

**Workshop on Bilateral Cooperation between China and the United States:  
Facilitating Progress on Climate-Change Policy  
25-26 June 2015 – Beijing**

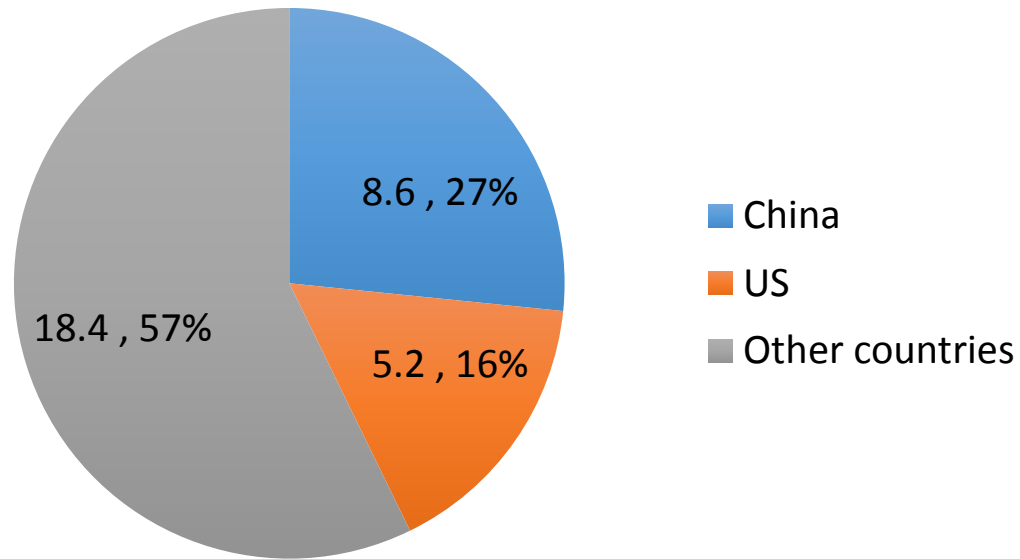
# **Trade-and-Climate Change Interactions: Opportunities for China-US Cooperation**

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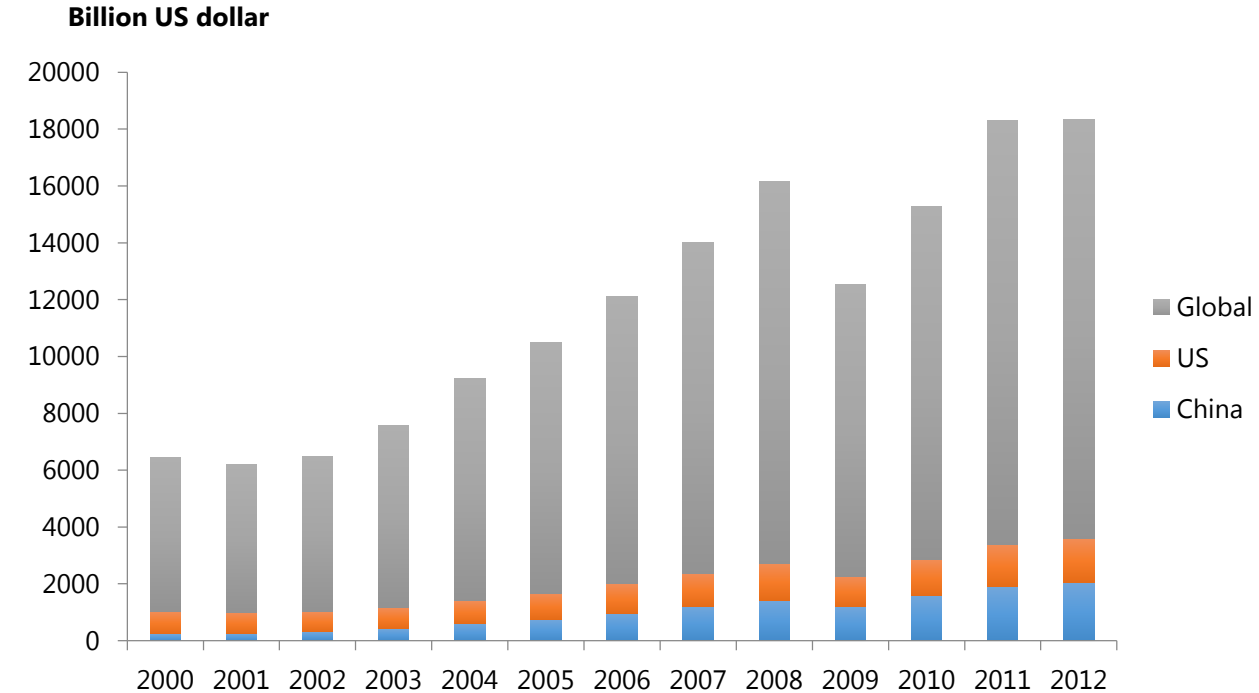
National Center for Climate Change Strategy and International Cooperation, China

