



Green Growth – the OECD strategy

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Tomasz Koźluk
Senior Economist, Green Growth,

I. OECD's Green Growth Strategy – universal principles

- What is Green Growth?
- How to get Green Growth?

II. Green growth in Italy

- (Eco)innovation,
- Green Taxation,
- Green Jobs

I. Green Growth Strategy

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.*
- Operational building block of **Sustainable Development**
- No one-size-fits-all – **good framework policy principles!**
- Innovation, investment and competition -> **meeting challenges and taking advantage of opportunities**
- Premise: ***no necessary conflict*** between pursuing economic growth and doing so in a green way - ***we need growth and it better be green!***

Diagnosis: why is GG not materialising on its own?

- **Market and government failures & imperfections**
 - Negative externalities (un-priced – undermine competitiveness), subsidies to ‘dirty’ activity (eg fossil fuels),
 - price- signals don’t work
 - imperfect markets, particularly in network sectors
 - Information failures/asymmetries,
 - measurement and monitoring issues
 - Inadequate framework conditions for innovation, investment
 - Lack of adequate infrastructure
 - learning-by-doing, market size effects
 - Path-dependency, behavioral biases

Diagnosis: why is GG not materialising on its own?

- **Timing** – often clearly visible short-term costs vs. long-term gains (can be very long term and less direct)
- **Trade-offs**, winners vs. losers, political pressures etc.
- **Uncertainty and knowledge gaps** – links among growth, green and well-being; effects of policies, activity and environmental degradation
- **Policy uncertainty/instability** – poor perceived commitment

