employment down **22%**.



## Pricing/Organics

In 2012, there were 100,000 H-2A visas, by 2021, that figure was 318,000 – a **216% increase**.



## Yield

H-2A labor rate (AEWR) increasing by 25% since 2017 – **+29% in the top-seven apple producing states**.



## Climate/Weather

Apple growing and packing are labor intensive – **60%-70% of variable costs**.



## E-Commerce



# Other Trends & Forces

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Economy



Labor



Pricing/Organics



Yield



Climate/Weather



E-Commerce

Grower prices not increasing:

## AVG Farm-Gate Price

2012-2016: \$0.32

2017-2021: **\$0.30**

*\*not accounting for inflation*

Retail prices increasing:

## June 2021 – June 2022 CPI

**Apples: +6%**

Fresh Fruit: +7%

All Food: +10%

**Organics**, on average, priced **54% more** than their conventional counterparts.

2021/22	Regular	Organic	Difference
Median	\$ 1.35	\$ 2.12	\$ 0.71
Honeycrisp	\$ 2.30	\$ 3.31	\$ 1.01
Granny Smith	\$ 1.58	\$ 2.14	\$ 0.56
Gala	\$ 1.50	\$ 2.12	\$ 0.62
Pink Lady/Cripps Pink	\$ 1.49	\$ 2.20	\$ 0.71
Fuji	\$ 1.41	\$ 2.09	\$ 0.68
Braeburn	\$ 1.35	N/A	N/A
Red Delicious	\$ 1.32	\$ 2.08	\$ 0.76
McIntosh	\$ 1.32	N/A	N/A
Golden Delicious	\$ 1.26	\$ 2.34	\$ 1.08
Jonagold	\$ 1.18	\$ 1.99	\$ 0.81
Rome	\$ 1.09	\$ 1.69	\$ 0.60

Sources: USDA, Agricultural Marketing Service; USApple

Note: Prices represent national averages in \$/LB.



# Other Trends & Forces

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Economy



Labor



Pricing/Organics



Yield

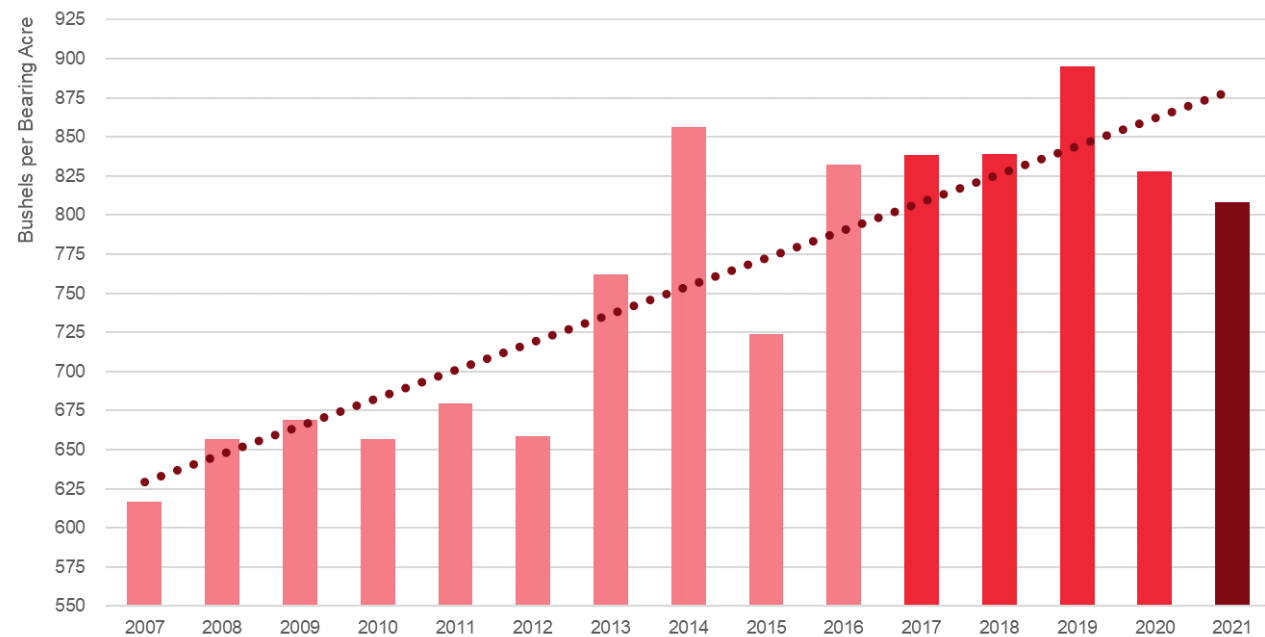


Climate/Weather



E-Commerce

With costs rising and revenues flat, apple growers have to get *more efficient* ...



