

Wood Market in JAPAN

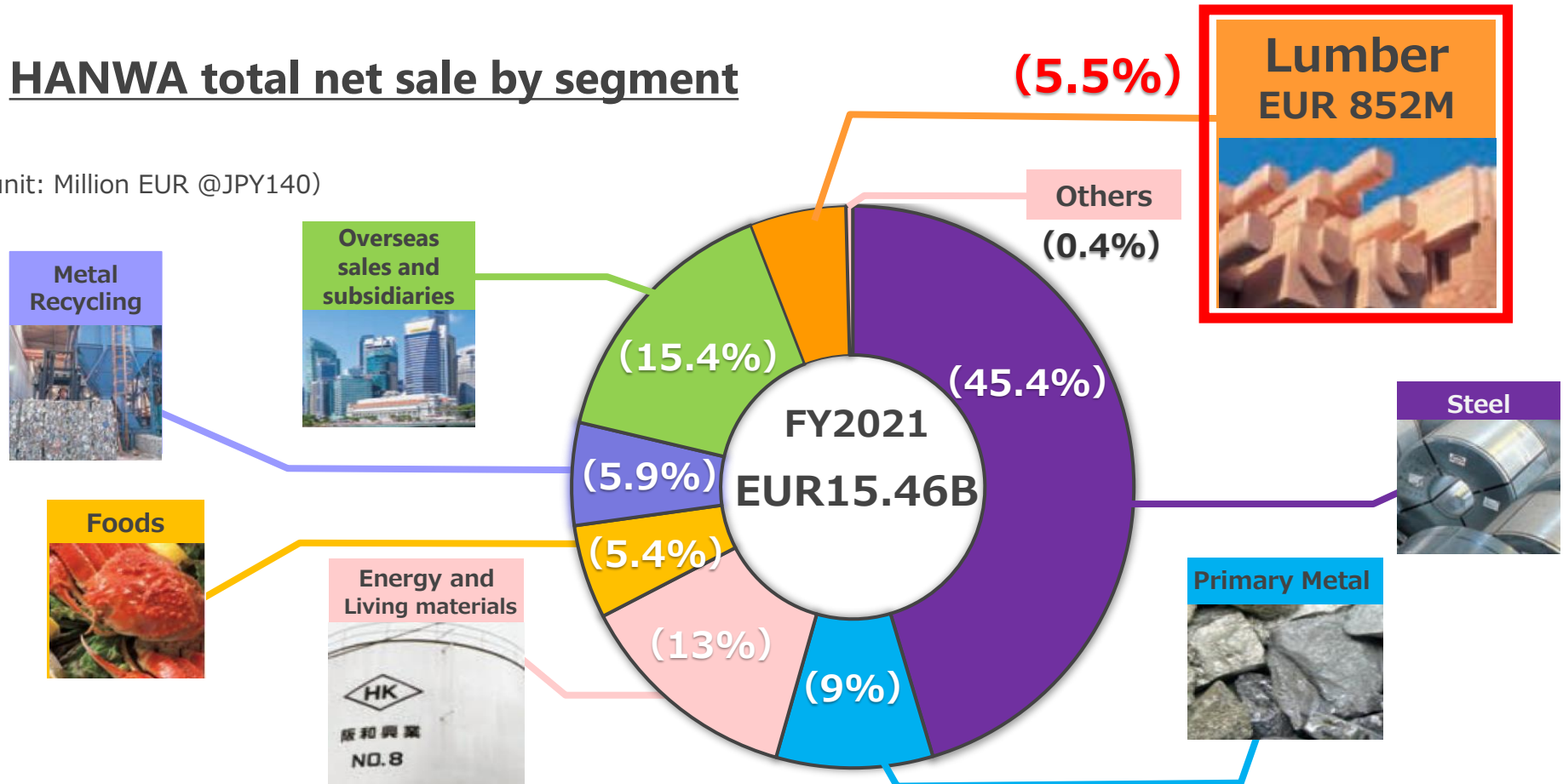
Eiji SAHARA

Corporate Officer
HANWA CO. LTD.

- Japanese trading company established in 1947. Total 5123 employees .
- Group net sales was EUR15.46Bil(FY2021). Roughly 50%>>Steel , 5.4%>>Lumber.

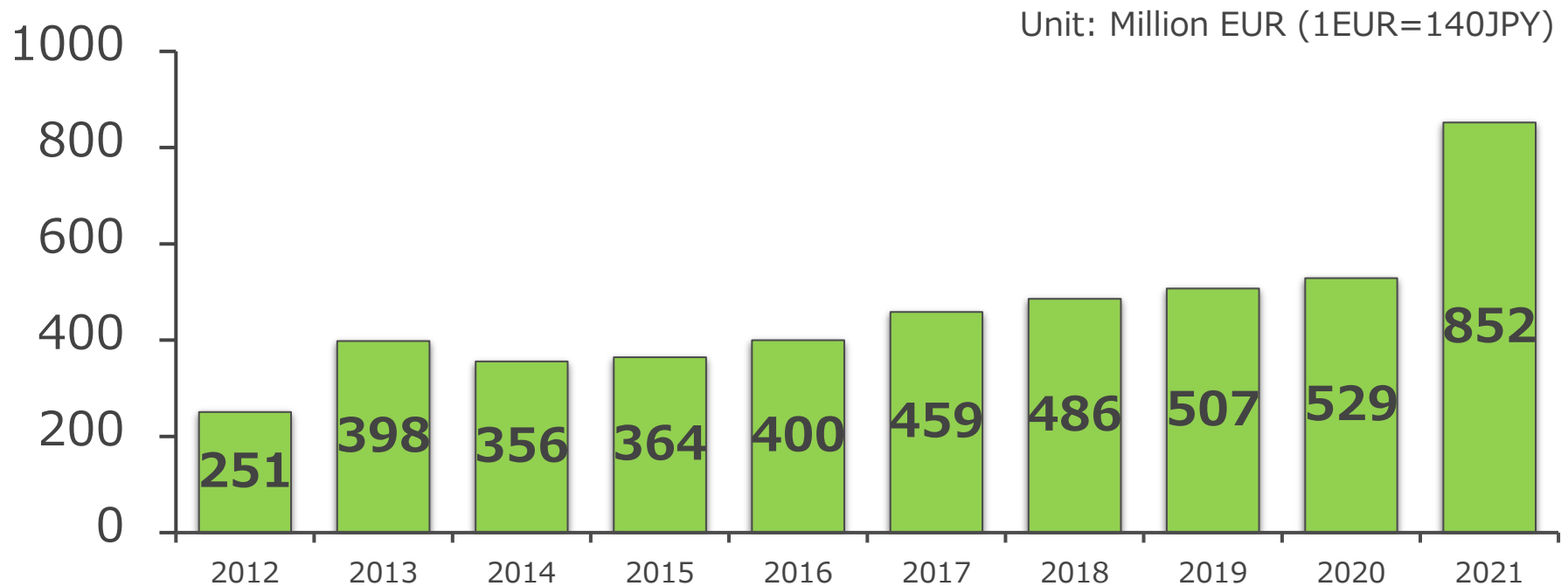
■ HANWA total net sale by segment

(unit: Million EUR @JPY140)



- Hanwa lumber dept. sales has steadily grown. EUR852M at FY2021.

