



NATURAL RESOURCES CANADA - INVENTIVE BY NATURE

Forest Products Trade

Megaflorestais 2015

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Natural Resources
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Outline

Forest Sector Products and Trade

- Commodities
- Global Trade in Forest Commodities

Production and market trends

1. Pulp production shift to South America
2. Packaging production expands in China
3. Newsprint decline in the age of electronic media
4. Divergent paths of forest sector development
5. Intersection of environmental and market considerations



Commodity markets

Commodities

- Interchangeable goods that are essentially uniform across producers
 - E.g. gold, wheat, sugar

Commodity markets

- Price takers
 - Common price
- Compete on cost basis
 - No product differentiation



Solid wood products



- Mainly used in construction
- Includes wood for energy and to make frames for paintings or carpentry



Paper Products

- Includes Paper to write/print on, newspaper, cardboard and packaging, toilet paper, tissues,

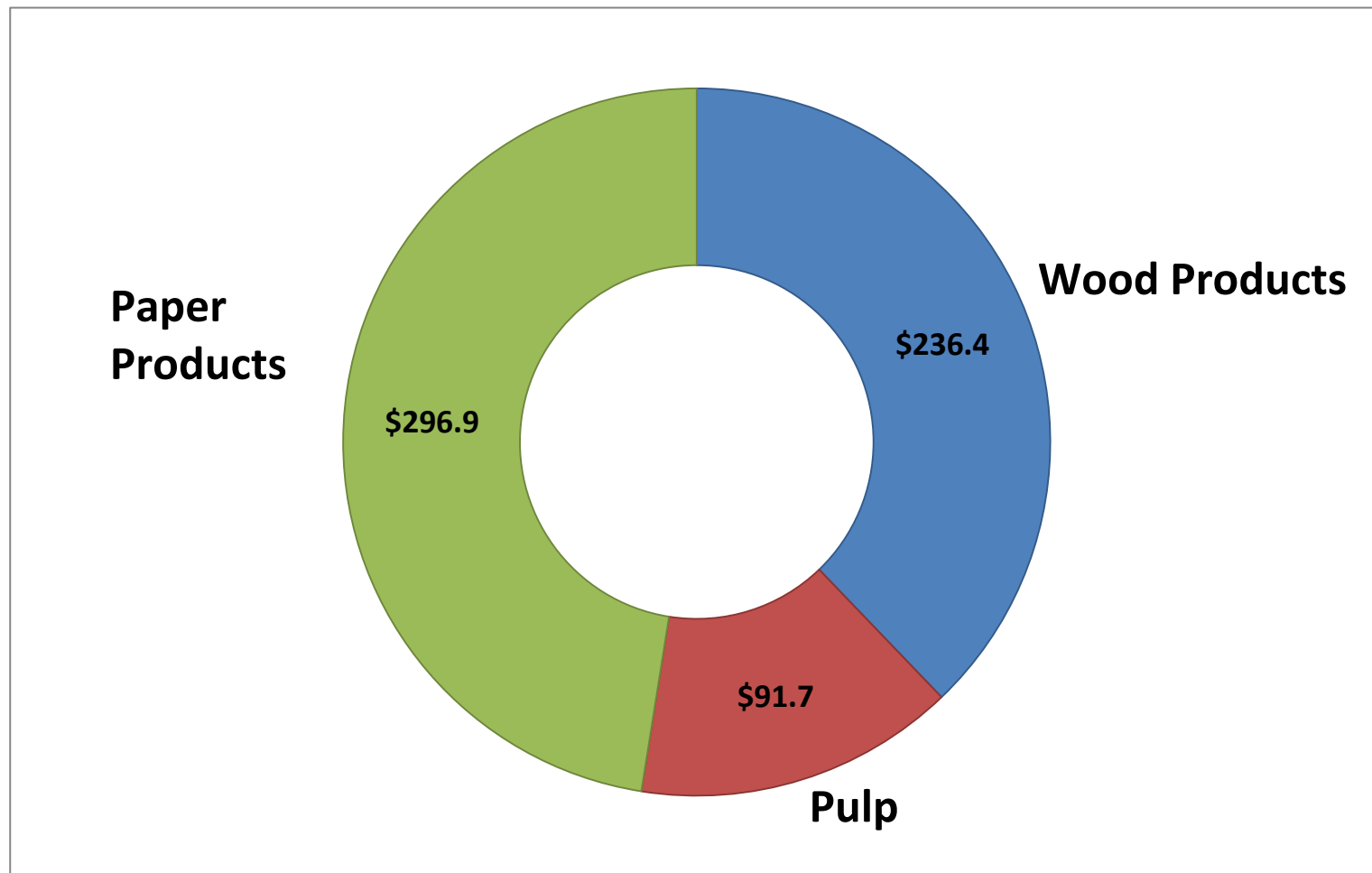


Wood pulp

- A fibrous material made by breaking down the wood mechanically or chemically.
- Predominantly used to make paper products
- Pulp is also used to make textile fibres and chemicals.



