

Green Growth Knowledge Platform

Plenary 4 – Green employment

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Green jobs:

What have we learned so far and what are some of the key questions requiring further study?

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Outline of the presentation

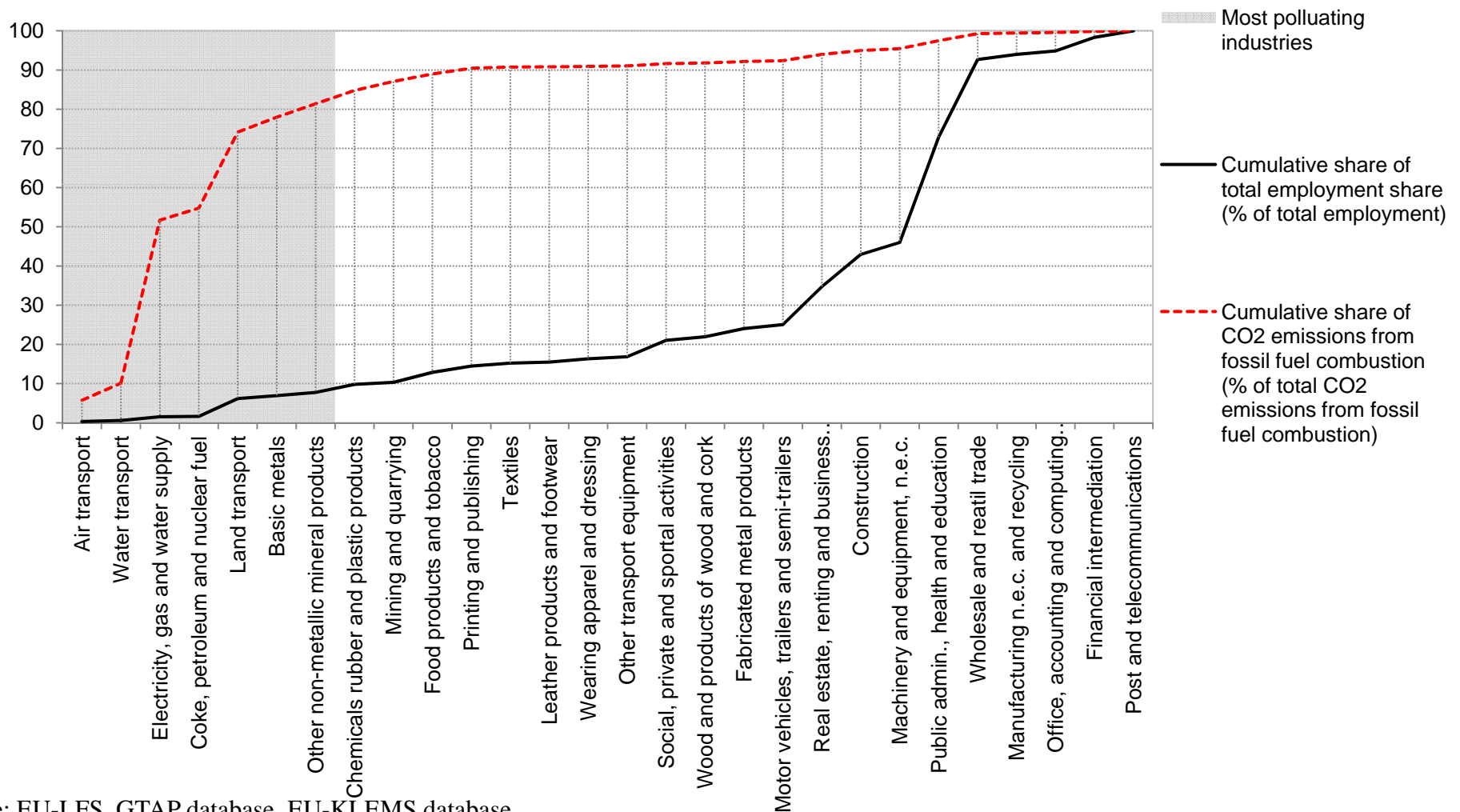


1. What has the OECD learned from labour market data and simulation models about how labour markets will be reshaped by GHG mitigation policy?
2. What are some of the key questions for future research?

1. Which are the most polluting jobs?



- “Brown jobs” account for only a small share of total employment in OECD countries



Source: EU-LFS, GTAP database, EU-KLEMS database

1. The green challenge for the labour market



- **GE models are needed to capture all direct and indirect channels through which green growth policies can affect the LM**
- **The OECD ENV-Linkages model:**
 - Key features
 - OECD simulation tool to model the economic impact of climate change mitigation policy
 - Global CGE model divided into 15 regions/major countries
 - 26 industries with an emphasis on the energy sector
 - New analysis giving greater attention to labour market adjustment
 - Two illustrative policy scenarios
 - Scenario 1 – OECD countries cut GHG emissions to 50% of 1990 levels by 2050 (*OECD-wide ETS*), while non-OECD countries cut 2050 GHG emissions by 25% of BAU levels (separate ETS)
 - Scenario 2 – Same global GHG reduction achieved via a *Global ETS*

