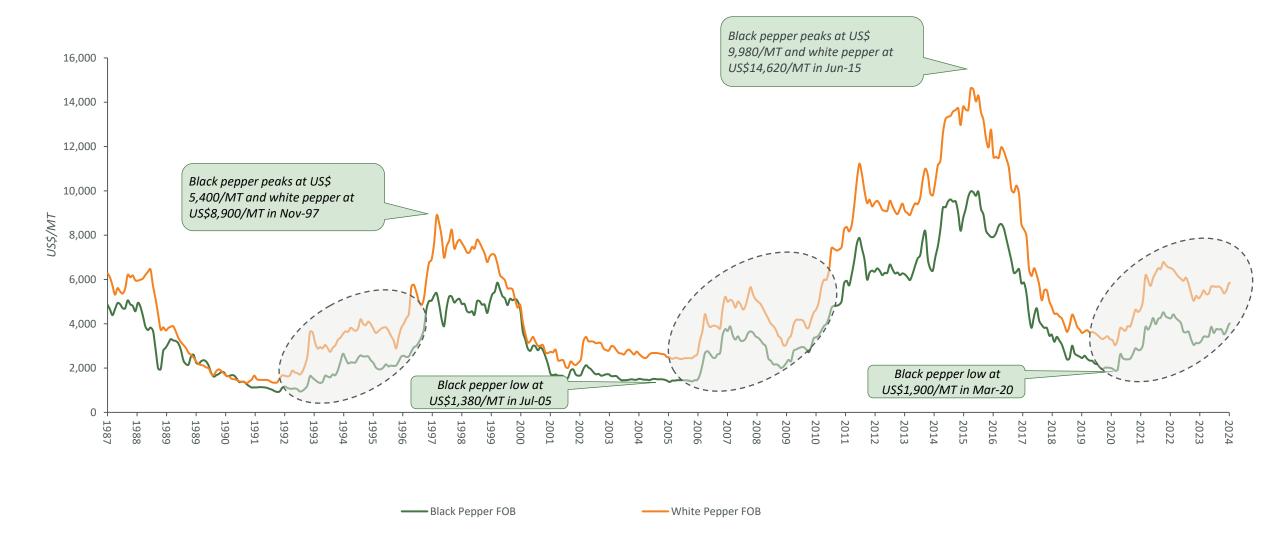
PEPPER CROP REPORT 2024

International Spice Conference March 2024



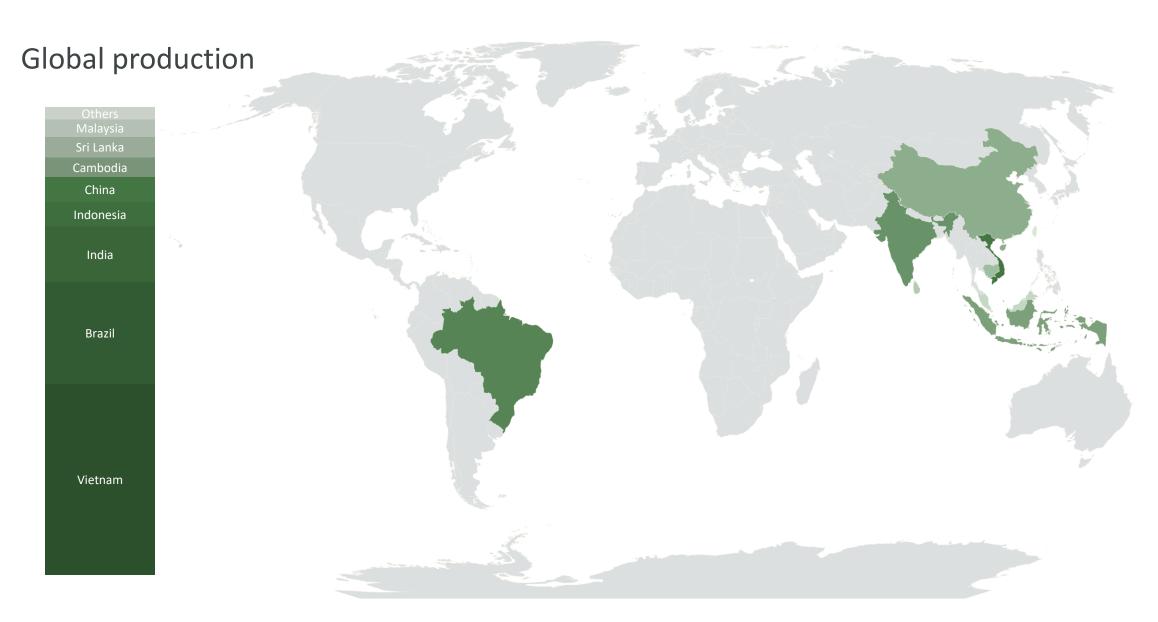


The long-term price cycle of pepper









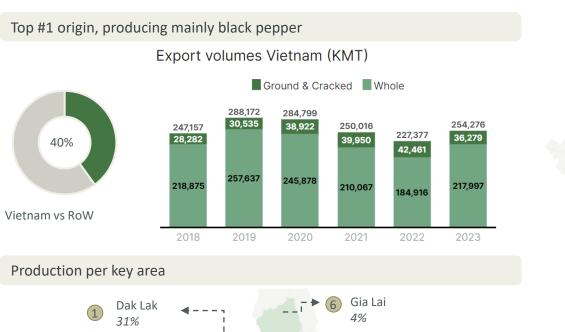






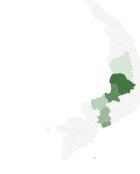
Vietnam

The largest processor and exporter of black and white pepper, limited new plantings past five years



Binh Phuoc

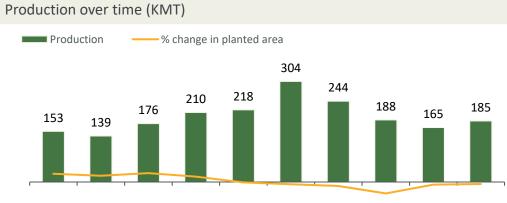
11%



20,000

Change in planted area (ha) ---- Yielding area Gap to planted area --- Planted area 160,000 125,000 90,000 55,000

2013/14 2014/15 2015/16 2016/17 2017/18 2018/19 2019/20 2020/21 2021/22 2022/23