Sources: USDA, National Agricultural Statistics Service; USApple



# Other Trends & Forces

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Economy



Labor



Pricing/Organics



Yield



Climate/Weather



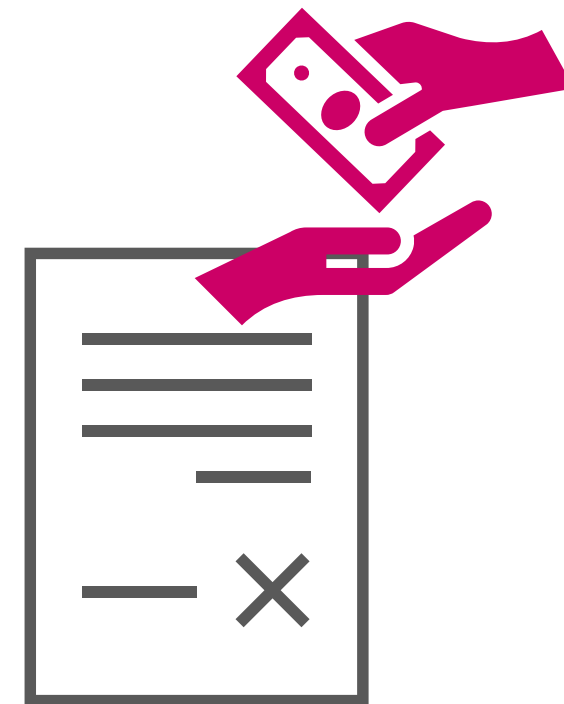
E-Commerce

Growing uncertainty around the climate change/adverse weather events and the extent to which they are getting more frequent and/or more severe.

*Over the last 30 years ...*

Crop Insurance Claims: +46%

Average Indemnity: +218%



# Other Trends & Forces

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Economy



Labor



Pricing/Organics



Yield



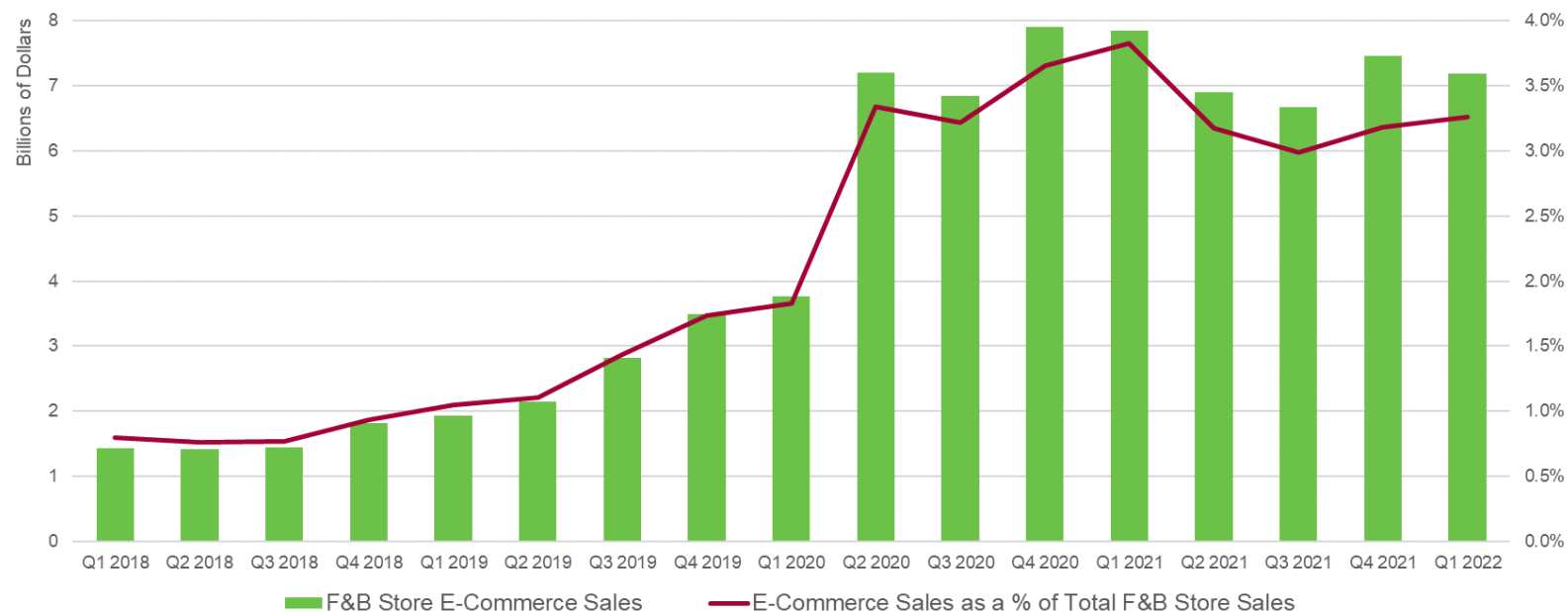
Climate/Weather



E-Commerce

## E-Commerce @ Grocery

Q1 2018	\$1.4 billion	0.8% of F&B Sales
Q1 2021	\$7.8 billion	3.8% of F&B Sales
Q1 2022	\$7.2 billion	3.3% of F&B Sales



Sources: U.S. Census Bureau; USApple

# Questions?

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