



Green growth and competitiveness

Stati Generali della Green Economy

05 November 2014,
Rimini

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What is green growth

*Green growth means **fostering economic growth and development** while ensuring that **natural assets** continue to provide the resources and **environmental services** on which our **well-being** relies*

Wide concept encompassing the whole economy not just the environment



Green growth policies and competitiveness

- Environmental taxes → to get the price of goods and services right (pricing externalities); costs of energy
- Employment/labour market → creation of “green jobs” and transition of workers to less polluting and resource-intensive firms and sectors; costs of labour
- Innovation → incentives to create and deploy more productive (green) technologies; supply chains, productivity increase

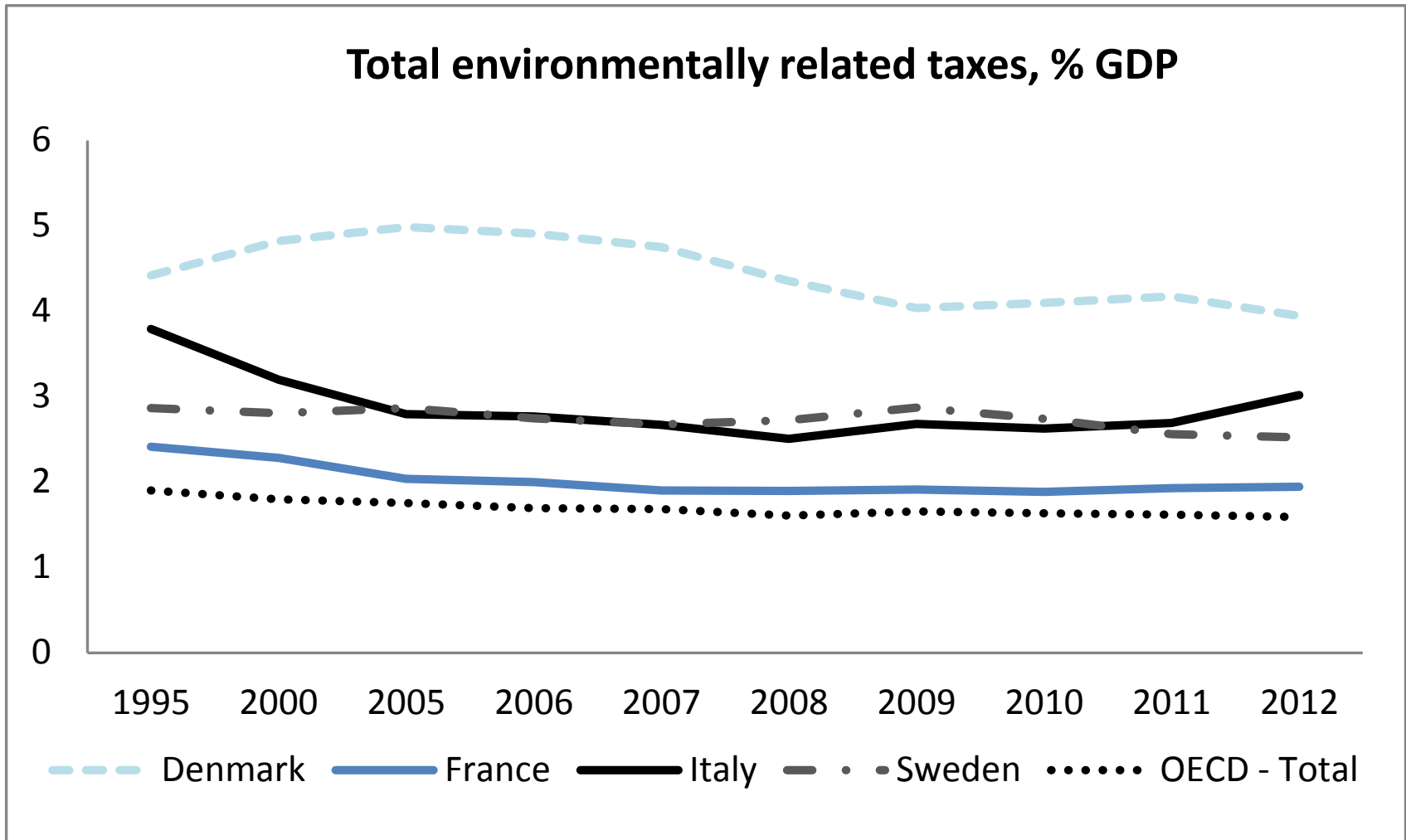


Environmental taxation: issues

- Green taxation:
 - ➔ get the price of goods and services right (pricing externalities);
 - ➔ shift production from highly to less polluting and resource intensive sectors
- Competitiveness issue: higher taxes and costs (e.g.: energy costs) for firms



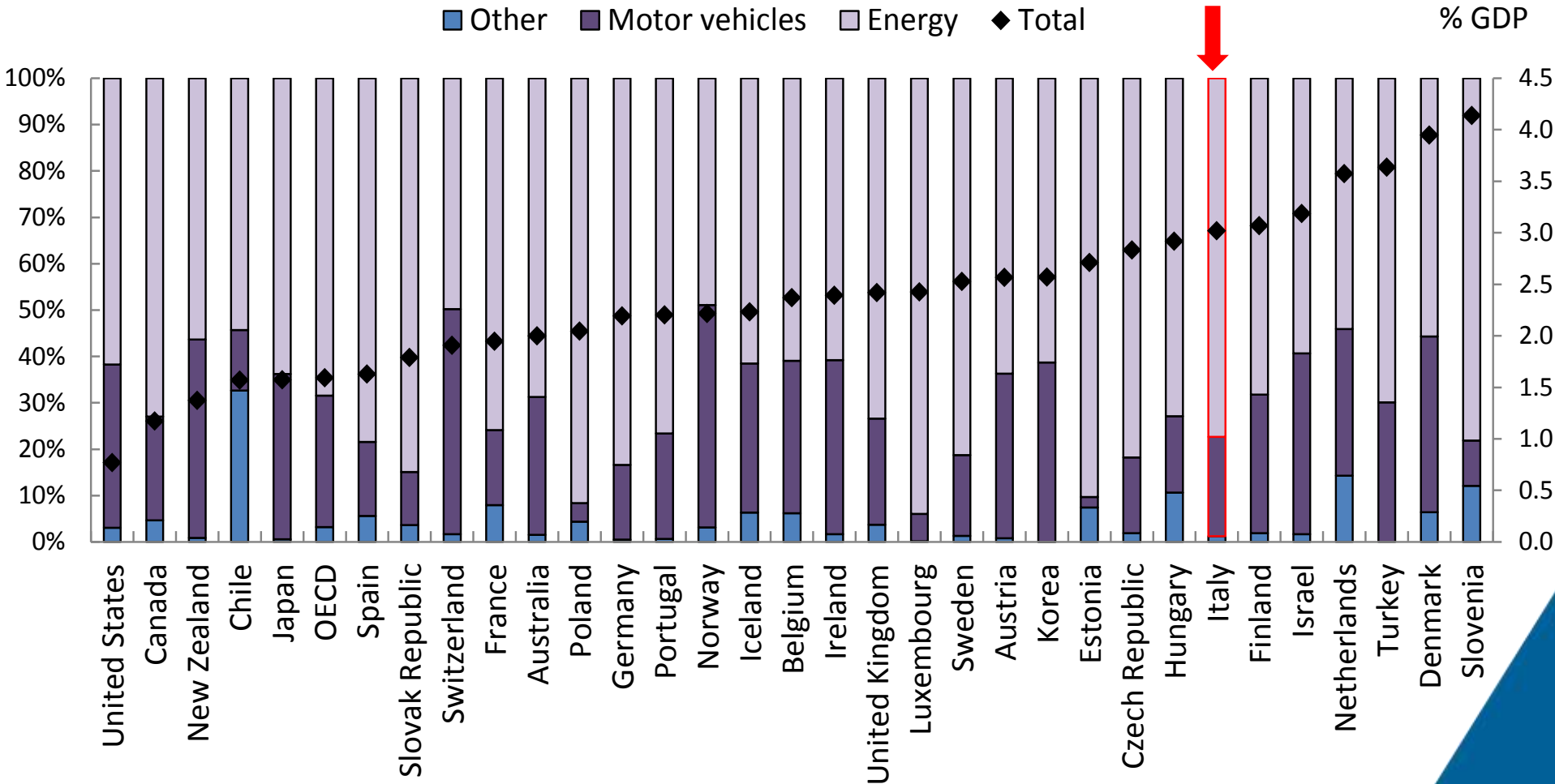
Green taxation: environmental tax receipts are higher than elsewhere