Treatment: good framework policies

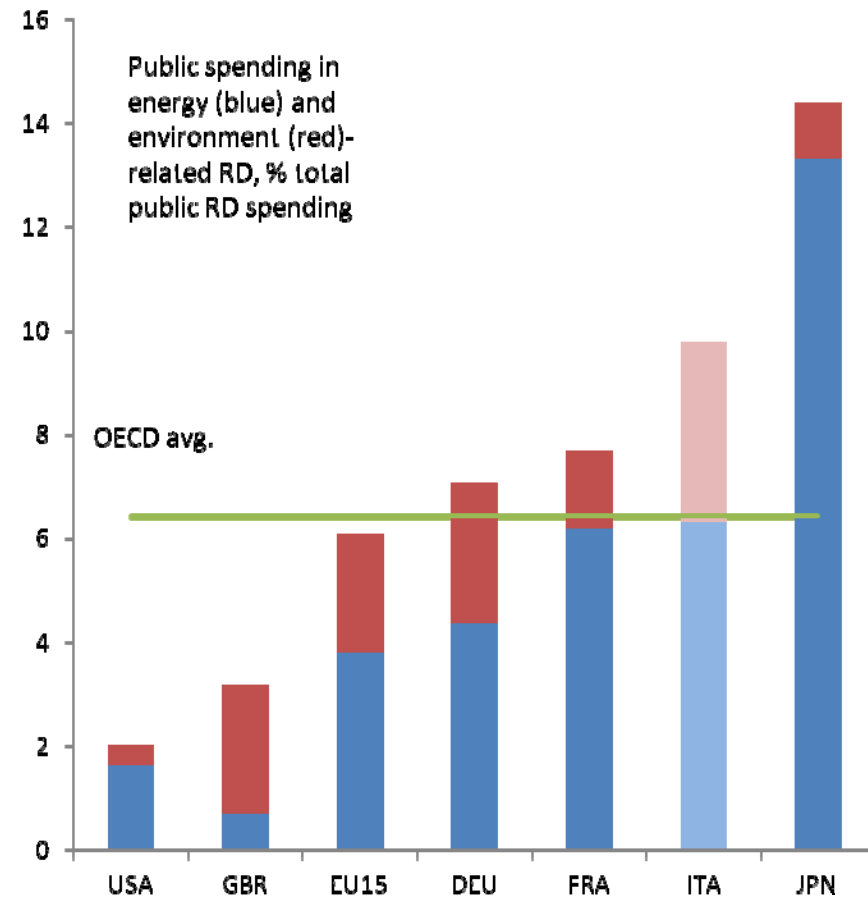
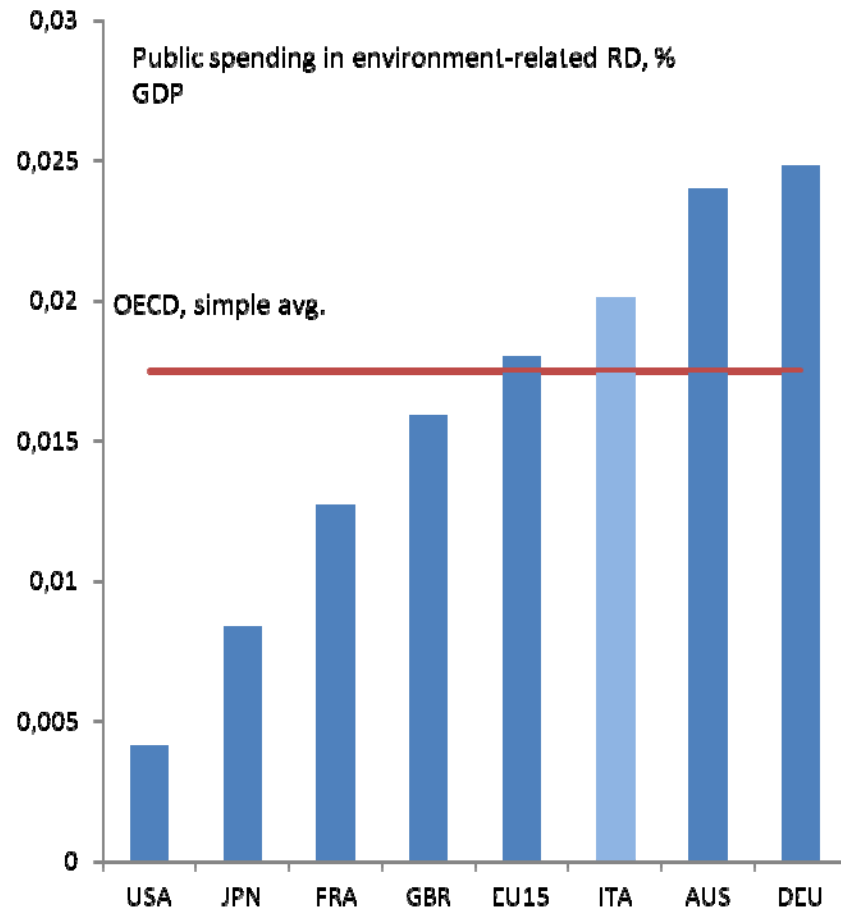
- **Pricing of environmental externalities and natural resource use:** incentives to reduce pollution by making it more costly => **taxes and permits,**
- **Flexibility is key: making markets work,** to increase the functioning of price signals – competition policies, entry/exit, PRs, regulation of network sectors,
- **Regulating – important complement:** regulation where markets fail e.g. due to lack of or asymmetry of info, measurement costs - e.g. using performance and technology standards,
- **Inducing behavioral changes,** including information policies, labelling, nudging, default options

Treatment: good framework policies

- **Incentives to create and deploy more productive technologies** - framework innovation policies – IPR's, competition, trade openness, subsidies for basic/general R&D
- Creating the **right climate for investment** – framework policies, policy transparency, stability & commitment,
- Providing **adequate infrastructure** - encouraging private investments and public investment where necessary, streamlining planning procedures, improved CBA,
- **Managing the transition & capturing arising opportunities** – flexibility (product, labour), education and training, and inclusiveness (consultation, compensation and safety nets)

