



Tropical Hardwoods & Feature Grade Timbers

Sector Overview

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Feature Grade Timber Markets

Tropical hardwoods are prized for their durability and appearance, with supply increasingly derived from plantations.

- Feature grade timber markets are dominated by valuable species like teak and mahogany that have attractive colour and grain.
- The natural durability of most hardwoods also makes them ideal for external applications, such as decking and outdoor furniture.
- A significant proportion of international tropical hardwood comes from Southeast Asia, particularly Malaysia and Indonesia.
- Southeast Asia's forests are very rich in commercial species and contain a large proportion of light hardwood trees, which are most in demand in the international market. As the supply from natural forests declines, high quality plantation-based supply is needed to sustain the resource.

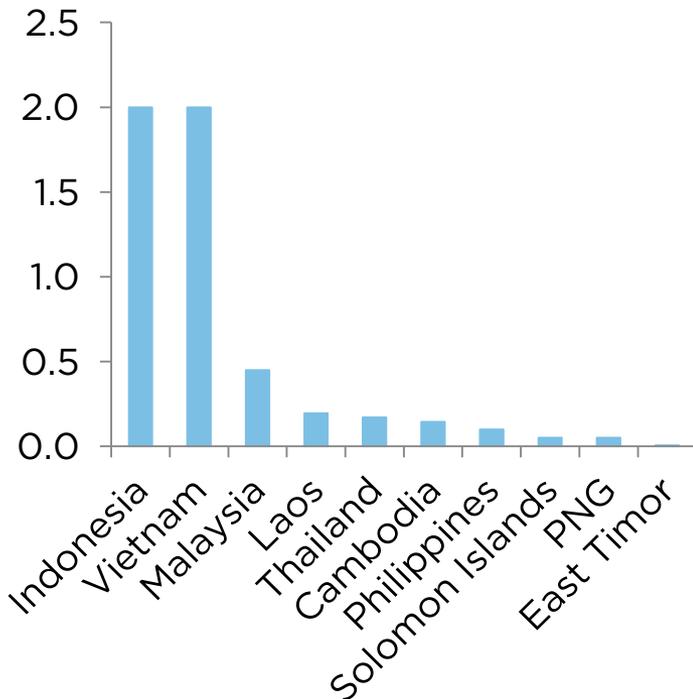


Tropical Hardwood Timber – Supply

Tropical hardwood supply is tightening as natural forest resources become more difficult to access and plantation resources struggle to keep pace with Asian demand growth.

Estimate of Plantation Area in Southeast Asia and Pacific

(Million hectares, excludes rubber and oil palm)



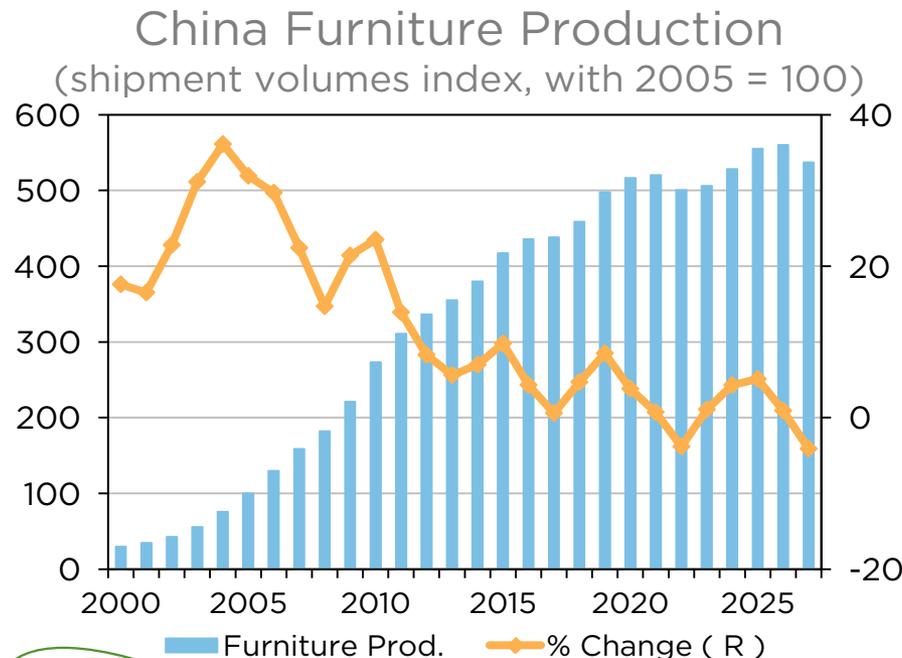
- Traditionally, Southeast Asia's natural forests supplied domestic and regional timber markets. However, regional log production has declined steadily over the past three decades due to unsustainable logging and legislation limiting logging of natural forests.
- Sustainable natural forest harvesting is not a realistic option for supporting timber demand growth in Asian markets. Natural forests are complex ecosystems, and their growth is slow relative to timber plantations.
- However, Asia has lagged behind other regions in the development of commercial plantations for higher value end uses.
- Relative to other investment opportunities in the agribusiness sector (e.g. oil palm plantations), timber plantations have been less attractive to Asian investors because positive cash yield can take over 15 years.
- This creates an opportunity for long-term institutional capital to invest in the Asian plantation resource.



