

"China-Australia Carbon Market Development Expert Symposium".

Design features of Hubei ETS pilot in China's context

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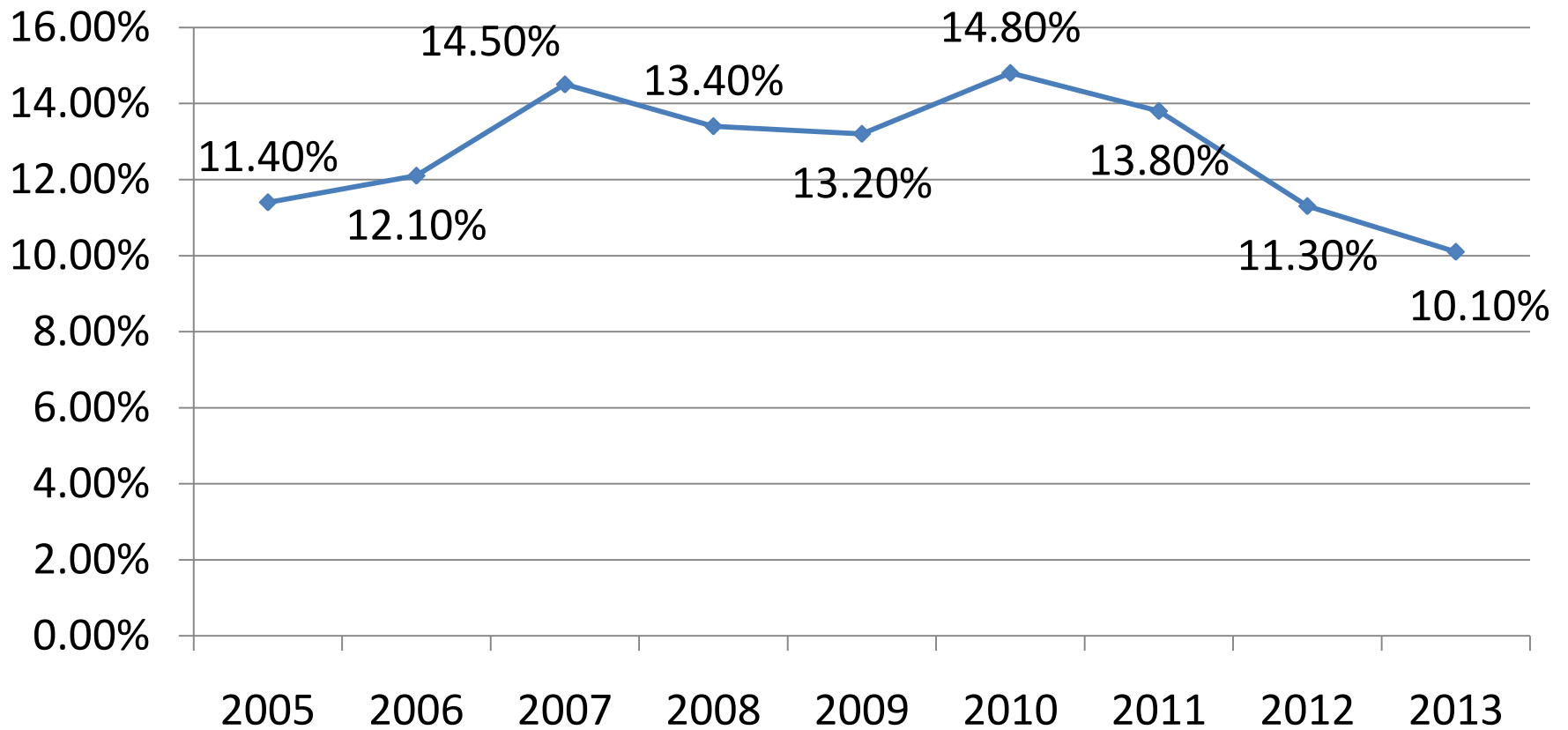
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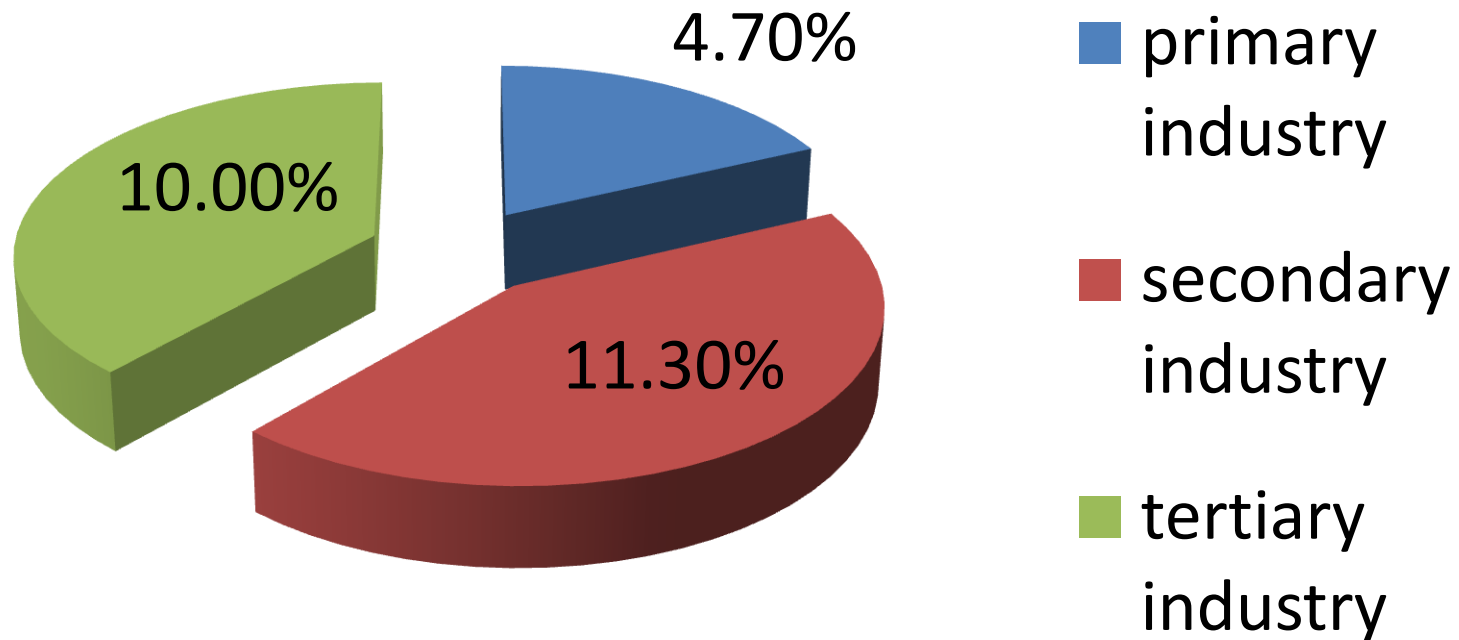
Background of Hubei ETS