■ HANWA lumber Dept. sales transition



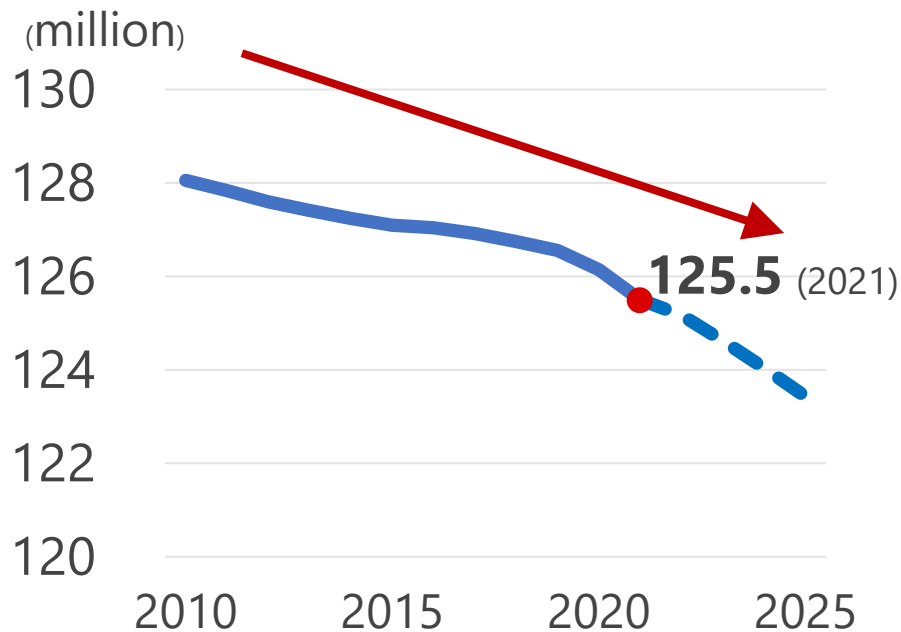
- European Lumber import is one of our core business.
- 14% European lumber import share is the biggest among Japanese companies.

2021 Sawn timber · GL import volume

Origin	Total import to Japan (m3/mth)	y/y	HK volume (m3/mth)	y/y	Hanwa Share
Europe	243,400	-9%	33,700	-12%	14%
Others	239,700	+4%	10,300	-12%	4%

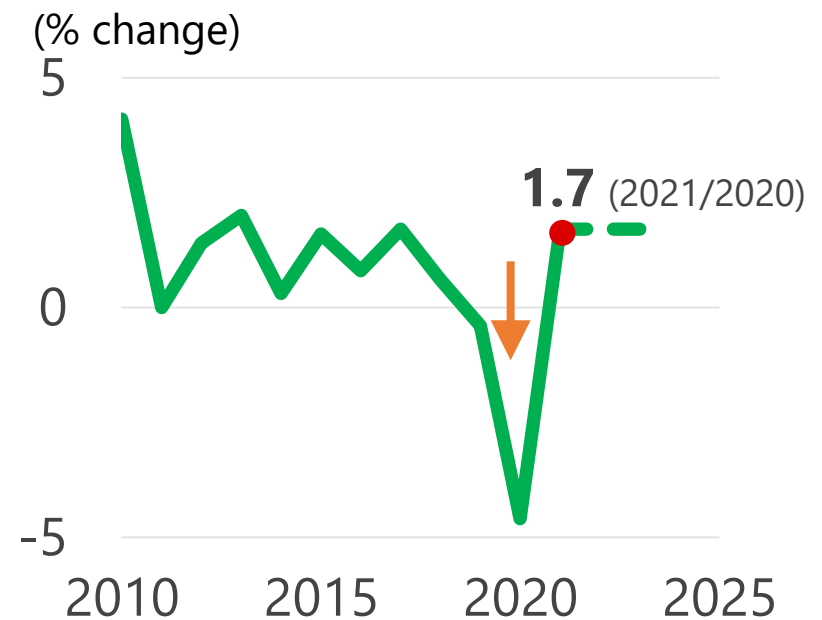
- The population of Japan is approximately 125 million. Because of the low Birth Rate, Its population is declining.
- GDP maintains low growth. It declined in 2020 due to the COVID-19.

■ Population



- 2010-2021: Ministry of Internal Affairs and Communications
- 2022-2025: IMF "World Economic Outlook Database, April 2022"

■ GDP

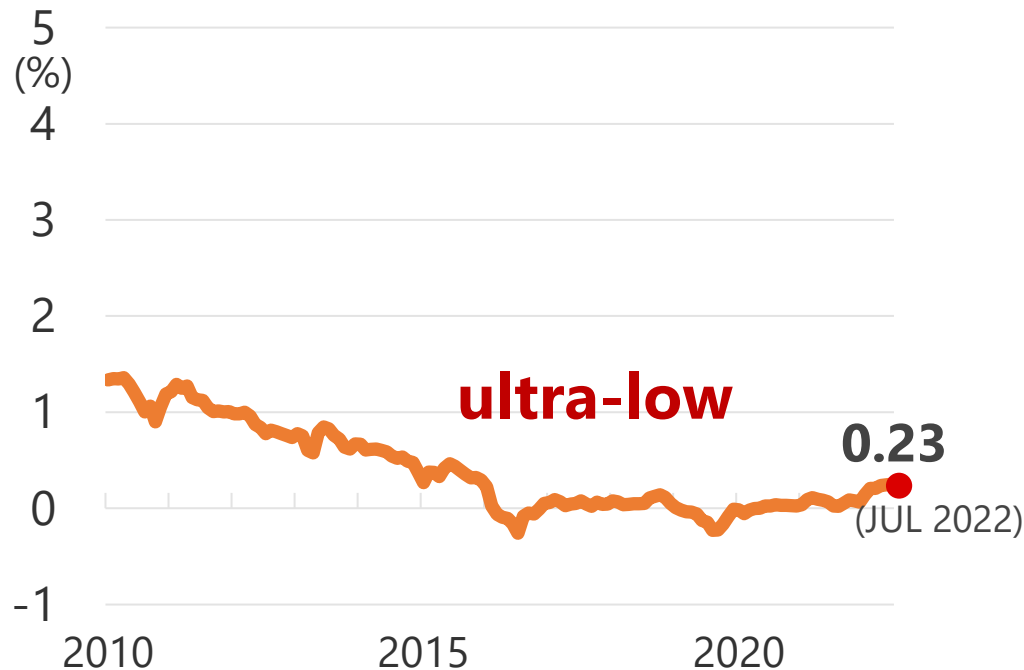


- 2010-2021: Cabinet Office
- 2022-2023: IMF "World Economic Outlook Update , July 2022"

- Despite rising interest rates worldwide, interest rates in Japan remains ultra-low.
- Japan's inflation rate in recent years is at a low level compared to other countries.

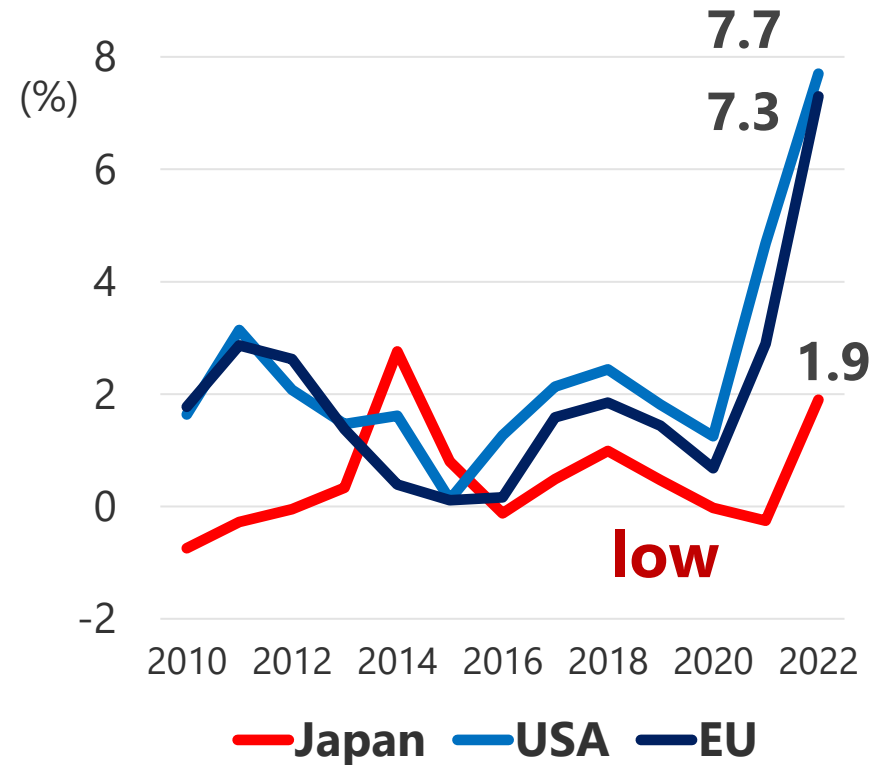
■ Long-term interest rate

(10-year government bond annual yield)



