



Matching supply chain to production and consumption trends: **Looking into the future**



Panel

- Chair: Michael Waring, Chairman, INC
- Russell Mooney, Managing Director, Intersnack Procurement B.V., Netherlands
- Ashok Krishen, MD & CEO, Nuts Business, ofi, Singapore
- Dinika Bhatia, Founder & CEO, DRB Foods Pvt. Ltd., India
- Pieter Slabbert, National Sea Logistics Reefer, Pharma and Vinlog Manager, Kuehne + Nagel, UAE

Program

1. Production and consumption trends
2. Market reaction, development and direction
3. What's next

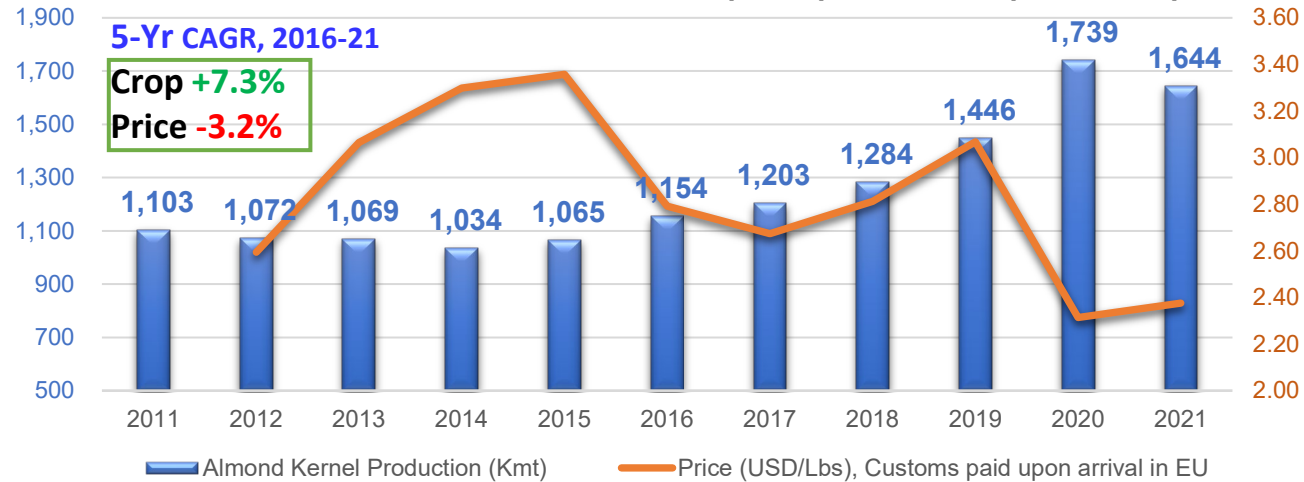


MD & CEO, Nuts Business, ofi, Singapore

The logo for OFI (Office of Financial Institutions) features a stylized 'ofi' in purple and orange, with the tagline 'make it real' in orange script below it.

Almond & Walnut: Production & Price Trend

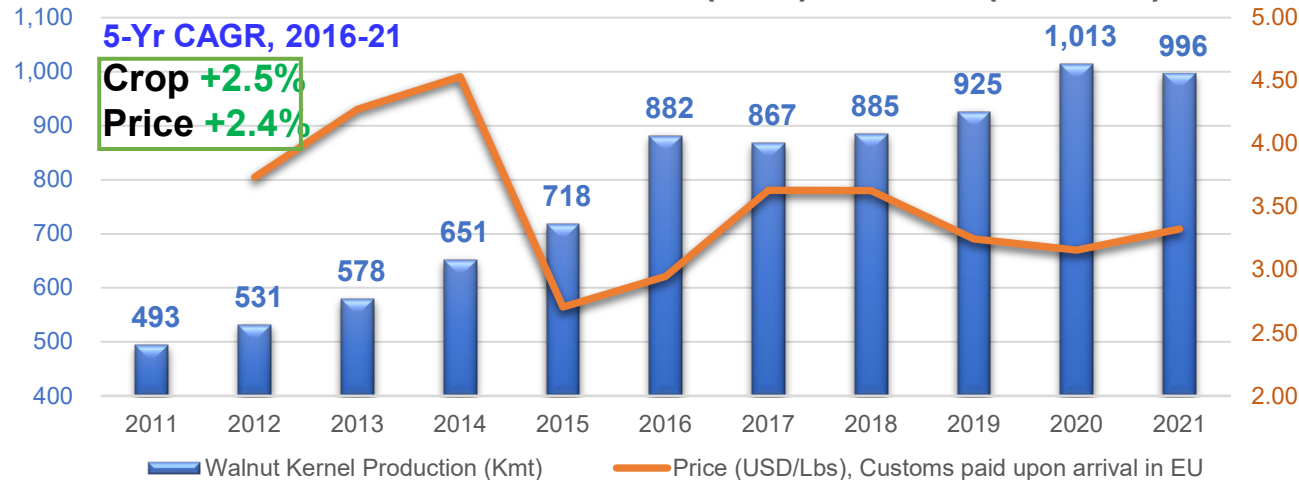
Almond Kernel - Production (Kmt) & Price (USD/Lb)