Regional Economy and Production Are Strong

China's furniture exports to North America and Europe remain strong, but the domestic market has provided most demand growth over the past five years.

An increasing proportion of lumber and panels consumed in China is used for the production of furniture for the domestic market. This is the result of a huge and rapidly growing middle class, which has increased domestic demand for furniture.

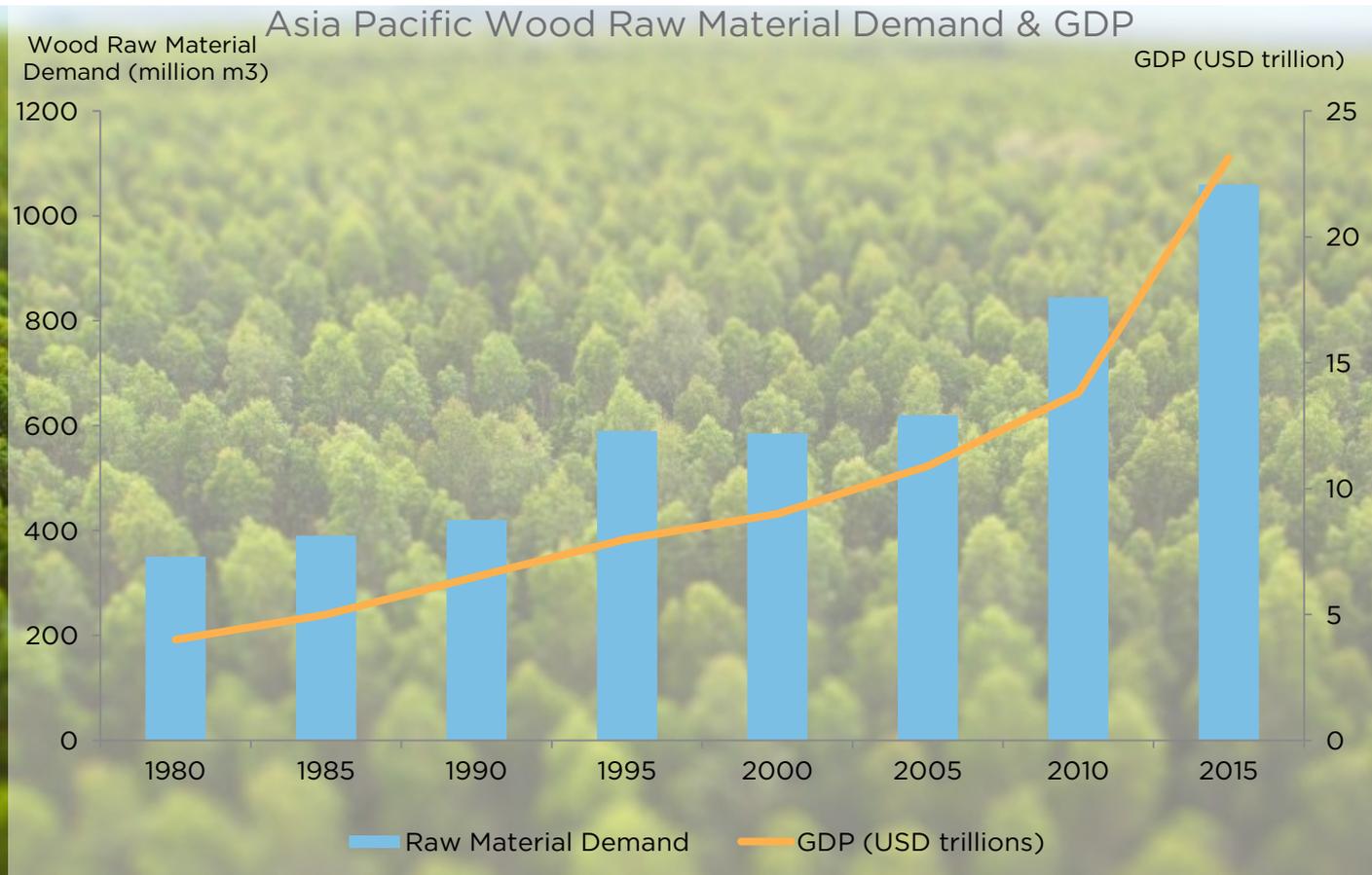


Other rapidly growing economies in the region have contributed to timber demand growth:

- India is the world's main market for teak.
- Malaysia and Vietnam have substantial export-oriented hardwood furniture manufacturing industries.
- Indonesia has burgeoning domestic consumption as well as its own export-oriented furniture industry.

Asia and Pacific Wood Demand Is Growing

Timber demand is highly correlated with new housing starts and GDP.



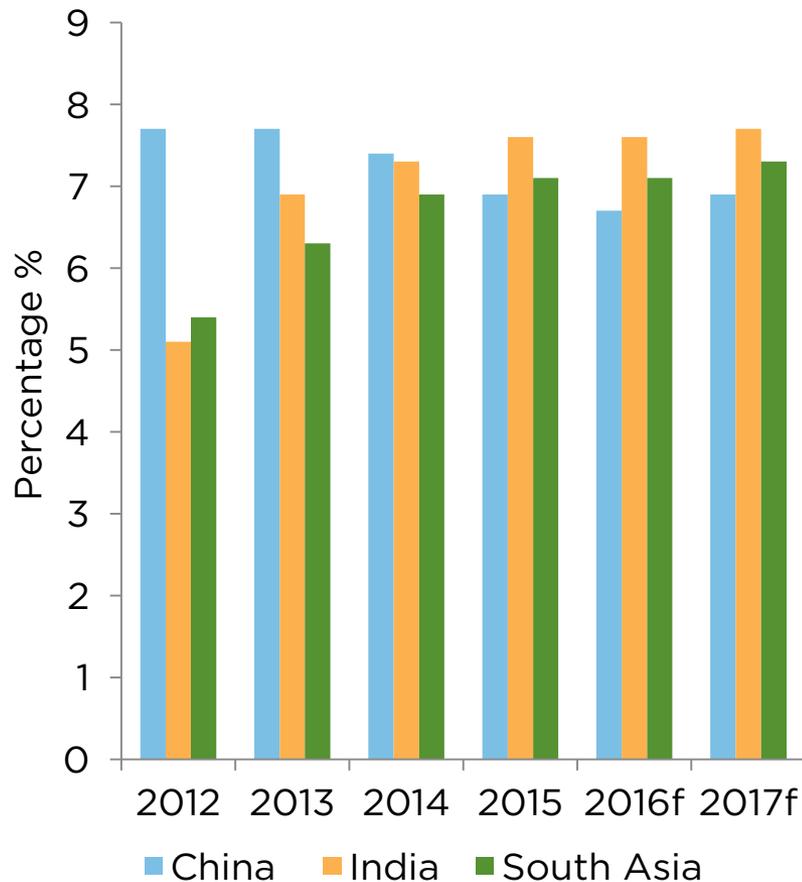
Data includes: Australia, Bangladesh, Cambodia, China, India, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, Nepal, New Zealand, Pakistan, Philippines, Republic of Korea, Sri Lanka, Thailand, and Vietnam.