● Ministry of Finance

■ Inflation rate

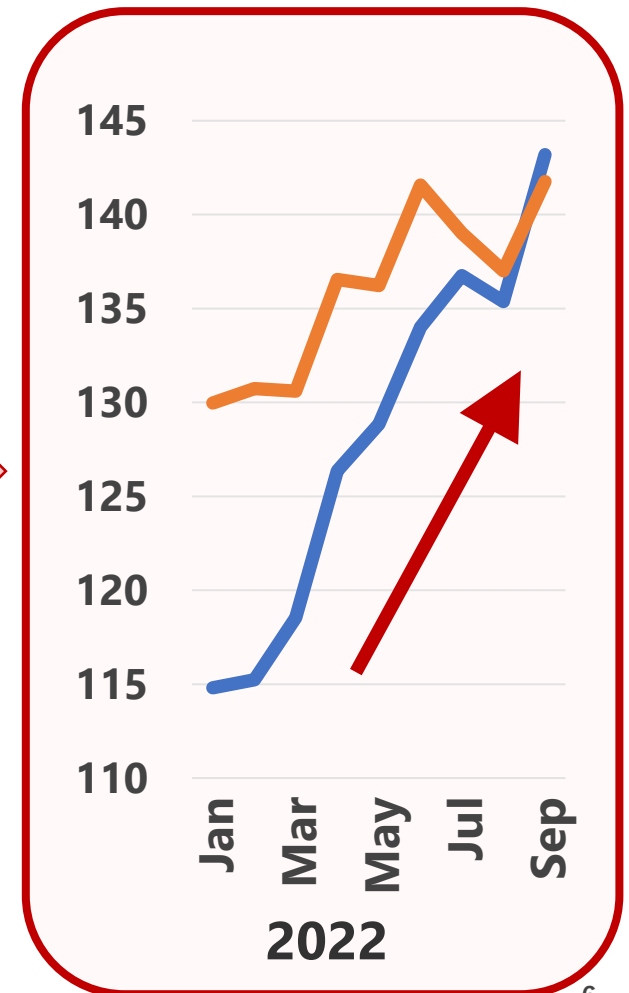
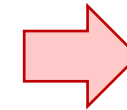
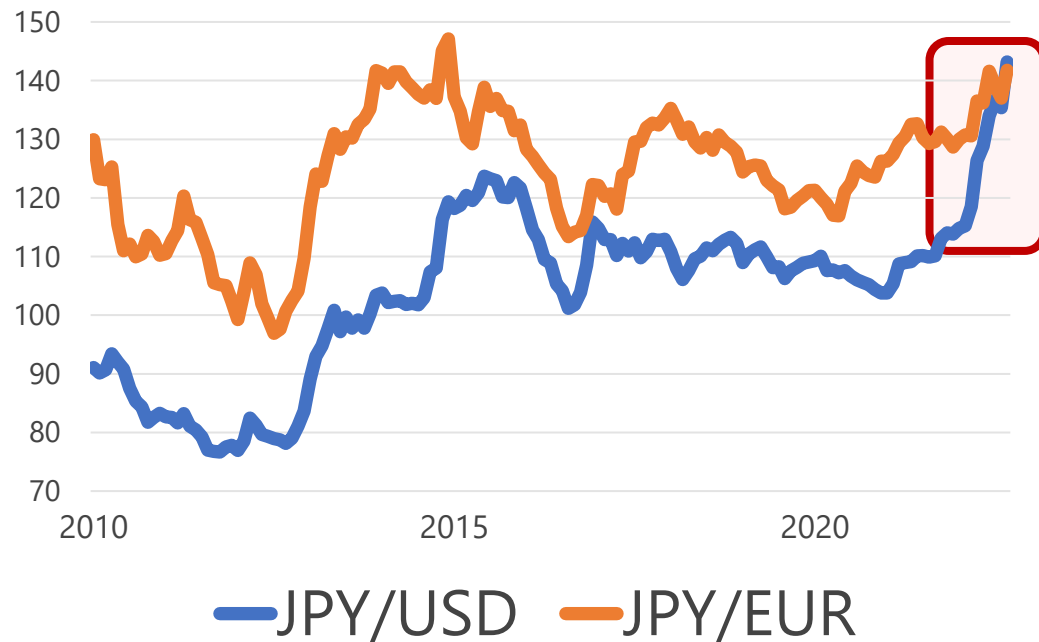


- 2010-2021: IMF "World Economic Outlook Database , April 2022"
- 2022: IMF "World Economic Outlook Update , July 2022"

- Recently, JPY has depreciated sharply against both USD and EUR.