2013/14 2014/15 2015/16 2016/17 2017/18 2018/19 2019/20 2020/21 2021/22 2022/23





Dak Nong

Tau

12%

Vietnam

Crop size is expected to drop, driven by decreased acreage and aging vines

Pepper replaced by competing crops like Durian





Crop development 2023/2024 season



9%

Death ratio

4%

Replanting

157 KMT -14.9%

72,496 ha

2.2 MT/ha

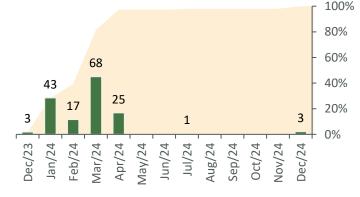
Production volume

Total yielding area

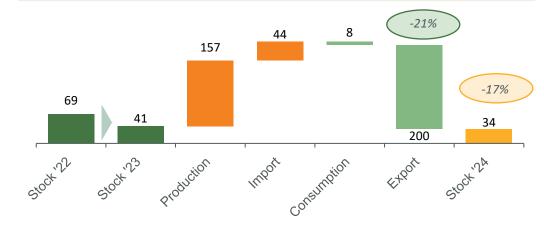
Yield forecast

Expected crop arrivals 2023/24 season (KMT)

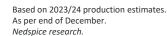
- The harvest started in December, will peak in March and continue into April/May.
- February will see limited harvesting due to Tet holiday



Stock development¹ (KMT)

