

Corrugated Market Briefing

October 2021

Know It All packaging newsletter

Situation Overview

- The corrugated industry has not been able to keep up with demand since quarter four 2020, except for a lull over the summer
- The supply of paper is not keeping up with demand either
- Hence, box lead times have remained extended throughout 2021
- On-time delivery performance ranges from OK (all things considered) to utterly dreadful
- When there is not enough of a commodity, prices will keep rising until there is closer equilibrium between supply and demand
- Circa £400+ million needs to be invested in UK containerboard, sheet feeder and box-making capacity
- Oil prices are also rising steadily
- There have been six price rises announced in 2021
 - 6 corrugated industry-wide box price rises this year whilst much of this capacity is commissioned
 - With a cumulative 38-45% increase in box prices projected by year end

Supply of Paper is Not Keeping up With Demand

- Corrugated demand is at exceptional levels
- Significant containerboard exports to China from Europe
- Covid-related bottlenecks in the paper supply chain
 - Labour shortages in paper mills, ports and transport companies
- New paper machines are not up to full capacity

Paper, Board and Box Prices

- Waste paper (for making recycling containerboard) prices have risen almost every month in 2021
 - 87% higher in the year to date
- Containerboard (paper for making boxes) prices will have risen in eight months out of ten in 2021
 - 43-48% higher year to date
- Sheet board prices have risen by 52% in the year to April
- UK box prices have risen by 38-45% so far this year

Why is Demand so High?

- A 20-30% increase in demand has created a peak that would annualise to circa 1.2 billion boxes in extra UK demand
- Covid-19 has accelerated the move to online retail sales
 - Online retailing has grown to 29% of all retail sales – falling from a peak of 35% during lockdown (see table overleaf)
 - It takes a lot more corrugated to wrap around one postal pack than a multi-pack in a traditional retailer

Online Sales As a Proportion of All Retailing

The proportion of retail sales via the internet has nearly doubled to 27.9% in recent years

Category	Online sales as a proportion of retailing (July 2021)
All retailing*	27.9
All food	10.7
All non-food	24.7
Department stores	28.2
Textile, clothing and footwear stores	29
Household goods stores	24.9
Other stores	19.2
Non-store retailing	79.7