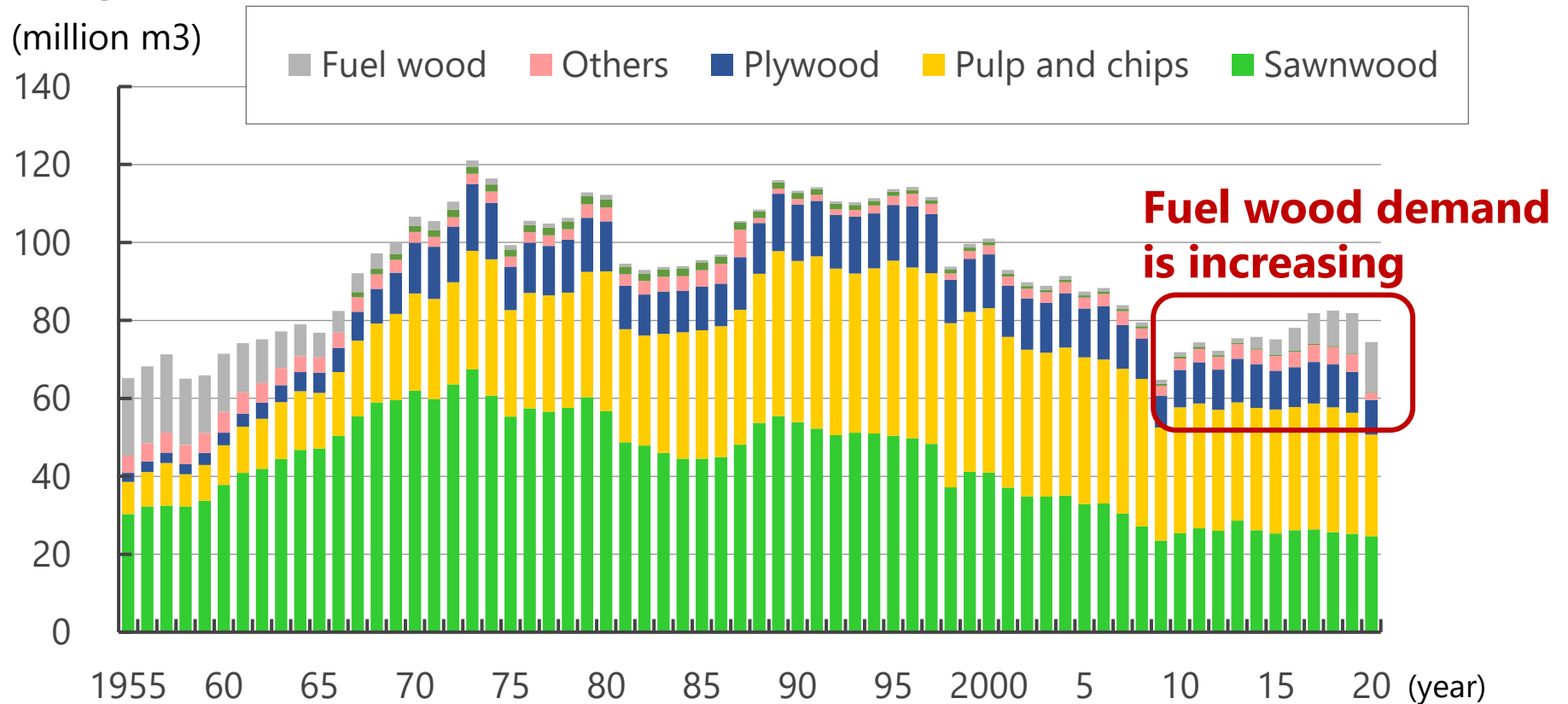
■ Exchange rate

2022 Jan → Sep
monthly average
JPY/EUR 129.97 → 141.76
JPY/USD 114.81 → 143.18



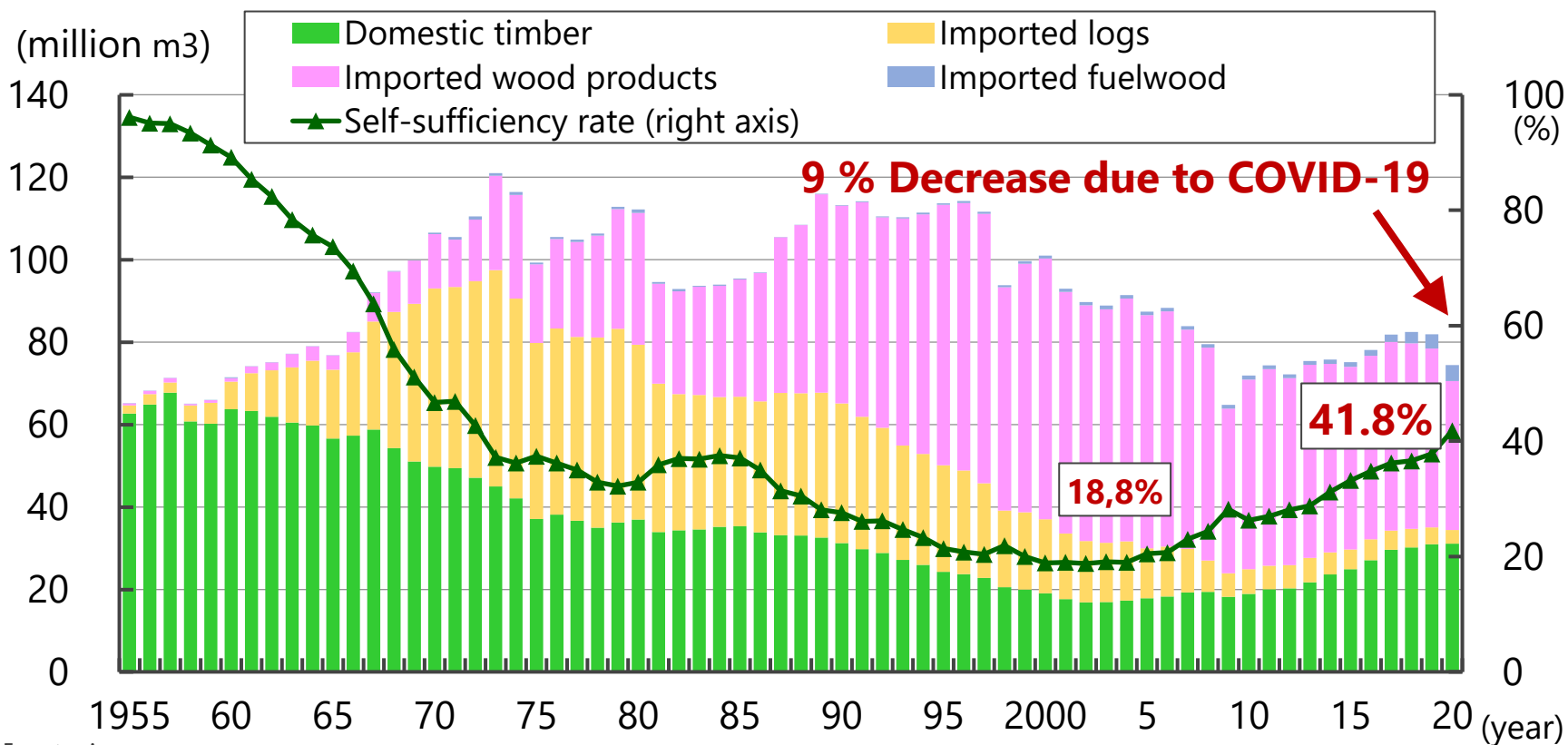
- After bottoming out in 2009, overall japanese timber supply / demand is on an upward trend. Approximately 80 million m3 in 2020.

■ Changes in wood demand



- Domestic forest resources have been enriched, and the wood self-sufficiency rate, which used to be less than 20% has risen to over 40%.

■ Changes in wood supply

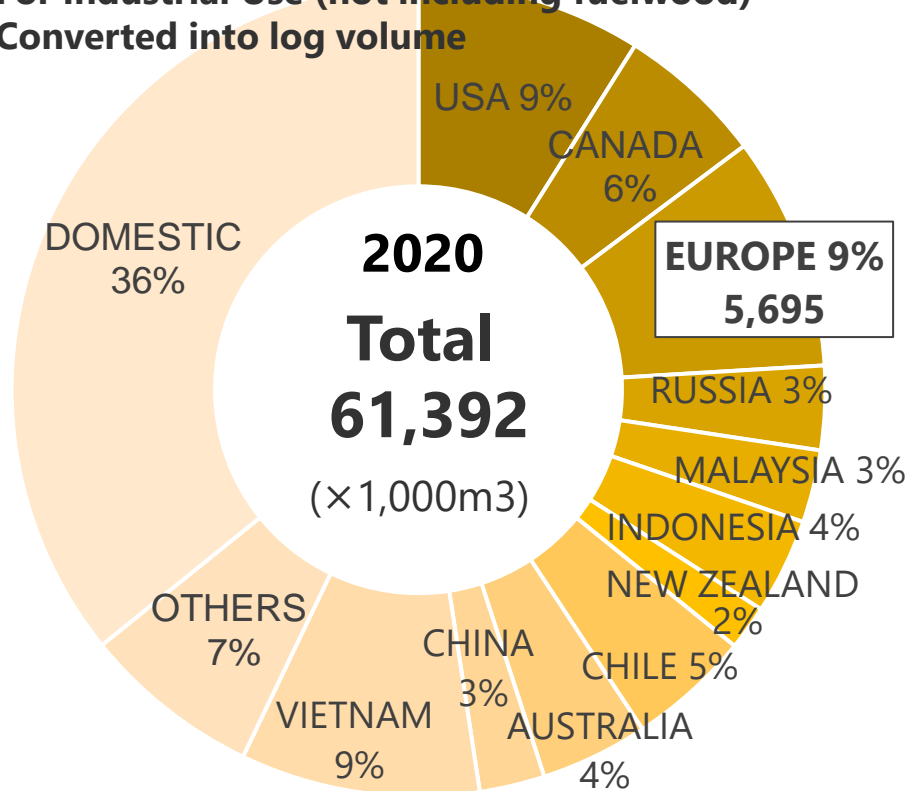


• Forestry Agency
"Annual Report on Forest and Forestry in Japan FY 2021"