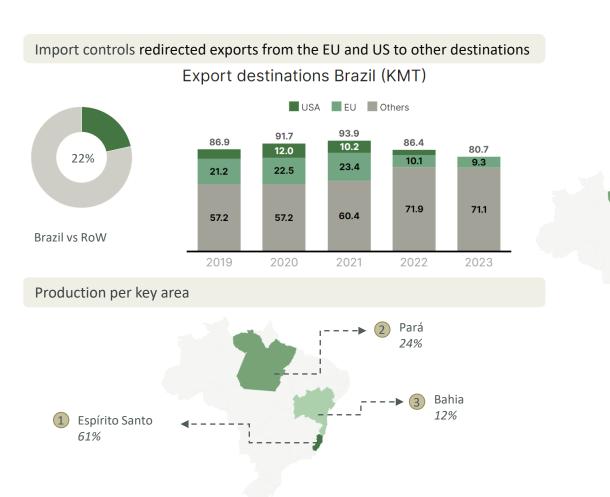


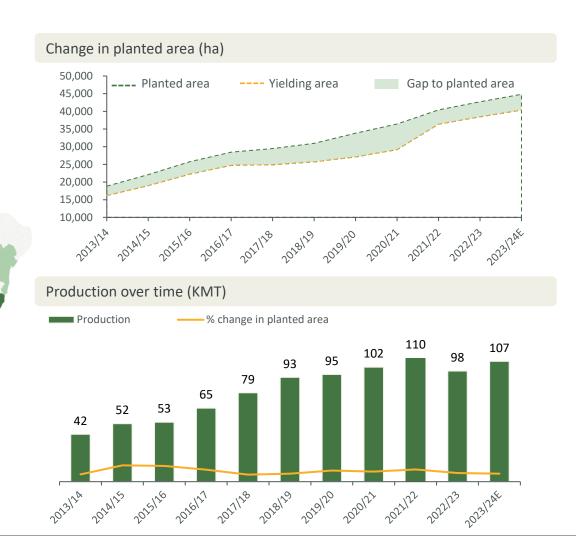




Brazil

Planted areas continue to expand in the South, reducing in Pará





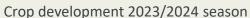




Brazil

Unfavorable weather – first too wet, then too dry – hurt the crop in Brazil

Cumulative rainfall in Castanhal, Para (mm) vs long-term average Cum. July - YtD 600 — Cum Average 500 400 300 200 100 Aug-23 Sep-23 Oct-23 Jul-23 Crop development 2023/2024 season





15%

Death ratio

20%

New planting

107 KMT +9%

38,503 ha

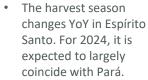
3.2 MT/ha

Production volume

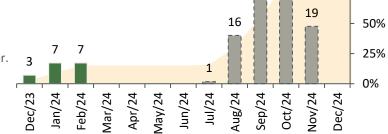
Total yielding area

Yield forecast

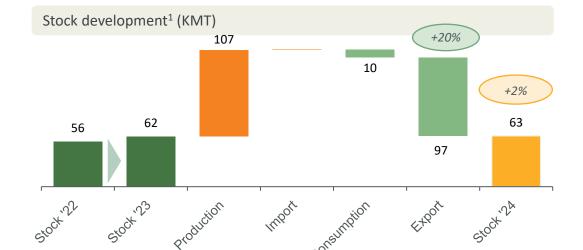
Expected crop arrivals 2023/24 season (KMT)



Pepper from Para will arrive from September.



