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# Environmental goods trade between China and EU: Development and influencing factors

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- Rapid development of environmental goods trade between China and the EU

Current situation, problems and future opportunities

- Lack of a clear definition on environmental goods

OECD vs EU Statistics Bureau vs APEC



- Definition of environmental goods
  1. OECD (1999) : THE ENVIRONMENTAL GOODS & SERVICES INDUSTRY, 1999, pp. 9-13
  2. APEC (2012): [http://www.apec.org/Meeting-Papers/Leaders-Declarations/2012/2012\\_aelm/2012\\_aelm\\_annexC.aspx](http://www.apec.org/Meeting-Papers/Leaders-Declarations/2012/2012_aelm/2012_aelm_annexC.aspx)
  3. OECD and the EU Statistics Bureau also jointly proposed a general framework for classification of environmental products
- Liberalization and trade policy of environmental goods trade  
Chen Yan(2008), Zhong Juan (2010), Wan Yiting (2011)



# Contribution

- This paper provides a clear definition and consistent data on environmental goods proposed by OECD(1999) and database from UN COMTRADE (HS96) to have a robust basis for analysis.
- Further explores environmental goods trade between China and the EU from current situation, structure, problem and future opportunity.



- Based on definition of OECD(1999), environmental goods refers to primary industrial products and processed industrial products that are used to provide environmental services, including “Pollution Management Group”, “Clean Technologies and Products Group” and “Resource Management Group”. (OECD, THE ENVIRONMENTAL GOODS & SERVICES INDUSTRY, 1999, pp. 9-13)

# Statistical framework of environmental goods and service

|                                      | Second Class  | Third Class   |
|--------------------------------------|---|---|
| <b>A. Pollution Management group</b> |   | Air pollution control   |
|                                      |   | Wastewater management   |
|                                      |   | Solid waste management  |
|                                      | Production of equipment and specific materials                  | Remediation and clean-up of soil, surface water and groundwater |
|                                      |   | Noise and vibration abatement                                   |
|                                      |   | Environmental monitoring, analysis and assessment               |
|                                      |   | Other   |
|                                      |   | Air pollution control   |
|                                      |   | Wastewater management   |
|                                      |   | Solid waste management  |
|                                      |   | Remediation and clean-up of soil, surface water and groundwater |
|                                      | Provision of services   | Noise and vibration abatement                                   |
|                                      |   | Environmental R&D   |
|                                      |   | Environmental contracting and engineering                       |
|                                      |   | Analytical services, data collection, analysis and assessment   |
|                                      |   | Education, training, information                                |
|                                      |   | Other   |
|                                      |   | Air pollution control   |
|                                      |   | Wastewater management   |
|                                      |   | Solid waste management  |
| Construction and installation        | Remediation and clean-up of soil, surface water and groundwater |   |
|                                      | Noise and vibration abatement                                   |   |
|                                      | Environmental monitoring, analysis and assessment               |   |
|                                      | Other   |   |