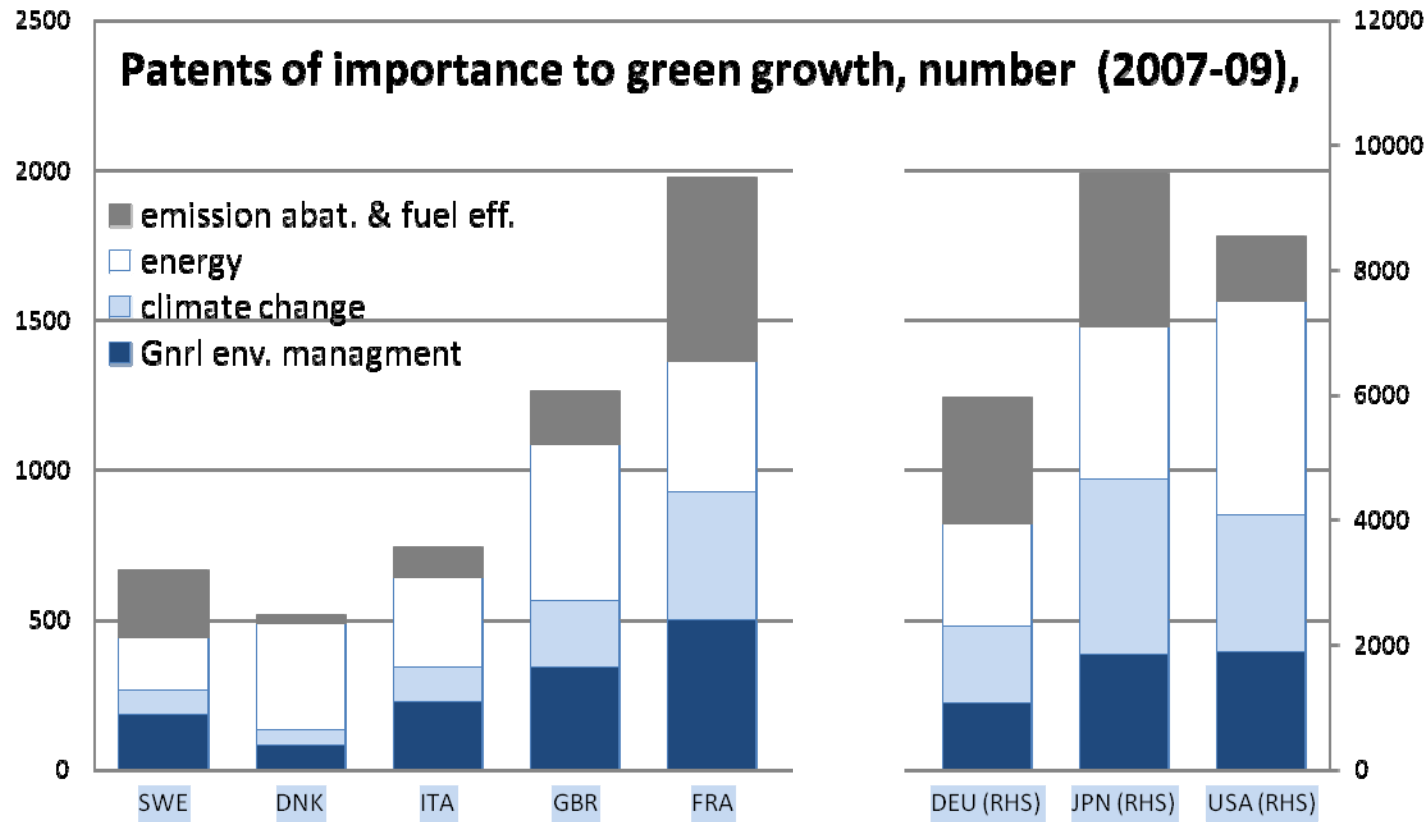
II. Green growth in Italy: Eco-innovation, Green Taxation and Green Jobs

Eco-innovation public spending on “environmental R&D” is rather high



Source: OECD Green Growth Indicators Database

... but effects not that impressive



Source: OECD Green Growth Indicators Database



Eco-innovation

Innovation is not (just) about patents or R&D spending, but:

- Making things in a new, better, more efficient (& more environmentally friendly) way,
- Turning ideas into money,

Importantly:

- Policymakers know less about innovation than entrepreneurs,
- Attractive to spend on “innovation”, but difficult to get your bang for the buck...