Green taxation:but focusing on energy mostly

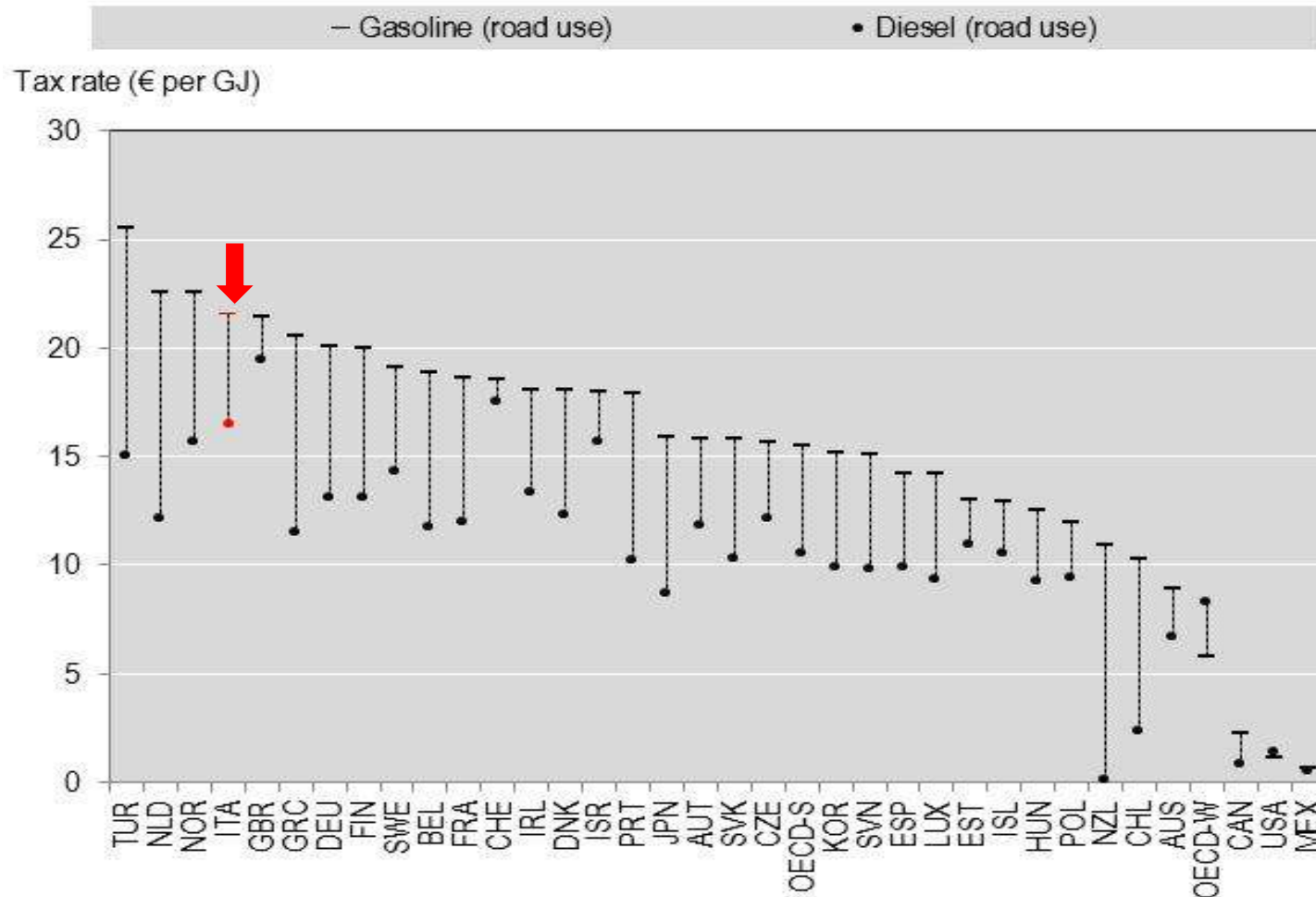
Composition of environmentally related taxes, 2012





