India – Potential as a Global Furniture Hub

Report

MAY 2020

Goal | Make India into a Global Furniture Hub

India has a great opportunity to be among the top 3 global manufacturers and exporters

- Low cost labour advantage
- Cost competitive in Cotton fabric (textiles)
- Differentiated furniture design capability (though at a lower scale)
- India a preferred location by top global furniture buyers (IKEA, Sonoma)

Decision taken now can unlock the potential

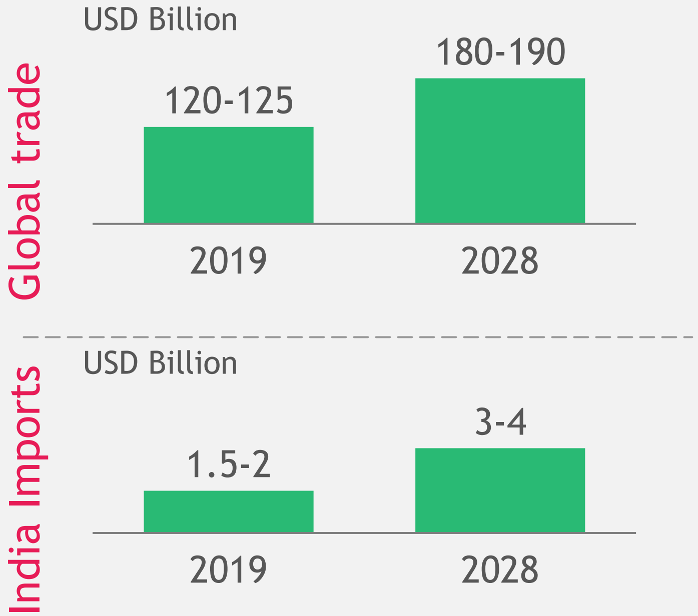
Contribution from

FICCI BCG BOSTON CONSULTING GROUP WILLIAMS SONOMA IKEA Godrej interio fabindia CELEBRATE INDIA C. L. GUPTA EXPORTS LTD. MANOR & MEWS Hettich BAA BUYING AGENTS ASSOCIATION TPCI

Knowledge partner *Global buyers* *Domestic furniture players*

$180-190 Bn global export opportunity in next 8 years; China & VN largest exporters in Asia; USA, W. Europe & ME potential target

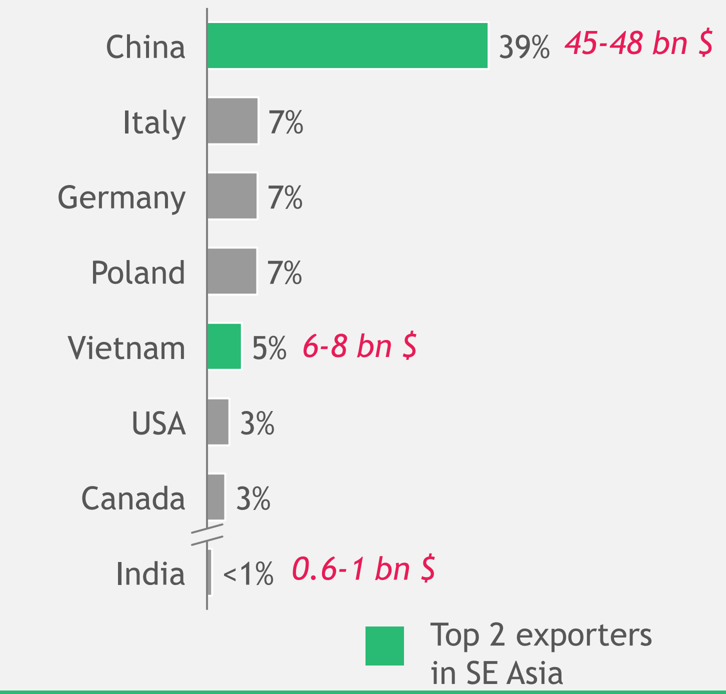
Global trade $180-190 B by 2028; Retail value of Indian imports $3-4 B



- Only 15-20% Indian market organized
- 60-70% organized demand met via imports

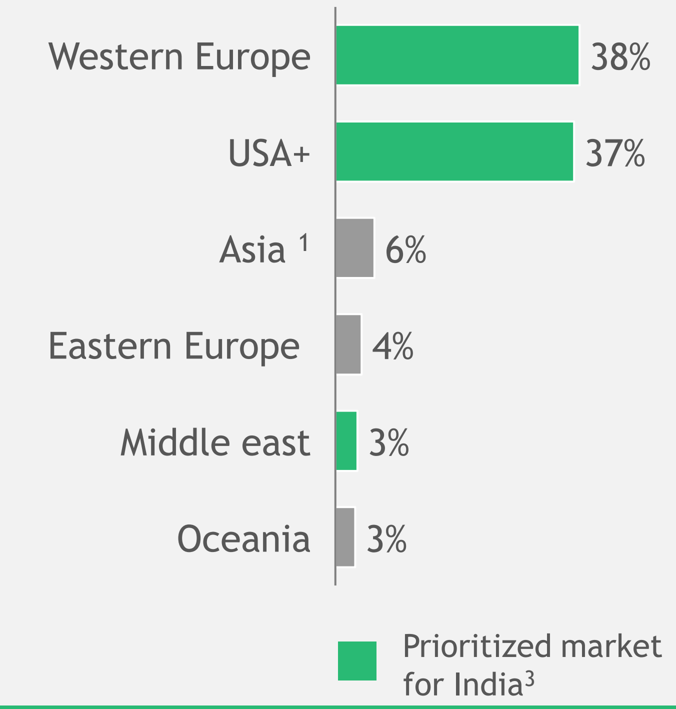
China and Vietnam are largest exporters from Asia

Country wise % exports[2]



80%+ global imports by USA, W. Europe & Middle East

Region wise % imports

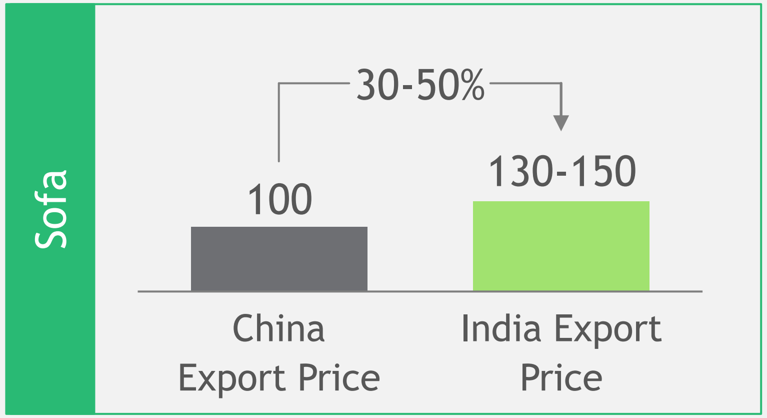


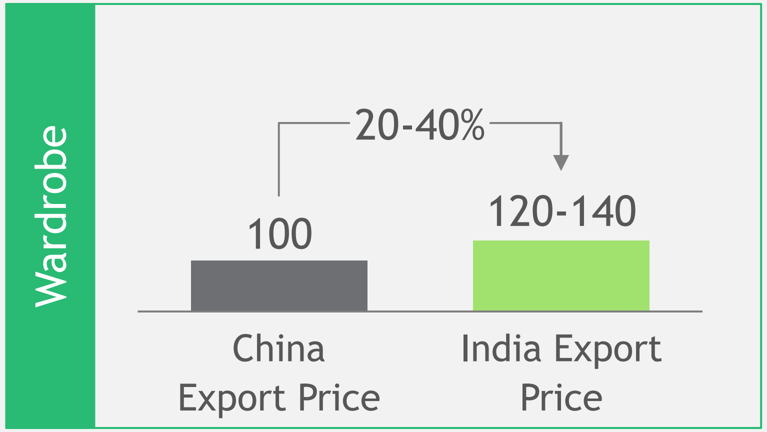
Top global furniture players (IKEA, W.Sonoma) keen to source from India – Certified & cost competitive products

1. Excludes ~4% market of China & South East Asia; South America & Africa account for additional 4% imports 2. Other top importer include Netherlands, Malaysia, Turkey & Denmark 3. Prioritized markets for India by Market Attractiveness (Size, Growth) and Ability to serve (Duty advantage, existing share of trade)
Source: UN Comtrade, India Retail Report, Allied Market Research, MCG, Macquarie report, Euromonitor

India uncompetitive in furniture because of (1) Raw material competitiveness (2) Scale of operation (3) In-efficient logistics

20-50% difference in Sofa & Wardrobe cost between India and China[3]