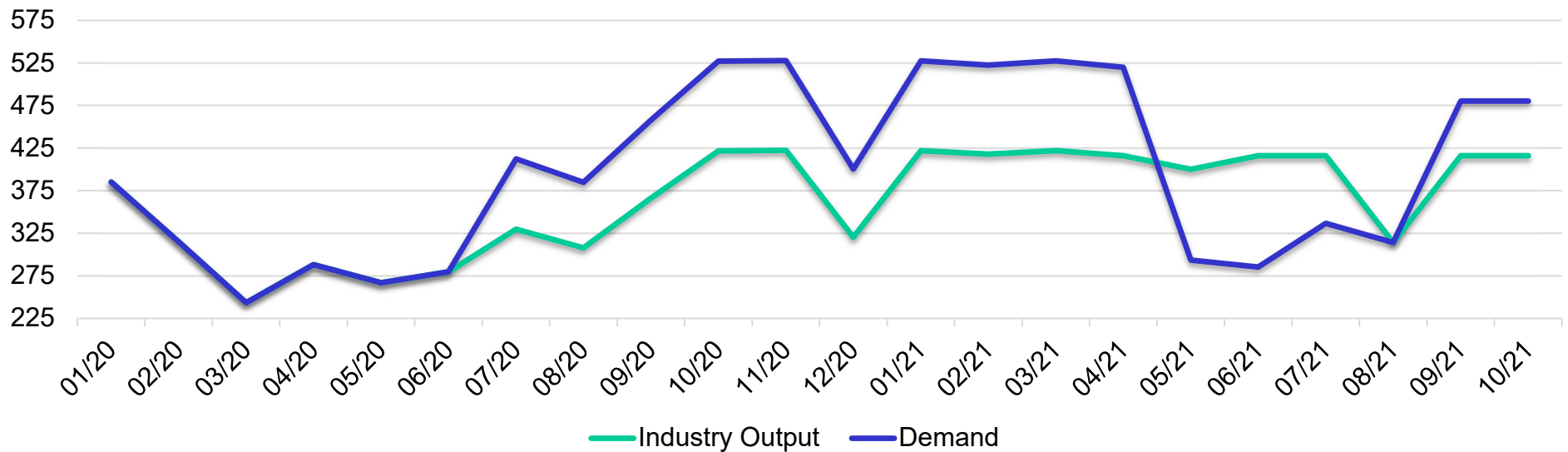
Source : Office of National Statistics

Industry Unable to Match Corrugated Demand

- UK annual corrugated demand typically grows by circa 2% in a good year
- However UK corrugated volumes are up by 5-6%
 - The majority of plants are working overtime
 - Taking the industry to capacity
- However, demand for corrugated is up circa 20-30% during peaks
 - Causing a snowballing of unmet demand
- Lead times are again extending, after a summer lull

Demand vs Industry Output

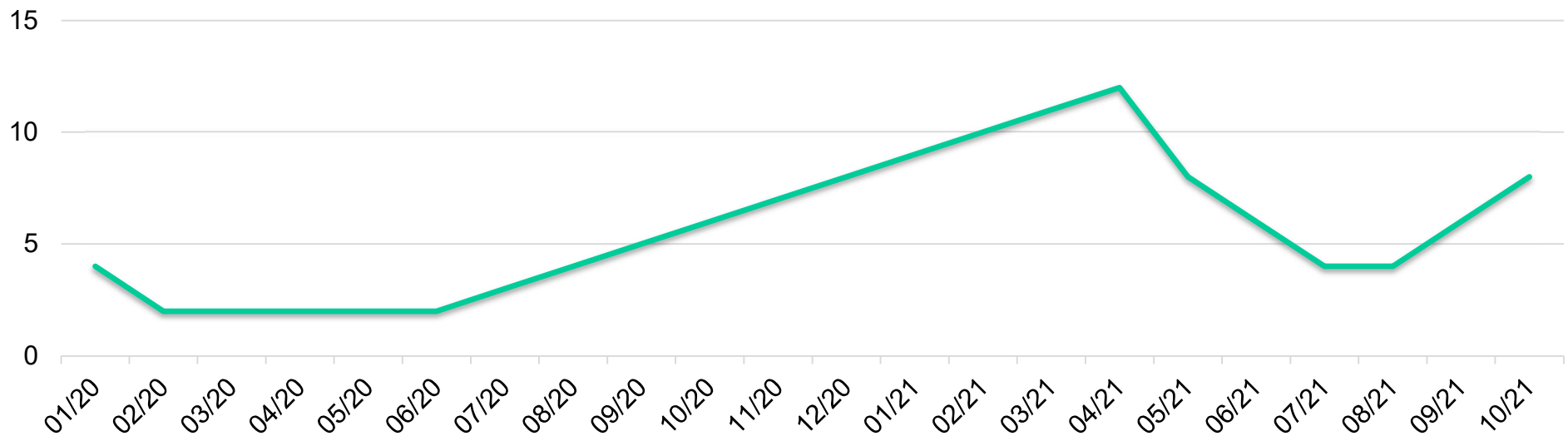
Monthly UK corrugated market volume tracker