Green taxation:with high excises on fuel for road transport

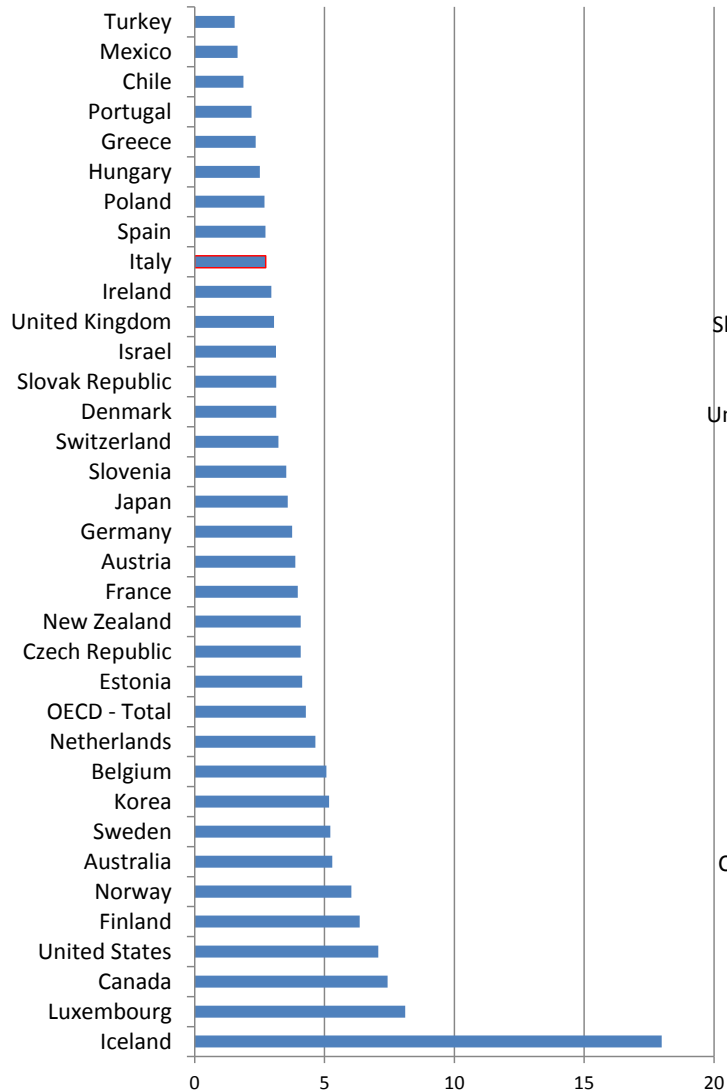
Effective tax rates on energy: Gasoline vs. diesel (road use, mid-2012)



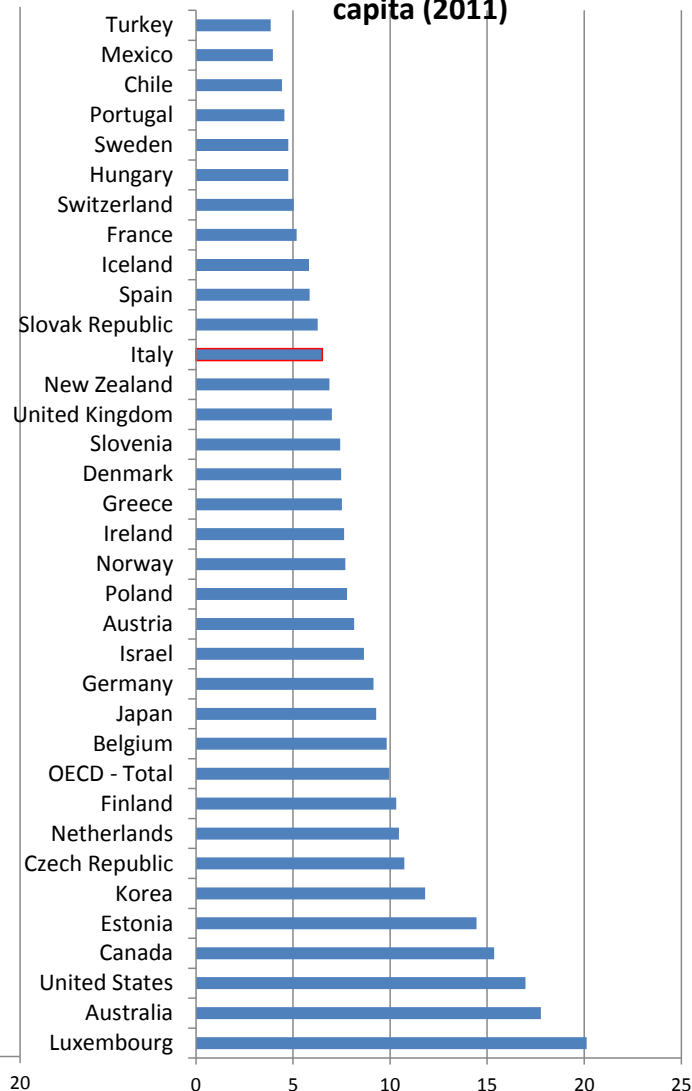


Green taxation: high taxation has resulted in low energy intensity and CO2 emissions

Energy intensity, toe per capita (2011)



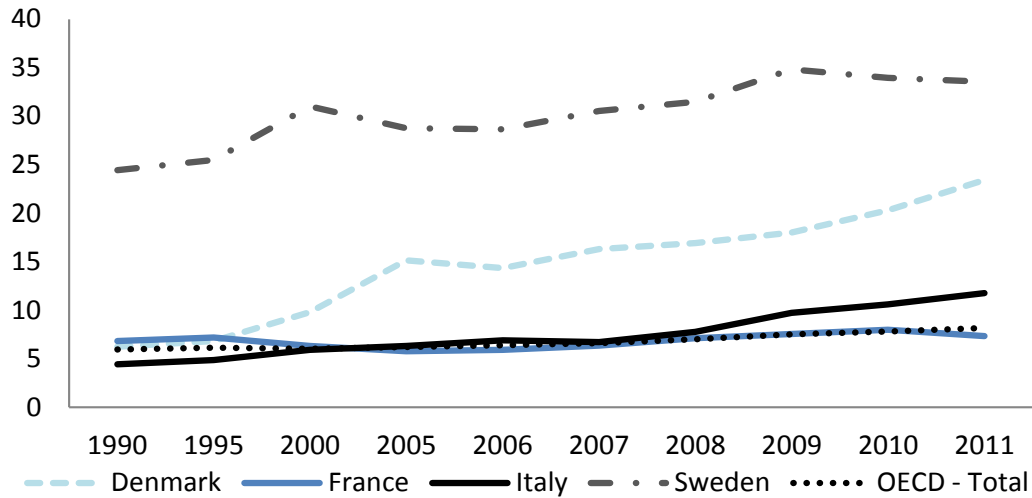
Production-based CO2 intensity, tonnes per capita (2011)