Key drivers for China's Cost Advantage

Raw Material Advantage (Scale & local availability) (15-25%)	• Advantage of local, scaled RM production (especially wood) – Top certified wood-panel exporter (>30% share of plywood) – Top synthetic fabric exporter (>30% share of exports) & large scale local mfg. of hardware / foam / others • Large certified forest reserve (1.1[2] Mha out of >200 Mha) • 0% import duty on wood vs 5-10% in India[1]
Scale of operation (5%)	• Large Industrial cluster for furniture mfg.- # 1 exporter • Labour productivity negated partially by higher wages
Localized Supply Chain (5-10%)	• Localized supply chain for furniture hubs – local sources of RM vs imported RMs in India (shipping + inland) • Proximity to ports reduces outwards logistics
Policy Support Advantage (5-10%)	• Lower cost of capital (4-5% vs 9-10%) • Lower cost of land ownership • Ease of doing business (China 32 ranks above India) • Additional policy support for enabling exports

1. MFN import duties of 5% on import of logs and 10% on import of sawn-wood 2. Considers only FSC certified area; FSC (Forest Stewardship Council) 3. Vietnam Export Price 10-15% higher than China

Source: Expert calls, EIU, OEC, MACMAP, India Trade Portal, UN Comtrade, FSC

Key recommendation

Three pronged strategy to bridge the cost difference between India and china

Strategies to bridge cost differential

Strategies to bridge cost differential	Raw Material Advantage (15-25%)	Scale of operation (5%)	Localized Supply Chain (5-10%)	Policy Support Advantage (5-10%)
1 Set-up 3 furniture hubs in proximity with ports • $10-12 Bn investment for 3 hubs in phased manner • End-to-end furniture & Wood RM eco-system • Attract leading furniture / wood-panel companies to invest in hub *(critical-step)*	✓	✓	✓	✓
2 Drive Cost competitiveness in raw material (Wood) • Short term: Make imported Wood RM competitive • Long term: Build / expand certified source of wood plantations in India	✓		✓	
3 Drive skill & capability building across all level • Leverage Govt. institutions (IID, NICD) • Develop training facility in the hub (jointly set up by Govt. & Industry)	✓	✓		

Key drivers for China's Cost Advantage

1 Need to setup 3 Furniture Hubs (export SEZ) for building cost competitive scale in manufacturing

Set-up 3 SEZs | Start with 1 and plan for another 2 in next phase

Requirements for each hub

USD 3.5-4.0[3] Billion
(Investment primarily by private furniture manufacturers.)

125-150 Million Sq. ft.

1.4-1.6 lakh Jobs

Proximity to Port
(Potential options: Kandla, Nhava sheva, Vizag, Paradip, Haldia ports)

Eco-system | End-to-end integrated ecosystem in each hub

Furniture Manufacturing

Wood Panel Mfg.
(Plywood, MDF, Particle Board)

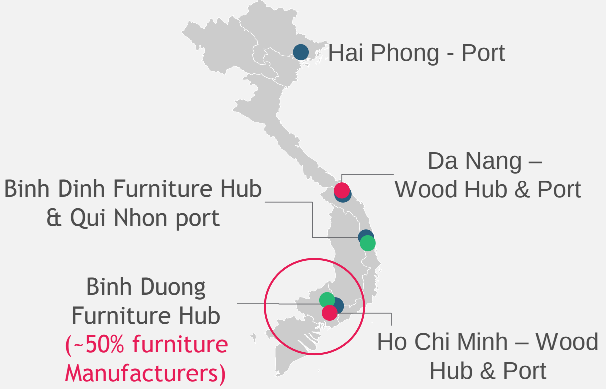
Efficient Logistics
(Port connectivity for RM/ FG; Inland connectivity by Rail/ Road)

Testing & Certification
(CARB emission, FSC, BIFMA, FEMB, Flammability)

Training & Research
(Jointly funded training school)

Key learnings from Vietnam| Hubs near ports

- Furniture hubs near ports to reduce logistics cost
- Close proximity between wood processing & furniture hubs
- Illustration: VN Furniture hubs



Each hub to provide consolidated marketing & centralized negotiation for SMEs present in the SEZ

1. Business and Institutional Furniture Manufacturer's Association 2. European Office Furniture Federation 3. Investment figures for furniture & wood panel manufacturing (Plyboard, MDF, Particle board) only, Excludes cost of land, All investment numbers calculated on basis of typical investment to output ratio, Furniture manufacturing (Investment output ratio of 0.3, INR 300Cr investment for INR 900-1100 Cr Revenue), Wood panel - Plywood, Particleboard, MDF (Investment output ratio of 0.97-1.1, INR 1000 Cr investment for INR 1000 Cr Revenue), market size for furniture basis export ambition of USD 25 Billion in 5-8 years, Wood panel market size basis of typical BOM for furniture manufacturing
Source: Expert Interviews, VIETRADE, Press Articles, BCG Analysis

1 Leverage Investment platforms to invite Indian & global players

Non-Exhaustive

Furniture

Present in Vietnam

Wood panel

Present in Vietnam

Learnings from Vietnam: Encouraged FDI in furniture and Wood panel hubs

Allowed 100% FDI in furniture & panel manufacturing

- Allowed to only export furniture (1400-1600 large exporters)
- FDI firms form 35% of exporters accounting for 45% value
- Incentives given in land acquisition

Large investment by Chinese & Taiwanese firms

- Introduced new tech. & designs to domestic players
- Low interest rate loans offered

Source: VIETRADE Report, Expert Interviews,BCG Analysis

2 Drive cost competitive RM with import duty support in short term & strong forestry policy in long term

Short term | Ensure availability of cheap & certified raw material

- Reduce import duty on wood logs & sawn wood to 0%
  - 5% import duty on logs & 10% on sawn wood[1,2,3]
- Reduce import duty on FSC & CARB certified wood panel products
  - 10% import duty on Particle board, MDF & Plywood[1,4,5]
- Drive FSC certification of existing Indian plantations
  - Ensure wood tractability system in place

Long term | Need strong forestry policy to encourage certified plantations of indigenous species[7]

Eucalyptus

Acacia

Mango

Neem

Bamboo

Rubber

Vietnam learnings | Reduced import duty on RM & supported certified plantation

- Reduced import duty on wood logs & swan wood to 0%
- Imposed duty on wood exports
- 0% import duty on panel boards till 2018
  - Increased to 5% in 2018
  - Transition to strengthen domestic production
- Planted 5 million hectare forest in early 2000s
  - Increasing trend towards FSC certification

1. MFN (Most Favoured Nation Tariff) Import Duties mentioned 2. Malaysia (0% duty), Germany (10% Duty) & Myanmar (0% Duty) top import source for Sawn-wood in India 3. New Zealand (5% Duty), Malaysia (0% Duty) & Suriname (5% Duty) top import source for Logs in India 4. Indonesia (0% duty), China (6% Duty), Malaysia (0% Duty) top import source for plywood 5. Thailand (0% Duty), Malaysia (0% Duty) & Germany (10% Duty) top import source for particleboard 6. Vietnam (0% duty), Malaysia (0% Duty) and Thailand (0%) top import source for MDF 7. Eucalyptus, Bamboo are covered in Draft National Forest policy 2018, Rubber is covered under National Rubber Policy 2019; Source: VIETRADE Report, BCG Analysis, UN Comtrade

3 Need govt. support to address capability gap in industry & improve productivity

	Training & courses	Partnering Institute
Skill development	Manufacturing • Carpentry, machine operations	Skill India; Furniture & Fittings Skill Council
	Assembly • Modular furniture assembly, fitting, automation	Industrial Training Institute
	Finishing • Premiumisation in quality finishing	N.S.D.C National Skill Development Corporation; PMKVY प्रधानमंत्री कौशल विकास योजना Pradhan Mantri Kaushal Vikas Yojana
Design courses	Modern designs for global markets	CEPT University; राष्ट्रीय डिज़ाइन संस्थान National Institute of Design; IIAD Indian Institute of Art & Design
	Contemporary Indian craft	भारतीय शिल्प संस्थान; Sir JJ School of Art Mumbai; Srishti

Additionally, set up training institute in Hub (jointly funded by govt. & industry, with employment guarantee)

Vietnam took proactive steps to build essential capabilities

- Trained 4K wood processing companies on techniques like saw-doctoring, finishing etc.
- Upskilled local designers & workers through craft & technical skill trainings
- Organized trade fairs, exhibitions, design internship & innovations programs
- Incentivized investment in R&D, tech. & innovation via credit package
  - Installation of automated assembly reduced 15% workforce in factories

Summary | Building blocks to reach the ambition

Where do we see the opportunity?

Exports : $180-190 Bn

- Global exports of $180-190 Bn; India minor player in export today (<1 %)
- Potentially target- USA, W. Europe & ME – (80% market) by 2028

Domestic : $3-4 Bn

- >90% import substitution (currently 60-70% of the organized market imported)

Employment opportunity of 4-5 L in furniture and panel mfg.

What are the challenges to capture this?

Cost disability of India vs China: 20-50% (varies by product categories and archetypes)

Vietnam cost 10-15% higher than China

China advantage driven by

- Raw Material advantage (scale & local availability)
- Scale of operation
- Localized Supply Chain
- Policy Support

How do we solve for the challenges?

