
--The 4th International Conference on SF₆ & the Environment

National Policies & Programs for Climate Protection in China

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1, National policy related to climate change

- → “The eleven five years plan”(2006-2010)
 - 7.5% GDP increase rate per year;
 - 20% decrease of energy intensity: highly related to Climate change;
 - 10% decrease of main pollutant;
 - Get achievement for GHG emission control;
 - → How about “twelve five years” & future?
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1, National policy for climate change

- Revise “CDM management regulations” in Oct. 2004:
 - Try to encourage the CDM project for SF6, PFCs & HFCs;
 - Finishe the “Initial national communication report on climate change” in 2004;
 - Will beginning the “second national communication report” works in 2006:
 - Will include SF6, PFCs & HFCs;
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2, National program for climate change

- China's National Climate Change Program: finished the document in 2005 & waiting for the improvement by State Council;
 - Province Climate Change Program: finished the draft reports for four province (Jilin, Hubei, Yunnan, & Shanxi), will beginning the other province research project (may be 8 plus 1-2 & 4);
 - SF6, PFCs & HFCs: all not included in those programs;
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3, National policy related to SF6

- → Power generation sector:
 - No regulation and economic policy to encourage the substitute productions develop;
 - No regulation and economic policy to encourage recycle SF6,
 - & reduce the leakage in the uses;
 - Encourage the substitute of import;
 - Encourage the CDM project develop;
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3, National policy related to SF6

- →Magnesium manufacture:
 - Key protection gas: SO₂
 - Different from other countries
 - Low cost, No climate impact
 - But with human health issue;
 - Will continue in near future: economic development situation, investment policy, & tax framework (increase tax, one of five country in the world);
 - Same situation with coal mine & coking;
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3, National policy related to SF6

- →Magnesium manufacture:
 - Into the Limited lists: “The temporary regulation of promote industry framework adjustment” & “The guide lists of industry framework adjustment” by NDRC in 2005;
 - May be reduce tax hand back rate of export in future: reduced the increase tax hand back of export about some key primary productions in 2005 (from 13% to 8%),
 - Such as Coal,Tu,Pb,Zn, etc.;
 - No regulations to limit SO2 use;
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3, National policy related to SF₆