# Status of CO<sub>2</sub> emission and trade for China and US (Top 2 emitter and exporter)

CO<sub>2</sub> emission from fossil fuel combustion in  
2014 (Gt CO<sub>2</sub>)



Source: IEA



US export accounted for 8% of global merchandise trade, while China accounted for 11% in 2012

Note: China refers to mainland China, Hongkong, Taiwan and Macao were not included

Source: WTO, US dollar at current prices, figures are affected by the EU Intrastat system of recording trade.

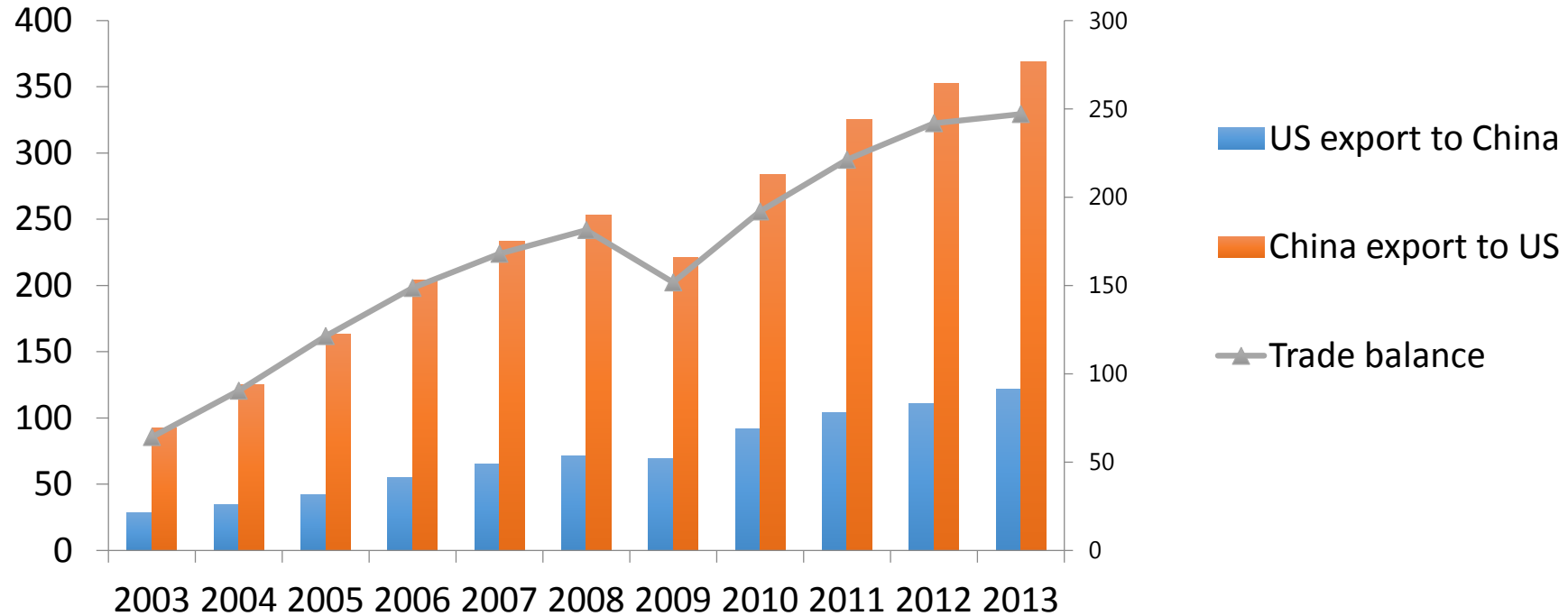
# China, US trade and bilateral trade

	2004	2007