- ◆ The sole ETS pilot from Central China
- ◆ High GDP Growth rate(10.1% in 2013)
- ◆ High investment growth rate(81.79% of GDP in 2013)
- ◆ Heavy & Chemical industry structure
- ◆ Large difference among regions
- ◆ Hubei in China like the epitome of China in the world
- ◆ Hubei ETS succeeds, China ETS succeeds

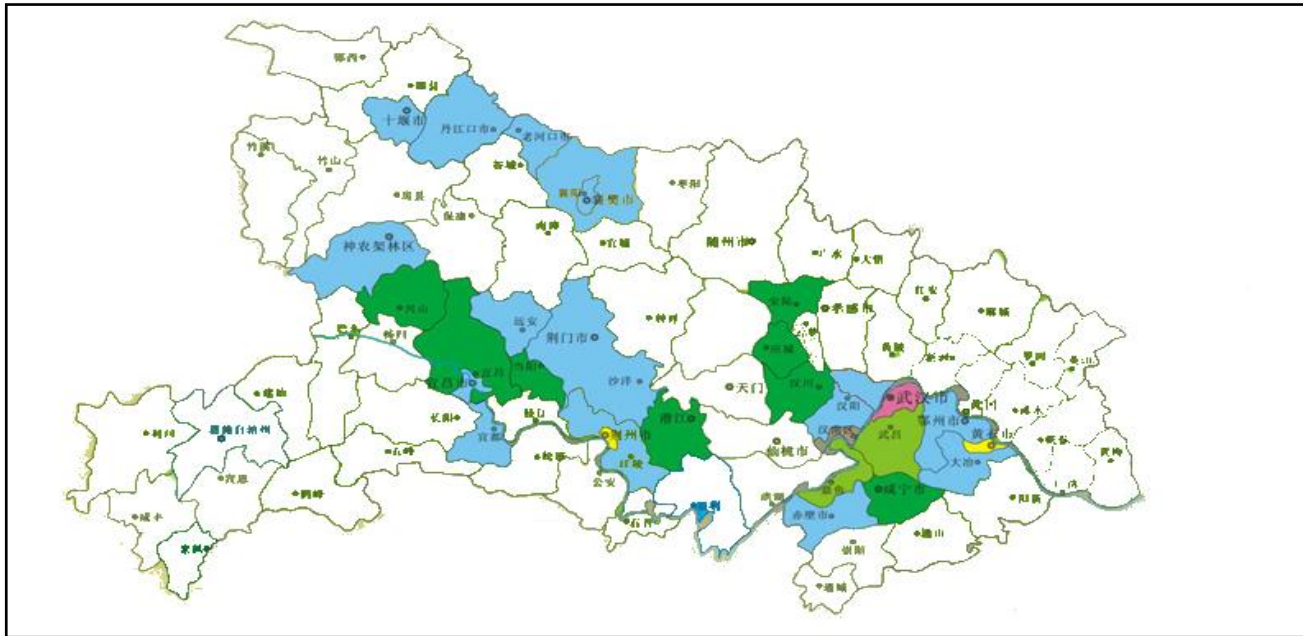
GDP growth rate of Hubei in 2013



Industry growth rate of Hubei in 2013

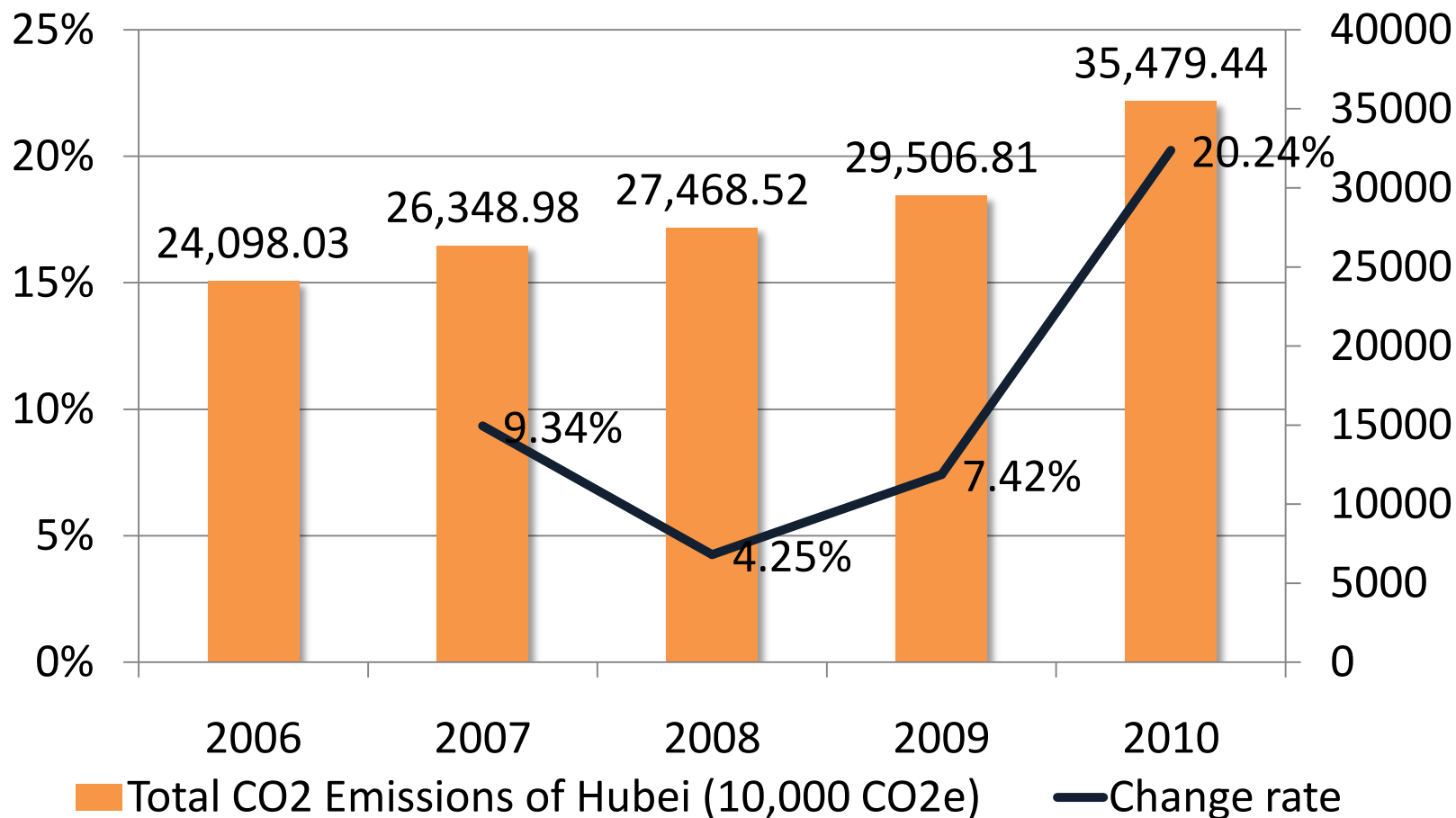


Industry distribution and difference among regions in Hubei



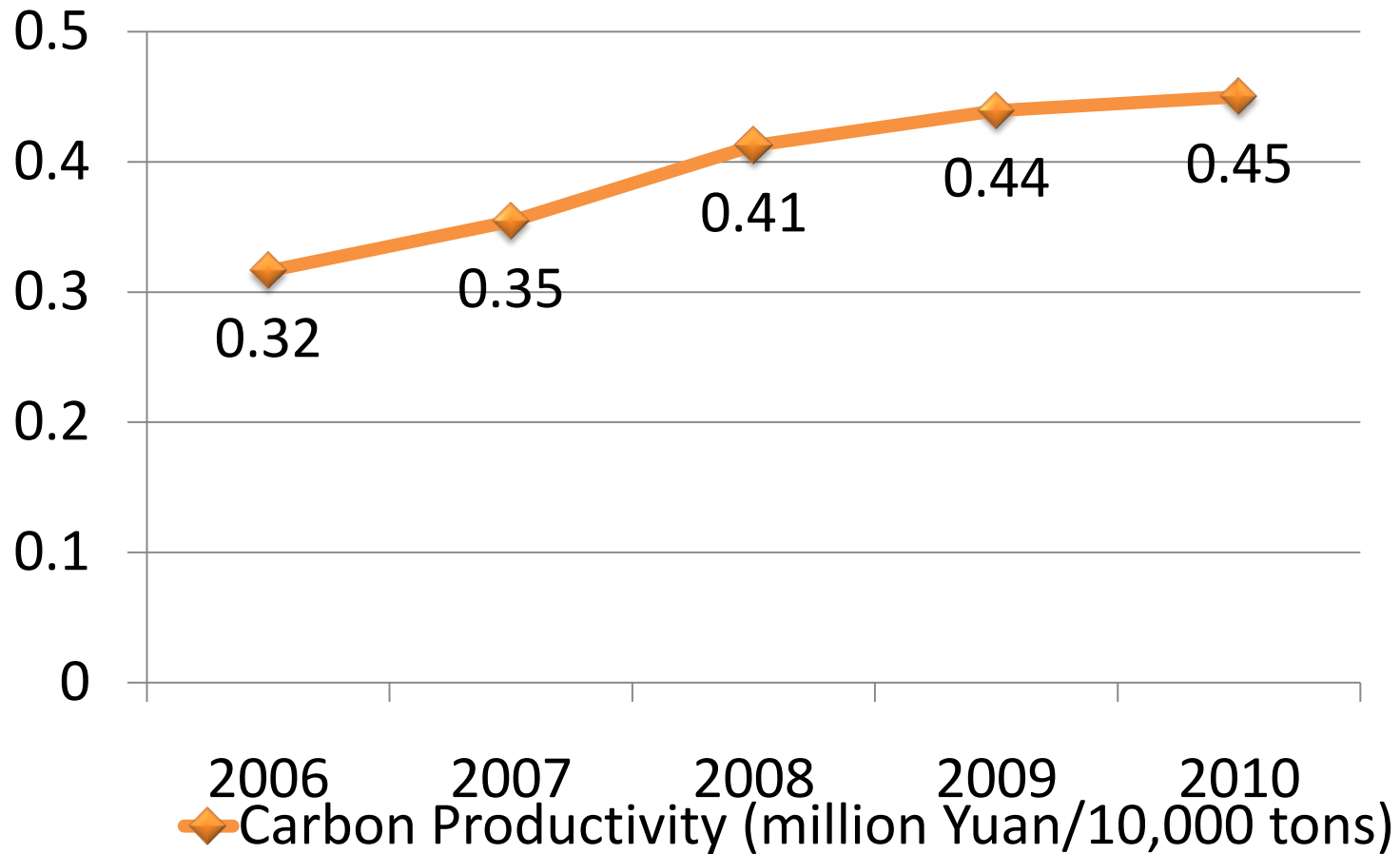
- Yellow area: : secondary industry is more than 70%
- Blue area: secondary industry is more than 60%
- Deep green area: secondary industry is more than 50%
- Aqua area: secondary industry is more than 40%
- Pink area: tertiary industry is larger than secondary industry but the secondary industry is still more than 40%,