Primarily, focus on the right general conditions for innovation – unleashing the potential of the Italian entrepreneurs.

Eco-innovation - it must pay to innovate

“A rising tide lifts all boats”:

- general innovative capacity and market conditions are key.

The right framework – must be easy to make money from being innovative:

- Competition, entry/exit
- Property rights
- Policy commitment: stable (but flexible!) and transparent rules of the game
- public R&D support measures may also be important, as benefits can be hard to capture due to externalities (only when well-identified needs)

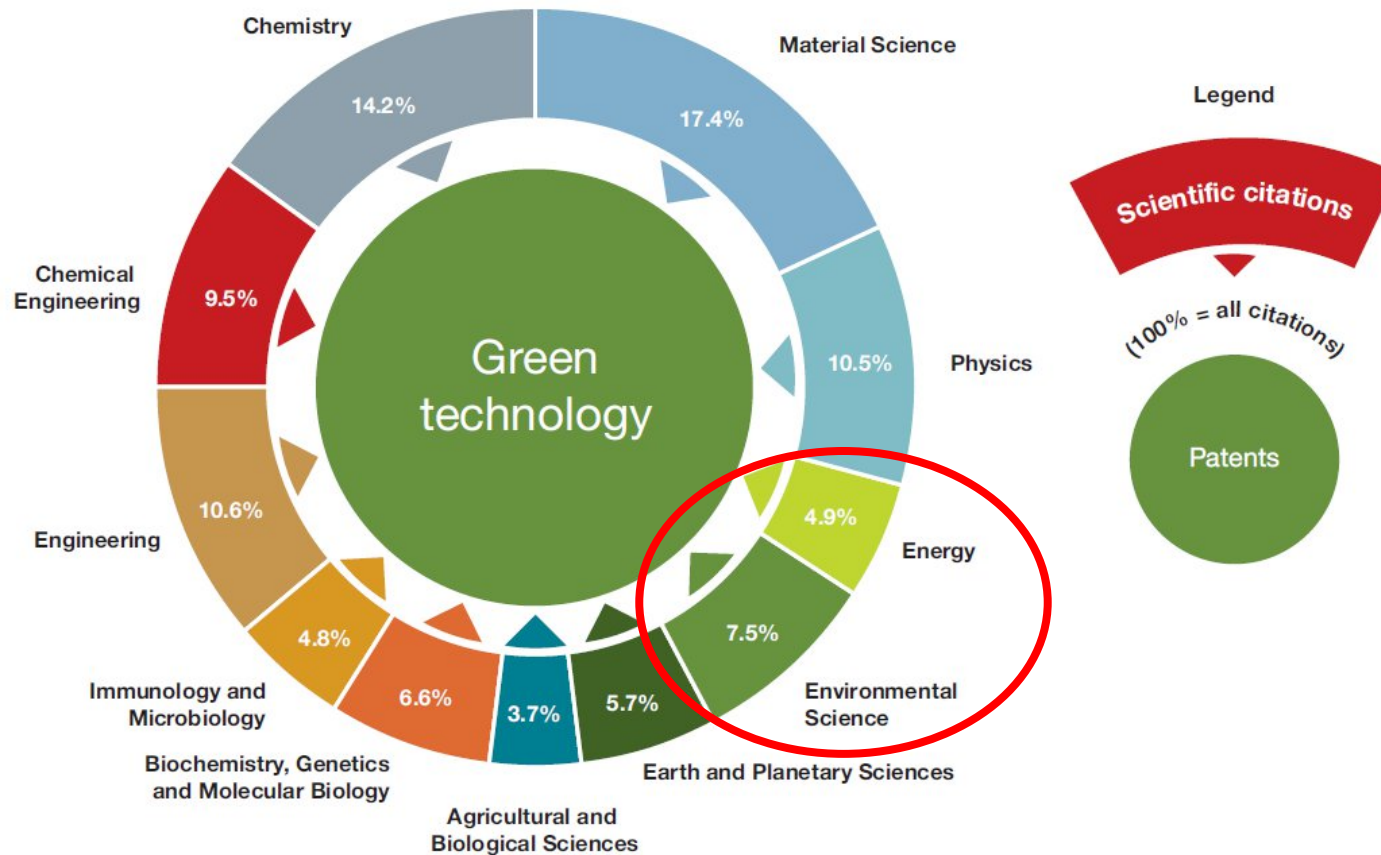
It must pay to innovate in the green direction