Sources: ITTO, International Wood Markets and McKinsey

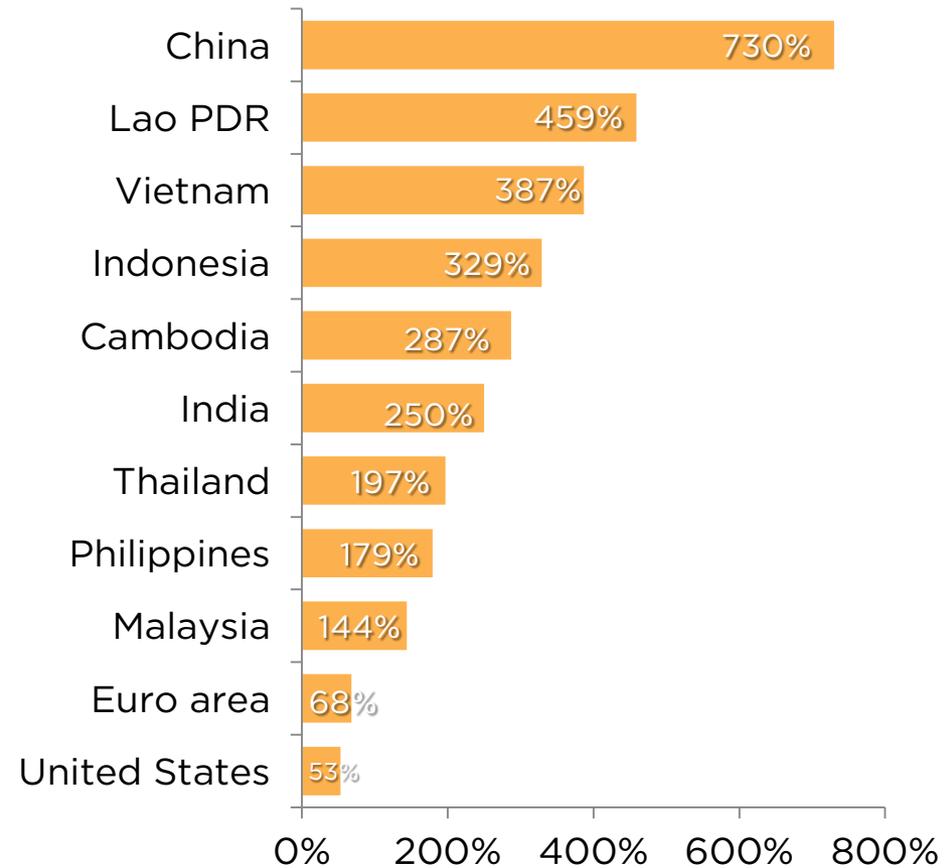


Regional Timber Demand Is Increasing

Asian Economic Outlook:
Actual & Forecast GDP Growth



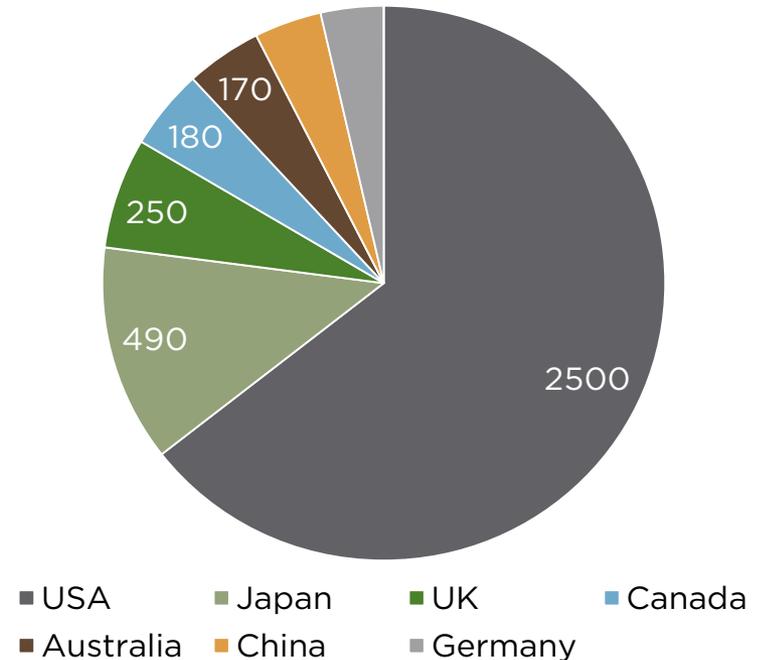
GDP Per Capita Change
(2000-2014)