China export (Billion dollars)	649	1167
China import (Billion dollars)	564	936
US export (Billion dollars)	1055	1363
US import (Billion dollars)	1586	2111
China export to US (Billion dollars)	169	281
US export to China (Billion dollars)	49	79
China-US / China export	26%	24%
US-China/ China import	9%	8%
US-China/ US export	5%	6%
China-US / US import	11%	13%

Source: GTAP8 database

# China US bilateral trade trends

Billion dollar

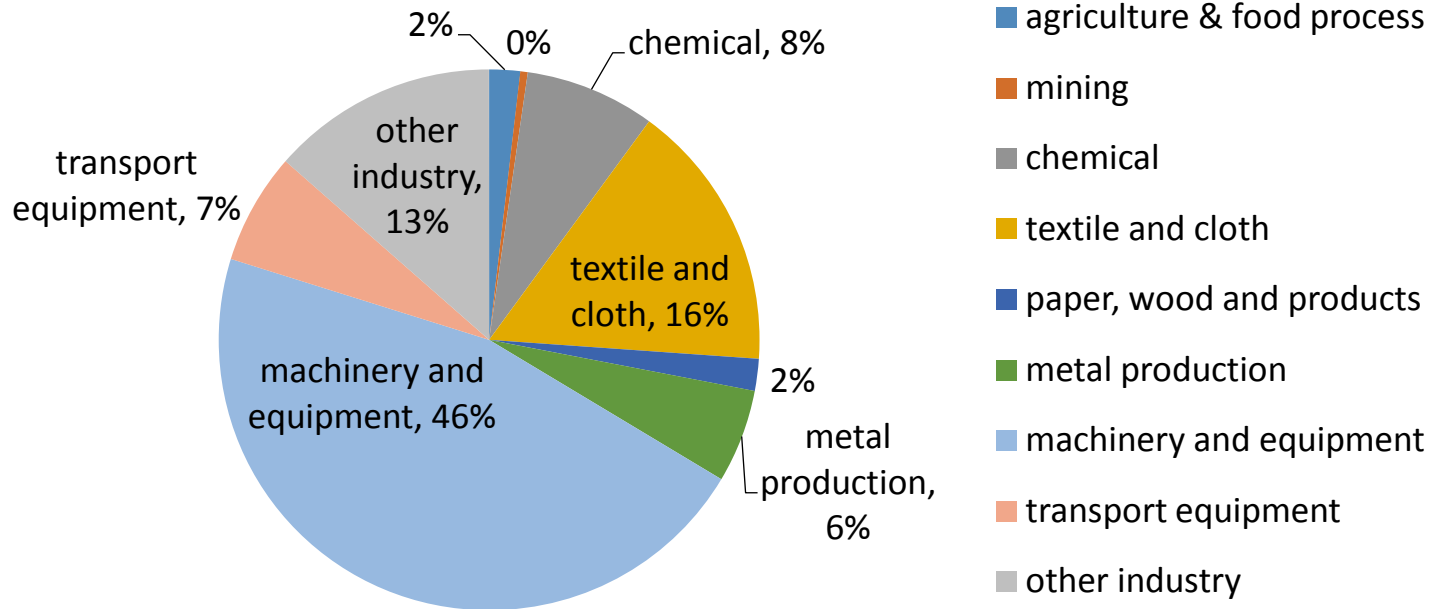


Source: WTO

China's trade surplus with US grew from 64 billion dollars in 2003 to 247 billion dollars in 2013