- → Semiconductor manufacture:
 - Tax hand-back rate of export (No 18 document in 2000): reduced at 2004 by the agreement between China & US;
 - Preferential policy: income tax;
 - R&D investment;
 - Encourage export;
 - Environment regulation to reduce SF₆ emissions not so strict: for human health;
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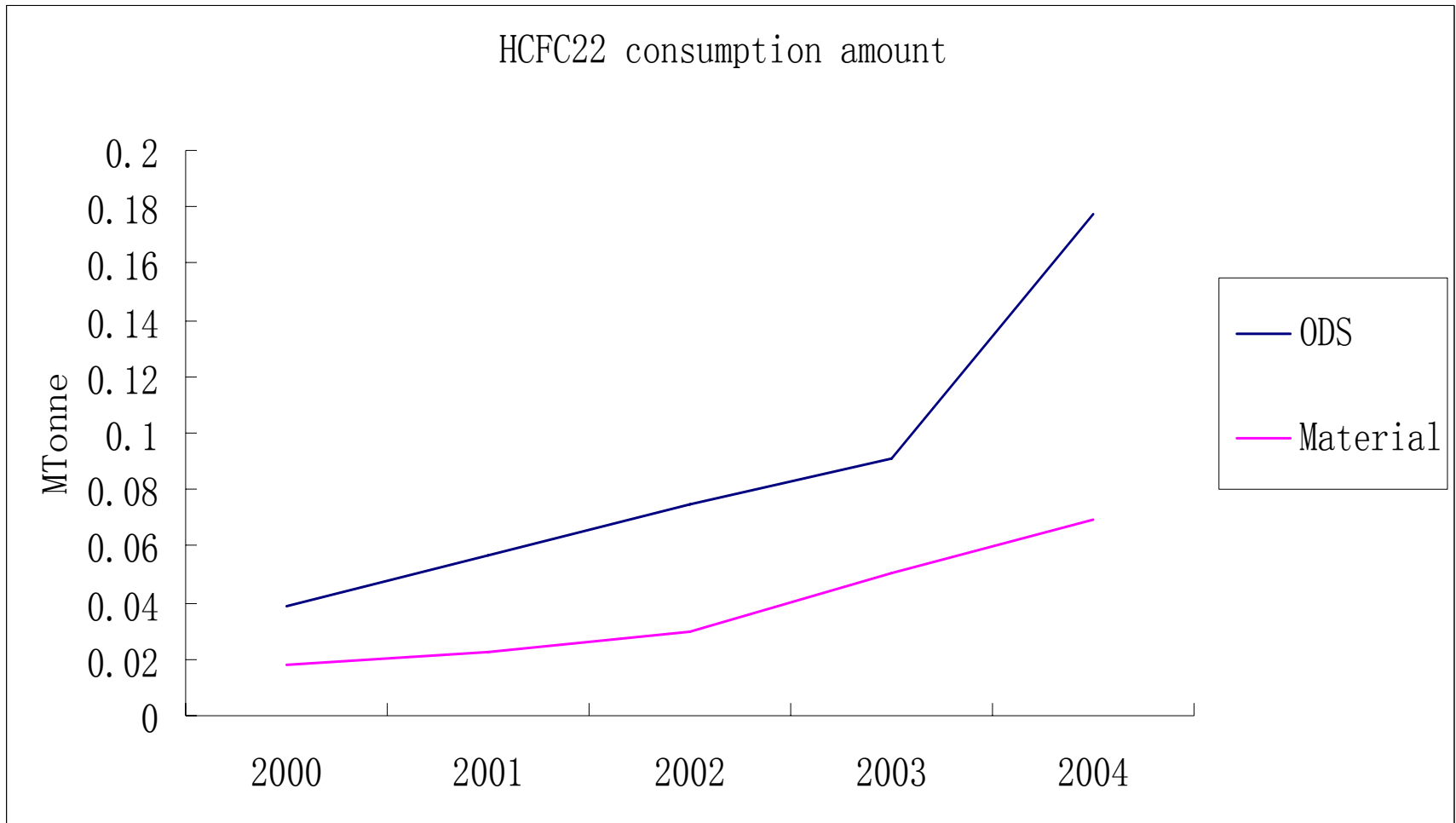
4, National policy related to PFCs

- →Production:
 - World's largest Al Producer
 - Total capacity = 10,79 MTonnes in 2005;
 - Total production amount: 7.8 MTonnes in 2005;
 - Net export amount: 0.299 MTonnes in 2005;
 - Company number: about 1400
 - > 0.1 MT: 1; > 0.1 MT: 50;
 - Capacity on the constructions: 1.12 MTonnes;
 - Capacity in the plan: 1.40 MTonnes;
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4, National policy related to PFCs

- Change 65% for CERs by CDM project
 - No benefits for CDM project develop;
 - Into the Limited lists: “The temporary regulation of promote industry framework adjustment” & “The guide lists of industry framework adjustment” by NDRC in 2005;
 - 5% tax rate for export: to limited the export of high energy intensity productions;
 - Forbid the material machining project;
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5, National policy related to HFCs



5, National policy related to HFCs

- → Production:
- Capacity of HCFC22 production: 0.369 Mtonne in 2004 (12 manufactures);
- Total HFC22 production amount: 0.247 Mtonne in 2004
 - Export: 0.069 Mtonne, 28% of total production;
- HFC22 demand:
 - 0.45-0.65 Mtonne in 2015;
 - There: domestic ODS 0.30-0.50 Mtonne