Almond +4.1% (10-Yr CAGR)

- Due to price increase during 2012-14 (grower price realization touched historic high in 2014), profitability increased for growers.
- Though acreage increased in all major growing countries, US market share in total production reduced as a result of significant relative acreage increases in Australia, Spain and others.

Walnut Kernel - Production (Kmt) & Price (USD/Lb)



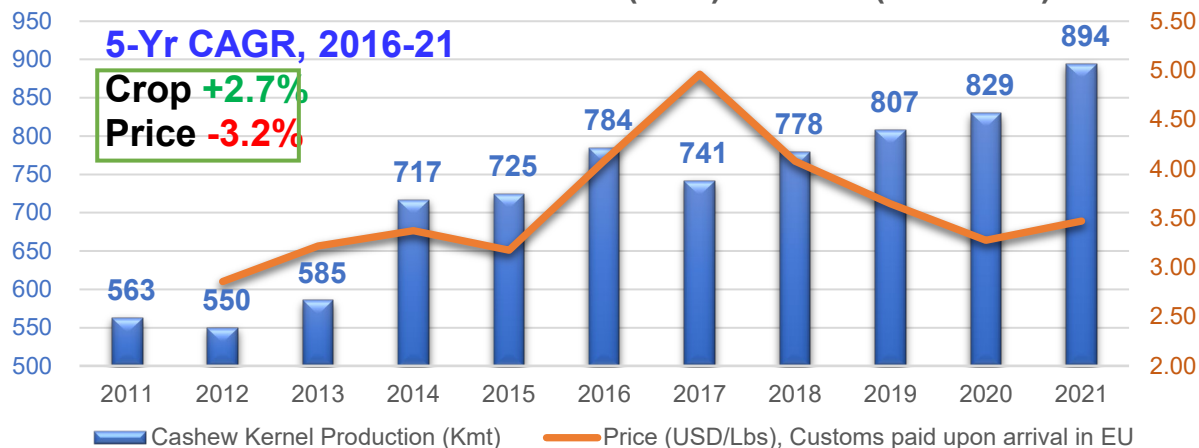
Walnut +7.3% (10-Yr CAGR)

- Higher price during 2012-14 led to higher crops from China(+4.6% CAGR), USA(+4.6%), & Chile(+14.3%).
- However, increased global supply is reducing grower returns in the last few years.
- China is now 2nd largest exporter and beginning to affect export markets.