1 Set-up 3 furniture hubs in proximity with ports

- $10-12 Bn investment for 3 hubs in phased manner
- End-to-end furniture & Wood RM eco-system
- Attract leading furniture / wood –panel companies to invest in hub

2. Drive Cost competitiveness in raw material (Wood)

- Short term: Make imported Wood RM competitive
- Long term: Build / expand certified source of wood plantations in India

3. Drive skill & capability building across all levels

- Leverage Govt. institutions (IID, NICD)
- Develop training facility in the hub (jointly set up by Govt. & Industry)

Next steps | Action plan for competitiveness for furniture production in India

Recommendations	Actions to be taken	Ministry support
Set-up an exports hub (SEZ) for furniture industry	• Identify land from available land bank across states, basis proximity to port & existing logistics (rail / road) connectivity	Ministry Of Commerce & Industry (MoC)
	• Define financing model (public/private/partnership) for the exports hub basis evaluation of the SEZ Model	
	• Finalize and acquire land through expediting regulatory clearances	
	• Develop the inbound logistics capabilities (for RM - availability at low cost & low lead times) • Develop the outbound logistics capabilities (for FG – ability to export at low cost and low lead-time)	Logistics Div – MOC, MORTH, Min of shipping, Min of Railways
Attract leading players (Globally/ in India) for investment	• Identify and prioritize potential target companies (from both India / Globally)	Ministry Of Commerce & Industry (MoC)
	• Develop the investment policy basis the SEZ' financial model to attract the global players	
	• Set target and plan for the investment process	
	• Plan the investment process	
Drive cost competitive RM (wood) in short term - Changes in import duty	• Initiate study into current and potential exclusions for reducing import duty for furniture RM	Ministry Of Commerce & Industry (MoC) and Ministry of Finance (MoF)
	• Finalize % reduction of import duty on wood logs, sawn wood & FSC/ CARB certified panels	
Drive cost competitive RM (wood) in long term - Certified wood plantation	• Finalize set of local Indian tree species that could serve as the quality furniture raw material	Ministry of Environment and Forests (MoEF)
	• Develop long term forest policy for the identified tree species	
	• Develop and implement a holistic FSC certified plantations program	
	• Create a long term plantation targets basis the policy and certification program & initiative implementation of the same	
Prioritize industry related skill & capability building	• Design new design & skill development courses which are priority for the industry	Ministry of Skill Development and Entrepreneurship (MSDE)
	• Introduce new courses in relevant institutes with industry participation	
	• Create a plan to set-up training centers in the furniture hub basis the defined modalities of jointly funding by Govt. and Industry	Min. Of Commerce (MoC) & Min. of Skill Development and Entrepreneurship (MSDE)

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Appendix

Market Overview - India and Global Furniture market

Priortisation of Export markets and products

Key cost drivers

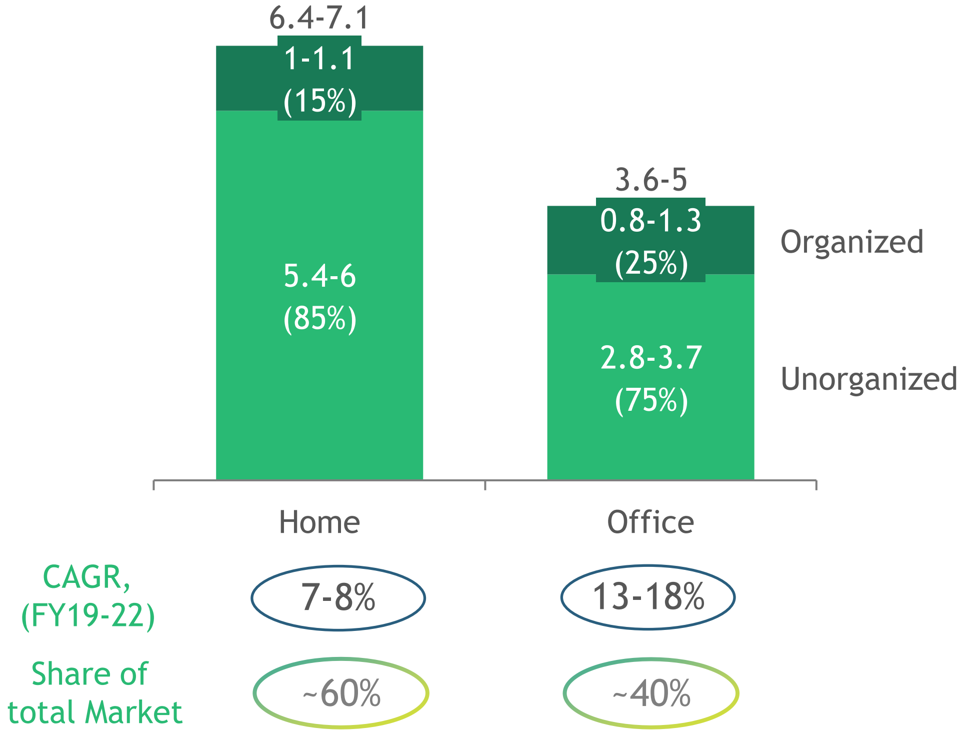
Learning from Vietnam and China

Policy deep dive

India furniture market | Estimated at $10-12 Bn; 60% Home furniture; Large part of the both home and office furniture unorganized

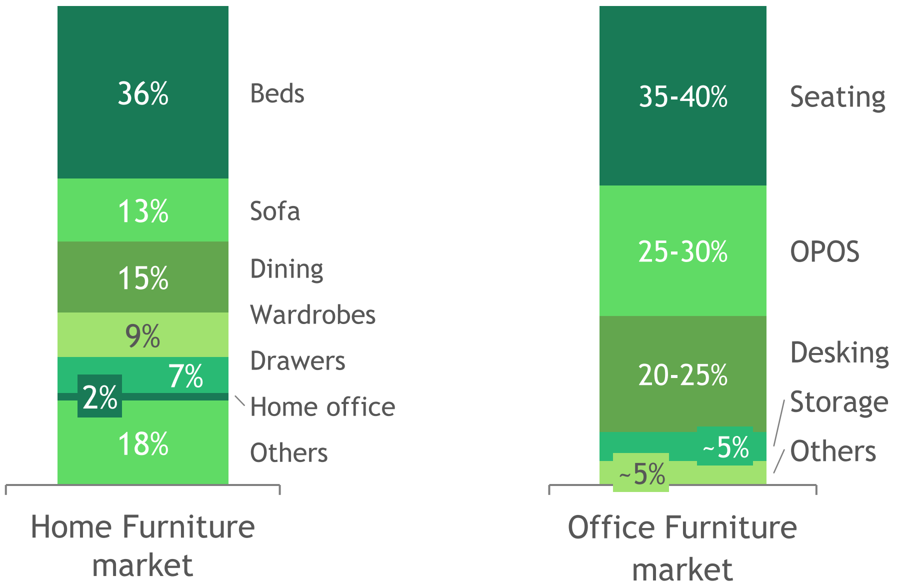
Home furniture accounts for ~60%; Unorganized segment accounts for 75-85% of the market

Market size - MOP[1] ($ Bn)



Beds, sofa & dining account for ~65% of home; Seating, desking & OPOS[2] account for ~90% for office

Share of total sales, %



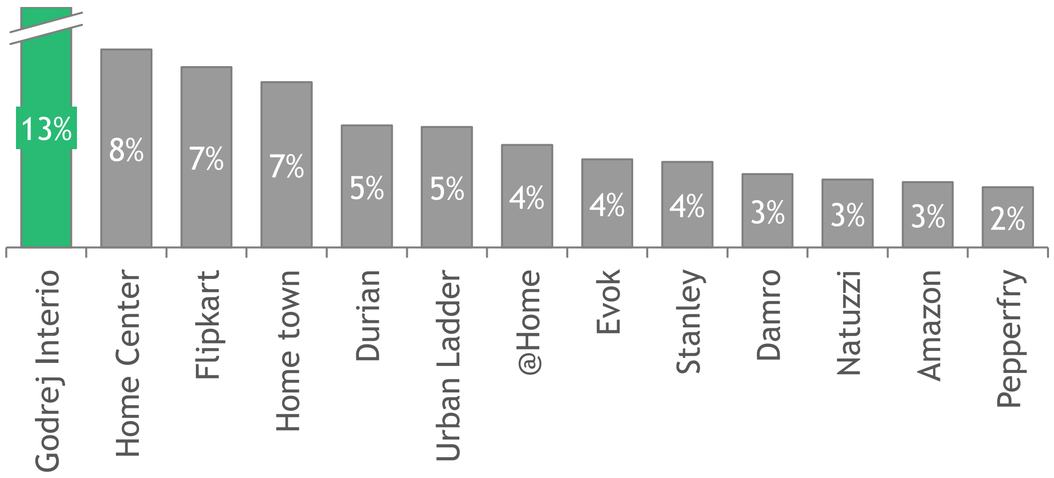
1. Market Operating Price
2. Open plan office system including work surfaces, storage units etc.