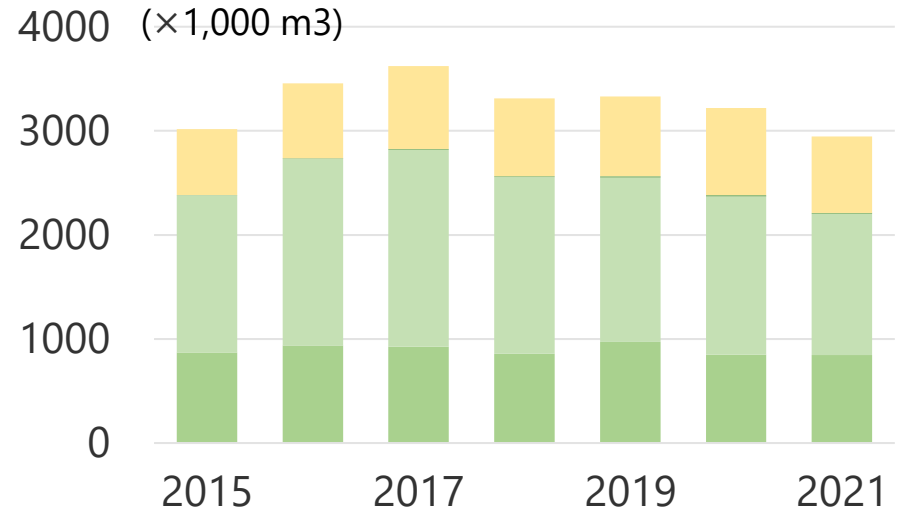
- European wood accounts for 9 % of wood supply in Japan.
- About 3 million m3 European lumber & Laminated wood is Imported per year.

■ Wood Supply by Country

For Industrial Use (not including fuelwood)
Converted into log volume



■ European lumber & Laminated wood Import



Softwood lumber (Europe)

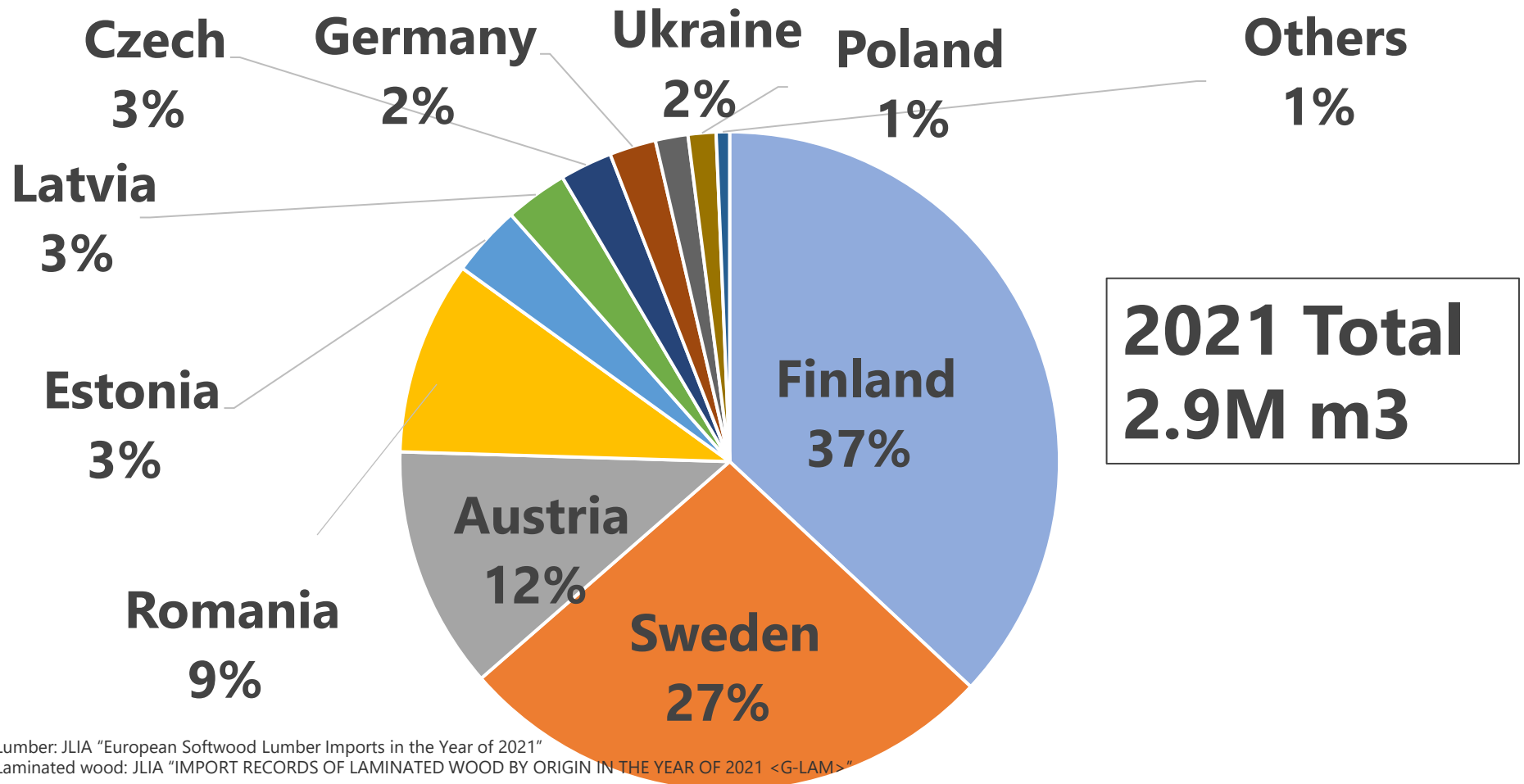
- Planned or sanded
- Rough sawn
- Laminated wood (EU)

• Forestry Agency "Annual Report on Forest and Forestry in Japan FY 2021"

• Lumber: JLIA "EUROPEAN SOFTWOOD LUMBER IMPORTS IN RECENT DECADE"
• Laminated wood: "Trade statistics of Japan"

○ European sawn softwood lumber and Laminated wood import totaled 2.9m3 in 2021.