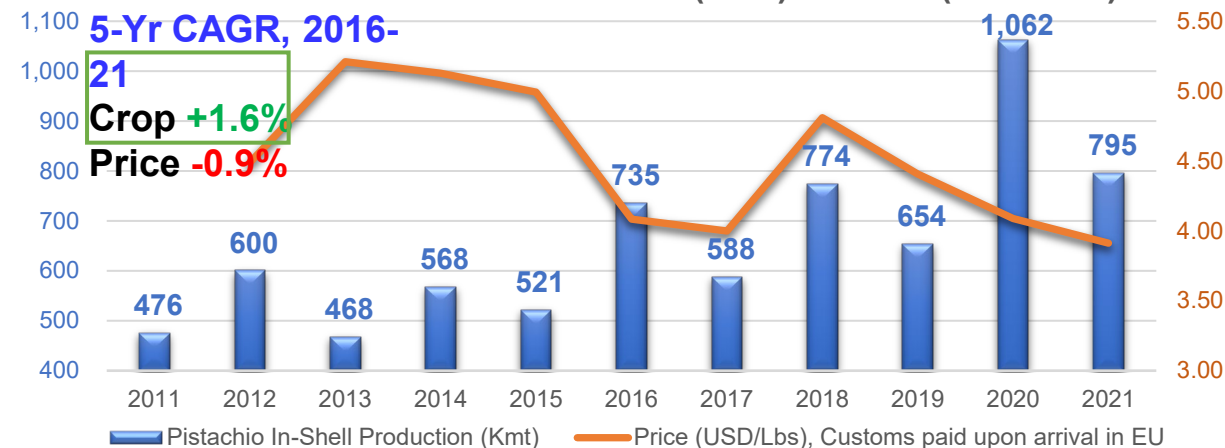
Source: INC

Cashew, Pistachio, & Hazelnut: Production & Price Trend

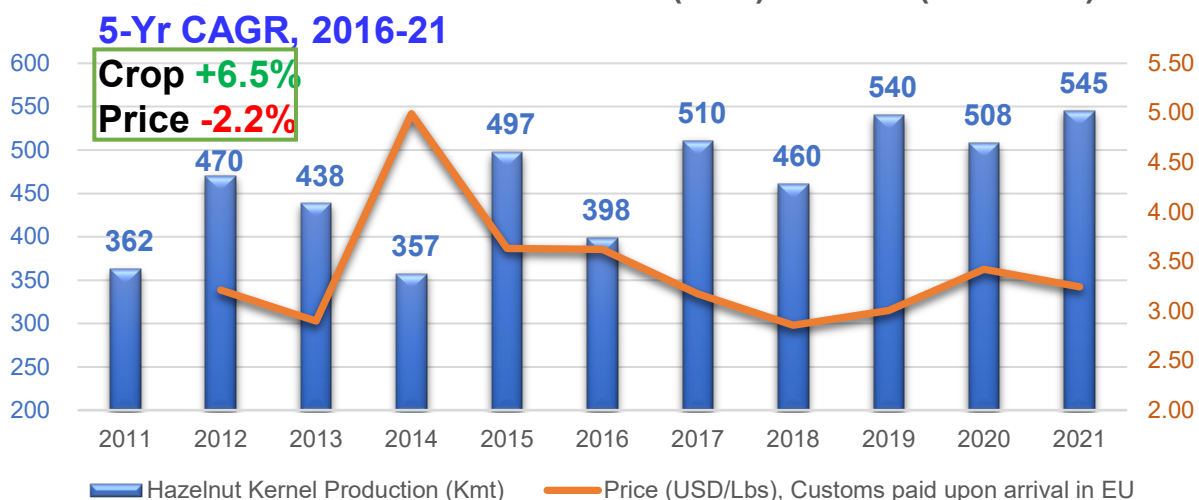
Cashew Kernel - Production (Kmt) & Price (USD/Lbs)



Pistachio In-Shell - Production (Kmt) & Price (USD/Lbs)



Hazelnut Kernel - Production (Kmt) & Price (USD/Lbs)



Cashew +4.7% (10-Yr CAGR)

- Growth driven by West Africa (+7.5% CAGR) & Cambodia (+19% CAGR).
- Price rally during 2012 to early 2017 resulted in higher plantations in West Africa, leading to global crop growth & higher processing capacity, supported by mechanization.
- Cambodia, large scale new plantation started from 2016 onwards.

Pistachio +5.3% (10-Yr CAGR)

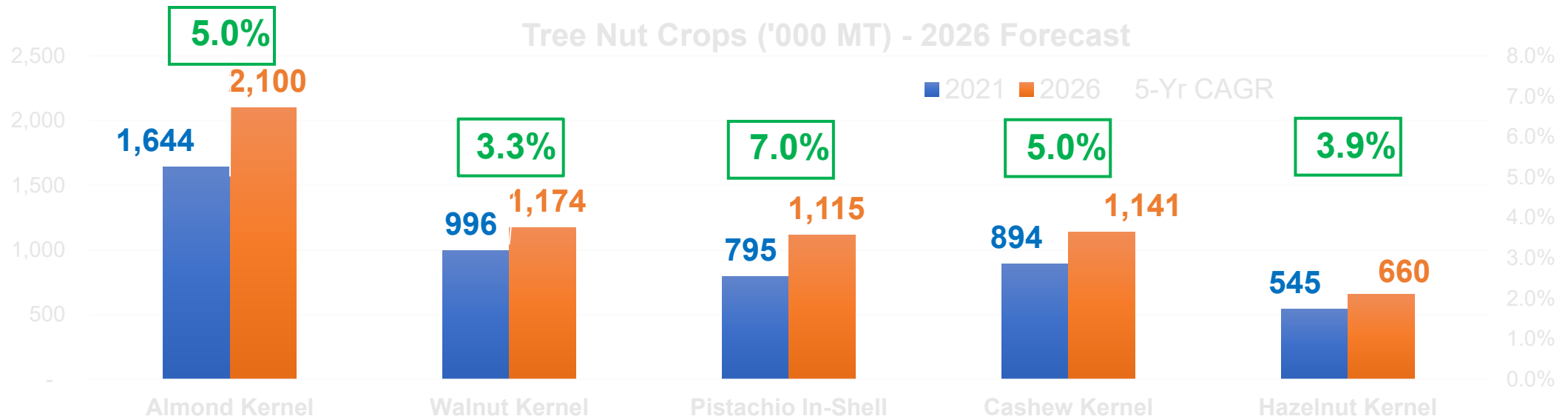
- Growth driven by USA (+10% CAGR) & Turkey (+5.7% CAGR).
- Plantings have increased substantially due to high grower returns and less water needs.