Global Trade in Forest Commodities: US\$625 Billion in 2014



Pulp production shift to South America

Access to fibre
Low cost production



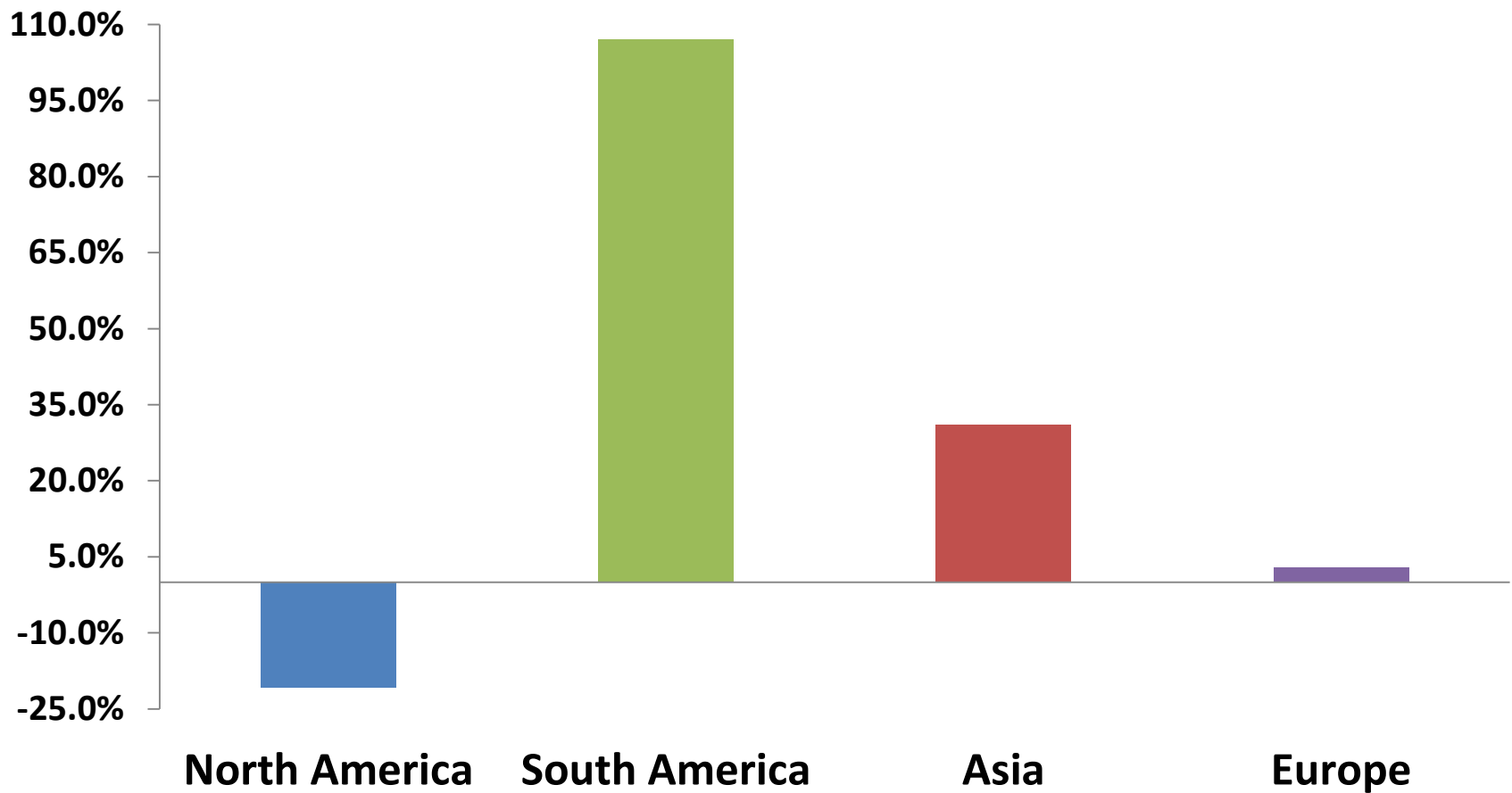
Southern producer cost advantages

Factor costs in pulp production - Average US\$ per tonne

Factor	North America NBSK US\$/tonne	Chile SBSK US\$/tonne
Fibre	236	175
Chemicals	46	51
Energy	65	52
Labour	88	9
Materials	45	41
TOTAL	\$476	\$315