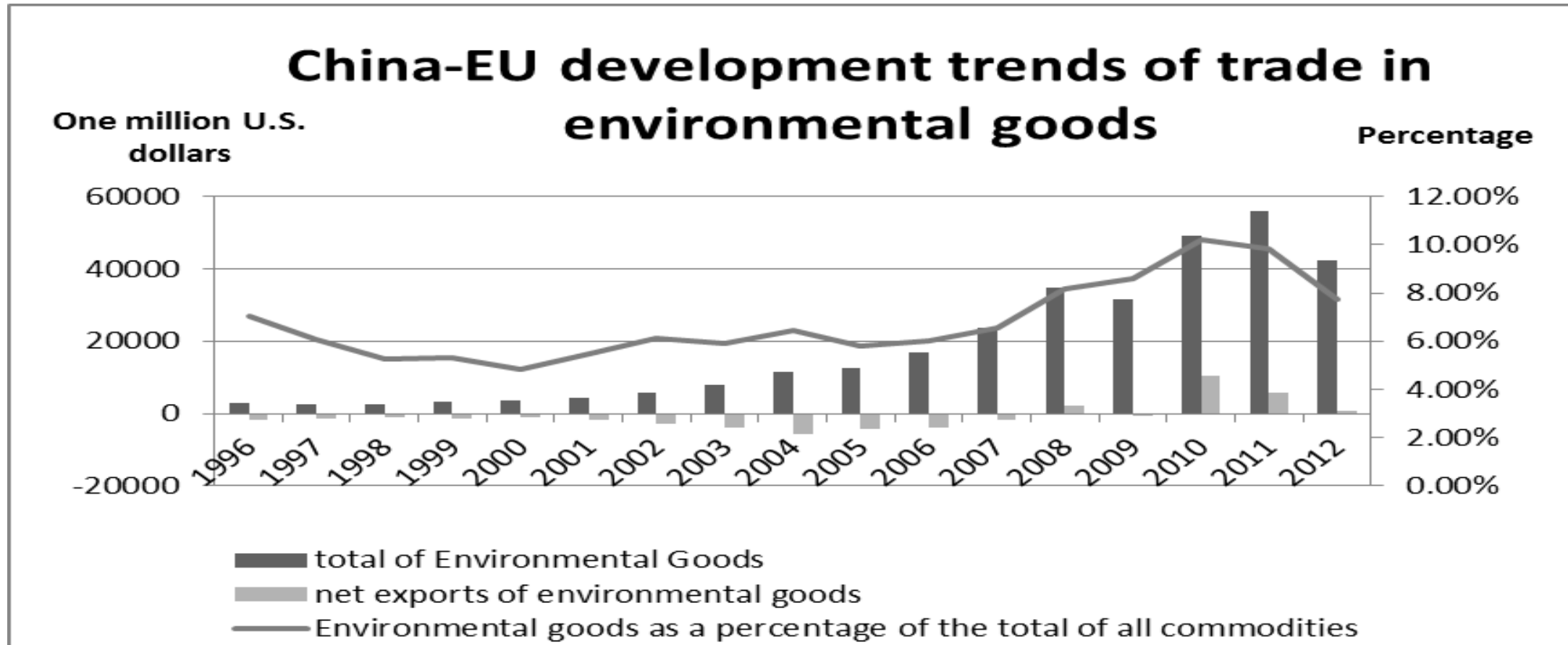
|   |  |   |
|---|--|---|
| <b>B. Clean Technologies and Products group</b> | Production of equipment, technology, specific materials or services  | Clean/resource-efficient technologies and processes |
|   |  | Clean/resource-efficient products                   |
| <b>C. Resource Management group</b>             | Production of equipment, technology and specific materials, provision of services, and construction and installation | Indoor air pollution control                        |
|   |  | Water supply  |
|   |  | Recycled materials                                  |
|   |  | Renewable energy plant                              |
|   |  | Heat/energy saving and management                   |
|   |  | Sustainable agriculture and fisheries               |
|   |  | Natural risk management                             |
|   |  | Eco-tourism   |
| Other   |  |   |

Source: OECD, THE ENVIRONMENTAL GOODS & SERVICES INDUSTRY, 1999, pp. 9-13.



# Overall Trends

- total trade value between China and 28 countries of EU has increased from \$2.759 billion in 1996 to a maximum of \$55.878 billion in 2011.



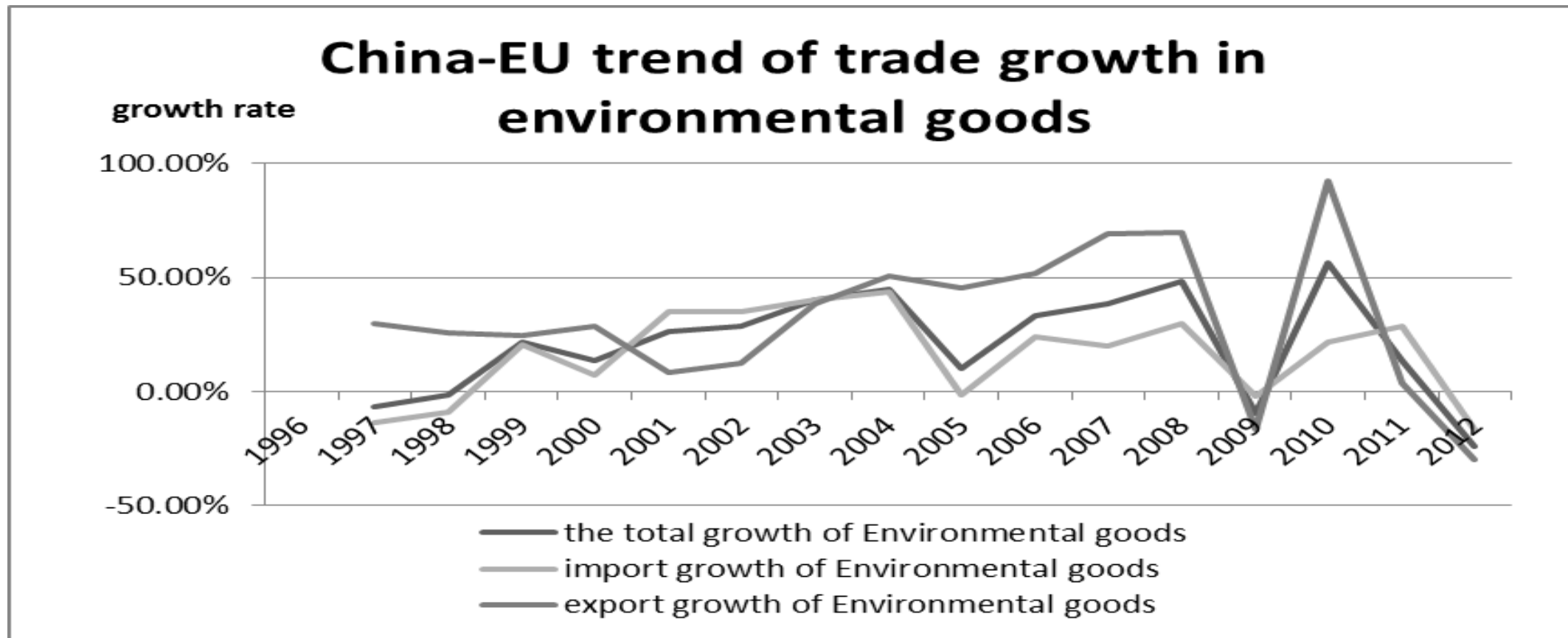
Source: Authors' calculations from UN COMTRADE database