5, National policy related to HFCs

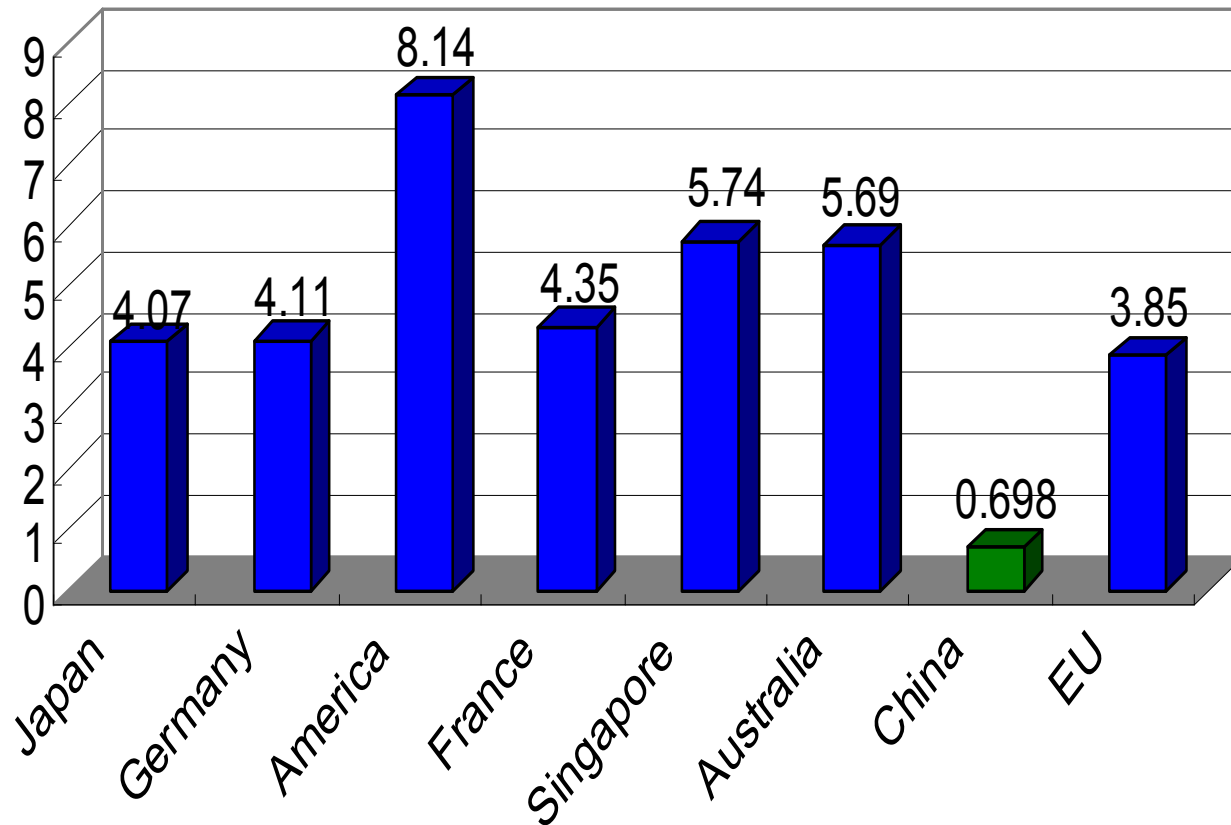
- HFC-134a Demand in 2005
 - Automobile: 7580 Tonnes;
 - Refrigerator: 550 Tonnes;
 - HFCs production capacity in 2005
 - HFC-134a: only 200 Tonnes by Xian Jinzhu group;
 - HFC-152a: 2000 Tonnes by Zhejiang chemical research academe; 200 Tonnes by Shanghai shanaifu company;
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5, National policy related to HFCs