28









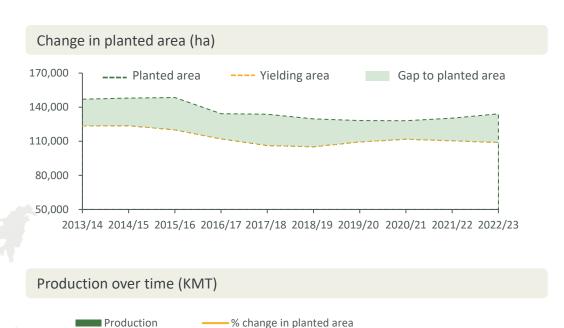
100%

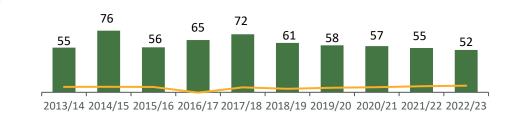
75%

India

The crop size is relatively stable | expected lifetime of the vines is > 20 years









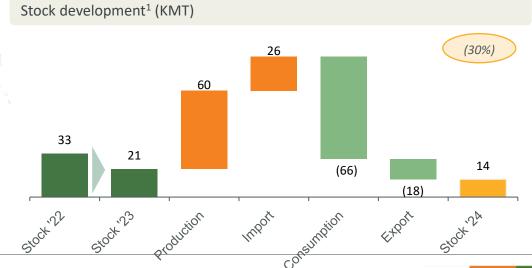


India

Favorable conditions positively impact the 2024 crop



Crop arrivals 2023/24 season (KMT) • Pepper harvest in full 100% swing 75% Yield unevenly distributed between 50% growing regions 25% · Good crop expected for 2024

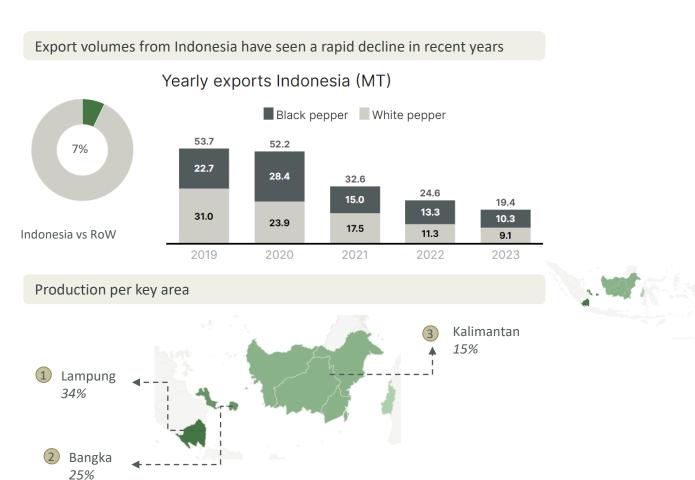


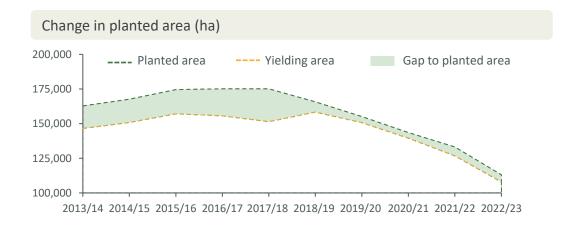


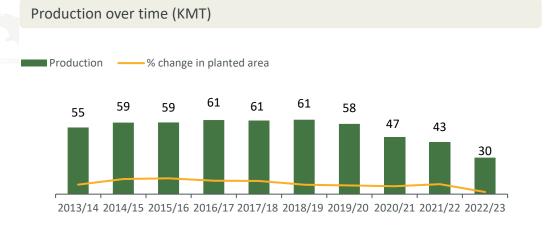


Indonesia

Production has come down over the last four years, especially in Bangka











Indonesia

Production is estimated to recover vs 2023, but not close to historical figures

Many pepper vines in intercropped farms died between 2021 and 2023





Crop development 2023/2024 season



9%Death ratio

7%

New planting

33 KMT +10%

111K ha

0.3 MT/ha

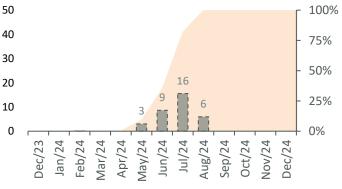
Production volume

Total yielding area

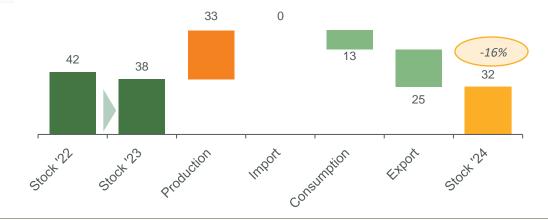
Yield forecast

Crop arrivals 2023/24 season (KMT)

- The harvest will start in May/June, recovering somewhat vs last year when crops suffered from heavy rains, especially in Lampung.
- White pepper process is 100% done by the fermentative method, soaking in water for c. 2 weeks.



