COMPETITIVENESS AND COMPLEX PRODUCTS

CHINA'S NEW ENERGY VEHICLES

Economic Fitness Workshop | Washington, Sept. 14, 2017

COUNTRY ANALYTICS
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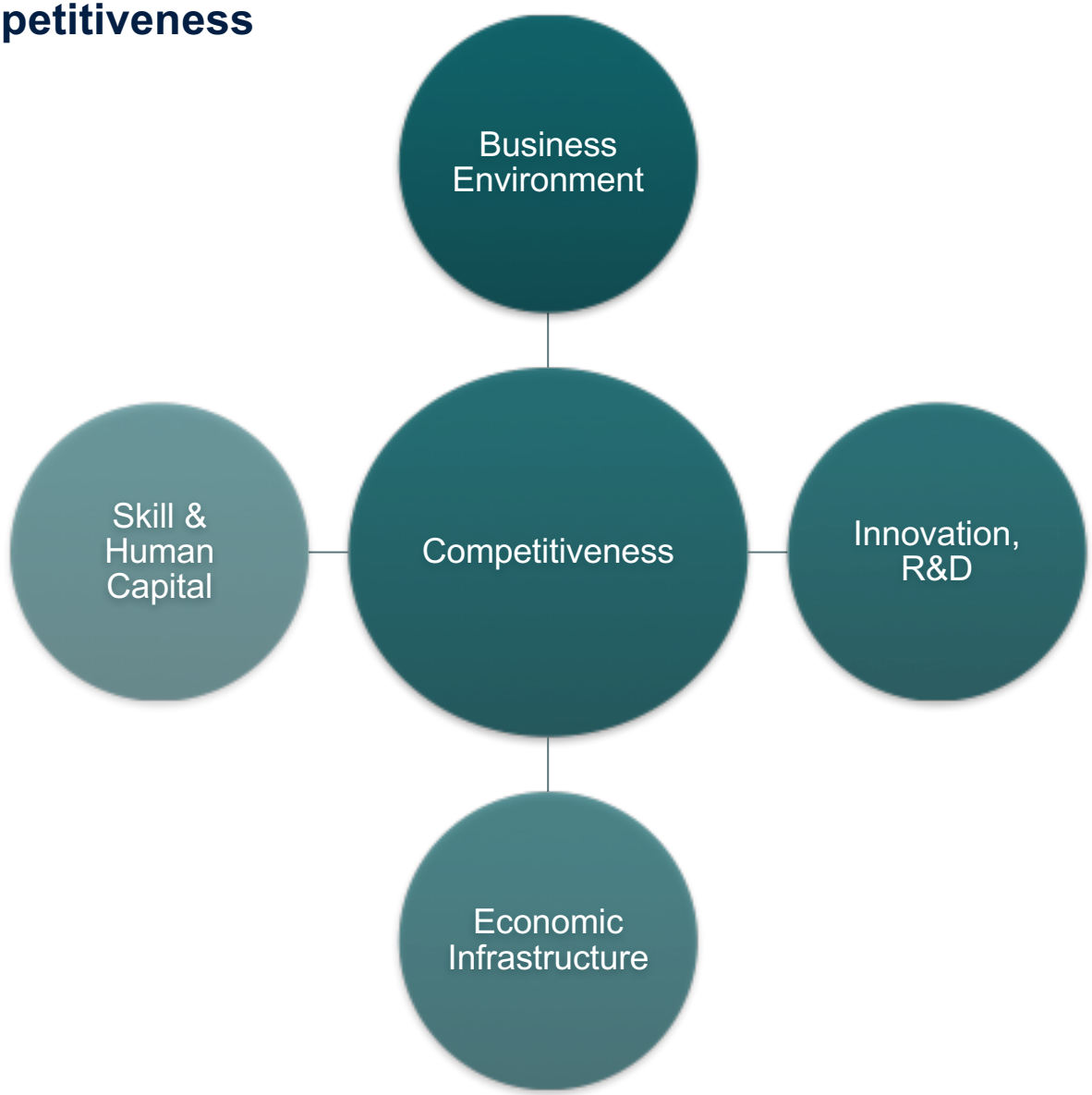
Innovation & Complexity
A key to Competitiveness