Change in Wood Pulp Production (2000-2013)



Packaging production expands in China



Proximity to the global hub of manufacturing

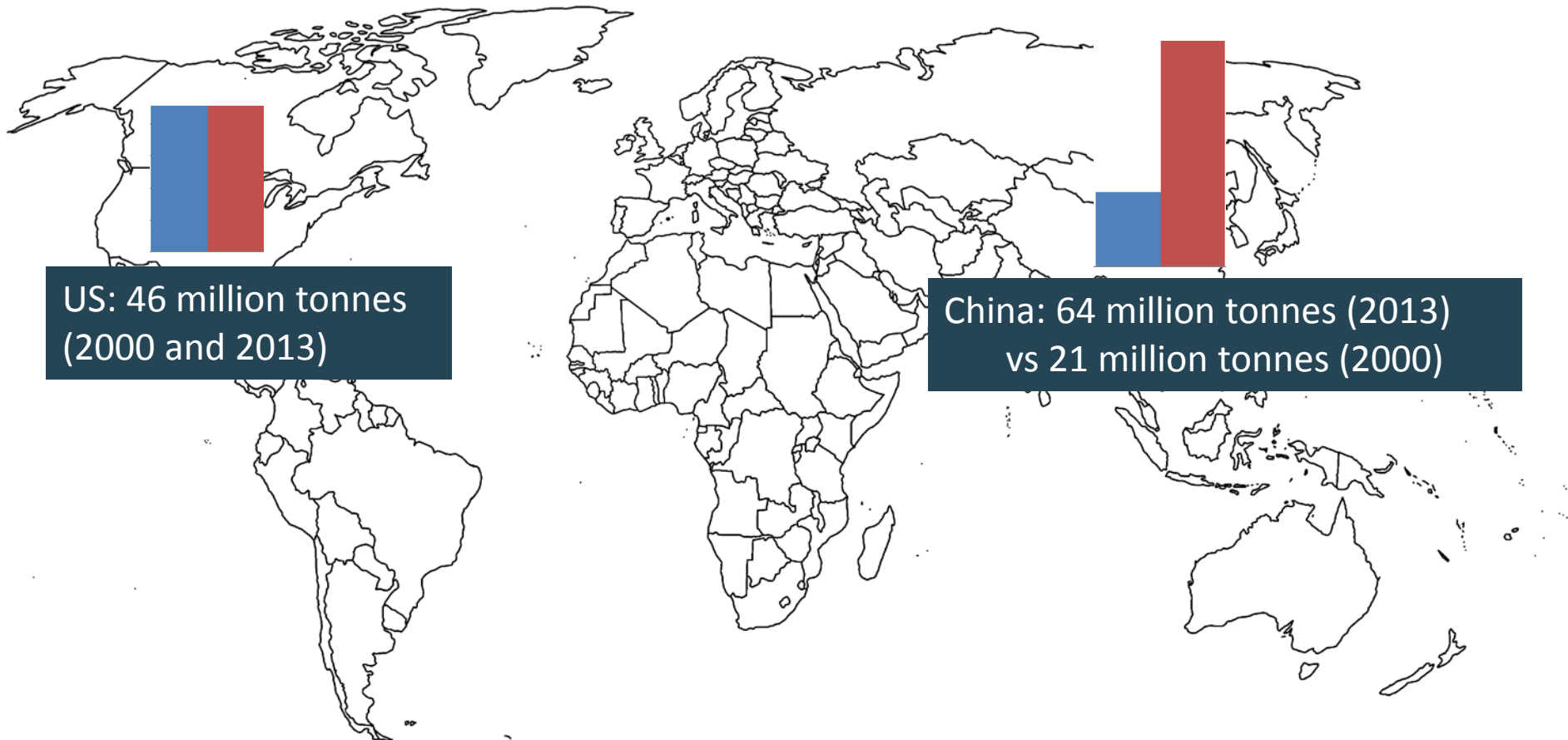


Expansion of global trade and centre of manufacturing shift to China

- Global trade is up 275% since 2002
- China's share grew from 6% to 10%
 - \$658 Billion to \$3.17 Trillion
- Think of all the packaging required for all those goods.
 - Does it make sense to ship empty boxes?