Source : Know It All packaging newsletter

Average Box Plant Lead Times Extending Again

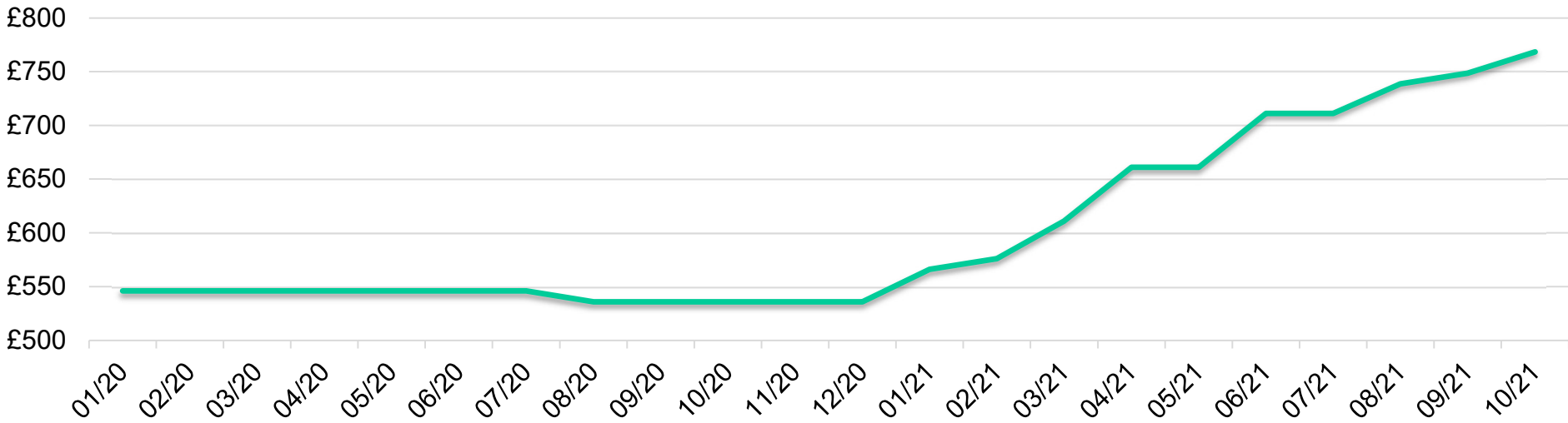
Average box manufacturing lead time



Source : Know It All packaging newsletter

Kraftliner Prices +43% in 2021

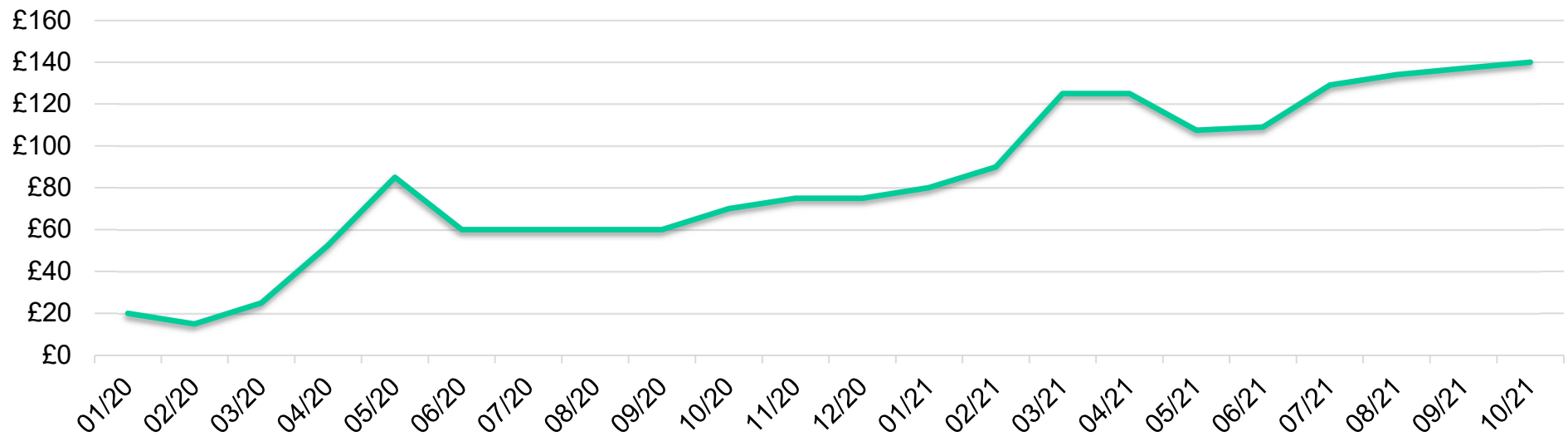
Monthly Prices - Kraft



Source : Know It All packaging newsletter

Waste Paper Prices +87% in 2021

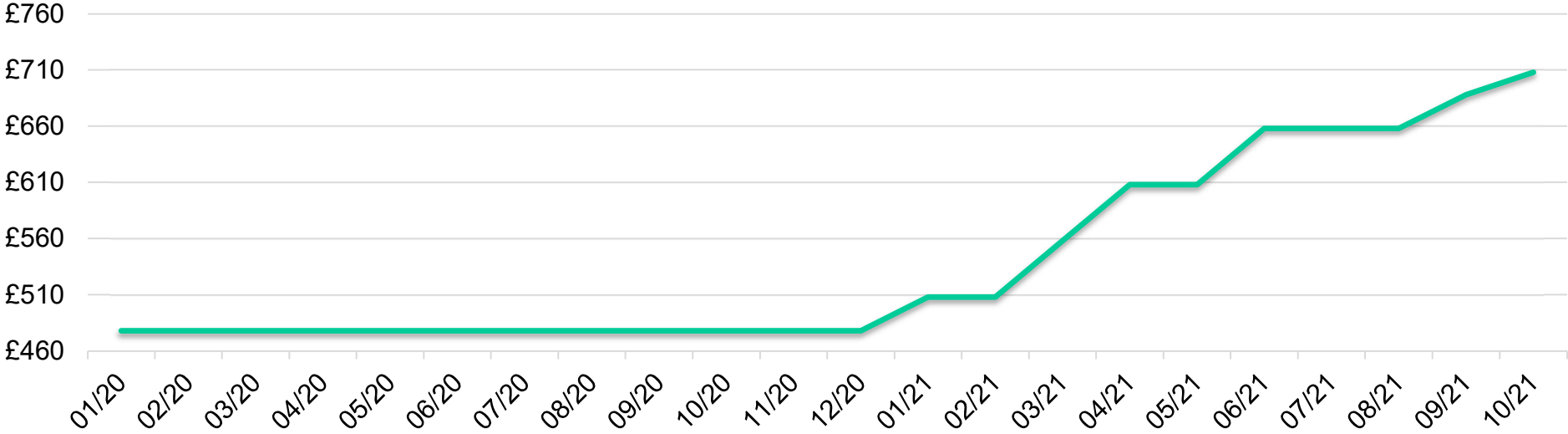
OCC price / tonne



Source : Know It All packaging newsletter

Fluting Paper Prices +48% in 2021

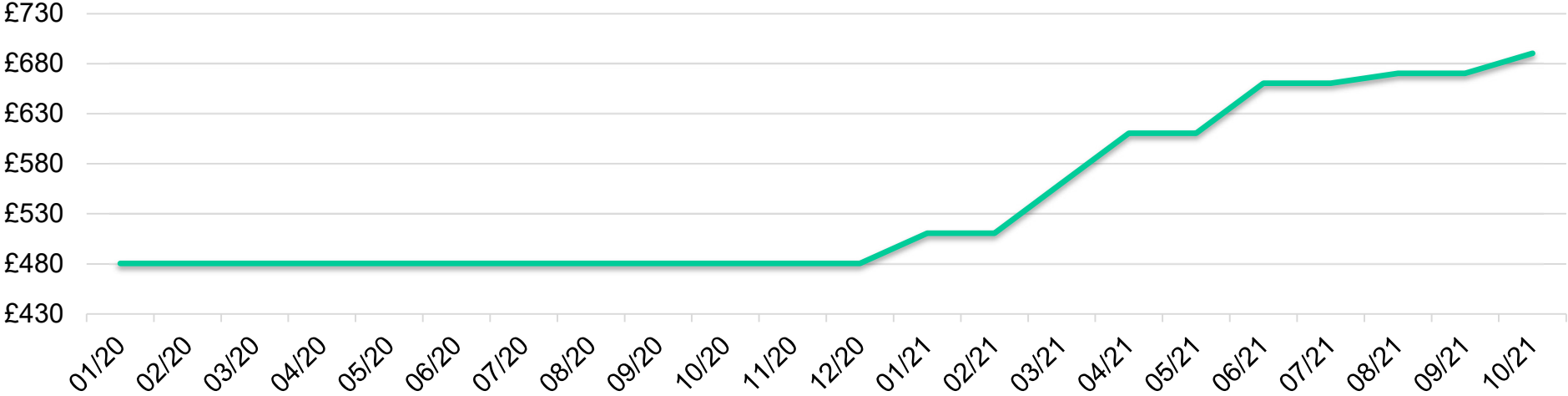
Monthly Prices - W/B Fluting



Source : Know It All packaging newsletter