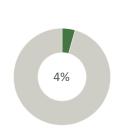
Stock development¹ (KMT)



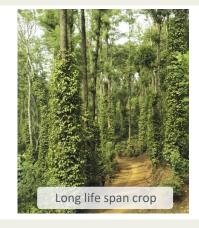
Sri Lanka

The main export destination for Sri Lankan pepper is India. Good production expected for 2024, 27KMT.

Sri Lanka and key signature pepper products



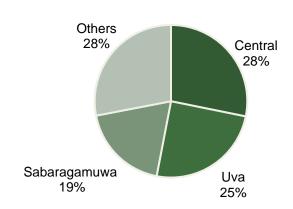
Sri Lanka vs RoW





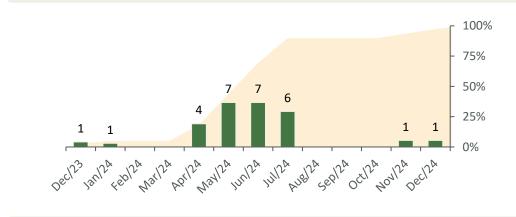
Main export destination is India. Ceylon black pepper has a high piperine content, which is suitable for oil and oleoresin production.

Production per key area

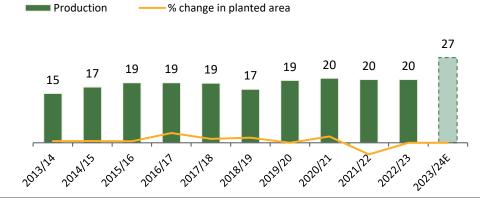




Crop arrivals 23/24 season



Production over time (KMT)







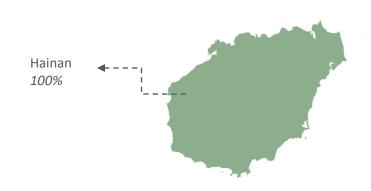


China

China produces almost exclusively white pepper, grown on the southern island of Hainan

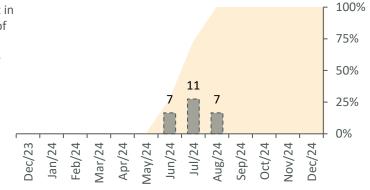
The largest consuming country in the world Hainan white pepper China vs RoW Largest pepper consuming country

Production per key area

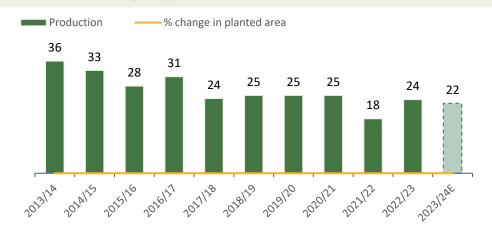


Crop arrivals 2023/24 season (KMT)

 The harvest will start in summer 2024. 90% of harvested pepper is processed into white pepper by soaking method.



Production over time (KMT)

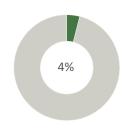




Cambodia

Cambodia expects a good harvest this year, farmers have also slowly started expanding farms.