- Change 65% for CERs by CDM project
 - With high benefits for CDM project develop
 - 7 HFC23 decomposition project approved by Chinese DNA until Nov.9 2006(45.75 MTCO₂e)
 - Substitute policy: according to Montreal Protocol
 - CFCs consumption amount reduce 74% than 1997 in 2005 & forbid in 2010;
 - Developing countries is allowed to produce HFCs until 2040
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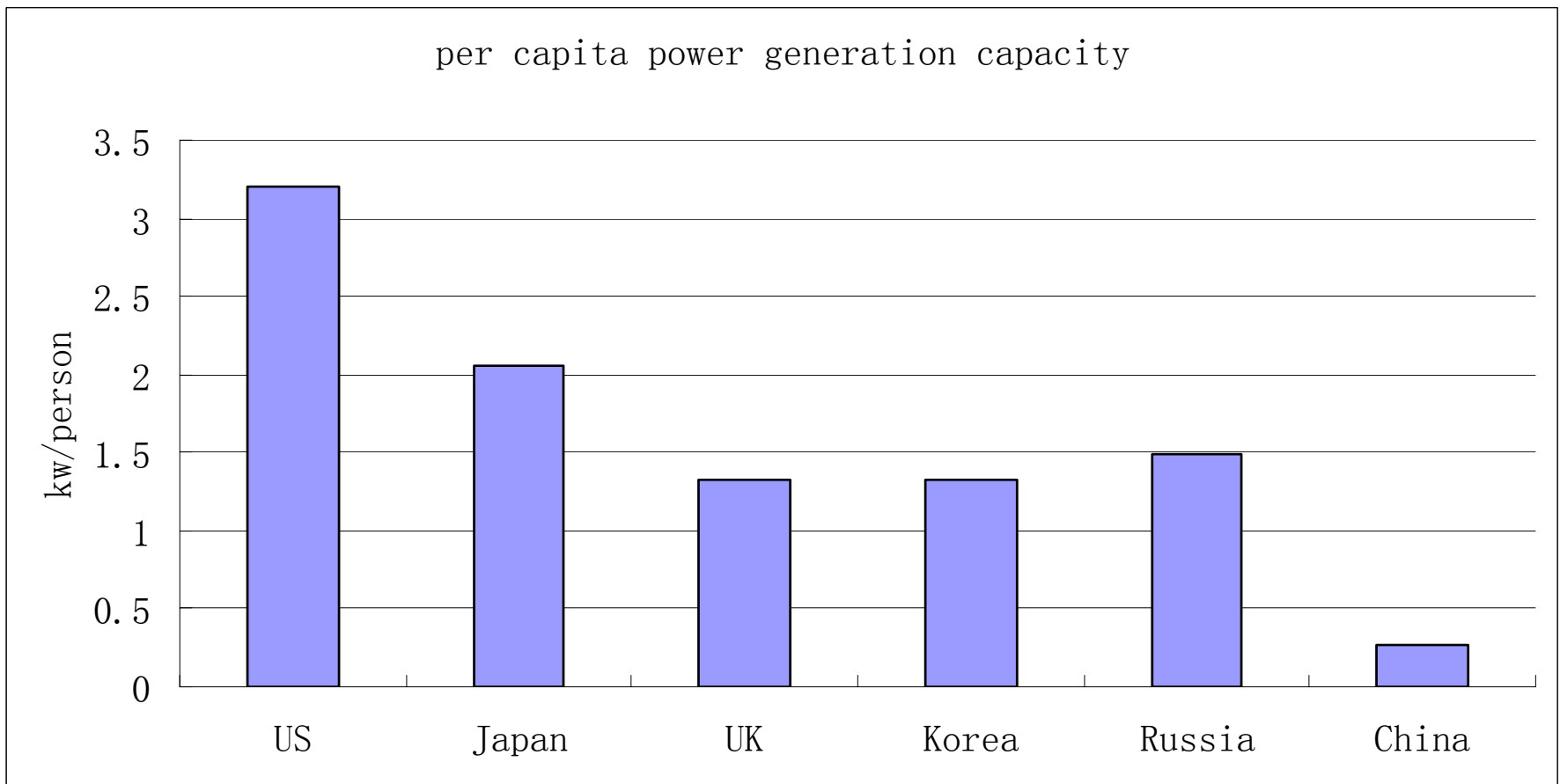
6, Driving forces of demand increase

- → Per capita energy consumption (toe) (1999)