CO₂ Emissions and Change Rate in Hubei (2006 – 2010)



Carbon Productivity Change Rate (2006 – 2010)

Unit: 100 million RMB/10000 tons



**What's the design features of
Hubei ETS?**

**What's the significance of
Hubei ETS for China's ETS?**

Feature 1:

Try to balance the growth space and the emission reduction in CAP

- ◆ Middle growth rate +low carbon scenario
(11% in 12th FYP and 10% in 13th FYP)
- ◆ 2014-2015 whole province emission:
 - ◆ 7.31 and 7.93 (100 million ton CO₂)
 - ◆ 3.24 and 3.54 (100 million ton CO₂) covered by ETS
 - ◆ 44.32% and 44.64%

Feature 2: Rigid CAP and Flexible structure

◆ Rigid CAP

- ◆ Incumbents emission is fixed on the 97% of 2010

◆ Flexible structure

- ◆ Existing firm (**fixed**)
- ◆ New entrants(**Flexible**)
- ◆ Government reserve (**Flexible**)

Feature 3:

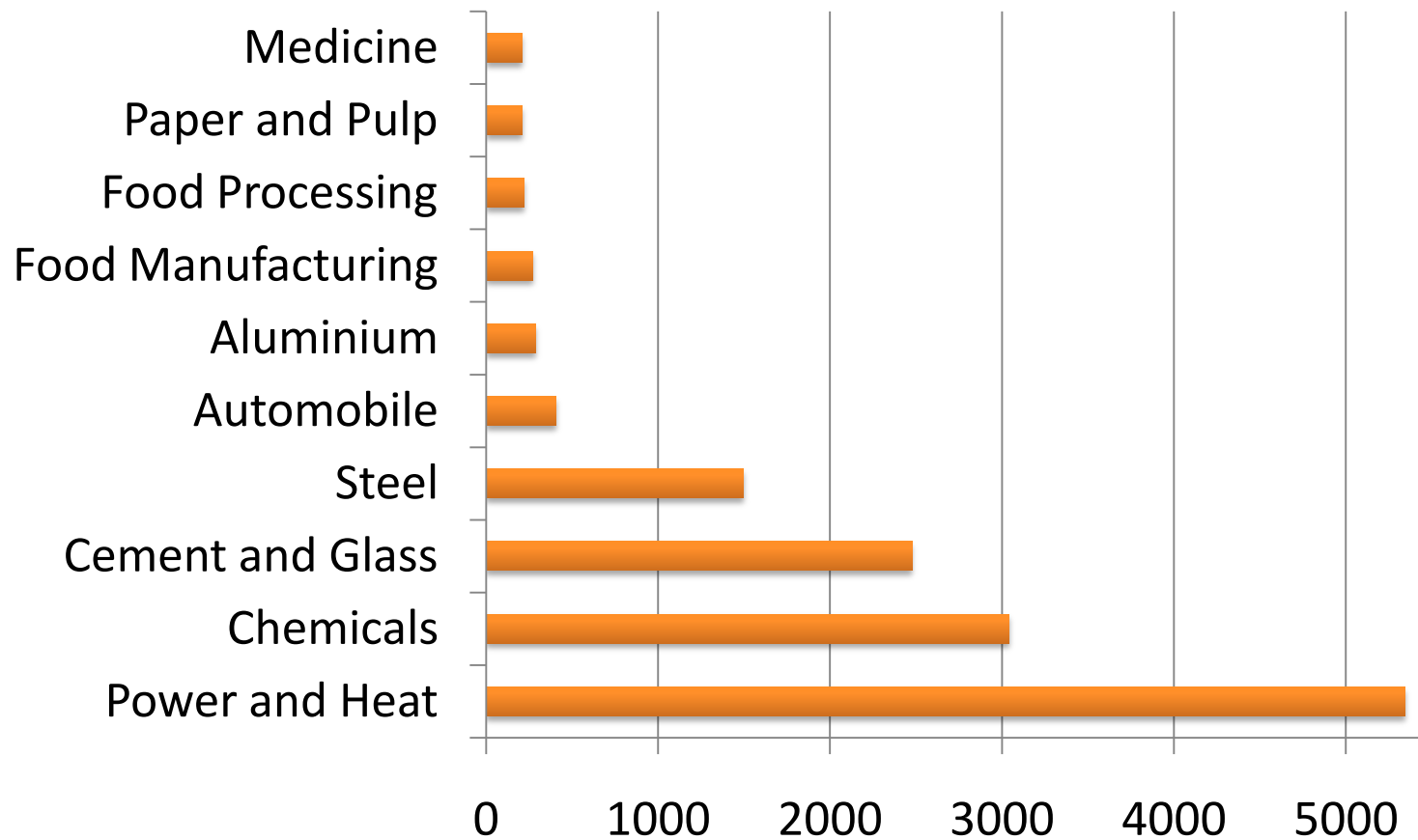
Focus on the major enterprises

- ◆ **60,000** ton of standard coal equivalent based on any year of 2009-2011
- ◆ 138 enterprises covered by Hubei ETS
- ◆ The third largest ETS in the world