Investing in an Increasingly Important Region

- Southeast Asia needs timber supply for both export and local/domestic use.
- Southeast Asian industry is developing around supplying hardwood products in US and Europe.
- Example: Since 1997, Vietnam has risen to become one of the world's largest exporters of secondary wood products, principally furniture. With a rapidly growing capacity and a competitive, skilled workforce, Vietnam is likely to continue its rising status as a wood products exporter.
- Regional forest industry growth is focused on supplying higher-value end products, e.g. sawlogs, veneer logs, and product certification.

Vietnamese Solid Wood Product Export Destinations (USD Million)



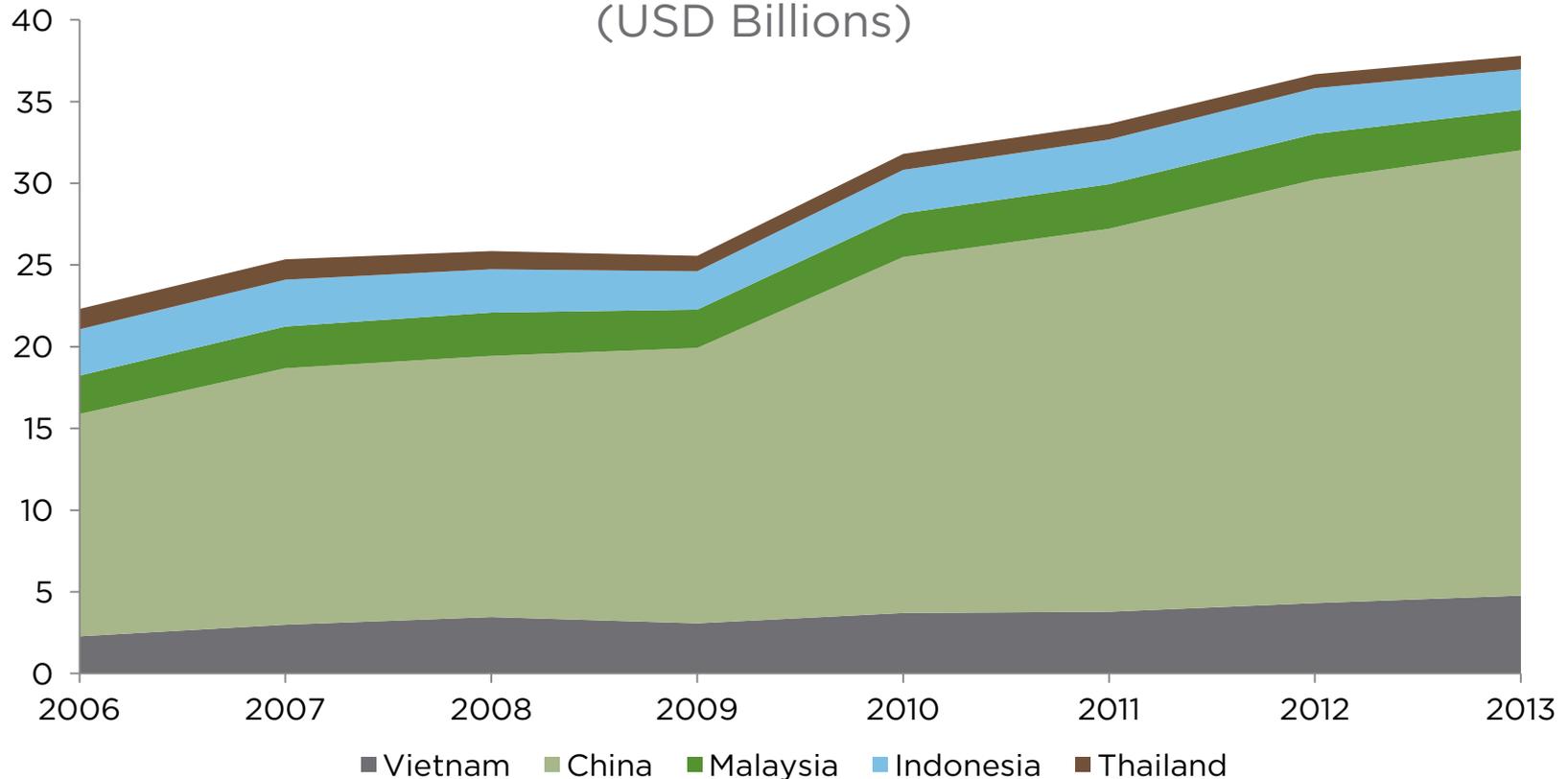
Southeast Asia has significant potential for tropical plantation development due to competitive growing costs and growth rates, large areas of land zoned for forestry, considerable experience in plantation management and processing, and low shipping costs to Asian markets.