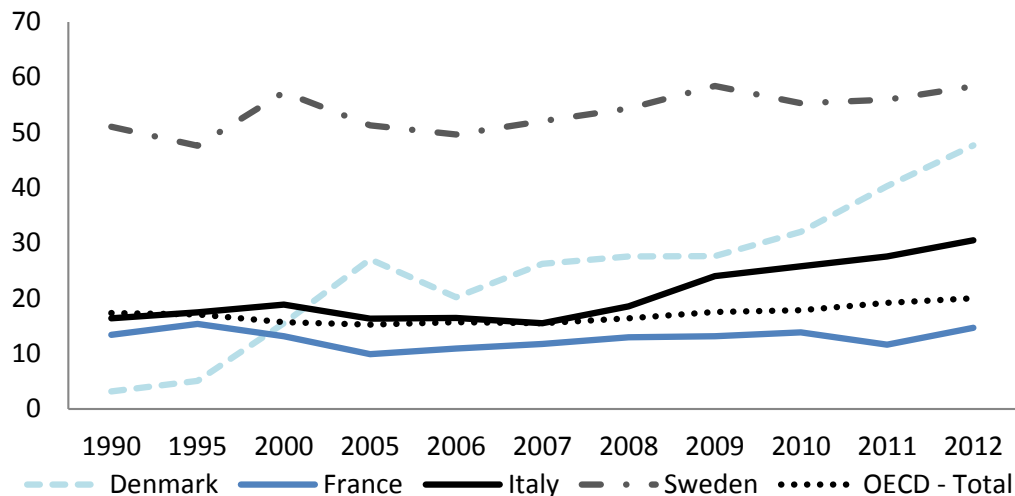


Green taxation:...also thanks to rising share of renewables

Renewable energy supply, % TPES



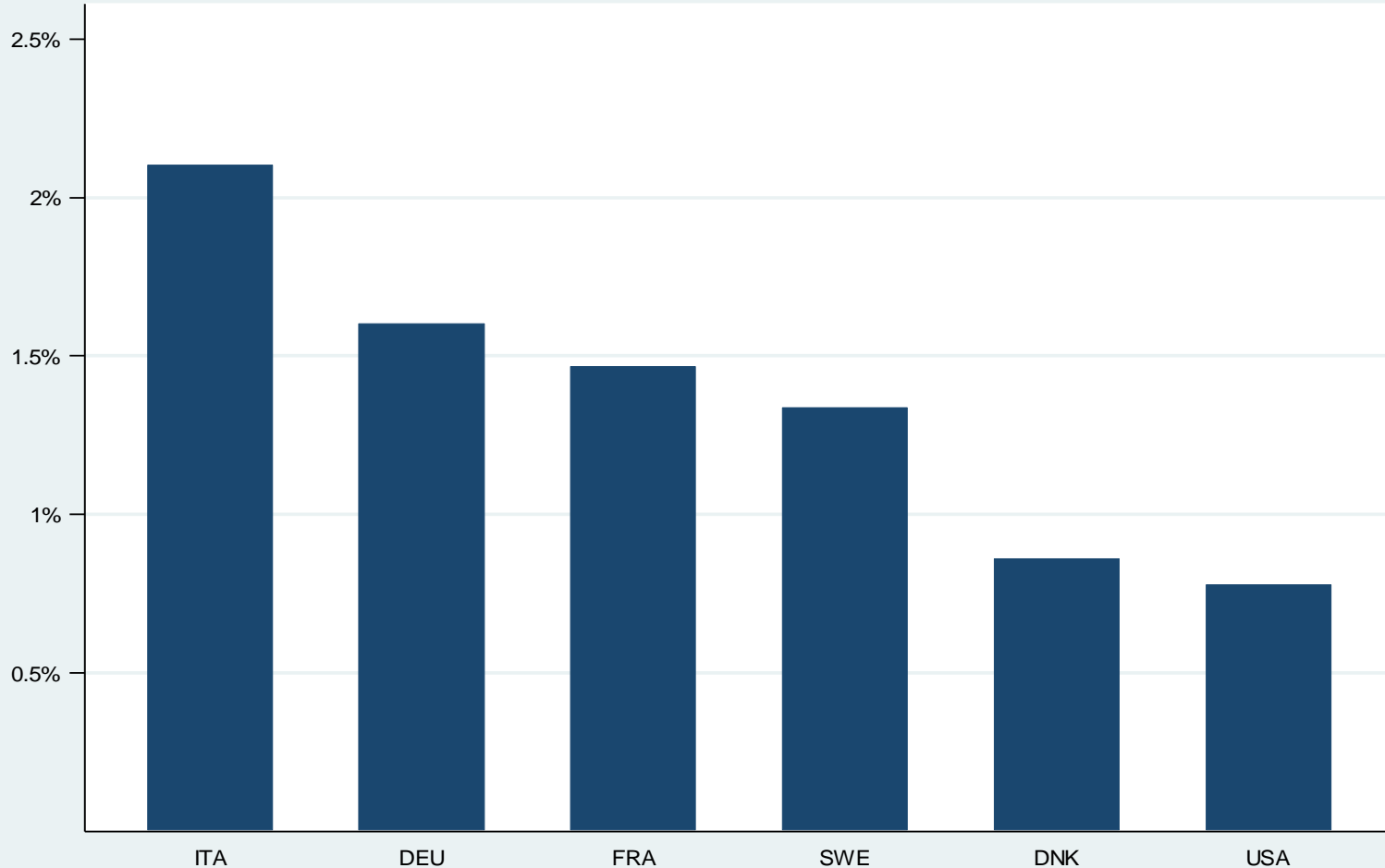
Renewable electricity, % total electricity generation





Green taxation: Share of electricity, gas and water supply costs is higher than elsewhere

Share of Electricity, Gas and Water Supply Costs by country (2011 / USA: 2009)