Packaging expansion in China



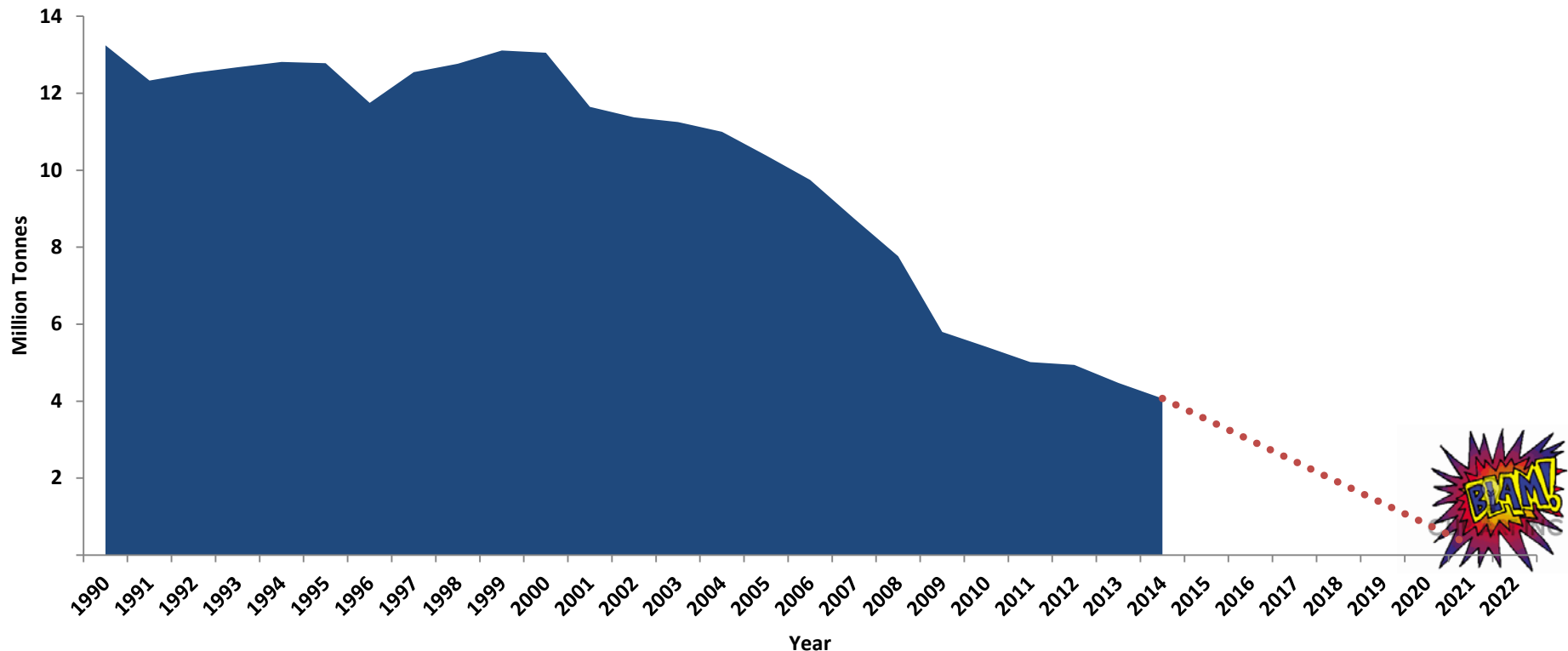
Newsprint decline in the age of electronic media