Regional Manufacturing Increase

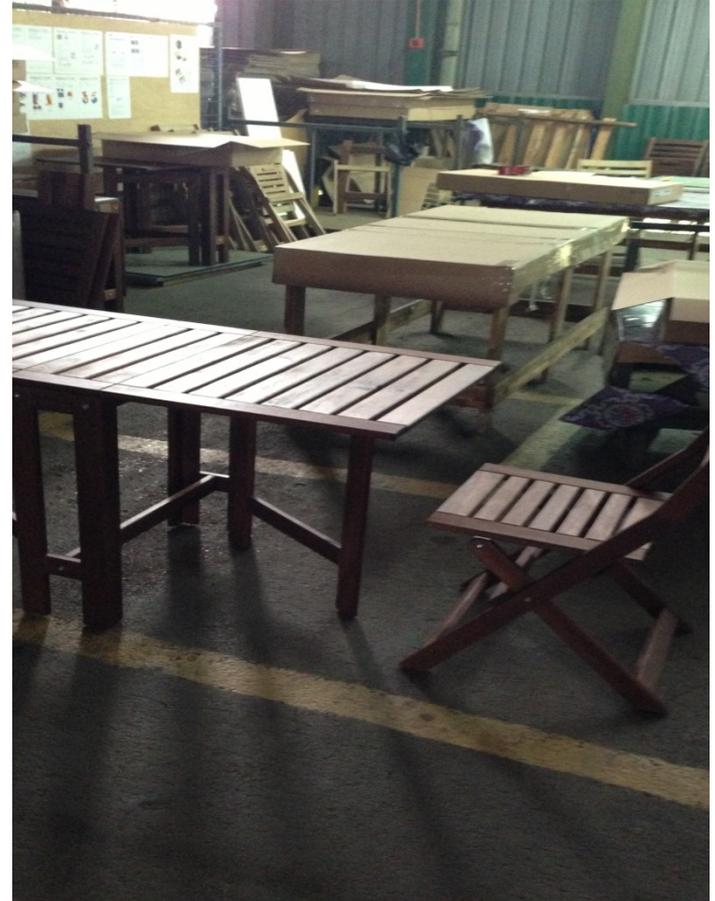
Shift in global timber products manufacturing to Asia is supported by lower operating costs and increasing urbanisation, with growing middle class in key countries.