## Overall Trends

- The average annual growth rate of trade value in environmental goods between China and EU was 21% during the period.

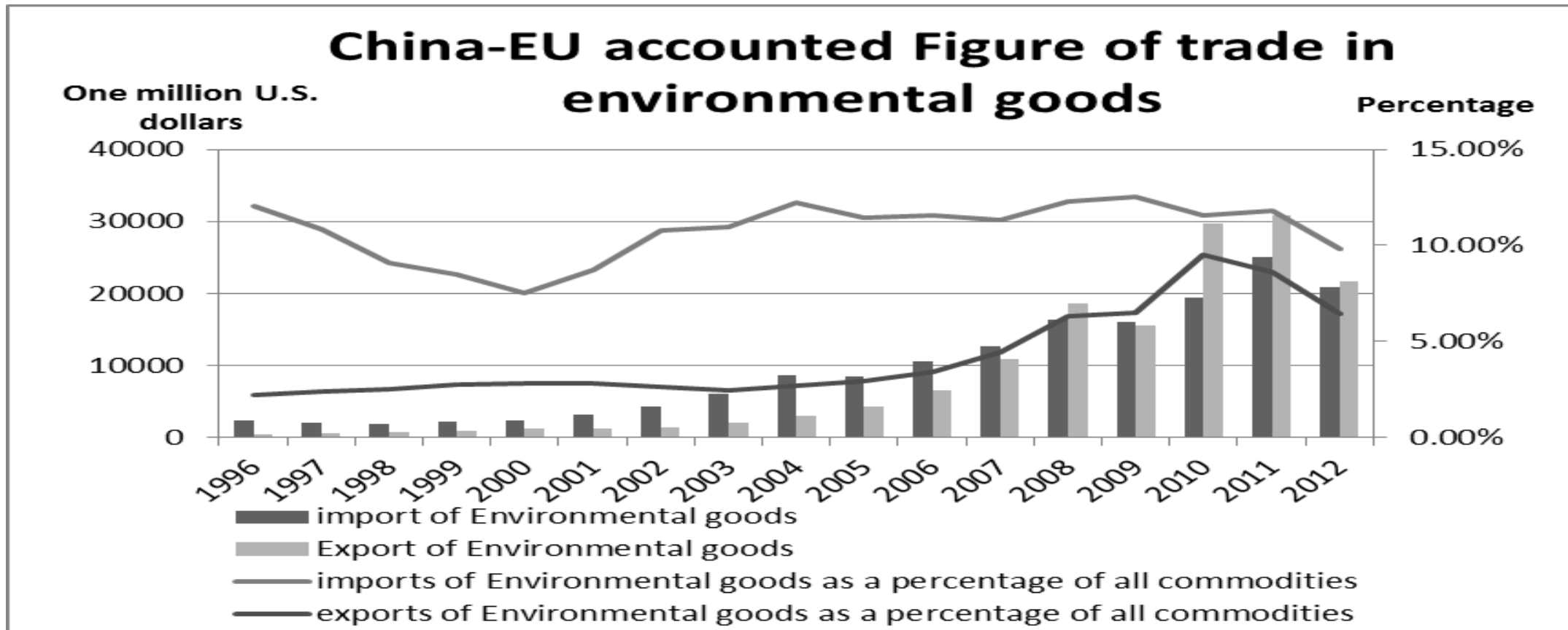


Source: Authors' calculations from UN COMTRADE database



# Overall Trends

- Import and export trade in environmental goods has exhibited different trends: The proportion of environmental goods in China's total exports has increased markedly since 2002 and growth rate has been greater than that of import trade.