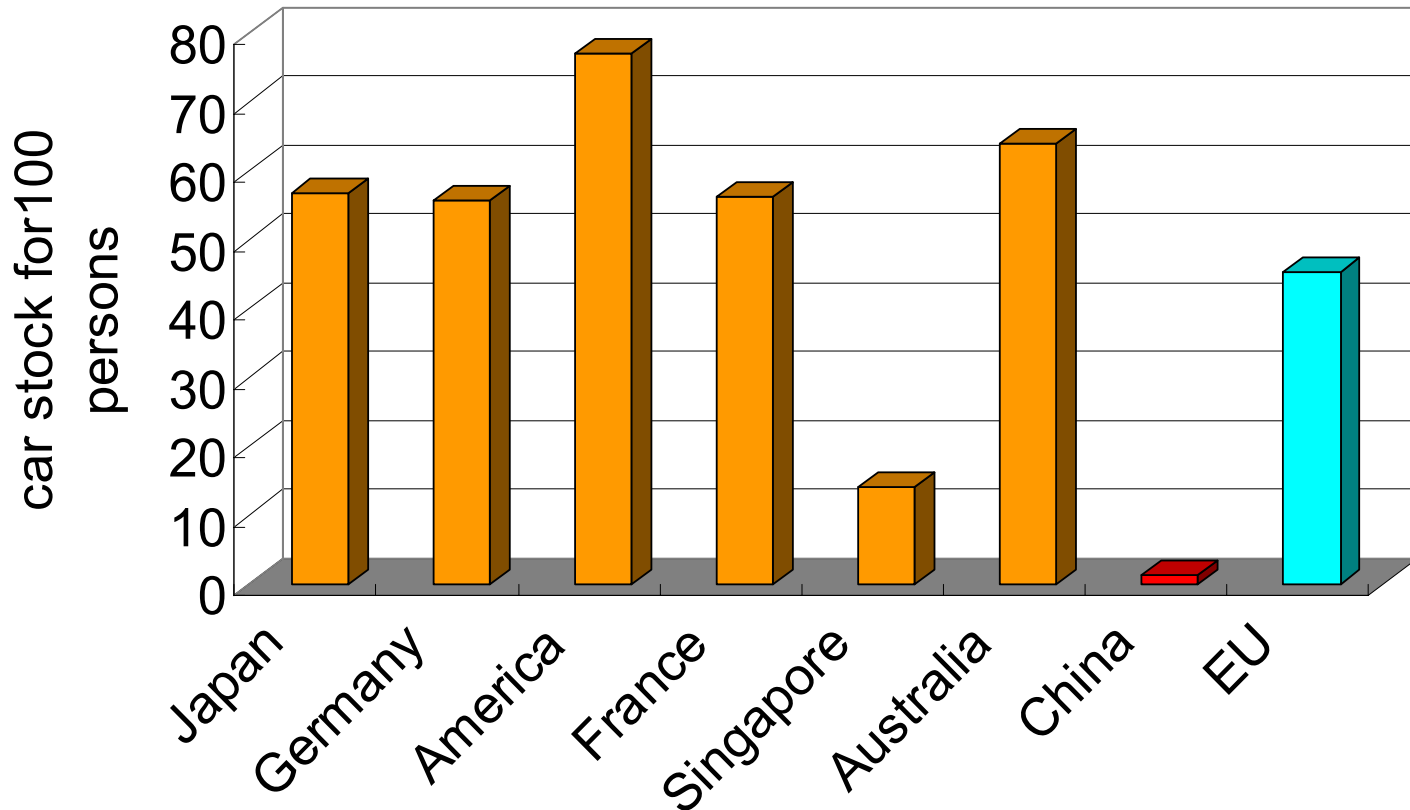
6, Driving forces of demand increase

■ → Per capita capacity of power generation (2000)