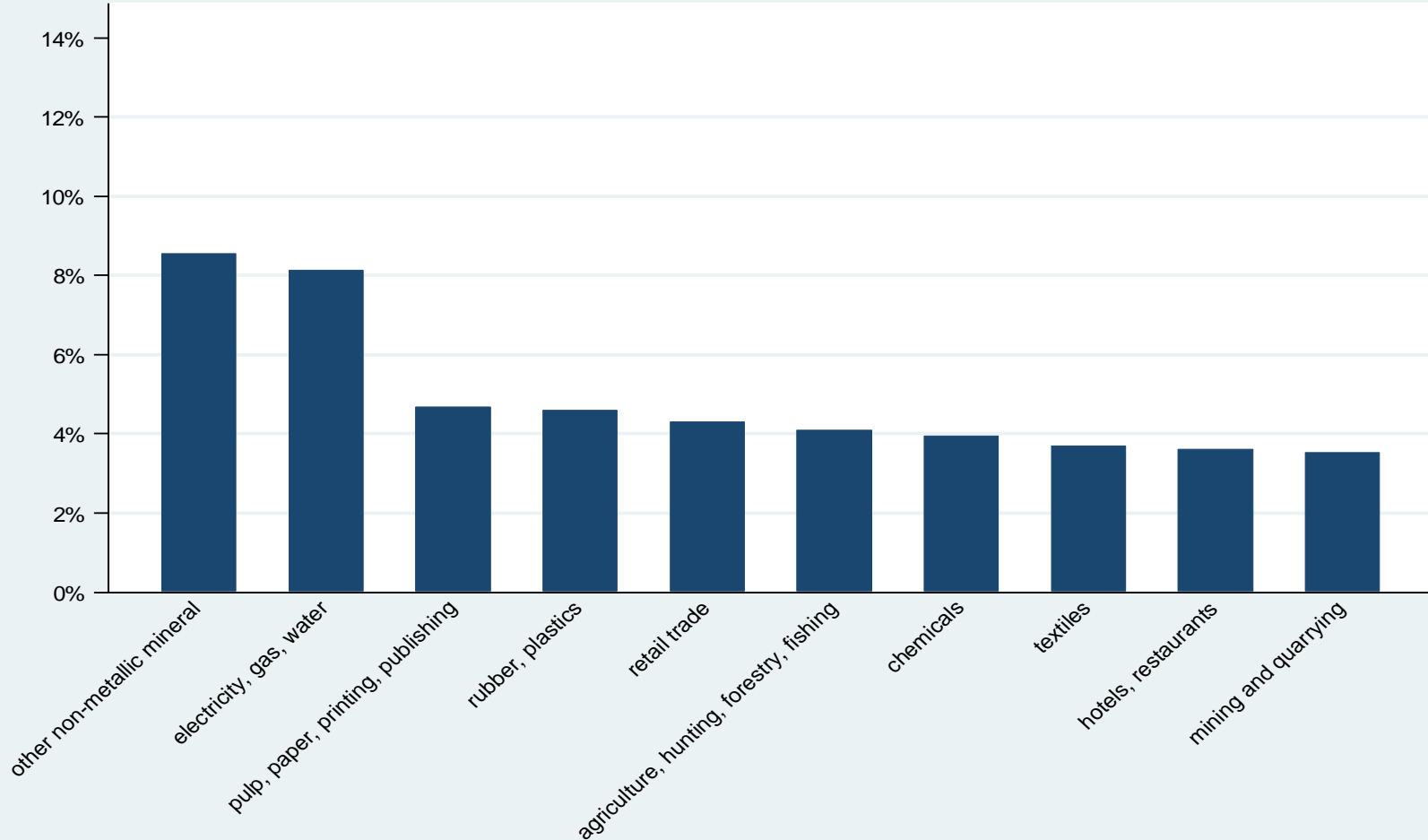


Source: Timmer (ed) (2012) - The World Input-Output Database (WIOD)



Green taxation:...but still small in most sectors

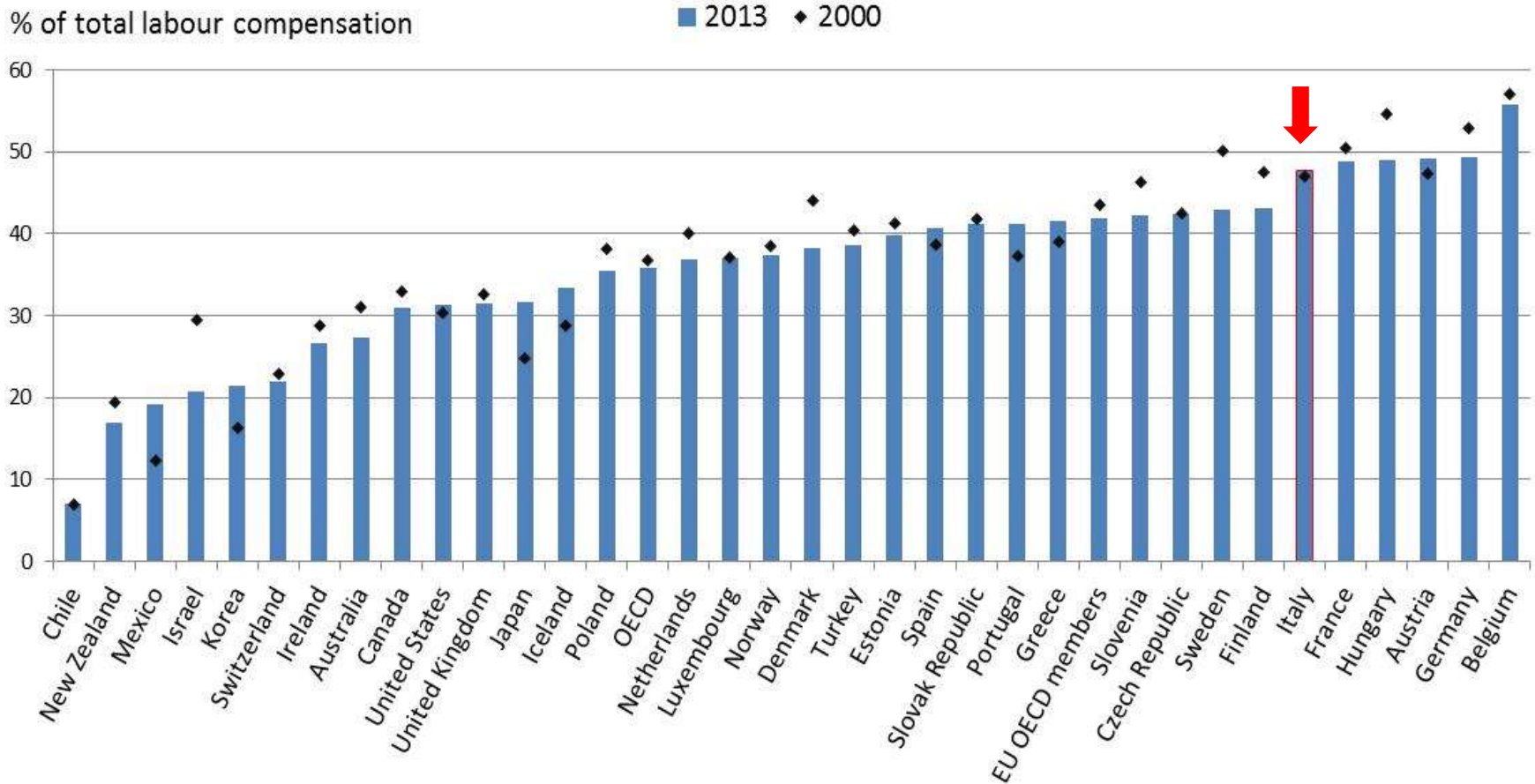
ITA: Share of Electricity, Gas and Water Supply Costs (2011)



Source: Timmer (ed) (2012) - The World Input-Output Database (WIOD)



Green taxation: there is room to reduce taxes on labour





Green taxation: general policy recommendation

- Higher environmental taxes need be accompanied by lowering income/labour taxes → more efficient tax system; higher growth
- Environmentally related taxes could reach 10-11% of GDP, according to some estimates
- Broaden the base of environmental taxes to beyond energy use to motor vehicles and other activities, (e.g.: waste management...)
- Pricing externalities in a more uniform way (eg diesel vs petrol)