Export of Secondary Wood Products
(USD Billions)



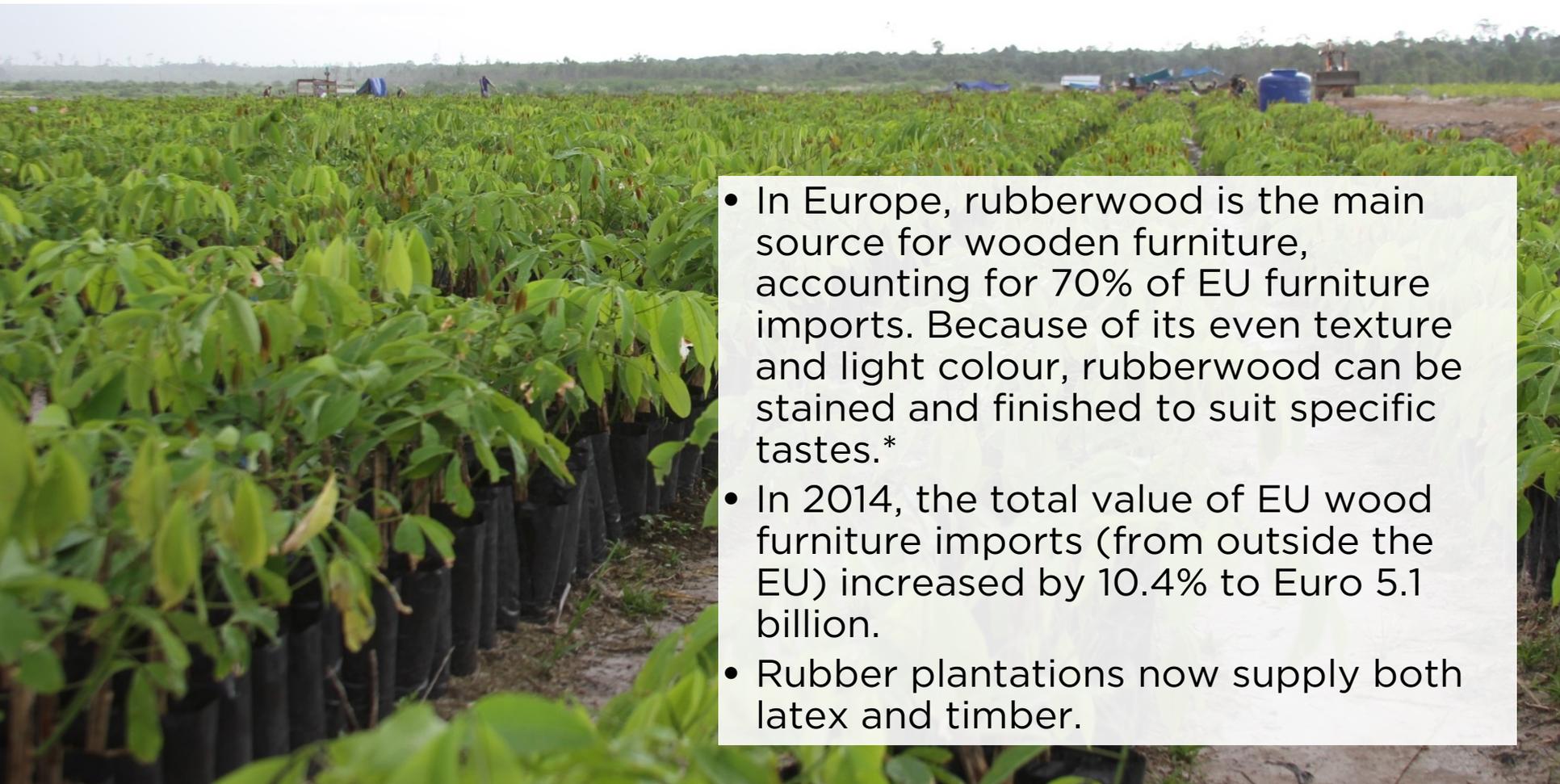
Keeping up with US Demand

- Traditionally, the US has imported furniture from Canada, Italy, and Taiwan. In recent years, furniture from Southeast Asia has begun to dominate the import market.
- Value of US imports of wood furniture in 2014 was more than USD 830 million, representing a year-on-year increase of 4.5%.
- US is one of Malaysia's largest export destinations for furniture, mouldings, builders' joinery, and carpentry.
- In 2013 Indonesia became the leading hardwood flooring supplier to the US.
- China's market share of hardwood furniture in the US has also grown, accounting for more than 70% of US furniture imports.
- The US Lacey Act (2008), EU Forest Law Enforcement, Governance and Trade (FLEGT), and Australian Illegal Logging Prohibition Act have also strengthened demand for certified products in end markets.
- As demand for real estate continues to increase, so too does the demand for furniture imports.