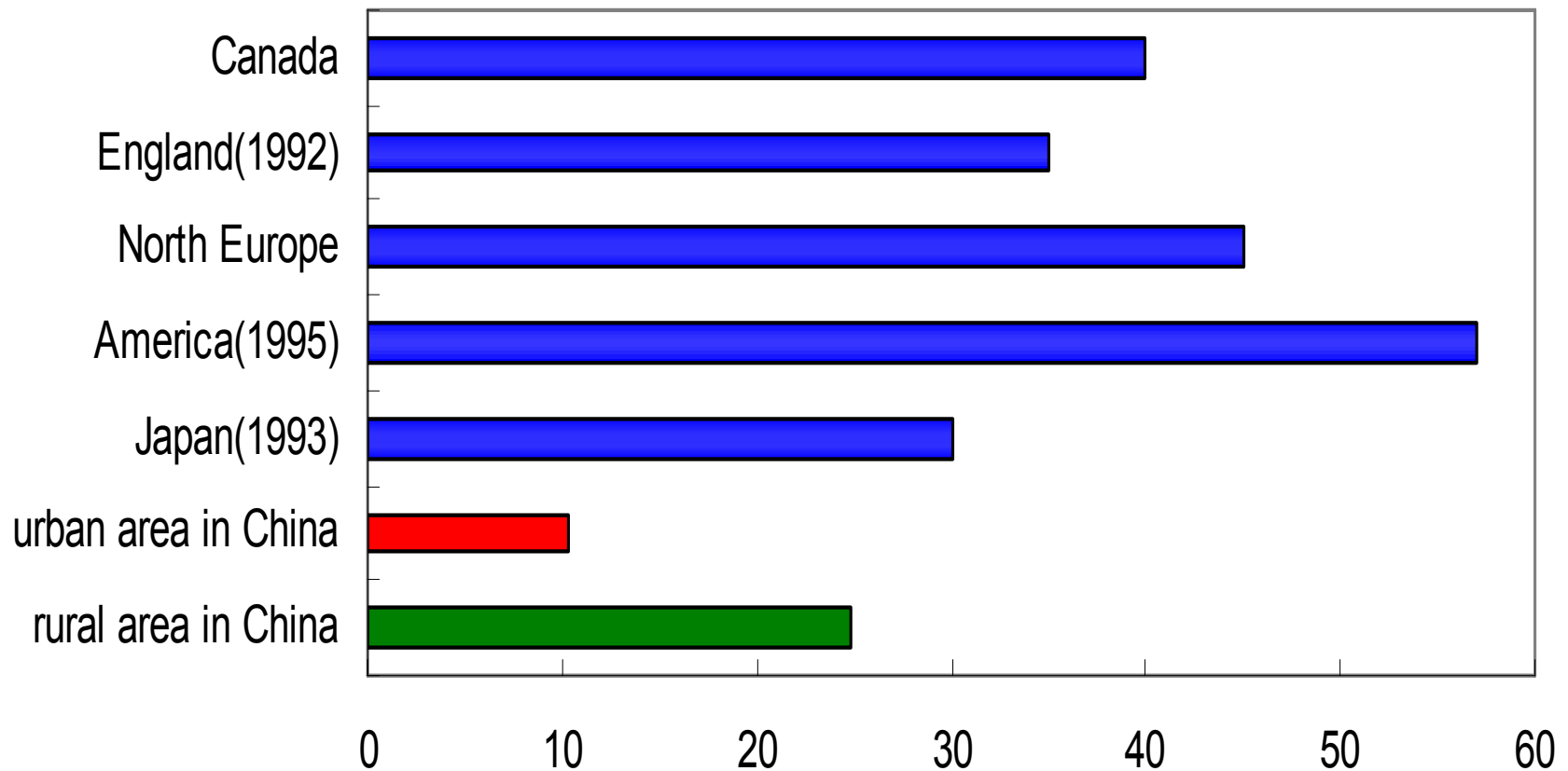
6, Driving forces of demand increase

■ → Per capita car in 1999 (2001-China)