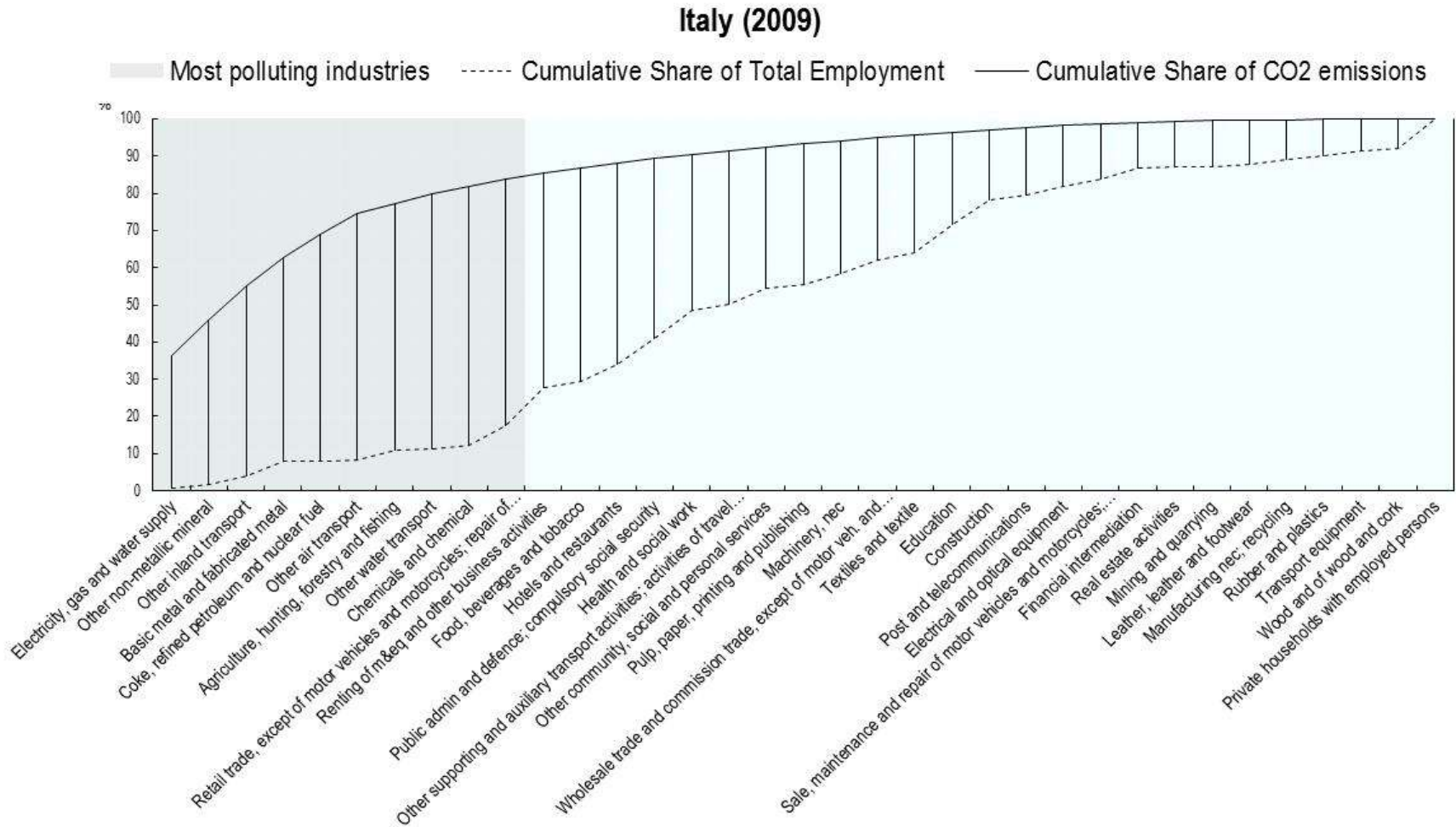


Employment: issues

- Transition towards green growth → new opportunities and risks as workers will shift from more to less polluting and resource-intensive firms and sectors
- Need to facilitate these transition: two main issues;
 - Labour market flexibility
 - Social and skill policies

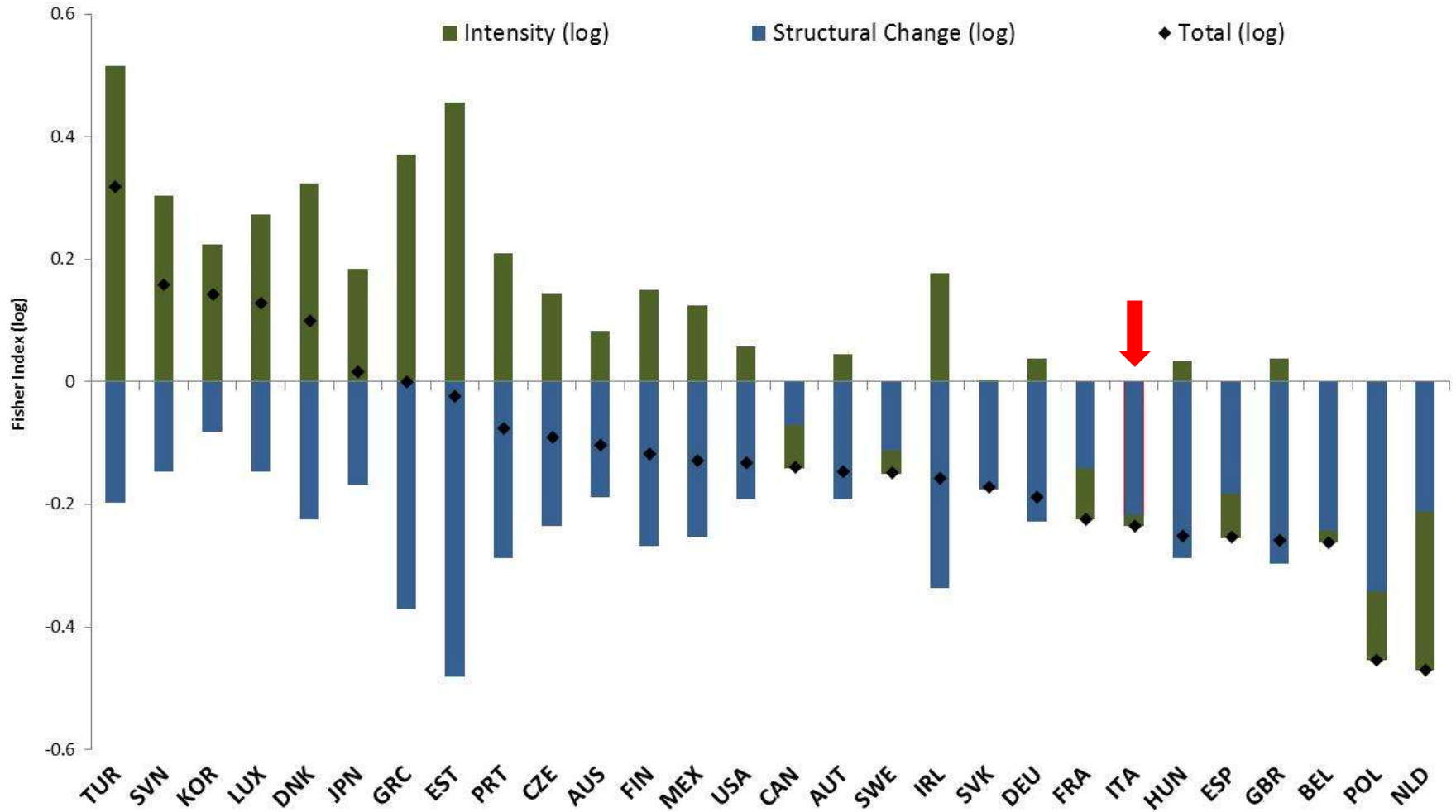


Employment: most polluting industries account for a small share of jobs





Employment: Reallocation of activity accounted for most of the reduction in CO2 per employee between 1995 and 2009