Source: India Retail Report, Allied Market Research, MCG, Macquarie report, Euromonitor, Expert Interviews, Technavio, BCG analysis

India furniture market | Home and office market fragmented; Top 5 players account for 40% & 30% share of organized home & office market respectively

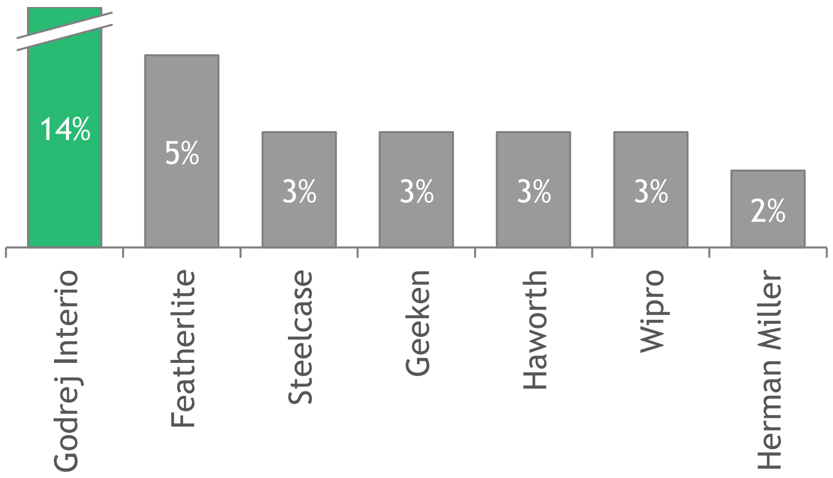
Home furniture | Top 5 players account for ~40% share of organized market

Market Share (%) – Organized Segment



Office furniture | Top 5 players account for ~30% share of the organized market

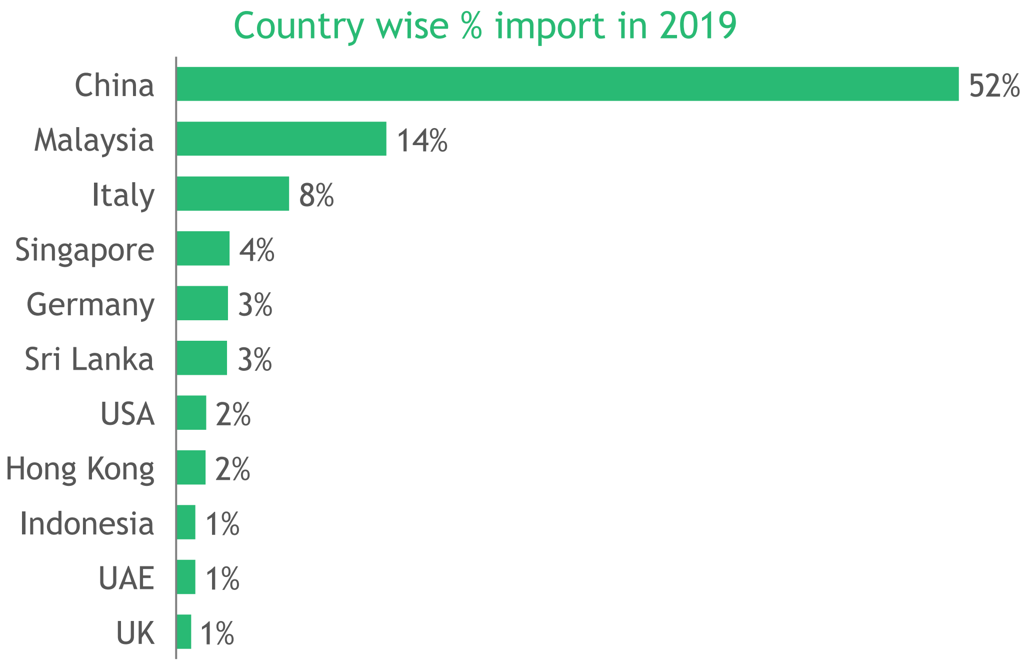
Market Share (%) – Organized Segment



Source: India Retail Report, company financial statement, Allied Market Research, MCG, Macquarie report, Euromonitor, Expert Interviews, Technavio Office Furniture Report 2017-2021, BCG analysis

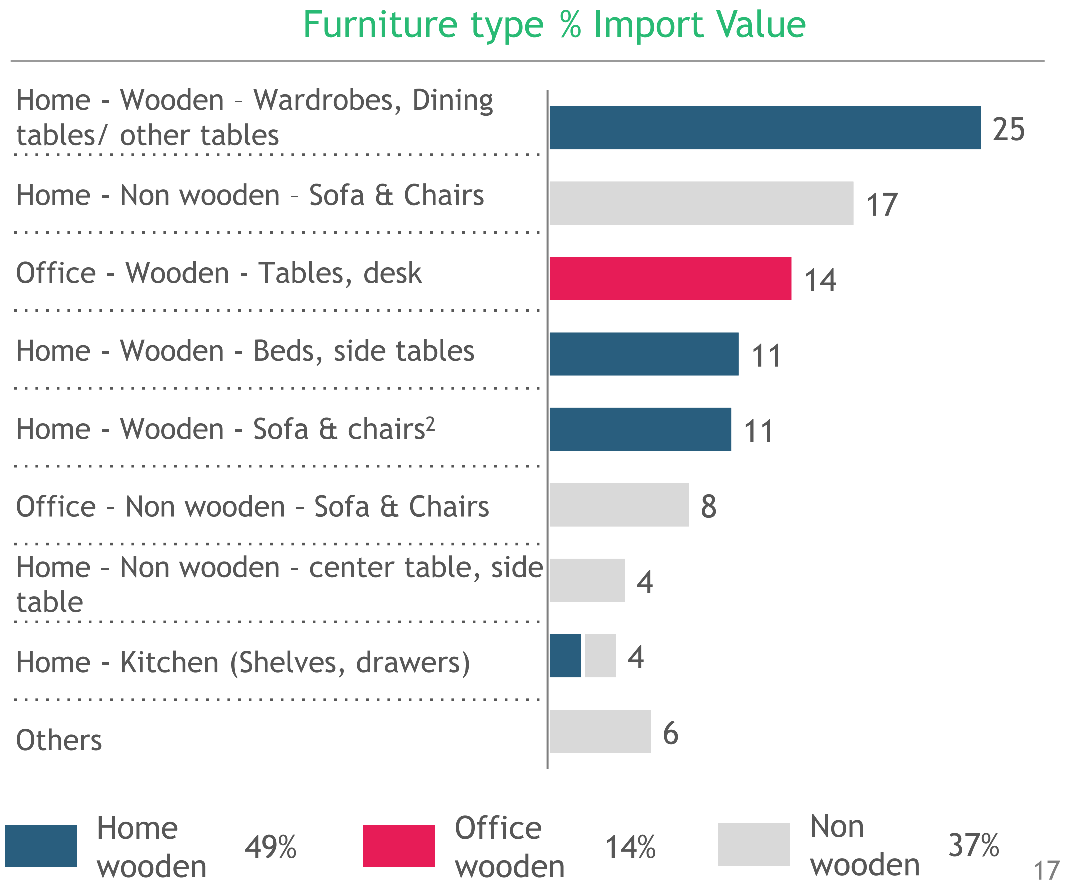
India furniture market | 12% ($1.5-2 Bn) of Indian market from imported furniture; >50% from China; Wooden furniture accounts for 63% of India imports

74% ($1.1-1.5 Bn[1]) of Indian furniture imports[1] come from China, Malaysia & Italy



Equivalent to 2/3rd of the organized market in India

Wooden tables, wardrobes & non-wooden chairs form the largest share of Indian imports



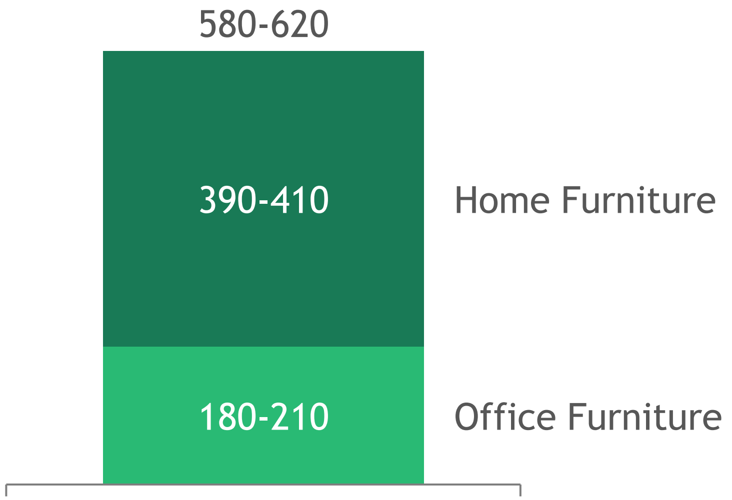
1. At retail price level - 2X of imported price
2. 60% upholstered sofas & chairs
3. All export / import trade figures for 2019