structural change in the paper market



Structural change in some papers market

North American newsprint demand has been declining since its peak in 2000



Similar trend expected to start in developing nations post-2020



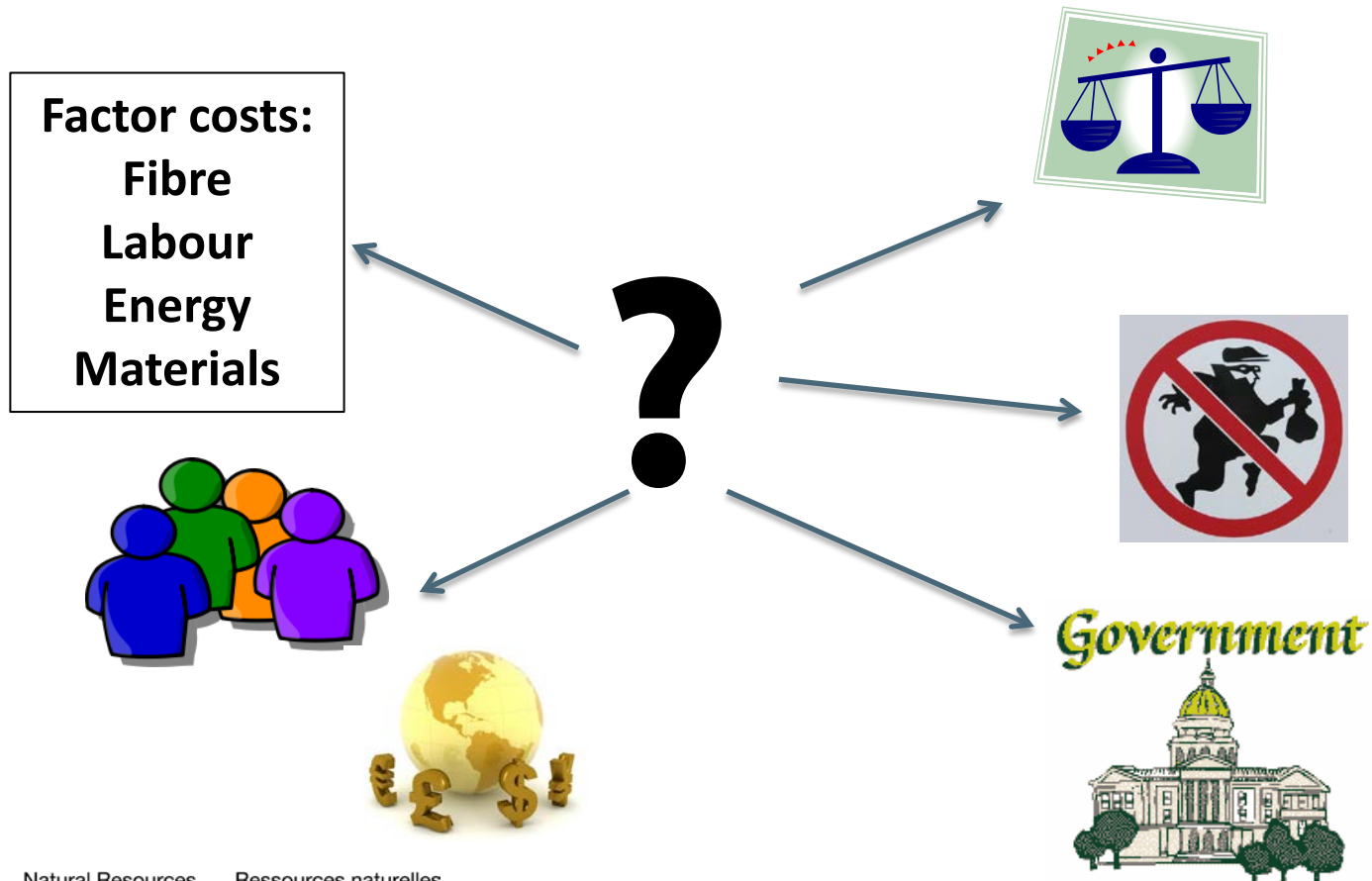
Divergent paths of forest sector development

Role of institutions and markets are important



Where to locate production?

Companies must navigate the institutional environment



Forest sector policy environments

- US South, New Zealand, Brazil and Chile
 - Government support for plantations
 - Large ports and distribution networks
- Community-centered policies such as:
 - Requiring timber concessionaires to designate community-use zones within licensed forest (e.g. Malaysia).
 - Burkina Faso developed a national strategy for the sustainable use and valorization of non-wood forest enterprises in 2010.



Forest sector policy environments

■ China

- Recent announcement to phase out all commercial logging of natural forests by 2017.
 - Offset by 14 million hectares of strategic timber reserves, most of them located in the southern parts of the country.

■ Russia

- Largest area of natural forests in the world
 - Institutional environment challenge to secure capital to invest in mills and logistics network.
- Export tax on logs boost domestic manufacturing



Intersection of environmental and market considerations

- Growing global emphasis on sustainable forest management
 - Global focus on illegal logging and deforestation
 - Consumer demand drives forest certification
- Canada a leader in sustainable forest management
 - largest area of third-party certified forests in the world
 - Creates a competitive advantage





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