Hazelnut +4.2% (10-Yr CAGR)

- Higher prices during 2013-2014, attracted higher Investments from global corporates for supply security & increased acreage in Chile & USA.
- Crop increased in Turkey owing to better farming practices & Investments in sustainability.

Source: INC

Tree Nut Crops: 5-Yr Forecast – Our View (CAGR shown in Green Boxes)



2026 Forecast

- **Almond (+5% CAGR)** – Growth expected from Spain, Australia, & USA.
 - We are now seeing a significant slow down in new plantings in the US, which will result in slower increase in nonbearing acres over the next 5 years.
 - Post 2025 it is likely that there will also be a reduction in bearing acres in the US as a result of water policy.
- **Walnut (+3.3% CAGR)** – Growth expected from Chile, China, & USA.
 - Expected slower growth in USA & Chile due to reduced grower profitability.
- **Pistachio (+7% CAGR)** – California bearing acres likely to grow on an average by 5% CAGR over next 5-years.
 - Pistachios is the best alternative currently in CA, due to highest grower returns, less water use, & ease of farming.
 - Turkey & other regions will contribute additional crop (Turkey industry growth is more sophisticated with improved infrastructure).
- **Cashew (+5% CAGR)** – High yielding (M23 Variety) plantations of Cambodia will be the main driver of growth.
- **Hazelnut (+3.9% CAGR)** – Growth expected from Chile, USA, & Turkey.

Almond, Pistachio & Cashew need to be promoted more to match the demand growth in line with supply growth.

Supply Chain (Cultivation, Processing & Logistics): Rising Costs

Supply Chain Costs Change during 2020-22

Parameter	Almond / Walnut / Pistachio	Cashew	Hazelnut
Cost of Cultivation (\$/MT - In-Shell)	45% increase (\$440/MT) in USA for well maintained Orchards	15% increase (\$60/MT) in Africa & Asia	10% increase (\$40/MT) in Turkey
Logistics Cost (\$/MT) - Latest vs. early 2020	CA to destinations - Avg freight rate increased by \$120/MT for both kernels and in-shells	1. In-shell freight rate from West Africa to Vietnam - increase of \$60/MT 2. Cashew Kernel frt from Vietnam to US West Coast - Increase of \$567/MT 3. Cashew Kernel frt from Vietnam to EU - Increase of \$450/MT	Turkey to EU, freight rate - increase of by \$90/MT (kernel basis)
Processing Cost (\$/MT - In-shell)	Increased by \$25/MT in USA	1. 20% net reduction (\$30/MT) in Vietnam due to efficient mechanization & integration of processing steps - reduced labor 2. 10% Increase (\$40/MT) in India & Africa due to slower mechanization, increase in labour and energy cost	Increased by \$50/MT in Turkey

Increase in various cost heads in USA during 2020-22

Parameter	2021 vs. 2020	2022 vs. 2021	Cumulative % increase - 2022 vs. 2020
Skilled Labor incl surcharge	6%	13%	20%
Red Diesel	51%	36%	104%
Electricity-PGE Rate Ag-B	22%	23%	50%
Input Costs - Average increase	6%	49%	59%
Fertilizer	5%	61%	67%
Fungicide	3%	19%	22%
Herbicide	18%	176%	233%
Insecticide	2%	21%	22%
Soil Amendment	10%	27%	39%

- SGMA has classified most of SJV as Critically Overdrafted, hence, in some regions, pumping restrictions will be implemented in 2022.
- Overall increased costs across supply chain is a double whammy with shelf prices not even reflecting logistics cost increase and hence grower is hit not only on rising costs but also net lower price to the farm.
- This will have larger impact on 22/23 crops.