Source: UN Comtrade

Global furniture market | $580-620 Bn market, ~35% catered by global trade; Global trade of $120-125 Bn at import prices

Home furniture forms 70% of the global furniture market…

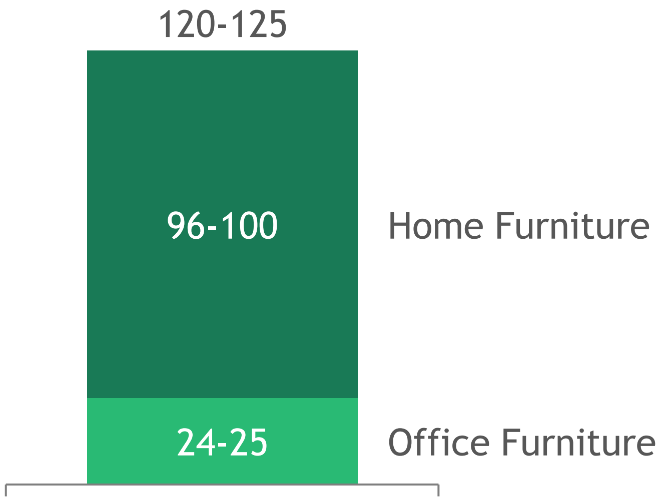
Market size (at retail price) – USD Billion



CAGR, (CY 19-22) 4-5%

..while, ~80% of the global trade belongs to home furniture market

Global trade in 2019 (at import prices) – USD Billion



$230-250 Bn at retail price (35% of the market)

CAGR, (CY 16-19) 5%

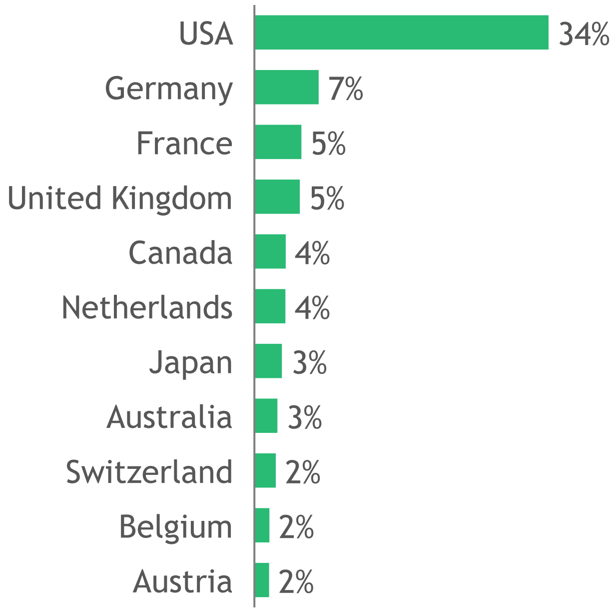
1. Home furniture includes indoor & outdoor furniture used by consumer
2. Furniture retail price assumed to be 2x of imported price; Additionally, $70-75 Bn trade in wood & $20-25 in furniture parts at export price
3. All export / import trade figures for 2019

Source: Euromonitor, Allied market research, UN Comtrade

Global furniture market | US & European countries are largest importers; China & Vietnam largest exporter from Asia

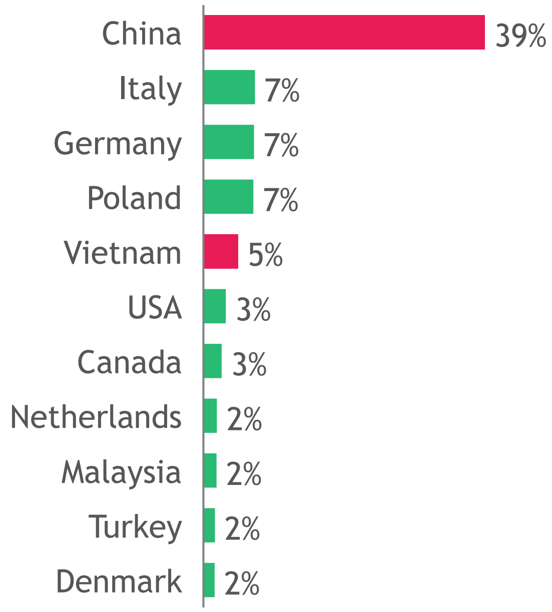
50%+ ($60 Bn) global imports by USA & large European countries

Country wise % imports in 2019



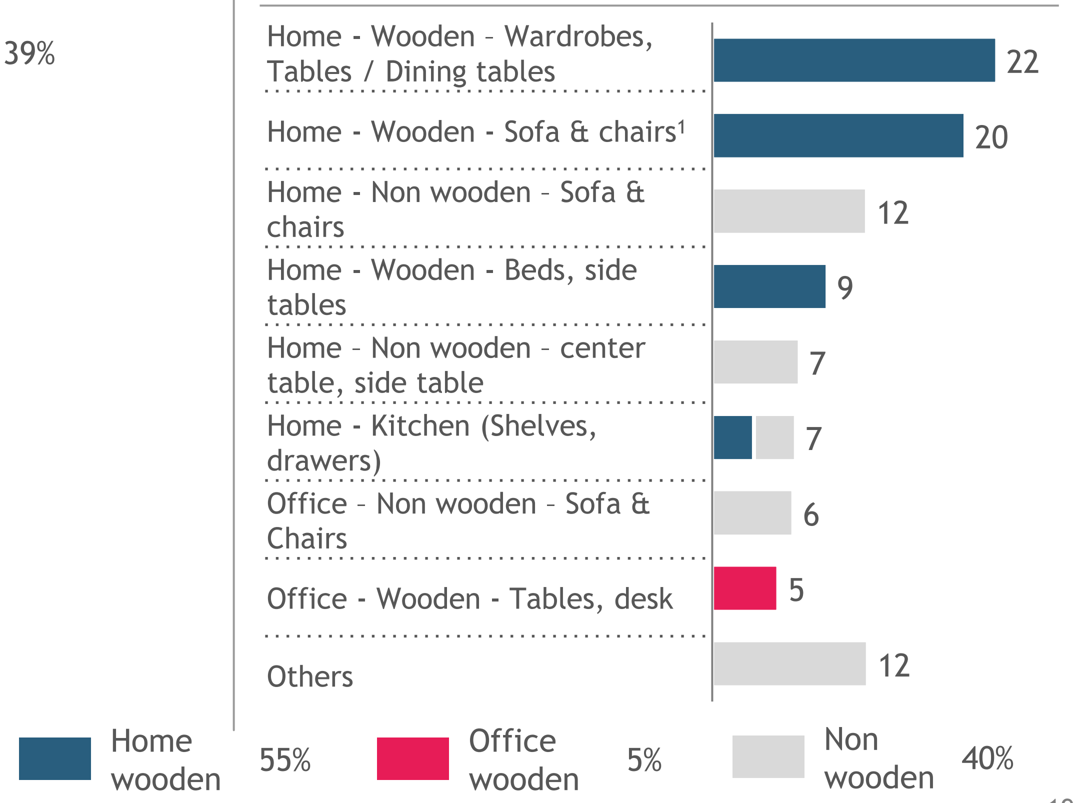
China and Vietnam largest exporters from Asia

Country wise % exports in 2019



Wooden wardrobes, tables & sofas form largest imported product segment

Furniture type % Import Value

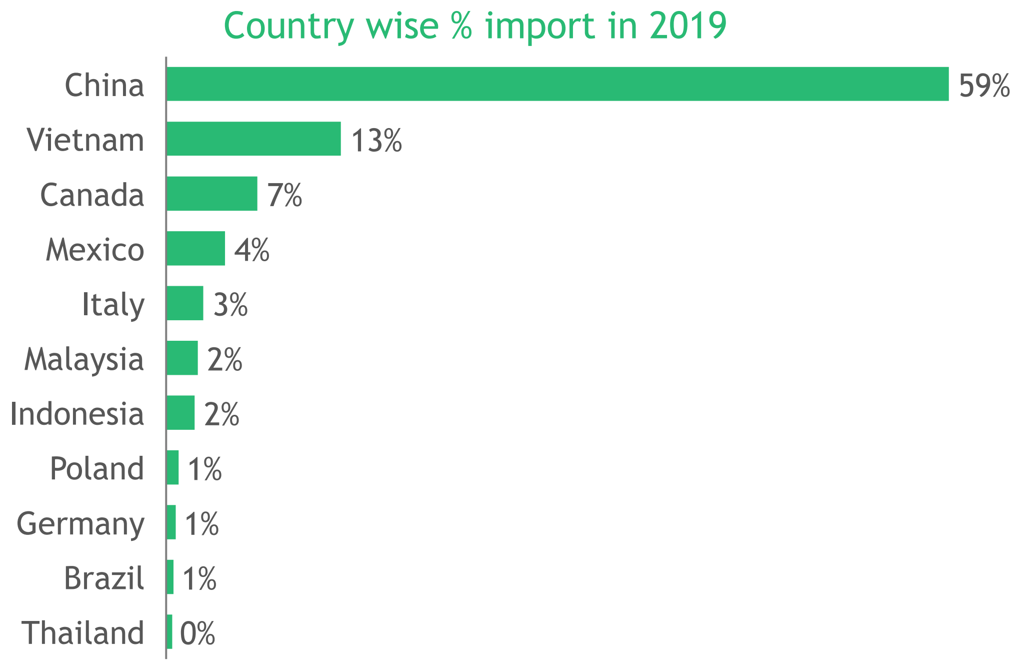


1. 80%+ consists of upholstered sofa & chairs
2. All export / import trade figures for 2019