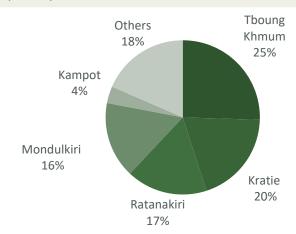
New planting has started, with an estimate rate of 5%



Cambodia vs RoW



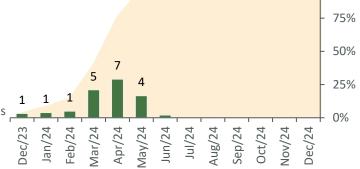
Production per key area



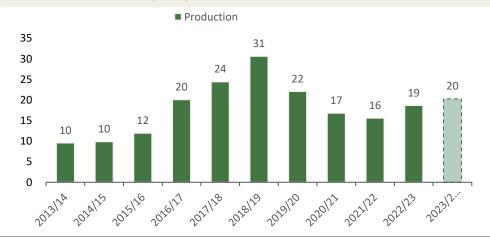
Crop arrivals 2023/24 season (KMT)



 Weather conditions have been favorable this year.



Production over time (KMT)



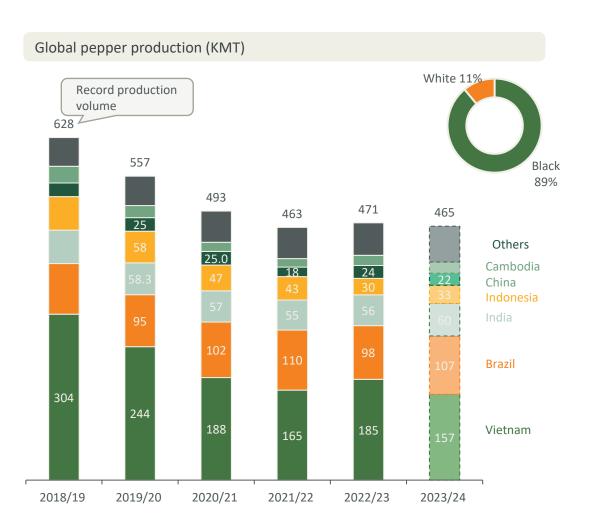






100%

Total global production is on a downward trend, with around 465KMT expected for 2024



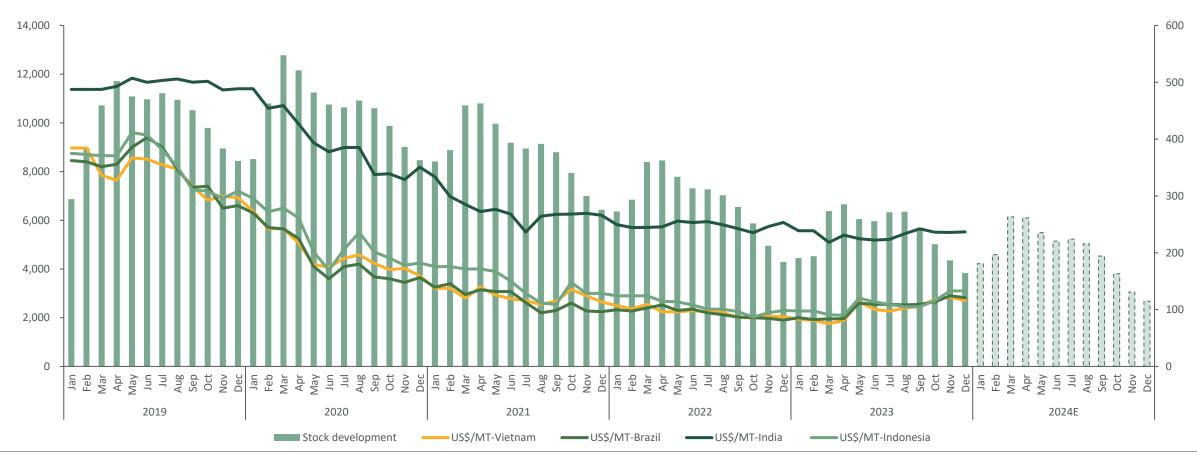






Stock development at origin and prices

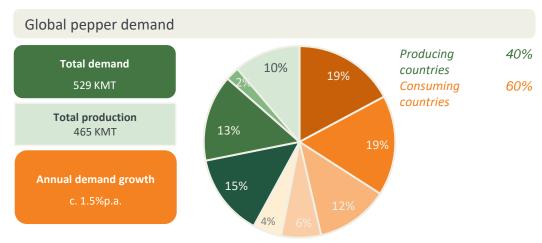
Stocks at origins have been on a downward trend since 2020, one year after production peaked in Vietnam.