1. The green challenge for the labour market



- Ambitious mitigation policies have an economic price that is shared by workers

		Scenario 1 (separate ETS)			Scenario 2 (global ETS)		
		Carbon price	Real GDP	Real net wage	Carbon price	Real GDP	Real net wage
OECD	2015	3.9	-0.02	-0.16	0.84	0.00	-0.03
	2020	21.2	-0.15	-0.78	3.07	-0.02	-0.12
	2030	60.1	-0.61	-1.82	14.79	-0.11	-0.47
Non OECD	2015	0.4	-0.01	-0.09	0.84	-0.01	-0.16
	2020	1.7	-0.06	-0.34	3.07	-0.07	-0.50
	2030	8.4	-0.27	-1.13	14.79	-0.40	-1.67

1. The green challenge for the labour market



- Recycling carbon tax revenues to reduce the taxation of labour income can cushion the fall in after-tax wages

Impact of revenue recycling in OECD countries
on real net wages (scenario 1)

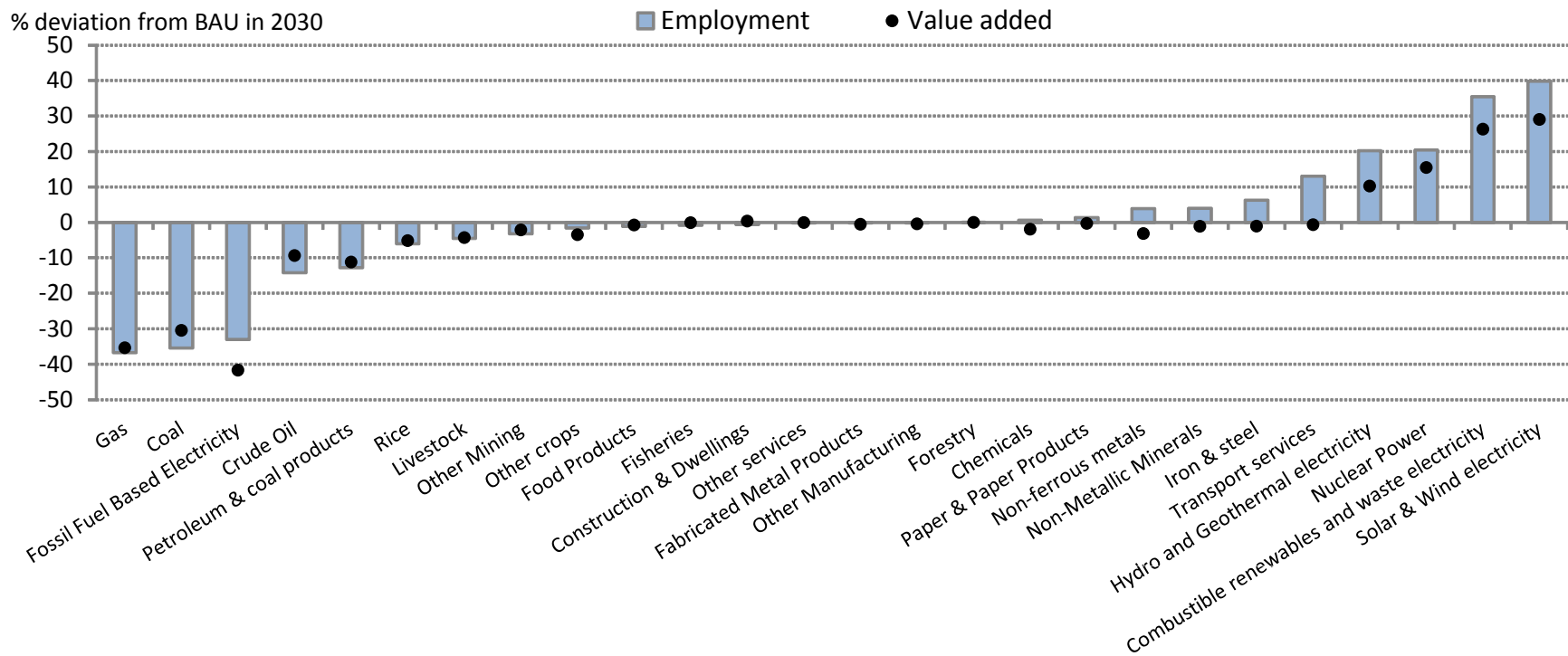
	Revenues from ETS	Change in real net wage	
		Neutral recycling	Work friendly recycling
2015	0.15	-0.16	0.16
2020	0.61	-0.78	0.54
2030	1.04	-1.82	0.36