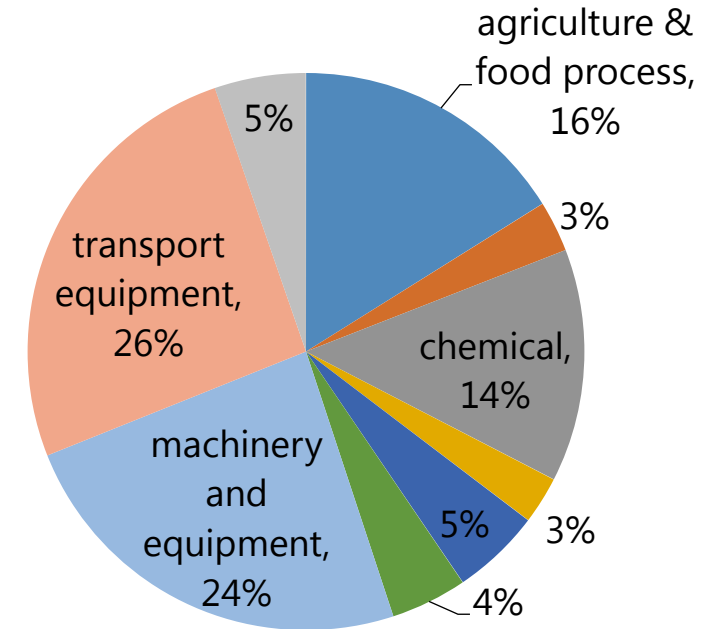
# China-US trade distribution

## 2014 China-US trade industrial distribution



Source: UN comtrade

## 2014 US-China trade industrial distribution



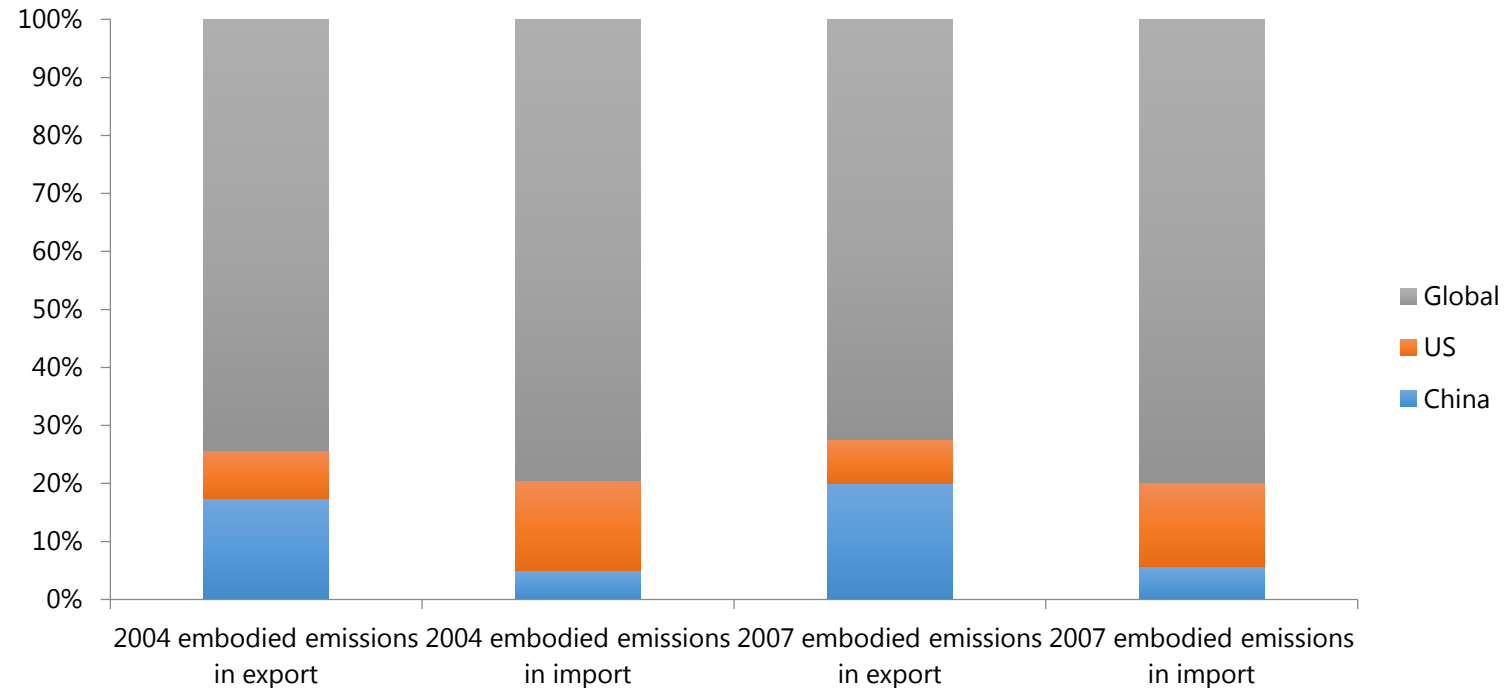
- More than half of exports from China to US are machinery and equipment, transport equipment, other major exporting industries include textile and cloth, chemical
- Most of exports from US to China are from transport equipment, machinery and equipment, agriculture and chemical