6, Driving forces of demand increase

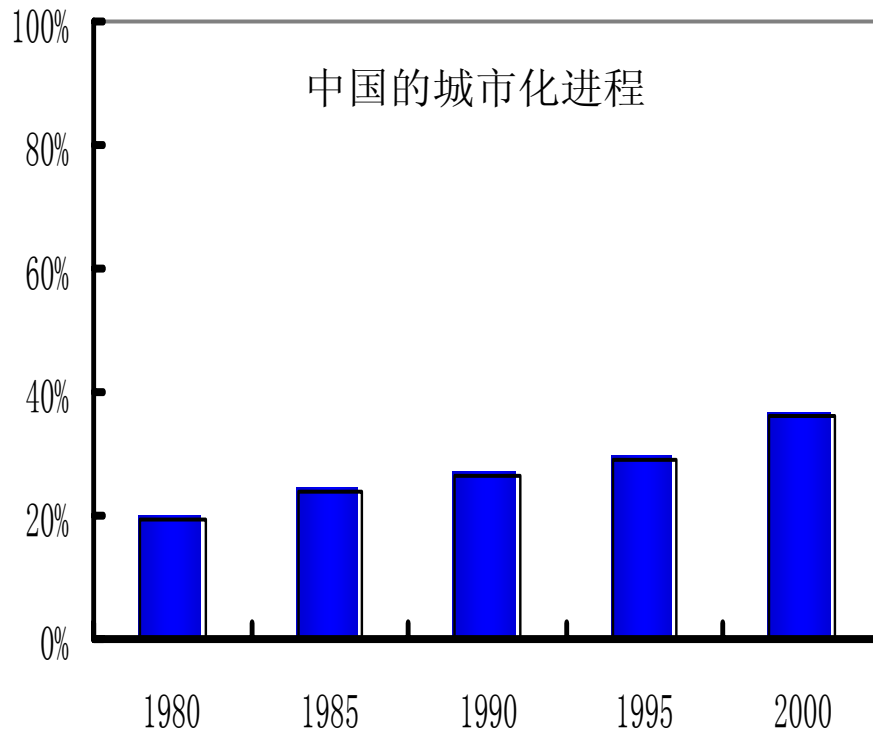
■ → Per capita house area (M²) (2001-China)



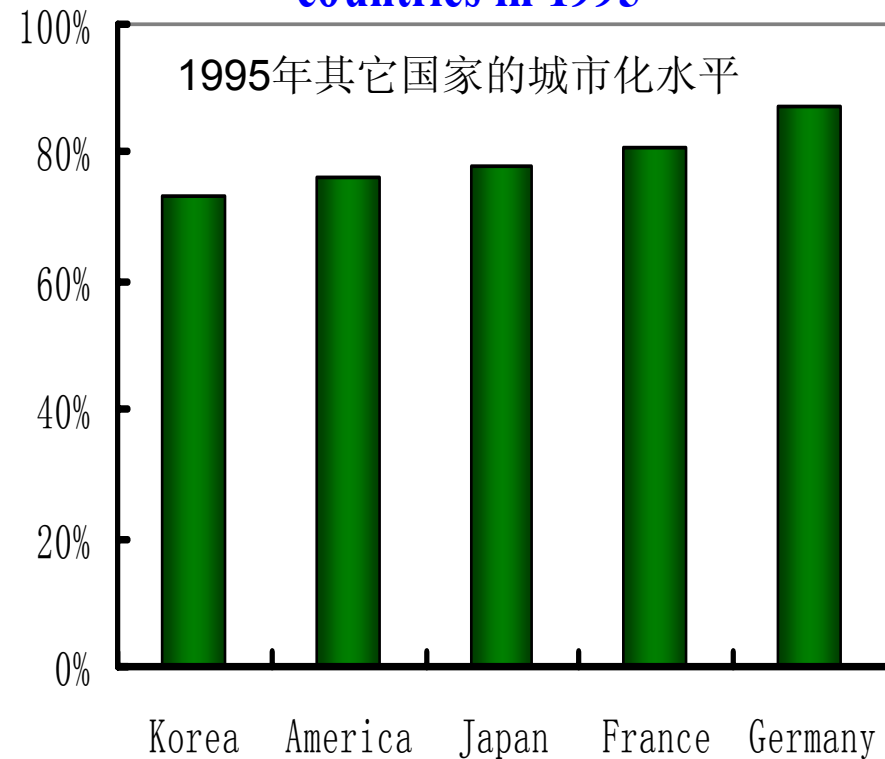
6, Driving forces of demand increase

■ → Urbanization level

The urbanization course in China



The urbanization level of other countries in 1995



7, Cooperation opportunity

- R&D cooperation for new technology;
 - Technology transfer;
 - Build up the manufacture plants in China: to reduce the cost;
 - Training & capacity building;
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7, Cooperation opportunity

- Develop the CDM project;
 - Make the regulations to open the volunteer market to outside;
 - Support the investigation & research project in China for SF6, PFCs & HFCs;
 - Support the second national communication report on SF6, PFCs & HFCs;
 - Awareness improvement & capacity building;
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- Thanks !

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