Keeping Up With European Demand

Europe is a major importer of rubberwood timber and furniture.



- In Europe, rubberwood is the main source for wooden furniture, accounting for 70% of EU furniture imports. Because of its even texture and light colour, rubberwood can be stained and finished to suit specific tastes.*
- In 2014, the total value of EU wood furniture imports (from outside the EU) increased by 10.4% to Euro 5.1 billion.
- Rubber plantations now supply both latex and timber.



Market Opportunity – Investment Gap

Regional supply is decreasing yet there is limited high-quality plantation investment.

- **Malaysia** – State of Sarawak is the second largest tropical log exporter in Asia (behind Papua New Guinea) and is major source of plywood; extraction volumes are declining and have been above calculated sustainable yield for more than a decade. In Peninsular Malaysia, measures to increase the country's forest cover, including the provision of financial incentives to encourage the private sector to invest in new plantation development by 2020, have been introduced.
- **Indonesia** – Legal supply from natural forests has declined dramatically as areas are logged out; plantation production has been ramped up, but the plantation crop is almost wholly dedicated to the large pulp mills in Sumatra.
- **Vietnam** – Reduction in available volumes leaves the export-oriented wood products industries vulnerable as they have to import 80% of required volume; large potential for substitution of imported volume from domestic supply; current forestry plantations have focus on small log production for export chip industry.*



Opportunity for Institutional Capital

- Emerging markets, particularly Asia, are anticipated to be a major destination for institutional capital seeking new opportunities and better returns as timberland investment markets grow in size and maturity.
- We believe that the future of the Asian forestry industry will be based on long-term, sustainable, professional plantation management rather than over-exploitation of natural forests.
- Forestry investment objectives are well aligned with regional development plans, presenting opportunity for shared value, while also meeting timber product demand.
- New investments will require significant relationship building and the mainstreaming of private investment in Asian forestry markets, which have been dominated by government, corporate, and smallholder ownership.



Risks and Risk Management

Risk	Description	Risk Management
Country Sovereign Financial	<ul style="list-style-type: none"> • Asset appropriation • Financial and exchange rate fluctuations • Impacts of government incentives and subsidies • Taxation changes • Corruption, strength of contract law, and judicial independence 	<ul style="list-style-type: none"> • Portfolio diversification • Ensure investor protections • Strong government support in these countries for timber plantation development • Corruption/bribery most likely to encounter is petty facilitation payment requests to process paperwork—manage with patience
Forestry Technical	<ul style="list-style-type: none"> • Species growth rates • Pests and diseases • Site nutrition and sustainability • Escalating production costs • Natural disasters 	<ul style="list-style-type: none"> • Investment in well-known plantation species • Long record of plantation management in the region so operational experience available • Focus on use of experienced staff in all processes with balance of forestry and finance expertise • Full due diligence covering technical forestry and social and environmental criteria • Implementation of forest monitoring procedures and use in auditing and reporting • Regular site visits and third-party auditors for certification and valuation



Risks and Risk Management

Risk	Description	Risk Management
Markets	<ul style="list-style-type: none">• Commodity cycles• Changes in tariffs and export regulations• Some species hard to market• Buyer insolvency	<ul style="list-style-type: none">• Certification secures preferential export market access• Significant wood supply deficit in Asia• Diversify exposure across US/EU export markets and rapidly growing key regional markets
Counterparty JV Partner	<ul style="list-style-type: none">• Corruption and poor governance• Reputational/association	<ul style="list-style-type: none">• Ensure counterparties are all reputable• Conduct due diligence on partner organisations and individuals• Document governance arrangements and management control• Build and manage strong partnerships



Want to Learn More?

To learn more about New Forests' investment programs in plantation tropical hardwoods in Southeast Asia, contact the Investor Services team at is-team@newforests.com.au.