- Key: set the right policy signals:
 - Pricing policies (e.g. environmental taxation, tradable permits),
 - Regulatory measures (e.g. standards) – can work in similar ways as pricing signals, particularly in imperfect markets,
 - Enforcement
 - Perceived commitment to green policies
- More direct interventions may be justified, but...

Research is multi-disciplinary

The innovation-science link in selected green technologies

Patent-science link via citations, 2000-07



Source: OECD (2010), *Measuring Innovation – A New Perspective*, based on Scopus Custom Data, Elsevier, July 2009; OECD, Patent Database, January 2010; and EPO, Worldwide Patent Statistical Database, September 2009.

Needs a multi-disciplinary response

Its not easy!

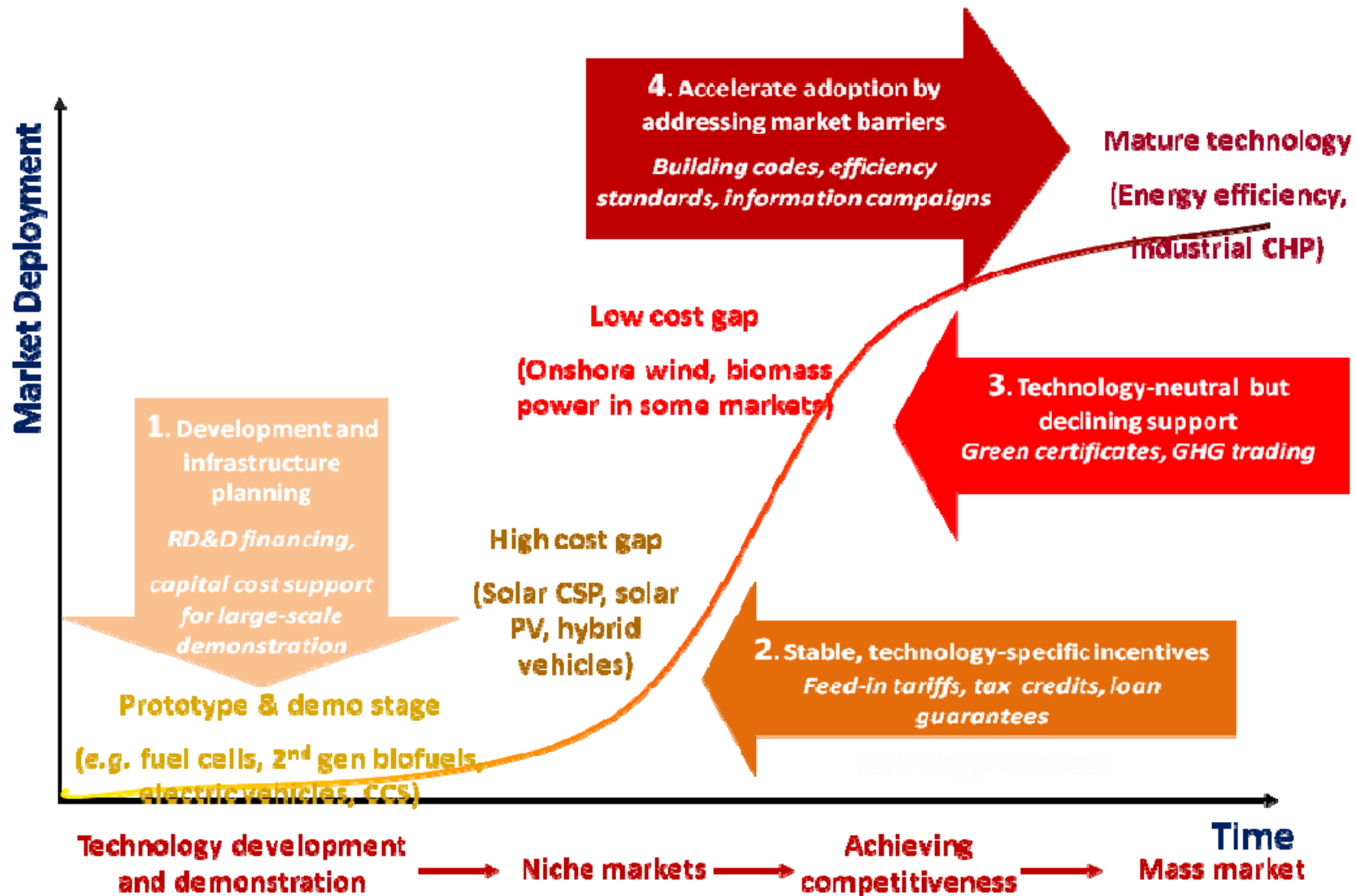
- Broader approach – not just energy and environmental R&D
- Increasingly multi- and interdisciplinary – competition & cooperation.
- Strong and effective interactions between science and industry.
Commercial application is key.
- Support basic research – here the private funding gap is likely largest, due to distance from commercialisation and associated risks
- Competition among technologies!
- Minimising risk of costly lock-in & support dependancy