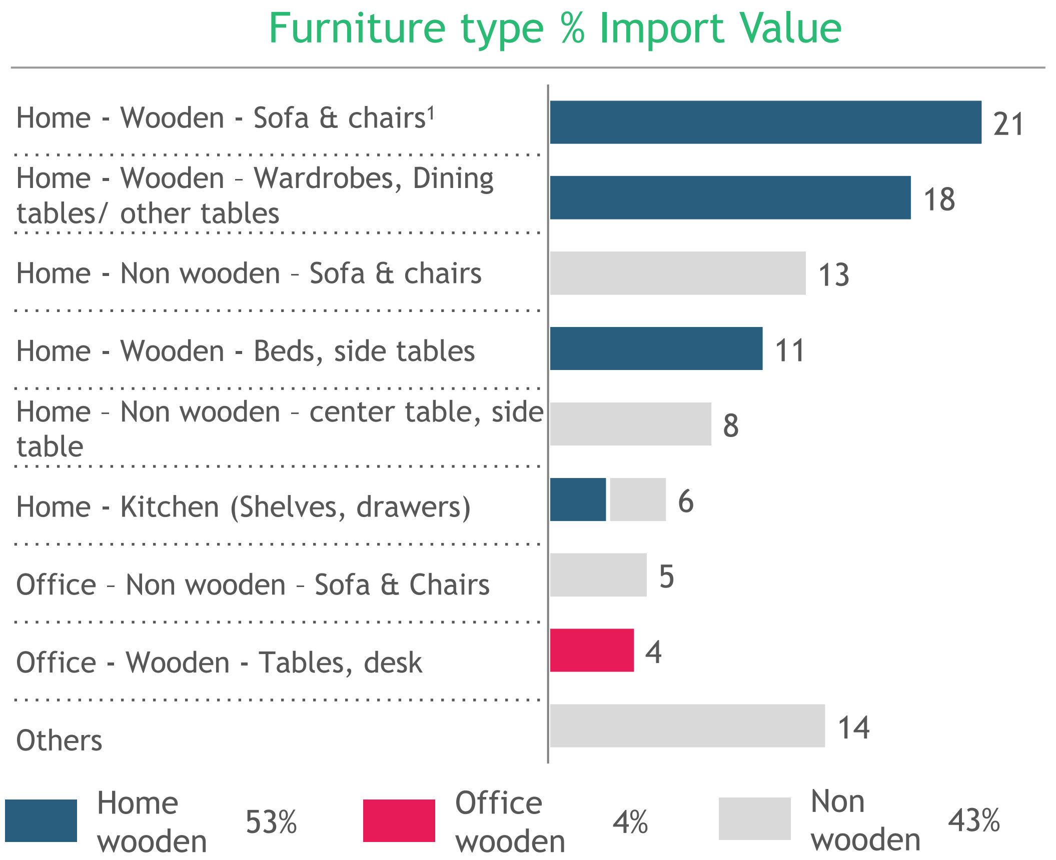
Note: All trade numbers at export price; Data according to cost of imports of furniture, includes home & office finished furniture trade
Source: UN Comtrade

US imports deep dive | China & Vietnam are the largest exporters to US

Vietnam ($5 Bn) is the second largest exporter to US behind China ($24 Bn)



Similar to global trade, Wooden sofas, chairs, tables & wardrobes form largest imported segment in US



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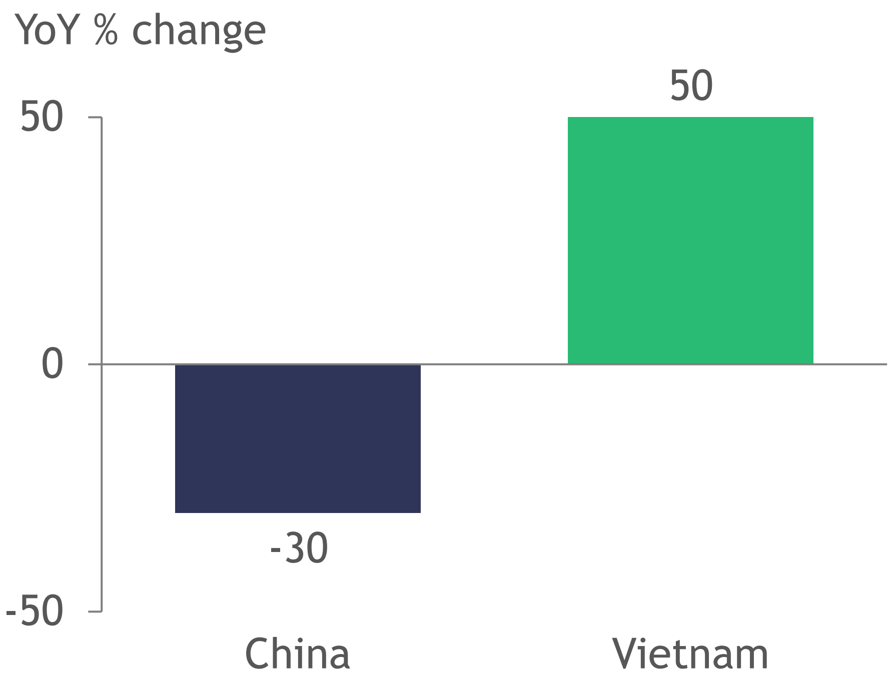
Note: All trade numbers at export price
Source: UN Comtrade

Time to target emerging opportunity - exports from China to US reducing in the current situation which has been leveraged by Vietnam

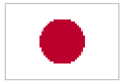
While overall furniture imports increased in US, decrease in furniture imports from China led to growth in imports from Vietnam

- US raised tariffs on furniture imports from China from 10% to 25% in May 2019
- While tariffs on furniture import from Vietnam stood at 0%
- Overall US furniture imports grew by 2% in Sep 2019 YoY
- Imports from China reduced by 30% while from Vietnam increased by 50%



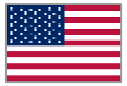
US furniture import change in Sep 2019

Countries re-evaluating their supply-chain post Covid - pulling back from China



Japan

- Japan announced USD 2 Billion subsidy to shift production back to Japan from China across industries
- Additional USD 0.2 Billion to move production from China to other countries



USA

- Several US companies (Crocs, Cummins, Lovesac etc.) shifted production out of China to avoid tariffs & de-risk supply chain

Source: Panjiva, Press Articles

Prioritization of export markets| 3 regions accounting for ~80% trade market prioritized for increasing share of exports for India

Key considerations to gauge attractiveness of global markets

Market attractiveness
- Furniture Market size
- Market growth

Potential for India to play in the geography
- Existing trade volumes
- Existing trade benefits like import duty advantage

	Market attractiveness		India play		
Cluster	Furniture import market in 2018 ($ Bn)	Expected market in 2025 ($ Bn)[4]	India export as % of total import	Duty advantage India vs China/ Vietnam[1]	Priority of trade
W. Europe	43.6	61.3	~1%	None	Wave 1
USA+	42.6	60.0	2.2%	Advantage	Wave 1
Other Asia[2]	7.0	9.8	~1%	None	Wave 2
E. Europe	4.7	6.6	1.3%	None	Wave 2
Middle east[3]	3.9	5.5	~5%	None	Wave 1
Oceania	3.5	5.0	1.8%	Disadvantage	Wave 2
South America	2.7	3.8	1.5%	None	Wave 2
SE Asia	2.6	3.6	~2%	None	Wave 2
Africa	1.2	1.7	~4.5%	None	Wave 2

Wave 1
- Target to acquire top 2 importer position in key countries in next 7-8 years
- Expected share to be around 15%

Wave 2
- Target to acquire top 5 position in key countries in next 7-8 years
- Expected share to be around 10%

1. US imposed 25% duty on China; 5% duty in Australia for Indian imports vs 0% for China & Vietnam 2. Includes Japan & South Korea majorly
3. Middle east also has shipping cost advantage for India vs China/ Vietnam 4. 5% CAGR assumed for 2018-2025
Note: All trade numbers at export price

Prioritization of products for deep-dive

Panel based furniture

- Consists wooden beds, wardrobes, desks, center table, coffee table etc.
- Majority RM belongs to particle board & MDF – forms base structure