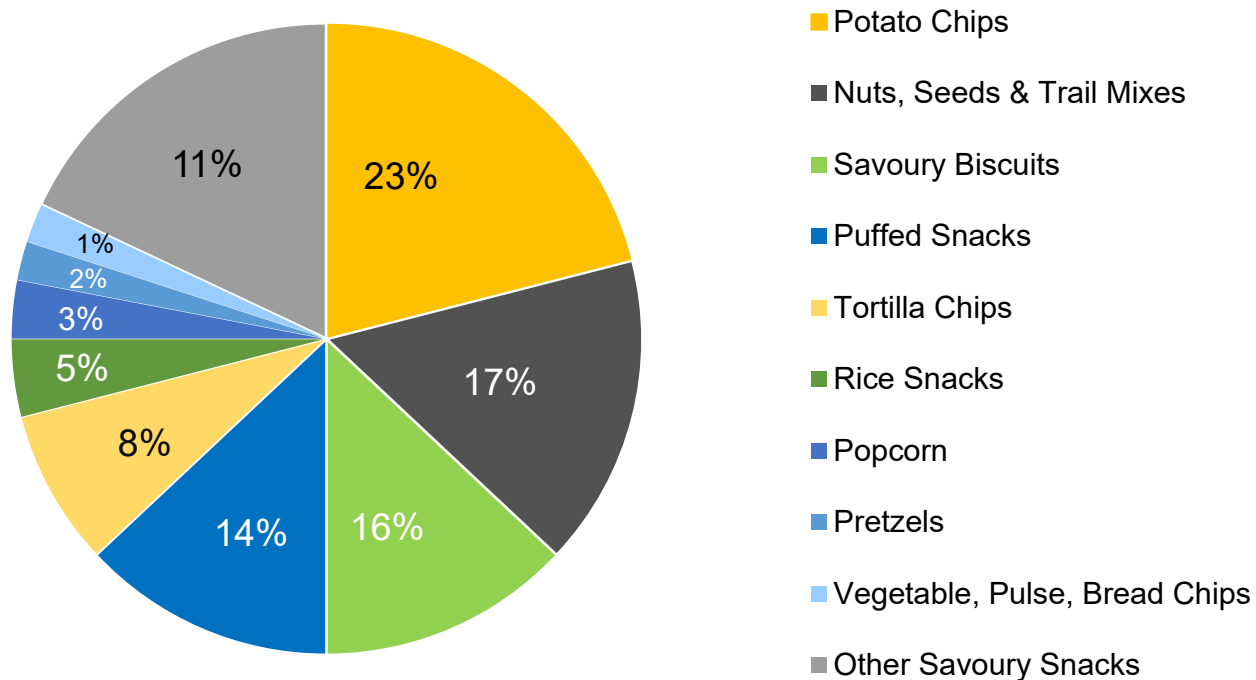
Russell Mooney
MD & CPO, Intersnack Procurement BV



Nuts is the second largest Savoury Snack Category...

Global Snack Market 2021: € 169.4 bn

Share of Snack Categories



- Global perspective

Nuts is currently the second largest Savoury Snacks Category

Expected to remain one of the strongest growth drivers within Savoury Snacks Category

Growth sustained by increasing consciousness for health and well-being nutrition

- European perspective

Nuts is currently the largest Savoury Snacks Category

Most dynamic category in Western Europe

Below-average growth rates in Eastern Europe

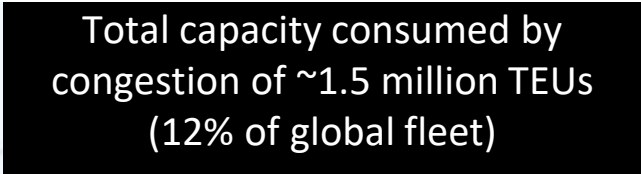
Nuts growth driven by noble nuts as the largest segment