# Interactions between climate change mitigation and trade

- **Trade is a main driver of global GHG emissions**
  - “almost one-quarter of carbon dioxide released to the atmosphere is emitted in the production of internationally traded goods and services” (Peters et al., 2011).
  - Transportation associated with trade
- **Climate change mitigation policies and trade policies would affect each other**
  - Climate change policies may affect the relative prices of goods and services, which thereby affect trade flows and the total volume of traded goods
  - Trade measures like export ban, anti-dumping, green protectionism, BAMs, as well as trade barriers and obligations regarding intellectual property rights of “green technology” may affect the development and diffusion of climate-friendly technologies, etc.
- **Coordinated climate change and trade policies are key solutions to global GHG mitigation in the context of globalization**

# Global, China and US trade embodied carbon emissions

- Global trade embodied emissions was 4887 Mt, 5551 Mt in 2004 and 2007
- The share of embodied emissions in export of China in global trade embodied emissions rose from 23% in 2004 to 28% in 2007. emissions embodied in China import accounted for 7% of global trade embodied emissions in 2007.
- The share of embodied emissions in export of US in global trade embodied emissions was around 11%, while US embodied emissions in import accounted for about 18% in global emissions embodied in trade.



Source: calculated based on GTAP8 database

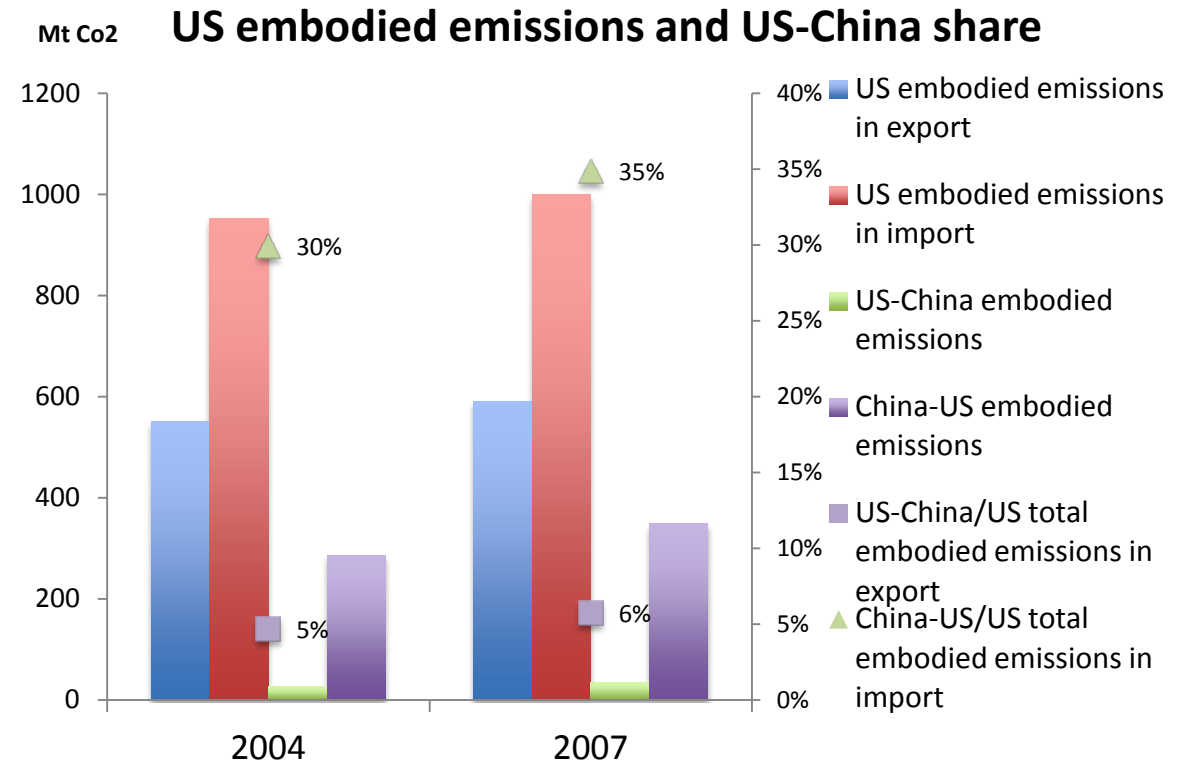
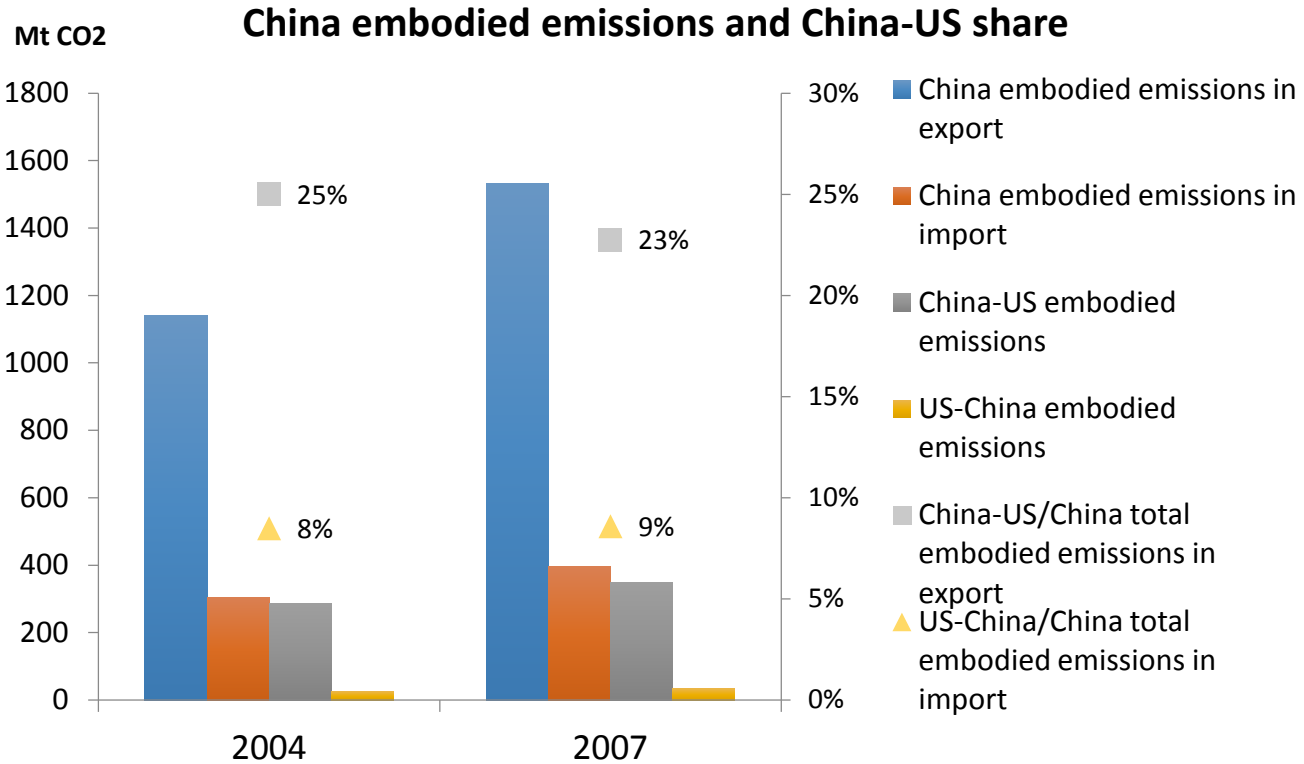
# China & US embodied emissions and bilateral trade embodied emissions