25-30%

Upholstered Sofas & chairs

- Fabric used to cover the sofa forms the largest part of the raw material value
- Foam & plywood used inside to form the structure

15-20%

Solid wood based

- Furniture like dining table, chairs use solid wood as the key structural component

10-15%

Non - wood based

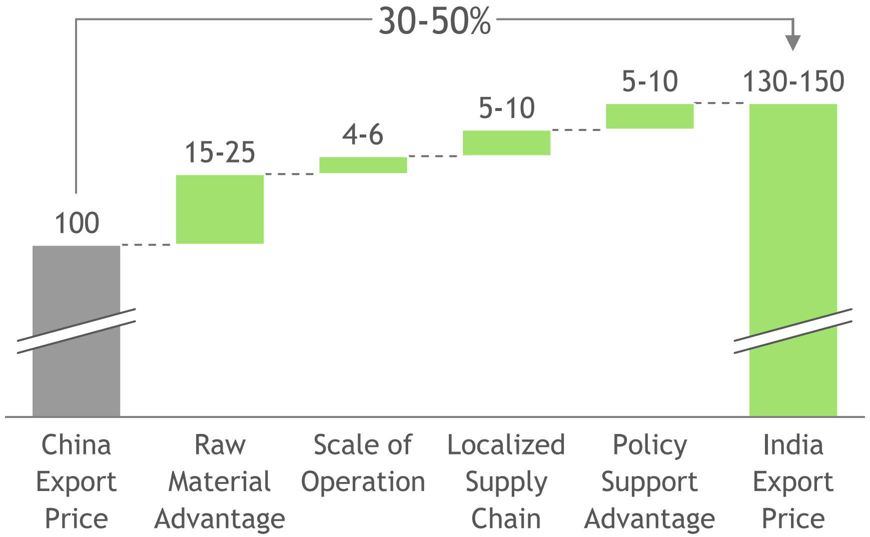
- Furniture made of 10+ materials like plastic, metal, bamboo, cane etc.
- Fragmented market with multiple product categories

35-40%

Note: Selected products represent majority of the furniture archetype mentioned
Source: UN Comtrade, BCG analysis

Sofa| 30-50% cost difference between India and China to be overcome by setting-up furniture hubs (export SEZs) & increasing wood availability in long term

Furniture hubs, boost in RM competitiveness & skill development to enable India bridge cost gap with China



Impact of Proposed Initiatives

Illustrative

	Set-up export focused furniture hubs	Drive cost-competitiveness in RM	Skill development
RM Availability & Scale (Scale & Local Avail.) **(15-25%)**	• Large scale production of raw material (Wood panel) • Lower procurement cost through scaled purchase & low cost sourcing for other RMs	• End-to-end integration; local certified plantations to lower RM cost (long term) • Reduction in import duty to lower RM cost (short term)	• Higher labour productivity through skill dev. & training
Scale of Operation **(4-6%)**	• Large scale of furniture manufacturing compounding labour cost advantage		
Localized Supply Chain **(5-10%)**	• Development of local eco-system in India to reduce logistics cost • Cost savings on inland transportation of RM/FG due to proximity to port	• Local availability of wood from plantations near wood to lower logistics cost (long term)	
Policy Support Adv. **(5-10%)**	• Attractive investment policy for SEZs to boost export competitiveness		

Source: Expert calls, EIU, OEC, MACMAP, India Trade Portal, UN Comtrade, FSC

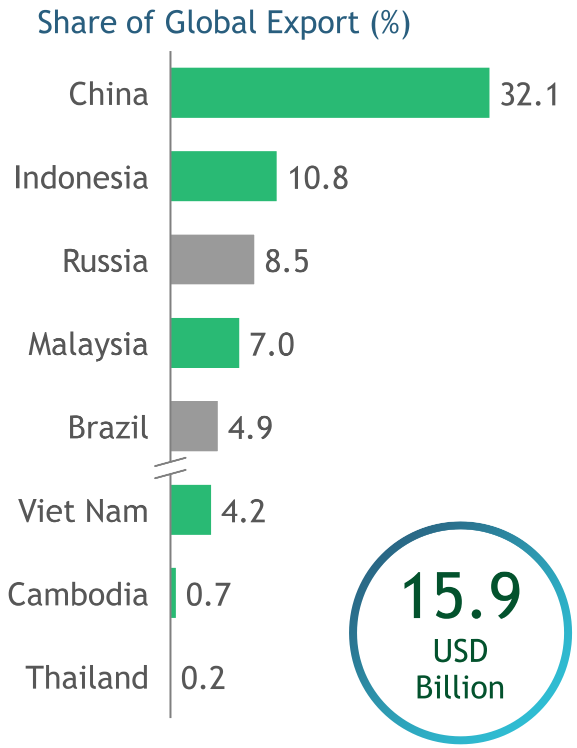
Wood panel products are extensively used in furniture manufacturing

Material	Plywood 	Medium Density Fibreboard (MDF) 	Particle Board 
Composition	Thin sheets of wood (veneer) that are laminated in alternate direction	Fine wood fiber embedded in resin and compressed under pressure	Combination of wood particles and resin; Decorative Laminate paper used for providing surface finish
Raw material[2]	• Veneers • Binding Agent (Resin)	• Wood Chips • Agri-cultural Waste • Binding Agent (Resin)	• Wood Chips • Saw Dust • Binding Agent (Resin)
Properties	• Density: 460-680 Kg/CBM • High strength • Good rigidity and dimensional stability • Most resistant to moisture	• Density: 496-801 Kg/CBM • Medium Strength • Smoother and more homogenous surface • Some dimensional changes with moisture	• Density: 590-800 Kg/CBM • Low strength, not suitable for heavy loads • Expands in presence of too much moisture
Uses	Upholstery furniture, Outdoor furniture, Kitchen (only in India)	Design & Visible elements of panel furniture (Beds, Wardrobe, Kitchen – Dry use etc.)	Panel furniture (Beds, Wardrobe, Kitchen-Dry use etc.)
Cost[1]	2-2.6X	1.3-1.6X	1X

1. Indicative range for India, may vary depending upon product configuration and country context 2. Produced either in-situ using logs or secondary sources
Source: Expert call, EPC

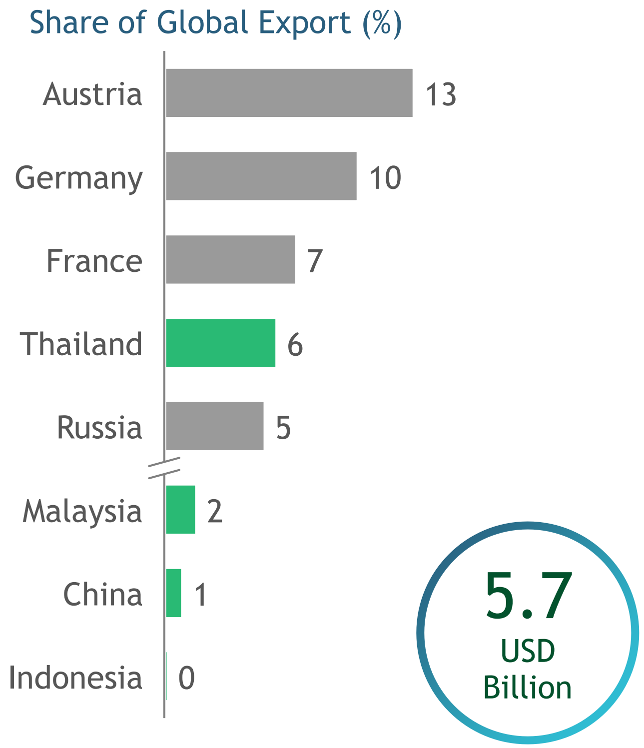
China dominates the world plywood and MDF export; Vietnam also a large Plywood exporter

Plywood | China, Indonesia top exporters in the world



MDF | China & Thailand lead among top 5 exporters

Particleboard | Only Thailand among top 5 exporters



1. All figures for 2018
Source: UN Comtrade

Vietnam | 2nd largest Asian exporter on back of a) local panel processing ecosystem b) co-located hubs & c) sustainable indigenous sources

	Forest plantation	Panel processing	Other Raw materials (Fabric, hardware, packaging)	Manufacturing & logistics