Still, may be room for more targeted policies

Combination of market imperfections re. innovation and environment (“twin peaks”), may justify more direct interventions, but:

- wide portfolio of technologies – lower risk of “getting it wrong”
- “general purpose technologies” – can foster development of other technologies and applications, e.g. electricity storage, ICT (not straightforward!)
- monitoring and evaluation of policies
- “Smart” regulation and performance standards – closer to technological neutrality – lower chance of “wrong” choices, technology standards
- Strong emphasis on achieving commercial viability
- Well-designed public procurement requirements

Tailoring policy to technology maturity

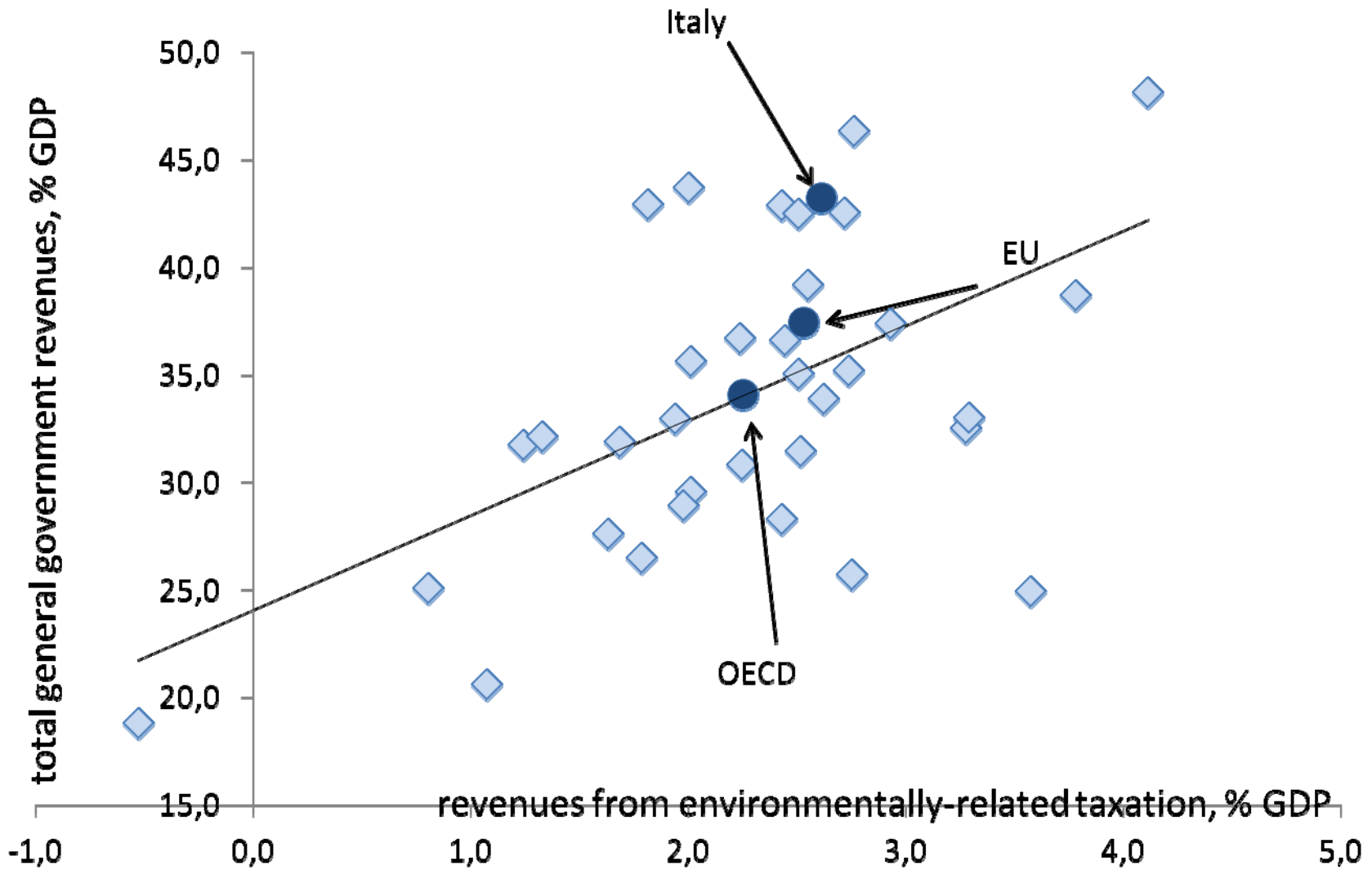


Green taxation

Potential:

- Improving market signals (for greener production, consumption, innovation, investment),
- Some tend to be less burdensome (for firms, for SME's, for entry) than regulation,
- Collecting revenues, potentially can be used to lower burden on income (e.g. labour) taxation,