Pieter Slabbert

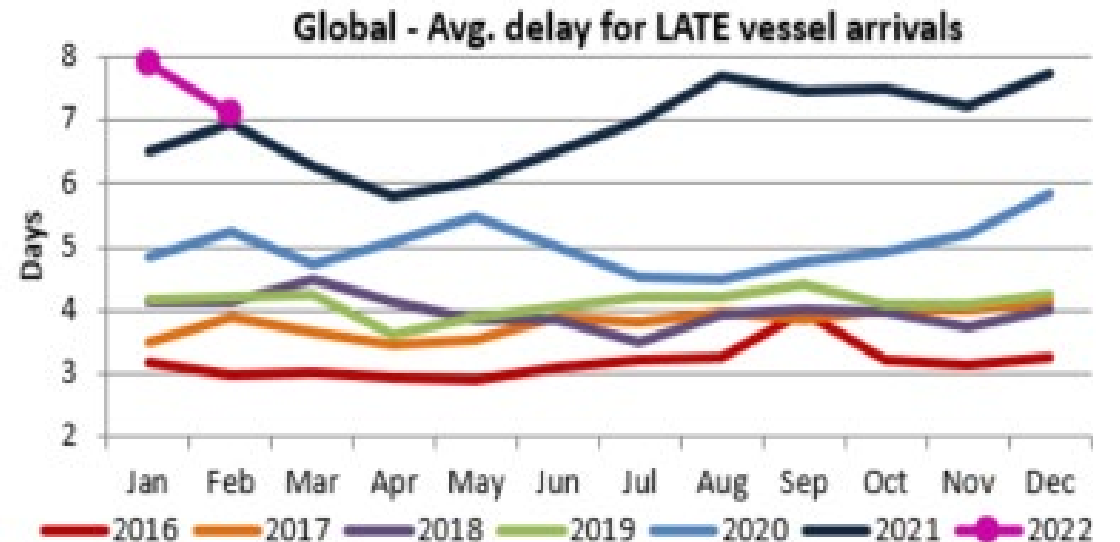
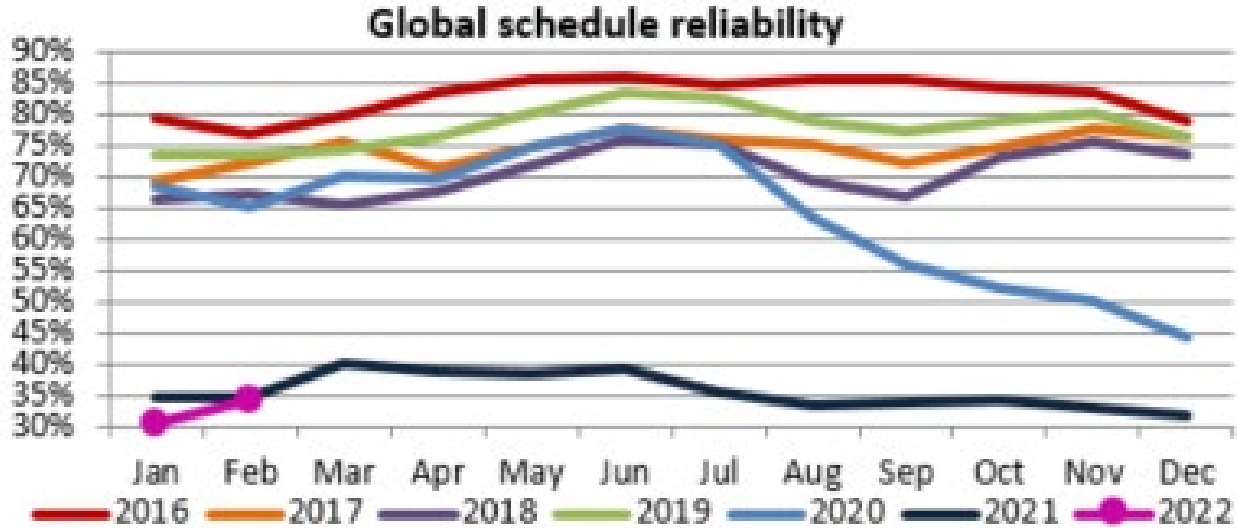
National Sea Logistics Reefer, Pharma and
Vinlog Manager, Kuehne + Nagel, UAE



© 2006 The Authors
Journal compilation © 2006 Blackwell Publishing Ltd



Carrier schedule reliability



Source: (top) sea Intelligence Maritime Analysis / Global Liner Performance Report (March 2022)

China's last lockdowns created delay

Live example of disruption



Source: KN SeaExplorer

Lead times in the current climate



Terminals

severe congestion in terminals across the globe



Equipment

permanent shortage of boxes difficult to recover



Chassis

chassis availability remains constrained (US)