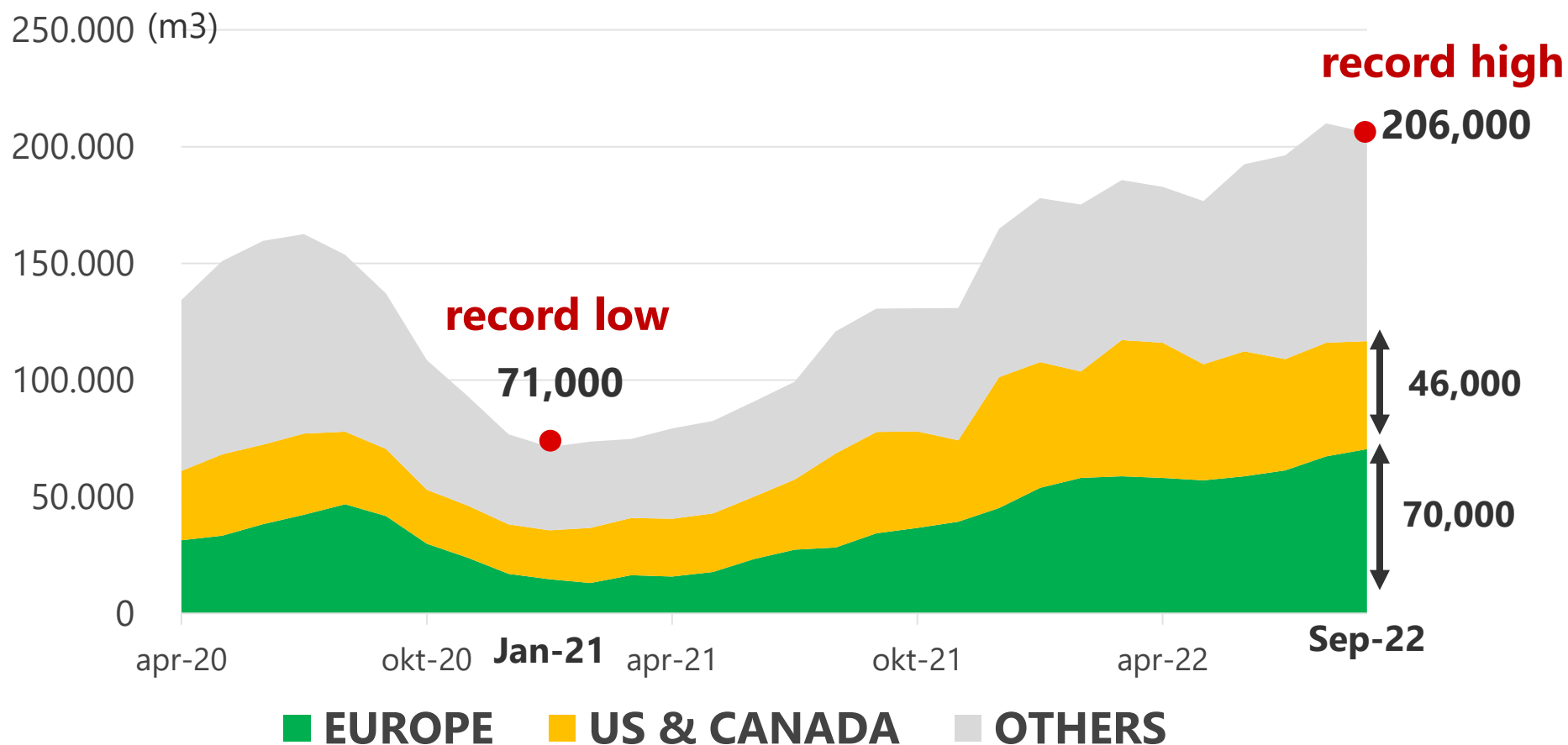
■ European lumber & Laminated wood Import (by country)



• Lumber: JLIA "European Softwood Lumber Imports in the Year of 2021"
• Laminated wood: JLIA "IMPORT RECORDS OF LAMINATED WOOD BY ORIGIN IN THE YEAR OF 2021 <G-LAM>"

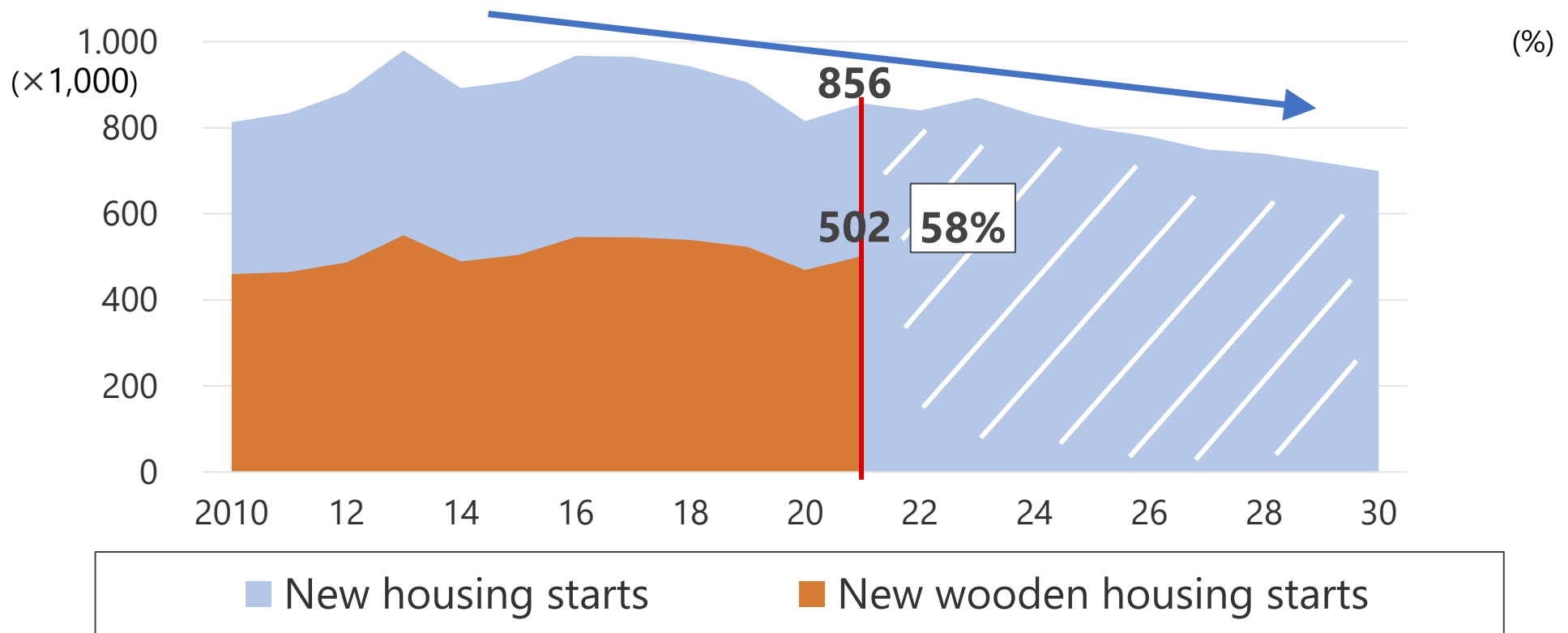
- Inventories in Tokyo port rose after hitting record low in early 2021, now at all-time high. It is expected to return to normal level in 6 months.

■ Inventories in Tokyo Lumber Terminal



Housing starts in Japan

- With the declining population, the number of new housing starts is also on the decline.
- Currently, there are about 860,000 housing starts per year, about 58 % of which are made of wood.




- 2010-2021: Ministry of Land, Infrastructure, Transport and Tourism "Housing Starts"
- 2022-2030: Estimation by Nomura Research Institute

Japanese prefers wooden , single unit house

- In recent years , research shows that home buyers have more tendency to choose single unit house.
- By contrast , preference of new-built condominiums has been gradually declining.