Green taxation



Source: OECD Green Growth Indicators Database

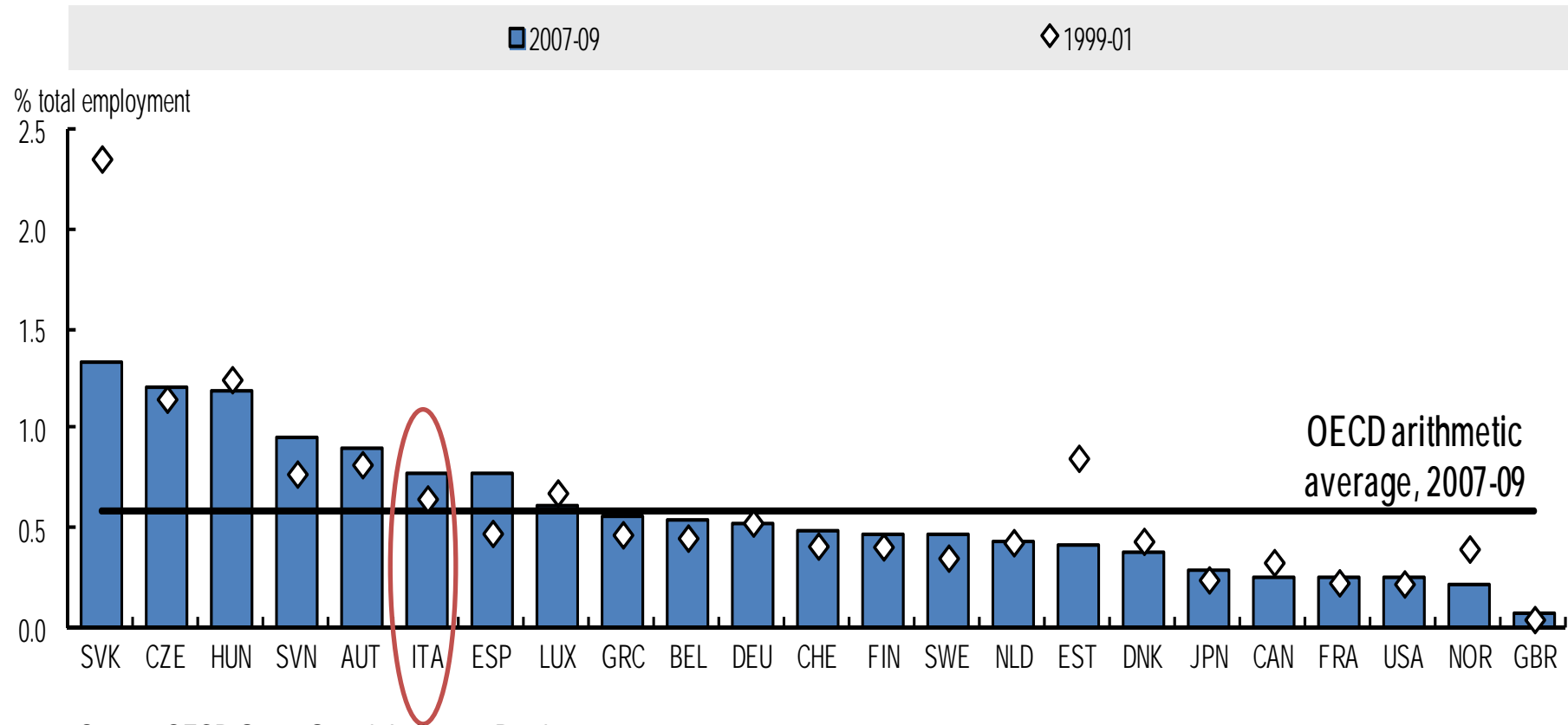
Green tax reforms

Some potential in increasing level, but strong need to review structure:

- Far from uniform pricing of externalities (eg diesel vs petrol)
- Mixes and overlaps of instruments?
- More use of market based instruments where possible (pollution charges, water abstraction fees)
- Reviewing tax expenditures
 - Those harmful to the environment?
 - Those that support “green” but not “growth” e.g. are inefficient?
- Stable tax structures – commitment for many years, anchor expectations,
- Enforcement!

Key: market instruments work well when markets work well...

Green Jobs



Source: OECD Green Growth Indicators Database

- Employment in environmental goods and services sectors

Don't aim for “green jobs” (EGS) but go for green jobs - need jobs, and all jobs need to be green(er):

- Framework conditions for job creation:
 - Focus on barriers to entrepreneurship – administrative burdens, barriers to entry/exit, lack of competition, informal barriers between regions/provinces, unification of procedures (eg among regions), streamlining (PMR, WB Doing Business still ranking poorly, e.g. construction permits seem to take ages),
 - Labour market flexibility,
- Pricing and regulation of environmental externalities to make sure these jobs are green(er)

A green growth strategy for Italy

Not easy, but gives an opportunity to put the economy on a stable growth path, to get eco-innovation & green jobs:

- Provide incentives for the economy to grow and to green itself:
 - Focus on reducing barriers to entrepreneurship, competition, innovation and job creation (including in services!),
 - Providing and enforcing the right “green” signals (taxes and regulation),
 - Assuring stable longer term conditions for investment in green (technology, innovation, infrastructure) by a firm commitment to smart GG policies in the future,
 - Use of scarce public resources efficiently
 - Monitoring and assessing the effectiveness/efficiency of policies
 - Public acceptance

Summary – how reap the opportunities of Green Growth

How to overcome the obstacles?

- Links to structural economic reform priorities.
- Stakeholder engagement
- Cost-benefit/cost-effectiveness analysis to select the right tools
- Regular review of policies and measurement of progress.
- Managing the transition.