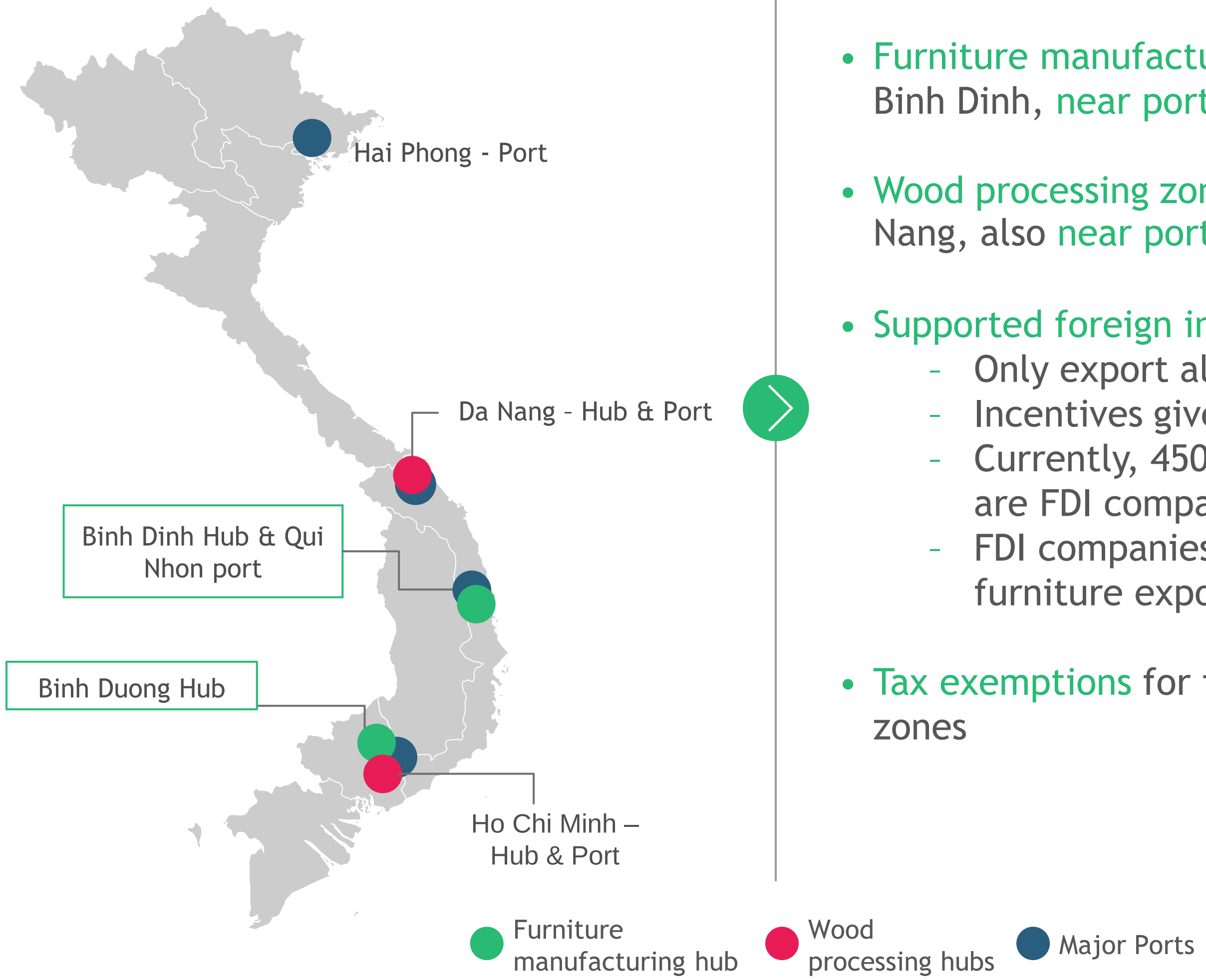
Current Value Chain	• Mix of reliance on domestic wood and imported wood currently: ~50% imported
	• Started with major imports from Malaysia
	• Developed indigenous wood plantation in parallel
	  – Increasing trend towards FSC certification
		• Current demand catered by both domestic & import; ~3K wood processing firms
		  – Ply – 70% domestic
		  – MDF - 25% domestic
		  – PB – 50% domestic
		• Thailand & China are the other major suppliers to VN (>50% of imports)
		  – Started with duty free panel imports to ensure cheap RM
			• All other major raw materials (fabric, hardware, packaging, etc.) imported majorly from China
			• Minimal logistics cost post import due to hubs
				• RM manufacturing and Furniture manufacturing done in established furniture hubs (helps reduce transfer cost RM)
				• Hubs located near ports to reduce logistics cost for FG
				• Large investment by Chinese & Taiwanese firms (~35% companies)

Govt. Support	• Planted 5 million hectare forest in early 2000s • Reduced land rent by 50% for 5 yr	• 0% import duty till 2018 – Increased to 5% in 2018 • Provided funding at low cost of capital & other financial to wood processing firms	• 0% import duty	• Allowed 100% FDI • Tax exemptions, low interest rate loans

Vietnam increased it's rank in global furniture export from 15th to 5th in 10 years

Vietnam supported exports only furniture hubs near ports, with 100% FDI

All wood processing & manufacturing hubs build near major ports



- Furniture manufacturing zones, Binh Duong & Binh Dinh, near ports to reduce logistics cost
- Wood processing zones, Ho Chi Minh & Da Nang, also near ports & manufacturing zones
- Supported foreign investment with 100% FDI
  - Only export allowed
  - Incentives given in land acquisition
  - Currently, 450/1500 furniture exporters are FDI companies
  - FDI companies account for ~45% of furniture exports
- Tax exemptions for first 4 years in industrial zones

Binh Duong, with 50% manufacturers, emerged as largest hub for furniture production in Vietnam

Vietnam supported E2E ecosystem with capability enhancement initiatives in labour & manufacturing

Training & skill development

- Promoted vocational & technical trainings through colleges, universities and specialized training centers
- Trained key staff of ~4K wood processing companies on techniques like saw-doctoring, finishing etc.
- Upskilled local designers & workers through craft & technical skill trainings across the mfg. industry
- Organized trade fairs, exhibitions, design internship & innovations programs
  - Introduced VIFA furniture expo attracting 10k+ visitors & 300 companies

Manufacturing improvements

- Incentivized investment in R&D, technology and upgradation via credit package
- Installation of automated assembly reduced 15% workforce in factories
- Enhanced technology increased labor productivity
  - Productivity jumped to $35K pa vs $20K per labour

China | Largest exporter on back of end-to-end large scale development of the entire value chain locally

	Forest plantation	Panel processing	Other Raw materials (Fabric, hardware, packaging)	Manufacturing & logistics
Current Value Chain	• Planted 208 Million ha forest land; 1.1 M ha of FSC certified forest • Uses domestic wood resources (>50% of req.) and imports for log requirements • Imports wood logs from New Zealand & Russia	• Large scale of operation; meets >95% of demand locally • Top exporter of wood panel products in the world; Plywood (32%), MDF (14%) and Particleboard (1%) • Uses bulk of wood panel products domestically (including for furniture)	• Top synthetic fabric (~30%) exporter; produces upholstery fabrics • Produces technology complex products; furniture hardware, DL paper etc. • Good quality vendors for other RM such as foam, packaging etc.	• Industrial clusters with large economies of scale in Pearl River Delta, Yangtze River Delta & Bohai Sea Delta • Efficient logistics; good road connectivity and proximity to ports • Efficient port handling; China ranked 1 in shipping liner connectivity[1]
Govt. Support	• Import duties of 0% for importing logs	• Development of complete eco-system; all RM available locally at competitive prices for furniture		• Development of clusters & good logistics infrastructure

China continues to dominate global furniture export & wood panel market in term of scale & cost

1. WEF Competitiveness Index
Source: FAO, MACMAP, OEC, WEF, UN Comtrade, FSC, World Bank

Relevant takeaways from the Draft National Forest Policy, 2018 and National Rubber Policy, 2019

Increase productivity of forest plantations and forest management

- Intensive scientific management of forest plantations of commercially important species like teak, sal, sisham, poplar, gmelina, eucalyptus, casuarina, bamboo etc. to address poor productivity of these plantations
- Sustainable management of Non-Timber Forest Produce (NTFP) such as medicinal and aromatic plants, oil seeds, resins, wild edibles, fibre, bamboo, grass etc. to ensure increased employment and income opportunities for the local communities

Management of trees outside forests (agro and farm forestry)

- Encouragement for agro-forestry and farm forestry through commensurate incentives and operational support systems
- Establishment of systems for **certification** of improved planting material
- Promotion of cultivation, harvesting, transportation and marketing of wood by relaxing the existing felling and transit regime
- Inclusion of agro forestry & farm forestry in the agricultural crop insurance scheme would be facilitated. Also, agro forestry and farm forestry crop will also be included in National crop insurance scheme

Forest certification

- Institution of a credible certification process which can provide premium on the products and enhance value of forest product harvested sustainably
- Adoption of appropriate certification regimes encouraged though phase wise adoption of compatible standards and institutional framework in forest management

Information management

- Setting up of a forum for interaction and collaboration for forest-based industries with forestry institutions and concerned stakeholders to create demand for trained professionals in the sector

Utilization of rubber wood

- Promotion of commercial utilization of rubber wood as an alternative source of timber due to its distinct advantage of being a sustainable and renewable source and its amenability to versatile industrial applications as well as to counter declining supply of timber from conventional sources

Source: Draft National Forest Policy, 2018; National Rubber Policy, 2019

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