	2004	2007
China embodied carbon emissions in export (Mt)	1140	1531
China embodied carbon emissions in import (Mt)	304	395
US embodied carbon emissions in export (Mt)	551	590
US embodied carbon emissions in import (Mt)	952	999
China-US embodied emissions (Mt)	285	349
US-China embodied emissions (Mt)	26	34
China-US / China total embodied emissions in export	25%	23%
US-China/ China total embodied emissions in import	8%	9%
US-China/ US total embodied emissions in export	5%	6%
China-US / US total embodied emissions in import	30%	35%

Source: calculated based on GTAP8 database



# China & US embodied emissions and bilateral trade embodied emissions



Source: calculated based on GTAP8 database

# Provisions in UNFCCC and WTO related to Climate and trade issue

## **Article 3.5 of the UNFCCC**

- “Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.”

## **Under WTO**

- the General Agreement on Tariffs and Trade (GATT),
- the General Agreement on Trade in Services (GATS),
- the Agreement on Trade Related Intellectual Property Rights (TRIPs),
- the Agreement on Technical Barriers to Trade (TBT),
- the Agreement on Trade Related Investment Measures (TRIMs)
- the Dispute Settlement Understanding (DSU)
- agreements on subsidies, government procurement, and agriculture

# China-US trade disputes in Renewables

- In 2010, The United States Trade Representative (USTR) launched investigations under section 301 of the Trade Act of 1974 against Chinese policies and practices affecting trade and investment in the clean energy technology sector, including subsidies.
- On October 19, 2011 the Coalition for American Solar Manufacturing, led by SolarWorld Industries America, Inc., filed an antidumping (AD) and countervailing duty (CVD) petition requesting that the U.S. government impose special tariffs on imports of crystalline silicon photovoltaic cells (CSPV) from China.
- In late 2012, the U.S. imposed punitive tariffs on billions of dollars of solar products from China.
- On January 23, 2013, the U.S. trade officials opened new investigations into imports of certain solar power products from China and Taiwan.
- On February 15, 2014, The United States International Trade Commission determines that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from China and Taiwan of certain crystalline silicon photovoltaic products.

# Opportunities for China-US Cooperation

## Multilateral

- Cooperate in WTO, UNFCCC, ICAO, IMO for climate change-trade issue
- Role of market and government: WTO reform, etc.

## Plurilateral / regional

- Include climate change issue in Plurilateral / regional Trade and Economic Relations negotiation
- Accounting standards, guidance and mechanism
- Low carbon labeling and standards

## Bilateral

- Settle dispute before going to WTO
- Agree on relaxation of the export ban to encourage export to China (e.g. strategic trade authorization license exception)
- Tariff and IPR
- Research and pilot in low carbon labeling and standards

# Thank You!

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