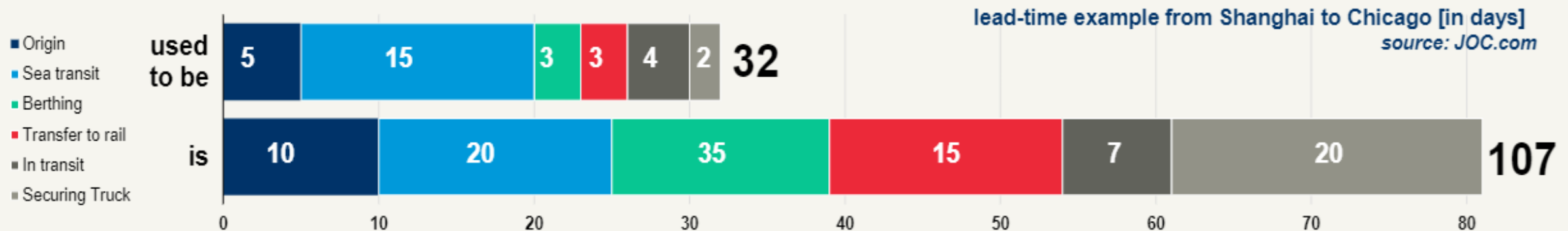
Rail-car

missing rail car is the main driver behind US delays



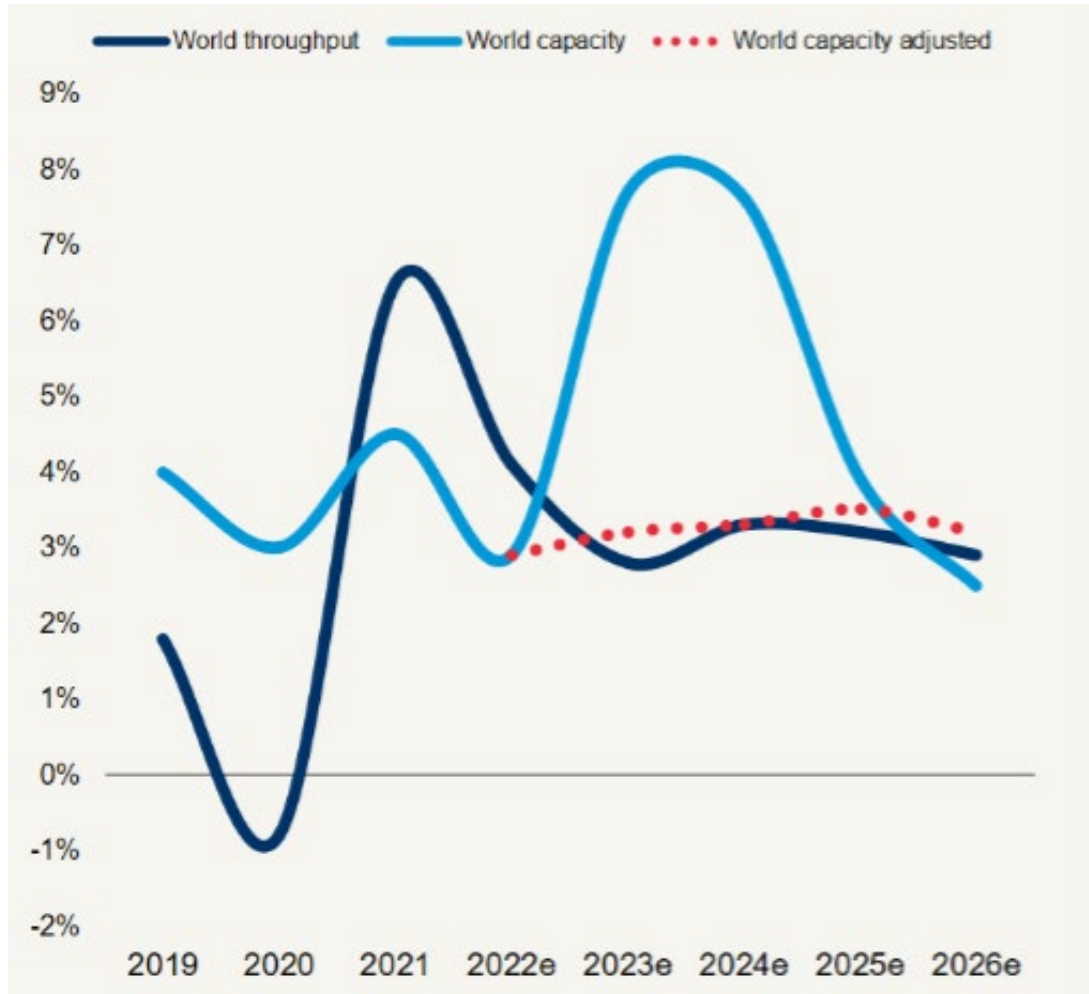
Trucks & drivers

Lead time for availability ranges from 5 to 28 days



Supply and demand

World throughput (demand) vs fleet (supply): [adj.forecast](#)



The latest available forecasts on the development of global throughput suggest an average growth of about 3% per year for the next 4-5 years.

New vessels and containers expected to be presented to the world fleet over the next three years .

Bottlenecks and congestion were responsible for more than 15% capacity reduction in 2021.

Source: Drewry Maritime Research and Kuehne+Nagel market intelligence

Dinika Bhatia

Founder & CEO, DRB Foods Pvt. Ltd.