Employment: general policy recommendation

- Facilitate transition of workers from more to less polluting and resources firms and sectors (e.g. from heavy industries to high-tech, creative high value added sectors)
- Need of social policies to assist displaced workers
- Improve co-ordination among labour market, skill policies and environmental policies:
 - Support the change in job skill requirements (e.g. construction works)
- Reducing barriers to firms creation, competition and job creation (including in services)



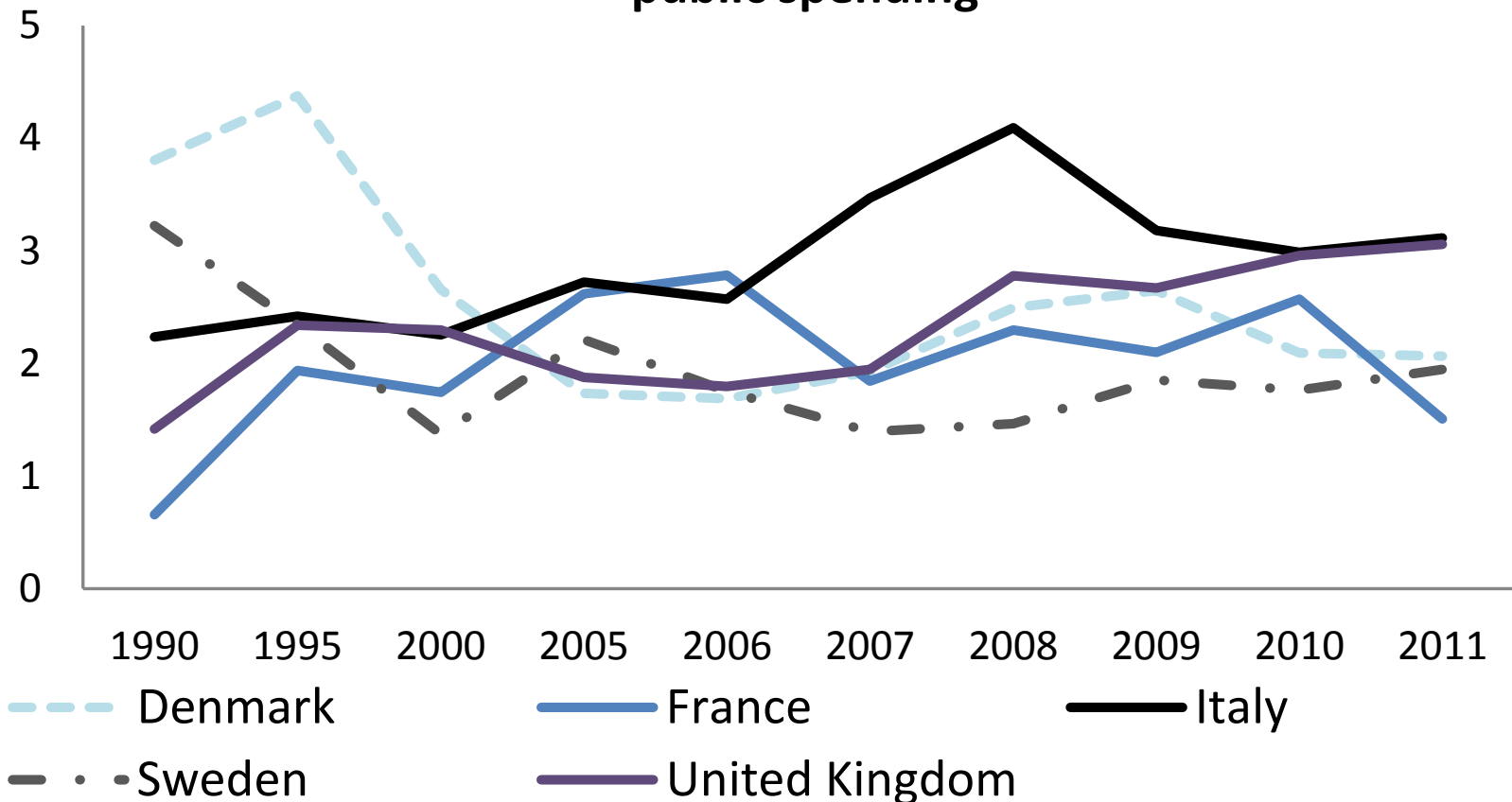
Innovation: main issues

- Production and deployment of environmentally related technologies
- Supply chains for environmentally related goods
(e.g.: renewable industries focused on downstream sector, installation)
- More innovation in environmentally related technologies → High value added activities and jobs