Industry Analysis using the Economic Fitness toolkit

Beyond aggregate output

What are a country's underlying capabilities? Economic Fitness toolkit accounts for diversification, complexity and progression opportunities

Dynamic approach

Incorporates technological changes and allows for comparison across competing countries

Complements traditional market demand analysis

Economic Fitness analysis forms a filter for gaps and opportunities whose potential impact and payoff can then be explored more deeply

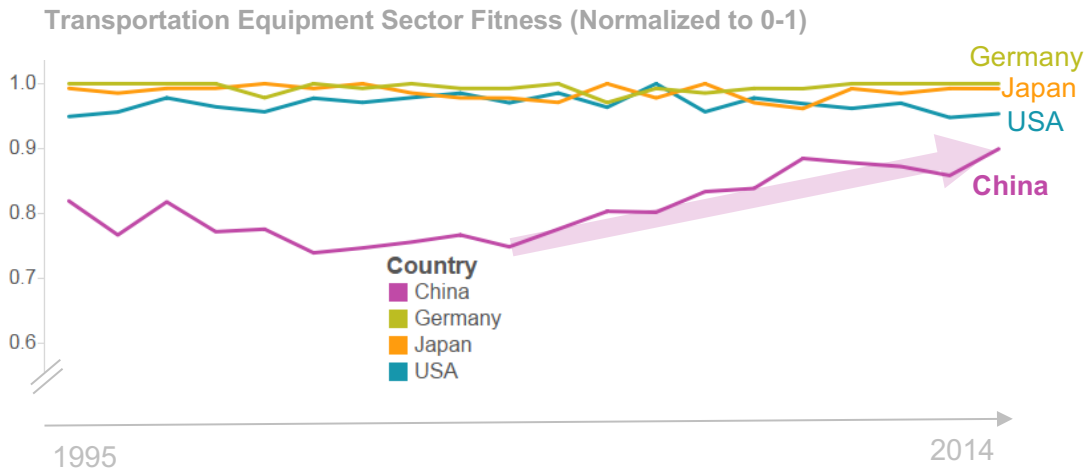
Incorporates services

Explores opportunities and measures competitiveness in both merchandise and service sectors

China's Performance

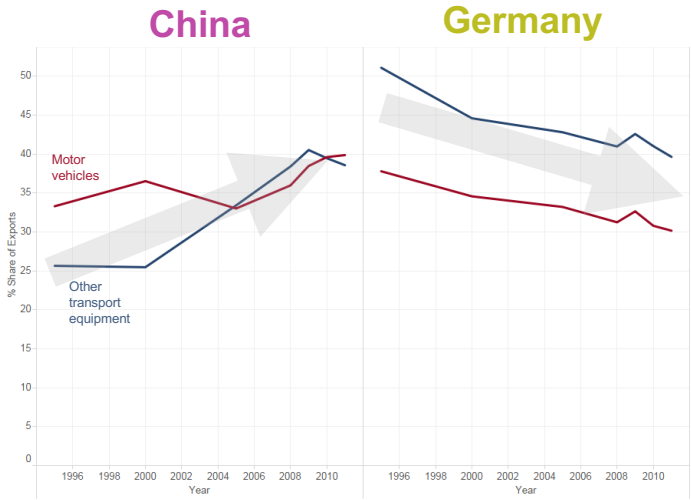
The Good: Growing Competitiveness and Value Add