■ Home buyers preferences Questionnaire for home buyers(multiple ansewes) (%) by type of house

		2019	2020	2021	
Single Unit House	Custom house	57	50	54	No.1
	Spec house (New)	31	30	32	No.2
	Spec house (Used)	22	27	26	
Condo- minium	New	35	33	29	
	Used	25	28	30	
	Renovation	11	14	12	

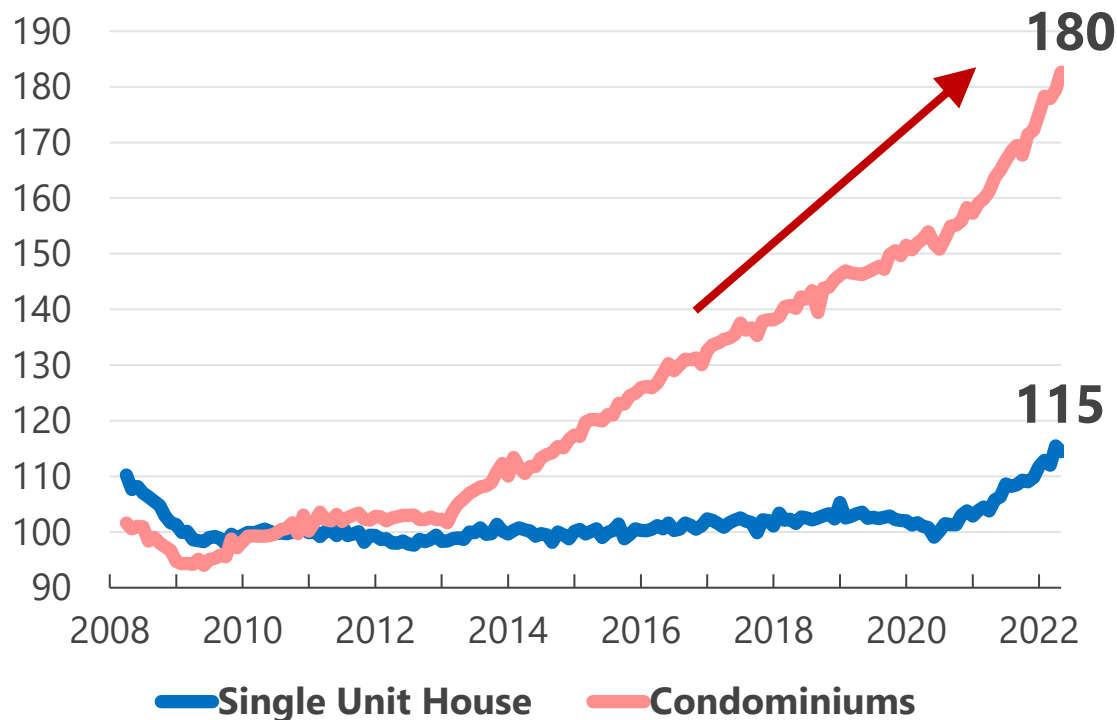
Mostly WOODEN

Mostly RC structure

More affordability of single unit house

- single unit price has increased 1.15times in last 10years. (condominium >> 1.8times)
- single unit has advantage for both construction cost and land acquisition.

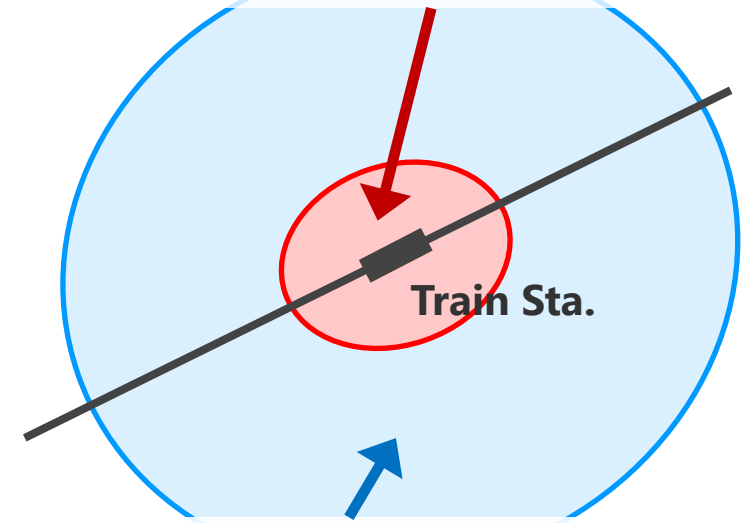
Real estate price index in JP 2010=100



出典：国交省「不動産価格指数」

Condominium Area:

- High land cost
- High construction cost



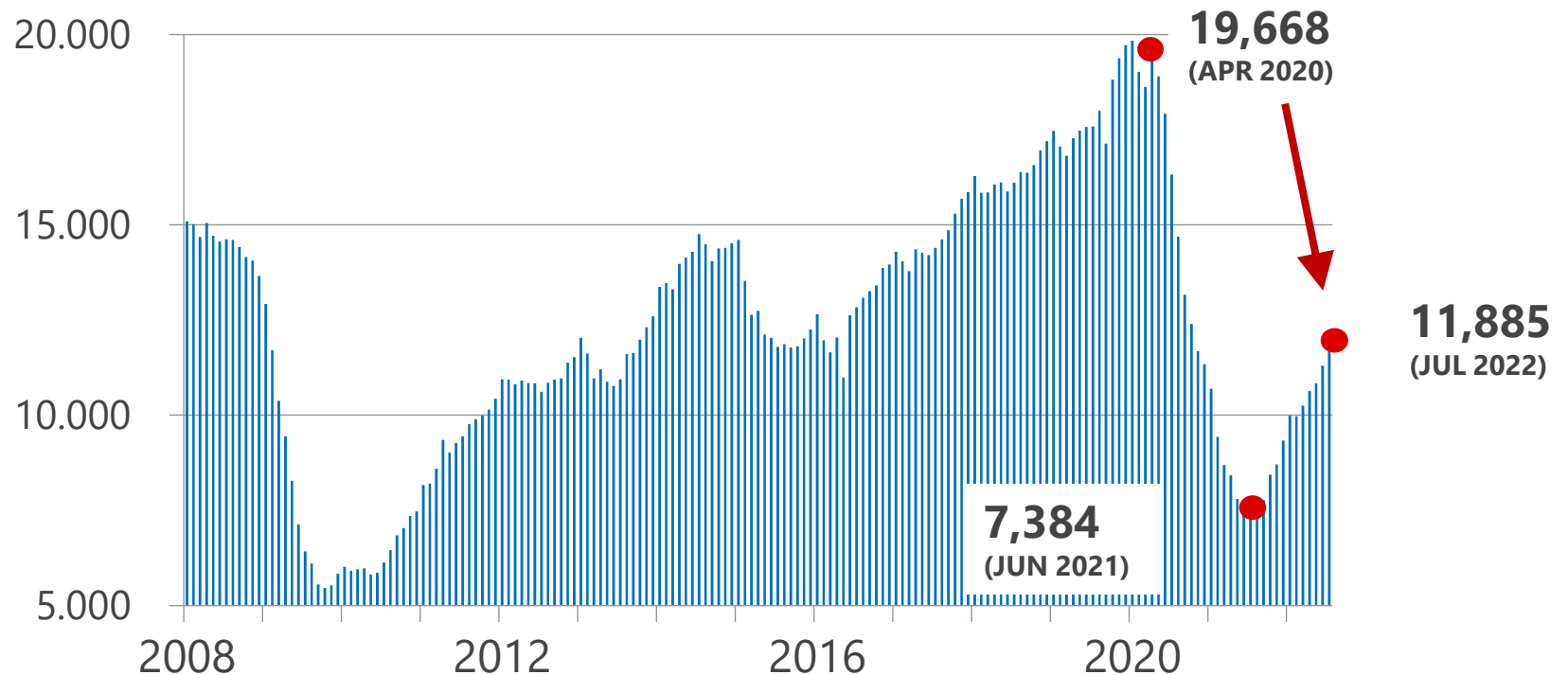
Single Unit House Area:

- Solid demand even if they are far from the station

○ changes in needs during pandemic also gives good result of single unit house sales.
(i.e. remote work)