Innovation: public sector has supported environmentally related R&D

Public spending in environmentally related RD, % total public spending

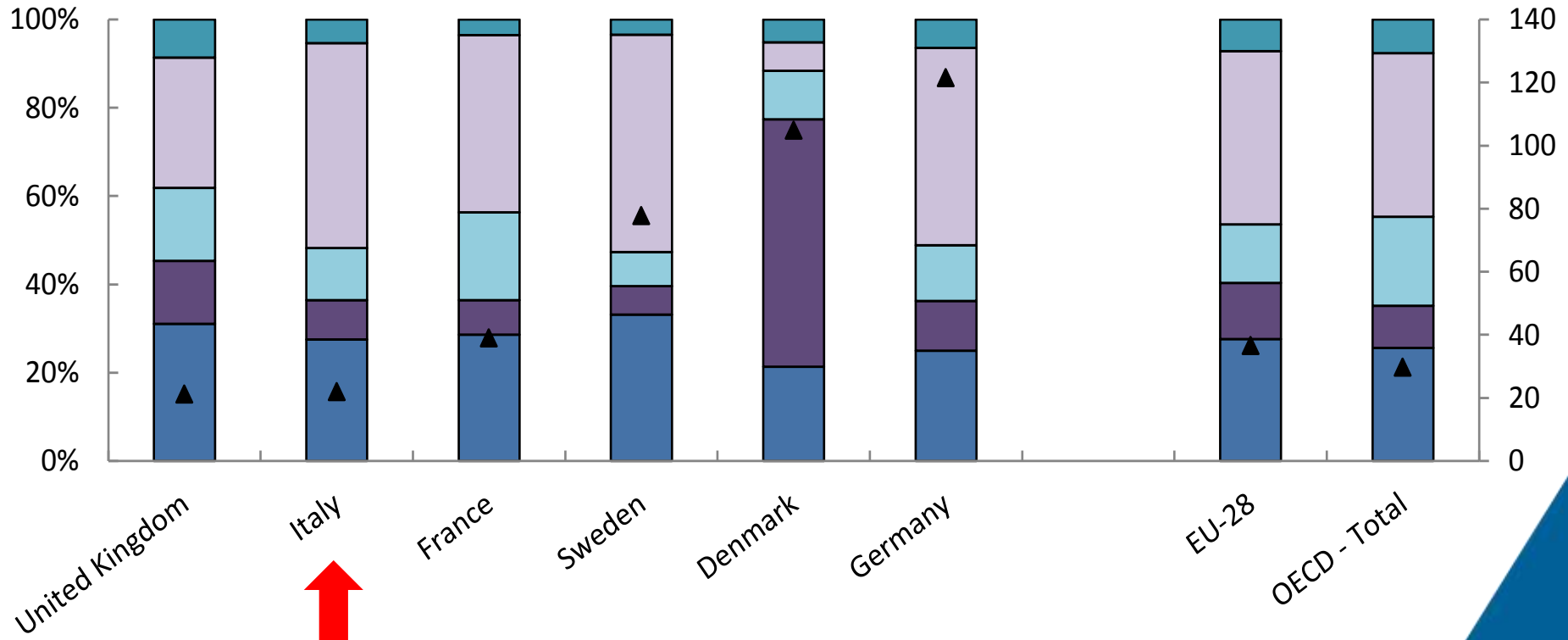




Innovation:...but patents have remained elusive

Patents on environment-related technologies (2005-2013)

- Energy efficiency in buildings and lighting
- Technologies for climate change and emission mitigation
- General Environmental Management (air, water, waste)
- Emissions abatement and fuel efficiency in transportation
- Energy generation from renewable and non-fossil sources
- Total per million of people (right axis)

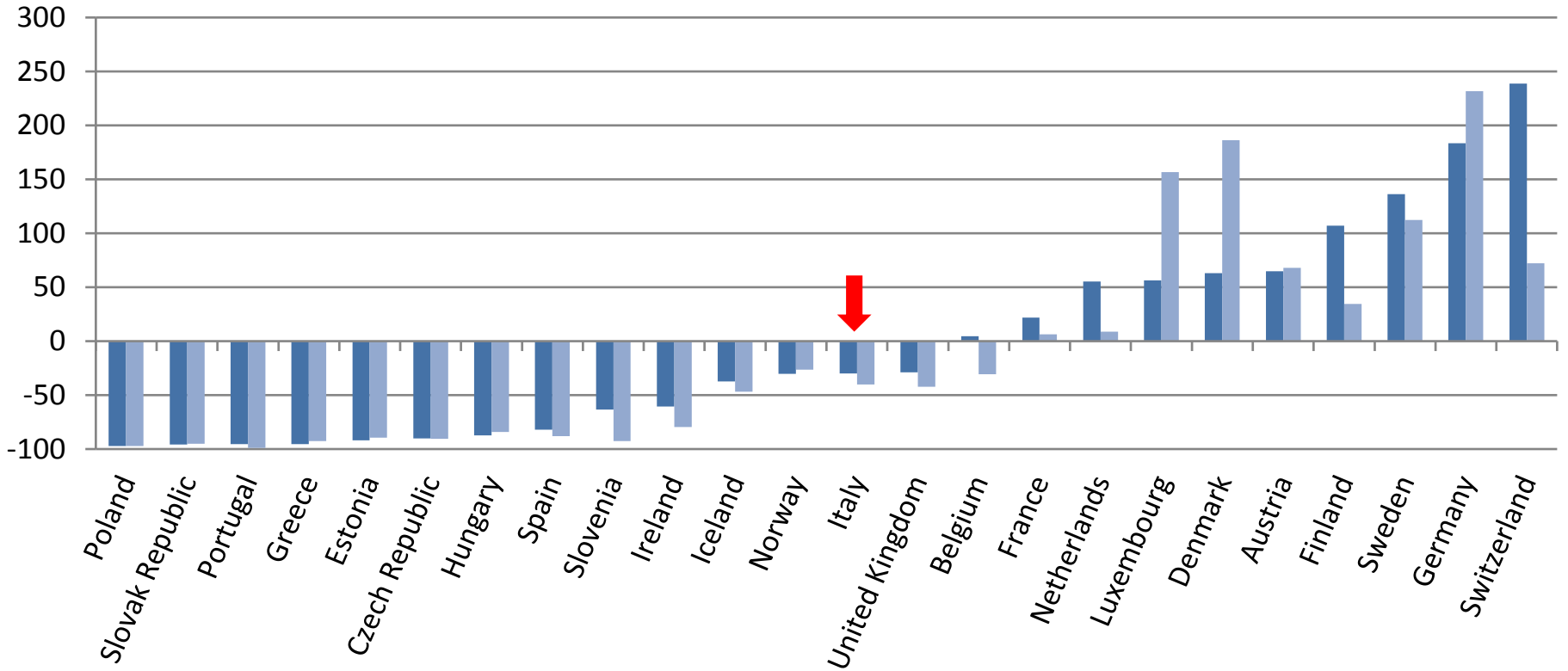




Innovation: ...but not only in environmentally related technologies

% difference with respect to EU-28

■ Total patents ■ Environmentally related patents





Innovation: general policy recommendation

- Focus must be on the general framework to stimulate
 - ➔ more innovation
 - ➔ more green innovation (if the price is right)
- Develop and implement a comprehensive framework for promoting eco-innovation:
 - Improve co-ordination of industries, innovation and eco-innovation policies across the government
 - Improve links between academic/research institutions and business sectors.
- Bridge the gap between R&D and industrial policies (which are the responsibility of different ministries)
- Supporting eco-innovation and the diffusion of green technologies by strengthening initial education and vocational training
- If incentives are right green innovation will come



Summary and conclusion

- Italy has made progress towards green growth
- Competitiveness issues concern mainly the country as a system and not green growth policies per se
- Pursuing green growth policies along with structural reforms → higher growth with “green sectors” contributing to it



Grazie per l'attenzione

For more information and queries
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Resources

OECD Green Growth Strategy

<http://www.oecd.org/greengrowth/towardsgreengrowth.htm>