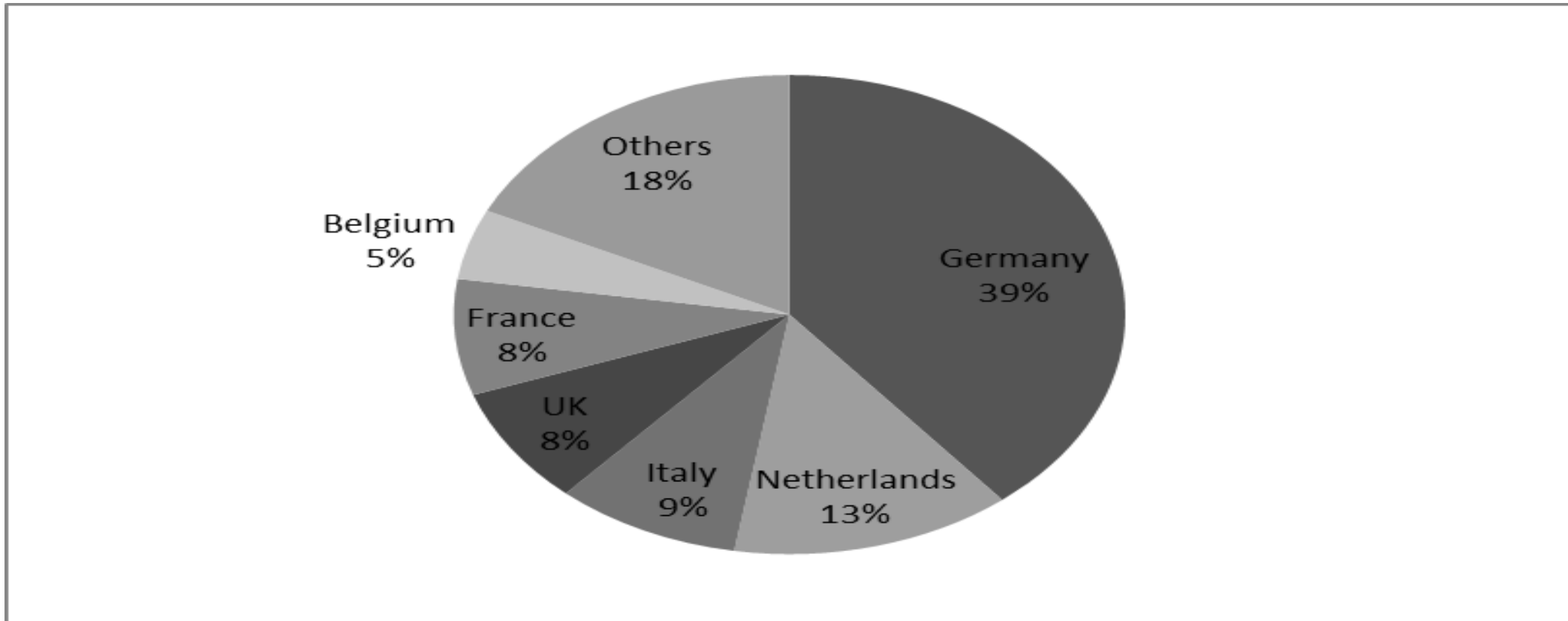


Source: Authors' calculations from UN COMTRADE database



## Trade Structure by Partner

- Concentration of China's trade in environmental goods in EU countries is quite high: Germany (39%), the Netherlands (13%), Italy (9%), UK (8%), France (8%), and Belgium (5%).



Source: Authors' calculations from UN COMTRADE database



- **Imbalances in trade in environmental goods between China and EU**
  1. The total trade volume between China and EU reached \$547.7 billion dollars in 2012, while the trade volume of environmental goods accounts for only 7%.
  2. Environmental goods export from China to the EU still accounts for a lower proportion of the total exports than trade in the other direction.
  3. China had a deficit in environmental goods trade from 1997 to 2007. Currently the situation is fairly balanced, but it is unclear what direction trends will now take.



- **Low competitiveness of China's environmental goods**
  1. Environmental industry in China is still in the process of developing; thus, its technology and competitiveness in global market is relatively low (You and Wen, 2014).
  2. Enterprises providing environmental services are often closely linked to the government and lack modern management systems.
  3. Economic benefit is still low due to the small size of the enterprises.



- **Trade frictions and barriers between China and EU**
  1. Some of EU policies are considered to amount to 'green trade barriers' for the export of China's environmental goods (Luo Wei, 2012).
  2. In the list of environmental goods from OECD, the applied tariff rate in developed countries is much lower than that in developing countries.



# Future Development

- Environmental goods trade between China and EU has many benefits: it is conducive to the development of the environmental industry and enhancement of environmental technologies for both areas, also promotes China's domestic economic development and improve quality of life.
- However, liberalization and future development of the trade in environmental goods still requires mutual efforts.



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*Thank you ^\_^*