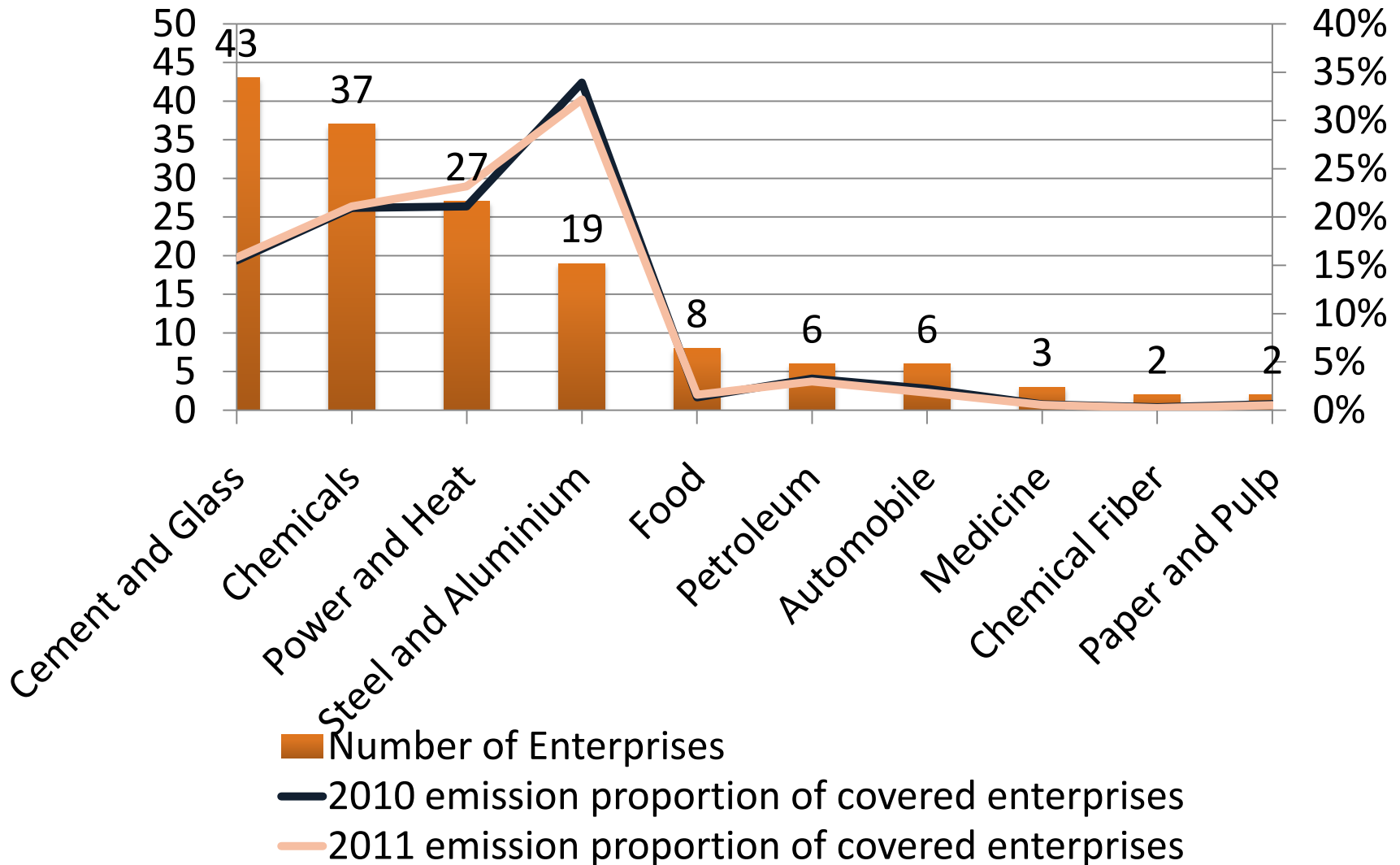
Feature 4: Diversification of Covered sectors and differentiation of MAC