India - The Land of Youth

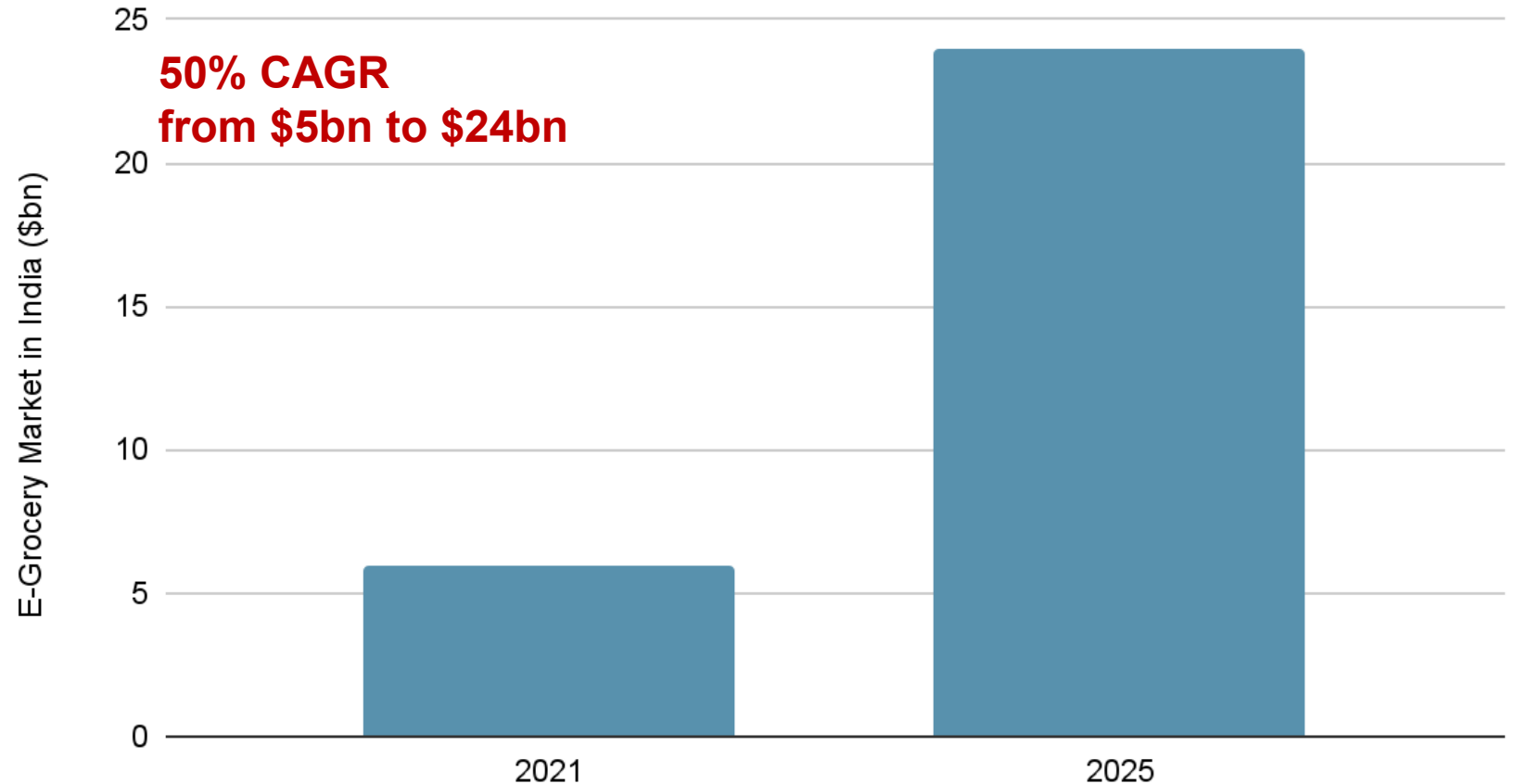
60%

of India is *under the age of 30*.



25 million households
buying *grocery online* by **2025**

E-Grocery Market in India (\$bn)



Cracking the Indian Nut(ty consumer)

WHAT DO THEY WANT?

Knowledge
&
Awareness

Choice
&
Innovation

Convenience
&
Consistency



Building India Together

WHAT?

Consistent and Increased Marketing Awareness

MESSAGE?

1. Why are Nuts superfoods?
2. How much to eat?
3. How to eat? (apart from morning consumption)
4. Busting myths around Nuts

HOW?

1. Celebrity Endorsements - Cricket & Bollywood
2. Collaborations with Influencers - moms, lifestyle, chefs
3. Digital Marketing
4. Digital Media
5. Print Media
6. Local Events
7. Product Innovation
8. Stable Pricing

Thank you

Any questions?