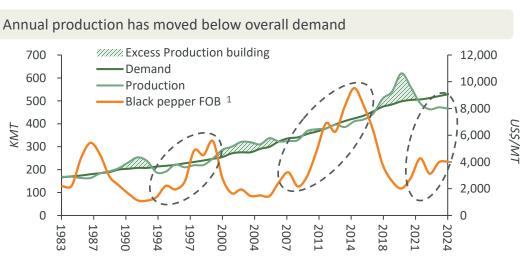


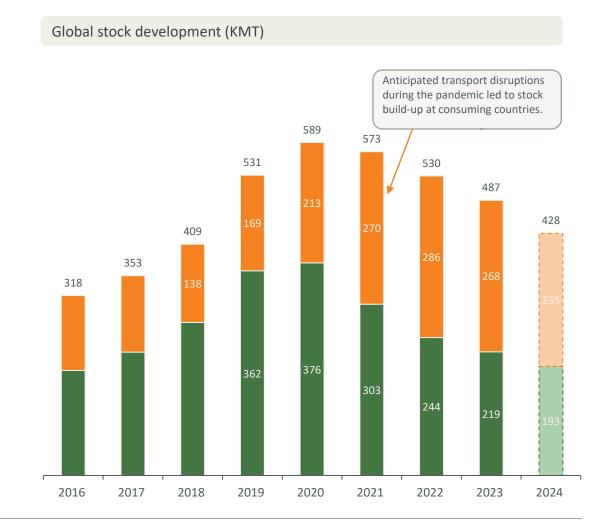




Demand stands at c. 529 KMT currently, global stocks have decreased and are below annual demand