Testliner 3 Paper Prices +44% in 2021

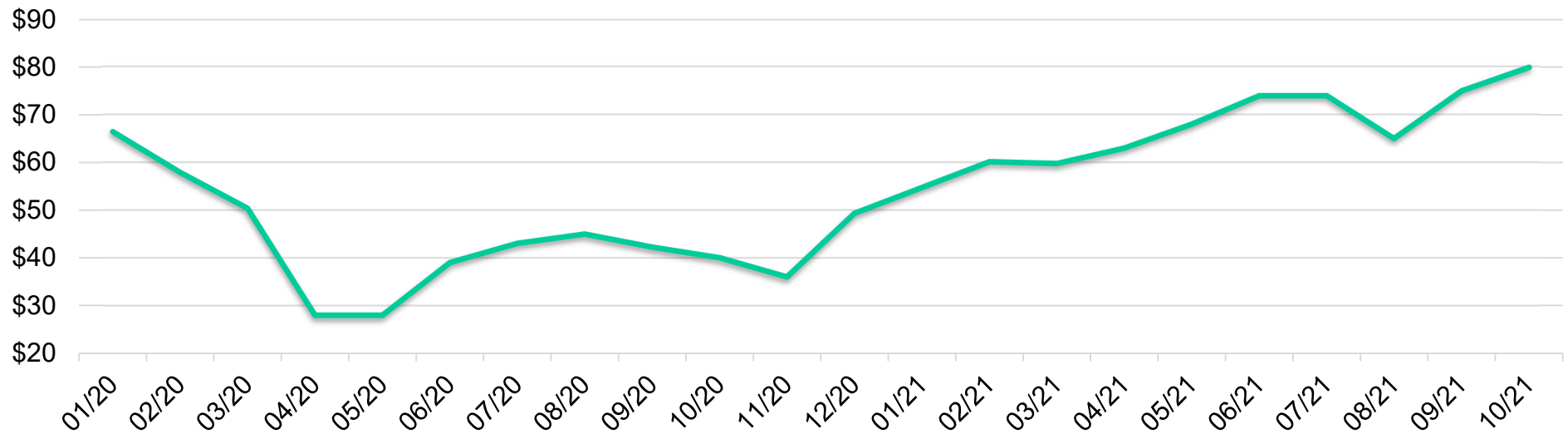
Monthly Prices - Test 3



Source : Know It All packaging newsletter

Rising Oil Prices +62% in 2021

Monthly Prices - Oil (Brent Crude)



Source : Know It All packaging newsletter

Economic Recovery Will Boost Global Corrugated Demand Further

- UK
 - Government borrowing of £303 billion in financial year 2020/21 to support the economy through the pandemic
 - Covid vaccination programme going relatively well
 - Economy projected to grow 6.6% in 2021
 - Euro area projected to grow by 4.8% in 2021
 - USA
 - Government economic stimulus of \$1.9 trillion passed, more to come
 - Covid vaccination programme going relatively well
 - US economy projected to grow by 6.0% in 2021
 - Chinese economy forecast to grow by 8.0% this year
- Source : Financial Times

Summary

- Corrugated is in a supercycle (i.e. a prolonged period of demand outstripping supply)
- Lead times are extending again
- Inflationary pressure set to continue for the rest of 2021
 - Box prices are rising by 38-45% this year
 - Economic recovery will maintain strong demand
- New paper, board and box conversion capacity will come on stream in 2022
- In the meantime, security of supply is at least as critical as price