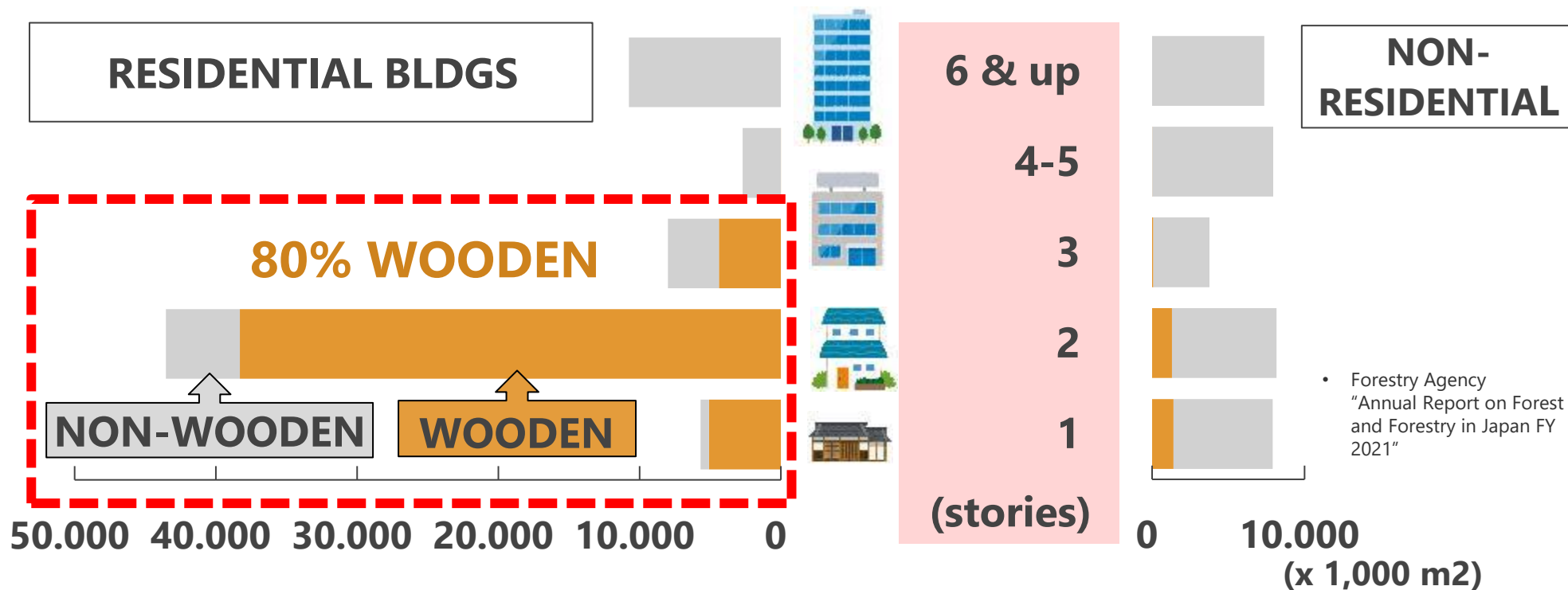
■ New Single Unit Houses in Stock

Tokyo metropolitan area



Where can we increase wooden structure share?

■ Floor Area of New Construction Starts in 2021



■ Revisions of law to expand usage of wood.

① Act for Promotion of Use of Wood in Buildings to Contribute to the Realization of a Decarbonized Society (Oct 2021)

- Expanding scope of law from public building to general building.

② Building Standards Law etc. (Jul 2022)

- Rationalizing regulations of fire prevention and structure to promote wood usage.

■ Mitsui home

- actualization of high strength, habitability, environmental wooden apartment building.

■ Nomura real estate holdings.

- more use of wood at common area in the apartment building.

Improving sound insulation will lead to more wooden apartment building.



稲城市木造5階建マンション計画（2021年11月竣工予定）



国産木材を使用した木造共用棟 飛鳥山レジデンス（完成予想パース）

**壁倍率30倍の
高強度耐力壁**



ブラウドシティ伊丹 共用棟



ブラウドシティ吉祥寺 共用棟

※ブラウドシティ伊丹、ブラウドシティ吉祥寺は、主に外国産木材を使用しています。

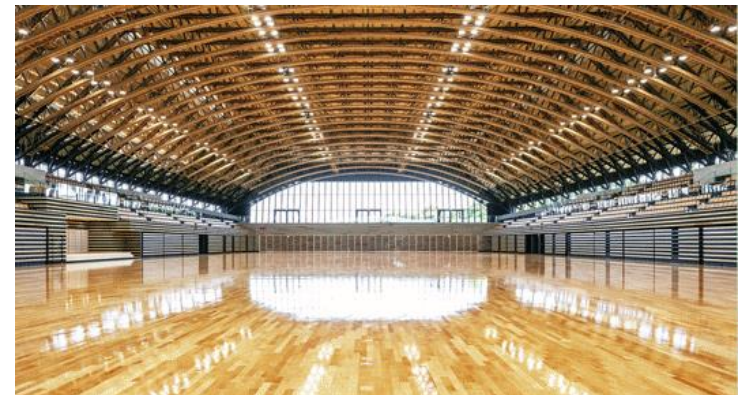
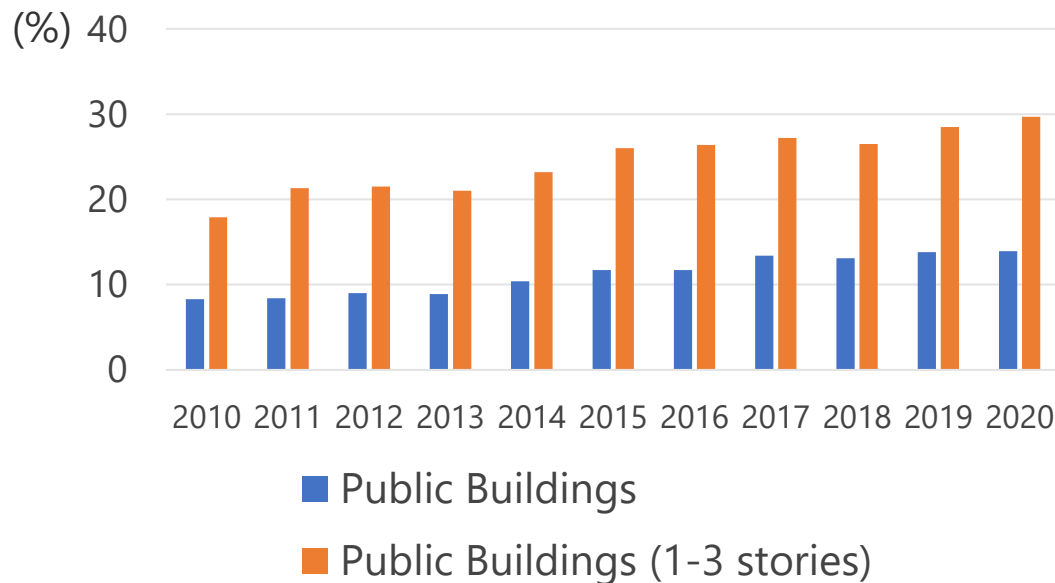
- more wooden structure is progressing in a non residential sector.
- wood usage was mainly developing for public buildings. Spread in a general building is expected in the future.



Sumita-town fire department building

- Forestry Agency
"Annual Report on Forest and Forestry in Japan FY 2018"

■ Wooden structure ration in public building



Oita Prefectural Martial Arts Sports Center

- Forestry Agency
"Annual Report on Forest and Forestry in Japan FY 2019"

- European lumber supply has 9% share in the total Japanese 60Mm³ demand.(except fuel wood/chip).
- Lumber Inventories are now at all-time high and will be normal level in 6 months.
- Overall Japanese housing starts will decline due to aging / depopulation.
- Wooden single unit house demand is stable.
- Revisions of law and easing regulation will enlarge wood utilization for high story buildings and non-residential buildings.