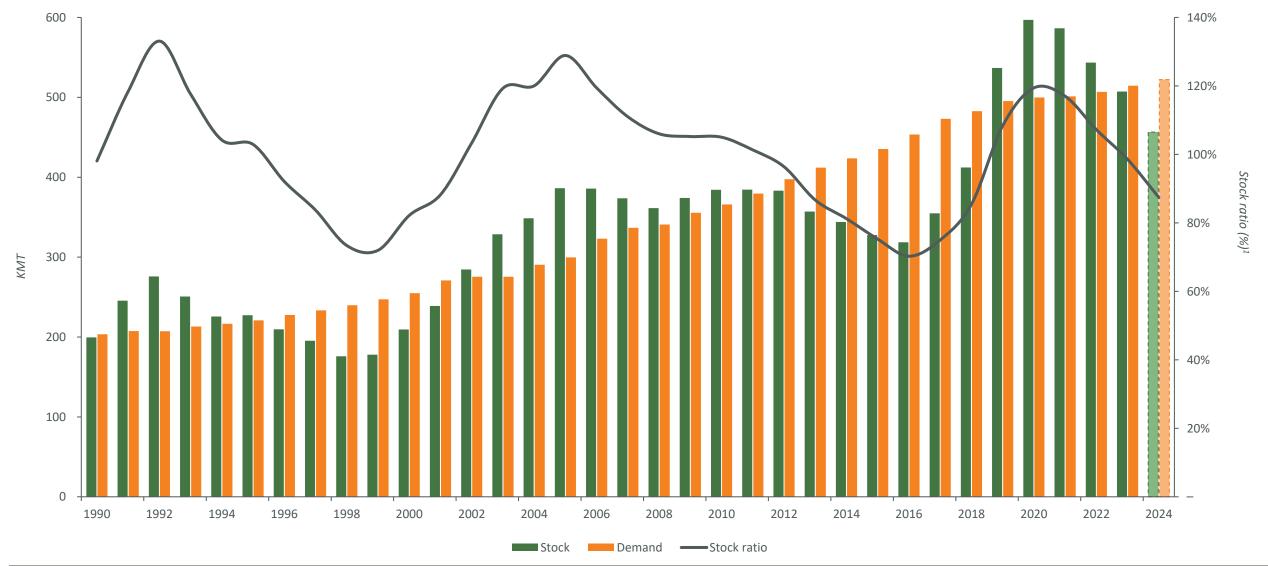






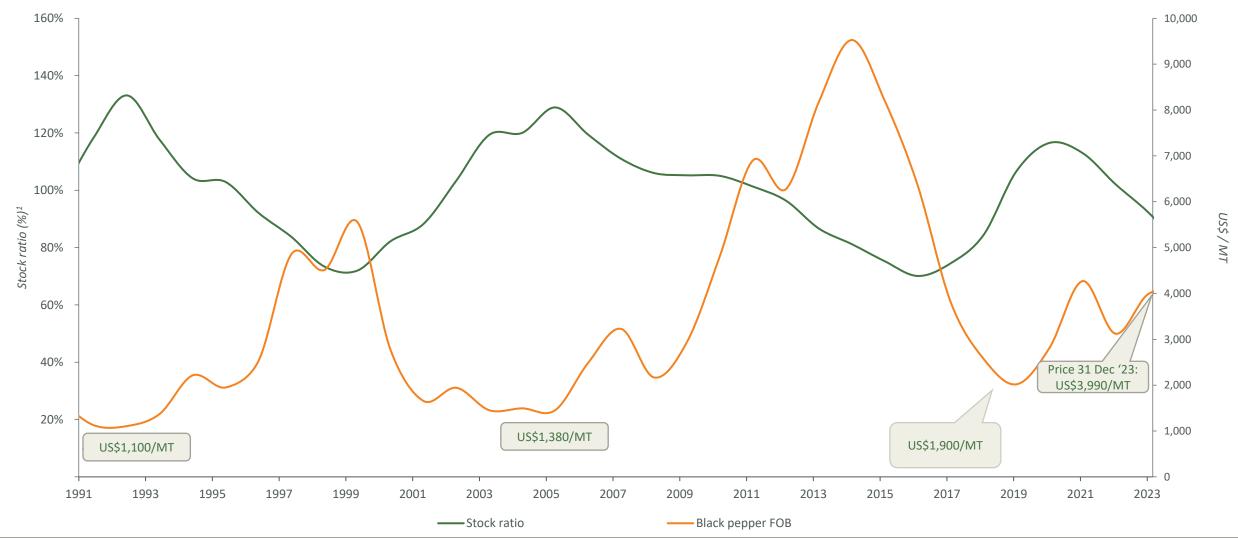


The stock ratio reversed direction, and prices are moving up





How will prices react when stocks at origins fall short of demand?







^{.)} Defined as global stock position / global demand.

Average of Vietnam, Indonesia and Brazil ASTA quality (FOB)
 Source: Nedspice research.

Concluding summary

- Global production is expected to decrease to c. 465KMT this season. Decreasing acreage in Vietnam and adverse weather in Brazil
 are the main drivers, with production also down in Indonesia.
- Increasing prices will encourage farmers to intensify their farming efforts, driving up yields per hectare over the coming years.
 - New plantings will take time to come to fruition however, so origins like Vietnam are unlikely to recover soon.
 - Brazil on the other hand could see a very good 2025 crop, if weather conditions are favorable.
- Total production of c. 465KMT vs demand of c. 529KMT drives a further decrease in global stocks. Overall stock levels are estimated to reach 428KMT in 2024, well below global demand.
- The size and timing of new export demand in Vietnam will determine the price direction over the coming months, with an important role for China in particular.
 - Update: a recent (20 Feb) increase in exporter demand in Vietnam caused a sharp market reaction, with the local prices increasing rapidly by 6% in two days.