China's fitness in the transport equipment sector increased over the last decade



Data: CEPII Baci

China grew value add in motor vehicles

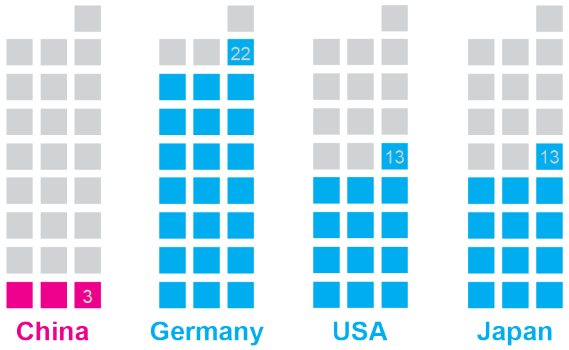


Data: OECD TiVA

The Gap: Complex goods

Germany, Japan, and the USA are more competitive than China in the export of complex automotive products

Country competitiveness in the 25 most complex goods of the ICE vehicle industry

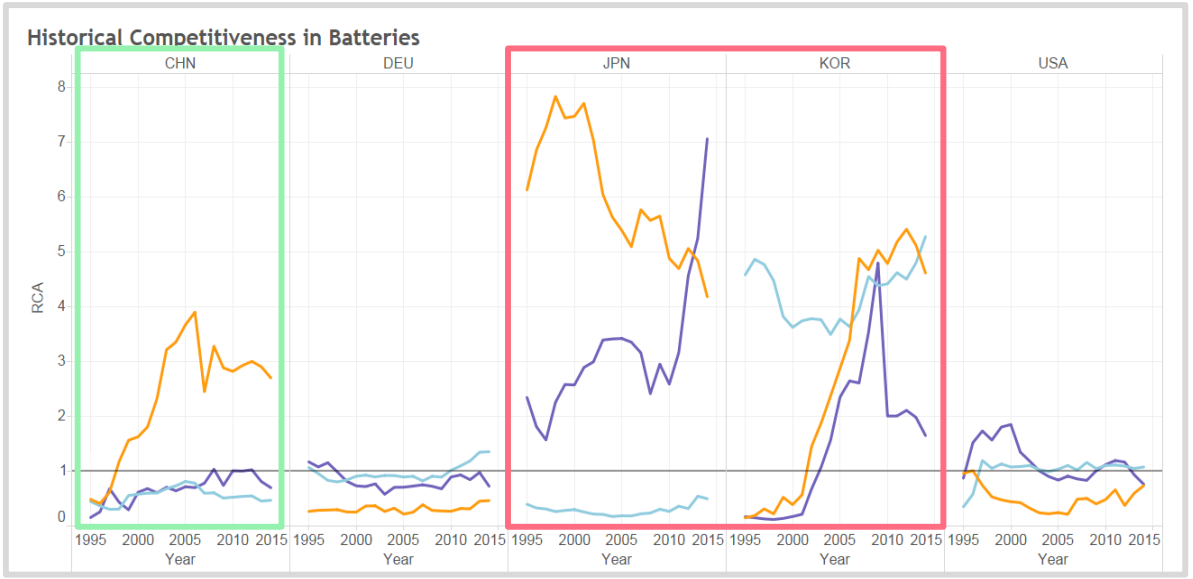


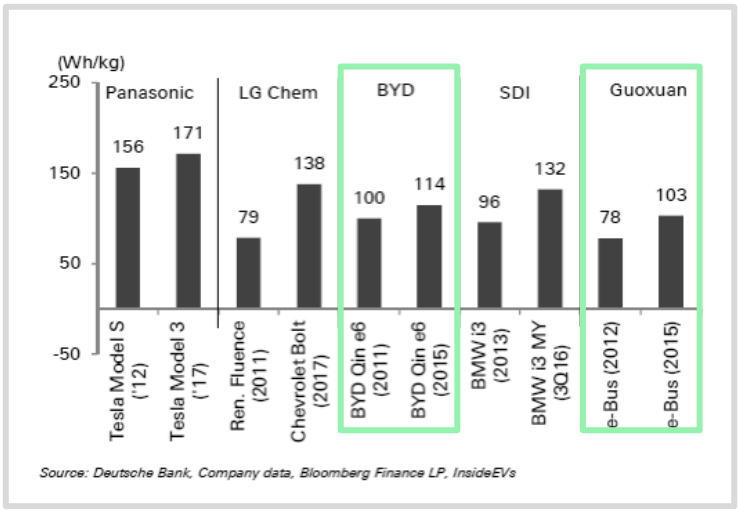
Data: CEPII Baci

Source: CEPII, IFC

IFC

EV Batteries: Despite high export volumes, China lags behind Japan and South Korea in competitiveness





… and in battery density

Data: CEPII Baci

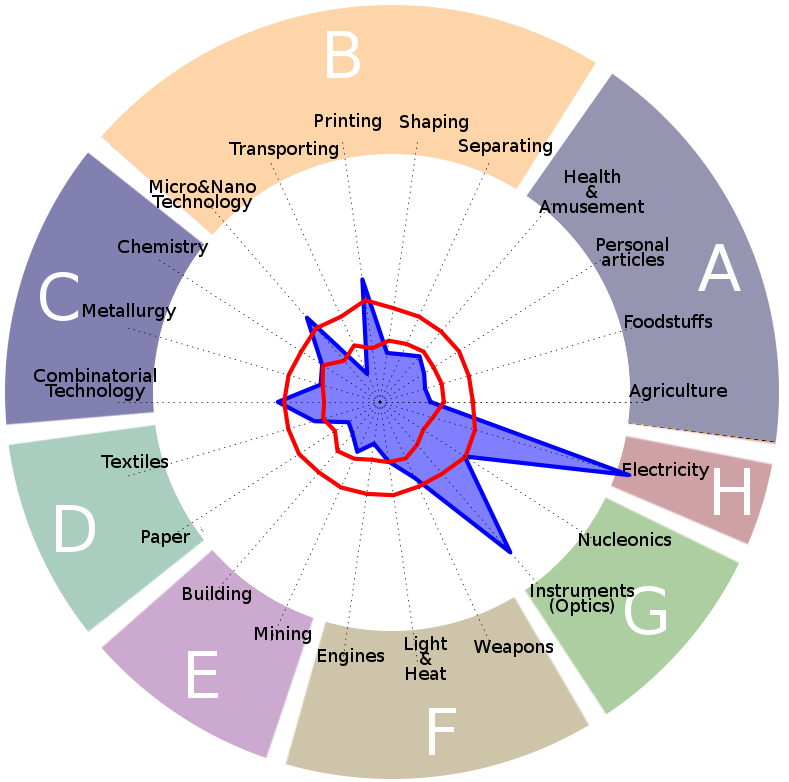
Which technologies can help China develop strength in EV batteries?

China's overall number of patents issued increases, but such aggregate numbers do not say much about China's chances of achieving the R&D or innovation capabilities to become competitive.

Enter Technology Fingerprint

Which technologies are most associated with competitive exports of EV batteries?

In this case, patented technologies in electricity area (H), optical instruments are key. Also present are micro & nanotechnology, printing, and combinatorial technology. Energy density related technologies identified as key through fingerprinting.



Not a Traditional Industry Analysis

Traditional industry analysis answers these kinds of questions:

- Sector Overview: Who are they key players? What is the current global demand and supply structure?
- Are there market trends and technologies likely to disrupt the sector?
- Who is currently investing and what are barriers to further investment?
- What are potential positive development outcomes?

Economic Fitness toolkit helps answer these complementrary questions:

- How developed are an economy's capabilities in a given industry relative to comparator countries?
- Which goods and services in the industry take advantage of a country's current endowment structure?
- How have changes in technology and global players influenced the industry? Has this created gaps or opportunities for individual countries?
- Given the anticipated industry trends, are different countries positioned to benefit or fall behind?

Thank you…

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