- ◆ Different industry sectors
- ◆ Different regions
- ◆ Different MAC

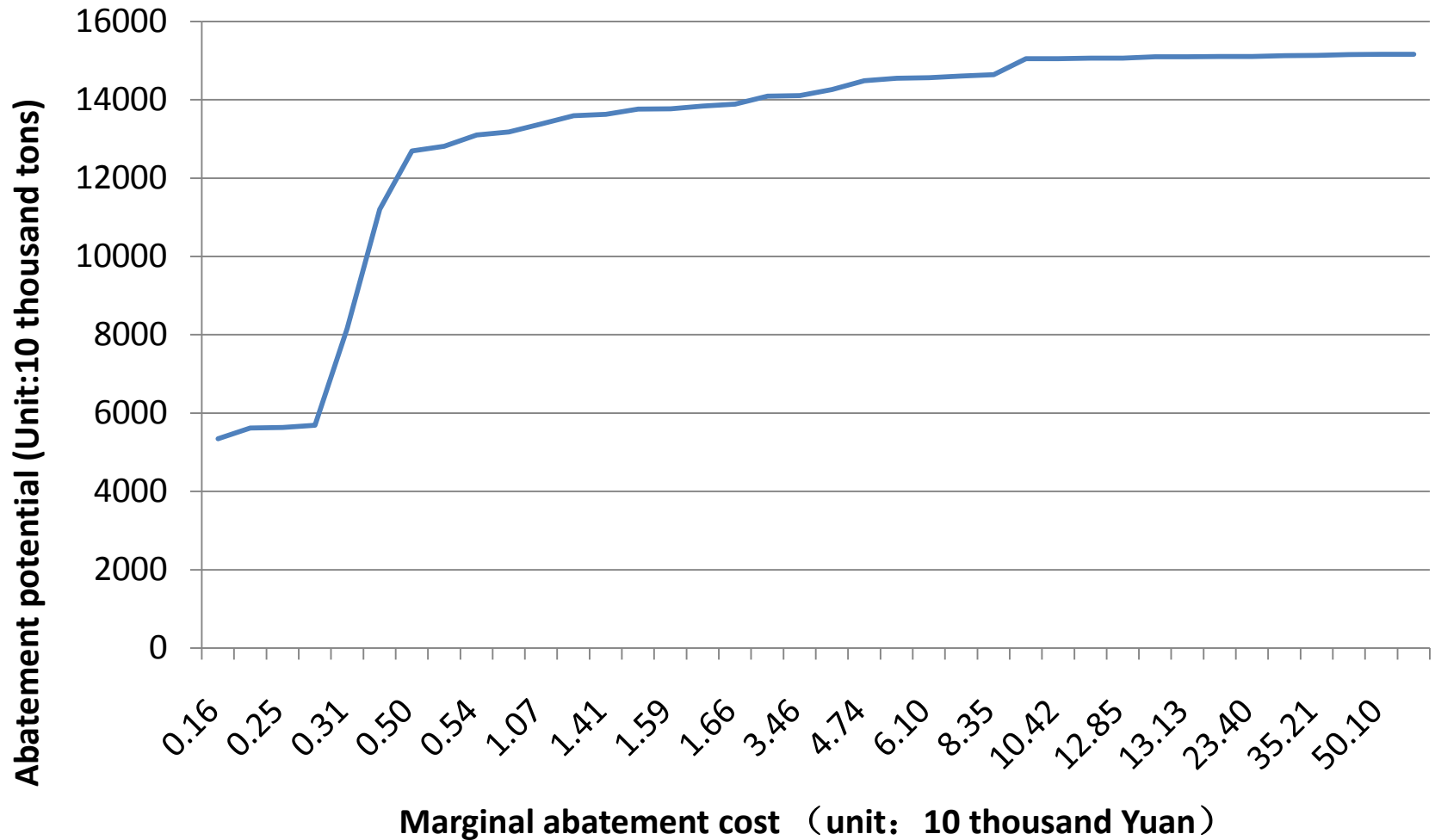
Top Ten CO₂ Emission Industries in 2011 in Hubei (Units: 10,000 tons)



Covered Industries and Its Emission Proportion



Marginal abatement cost and potential



Feature 5: strict offset mechanism

- ◆ 10% CCER to offset
 - ◆ Come from Hubei
 - ◆ Outside the emission boundary
- ◆ CCER to trade
 - ◆ Come from whole China

Feature 6: Initial Carbon Verification

- ◆ Covered enterprises verification one by one
- ◆ Confirm emission boundary
- ◆ Confirm emission data
- ◆ Training and wash brain

Feature 7: Price mechanism

- ◆ Demand and supply decide basically
 - ◆ Institute and **individual** investors can trade
- ◆ Price discovery mechanism
 - ◆ 3% allowance auction
- ◆ Price stability mechanism
 - ◆ Open market operation by government reserve
 - ◆ Post-adjust the structure and amount of the reserve allowance

Feature 8: High cost of default

◆ Double deduction

- ◆ The allocation of allowance in next year will be double deducted based on the balance between the implementation and actual emission

◆ Half allocation

- ◆ The allocation of allowance just be half for enterprises to provide false data or impede MRV

Thank You