1. How is the job mix likely to change if carbon emissions are sharply reduced?



■ Job reallocation will increase

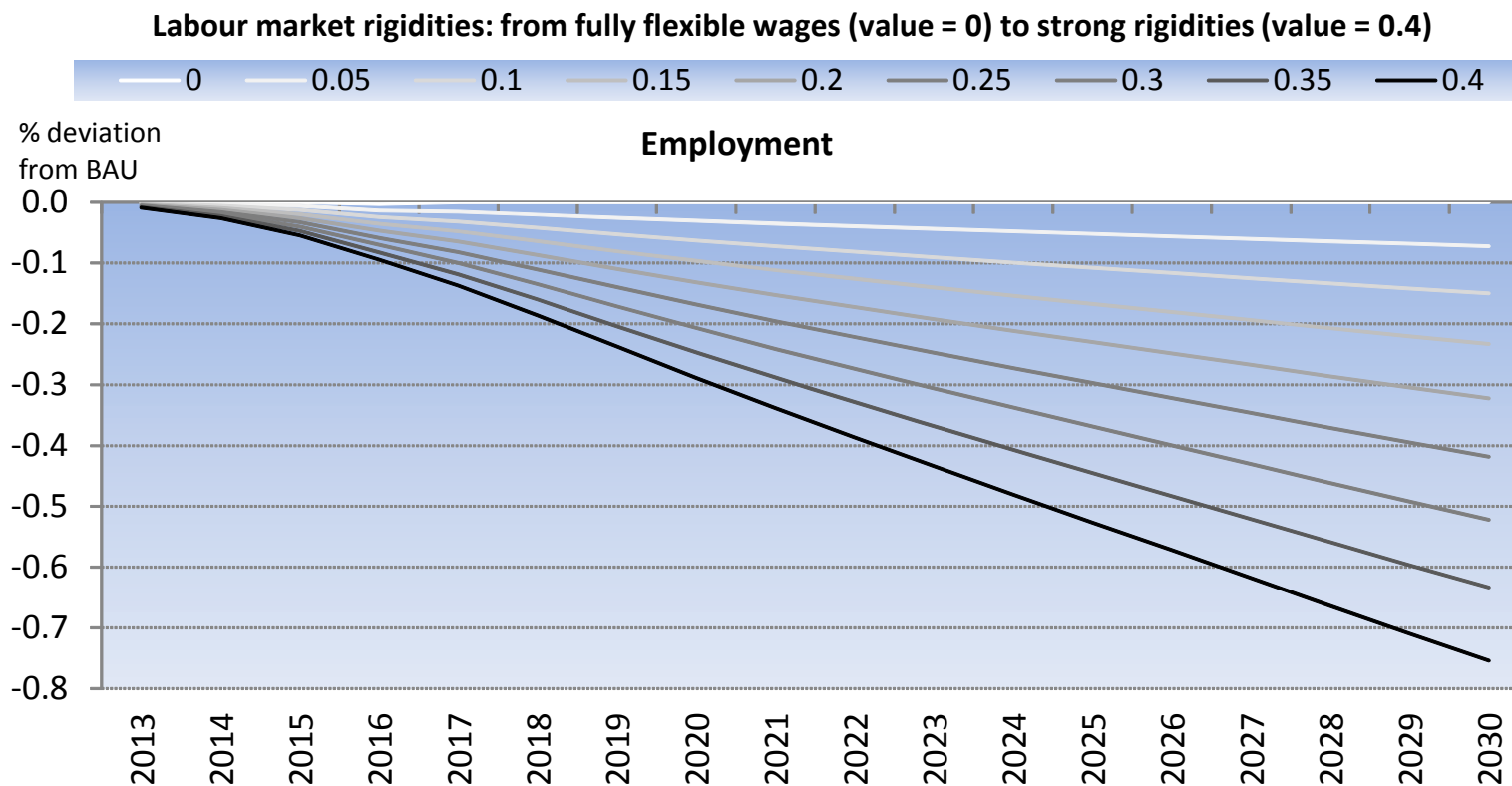
- ~ 1pc points more inter-sectoral job reallocation by 2030 (10pc points 1995-2005)



1. The green challenge for the labour market



■ Labour market rigidity can result in falling employment



2. What are some of the key questions for future research?



- What is different about GG as a driver a structural change in labour markets?
 - How intense will the restructuring be (energy sector is a small employer)?
 - Will GG raise overall skill demands as did ICT and globalisation?
 - Does the government-driven character of the GG revolution matter for labour market adjustment?

- Are we spending too much time looking for win-win solutions, rather than managing structural change?
 - Is cutting labour taxes the best use of new revenue from environmental taxes?
 - Reducing harmful environmental impacts and poverty/unemployment are both essential goals, but a green jobs focus may distort attempts to reach both goals?
 - Should governments actively promote green export champions?/Are green enfant industries more promising than past experience would suggest?

2. What are some of the key questions for future research?



- How feasible is it to try to anticipate green skill requirements and take proactive measures to prevent skill shortages?
 - Any close historical precedents demonstrating that this is feasible?
 - How do the expected costs and benefits of a “wait and see” approach compare with a more proactive approach?
- How can green jobs research broaden out from its focus on climate change mitigation policy to other forms of mitigation and adaptation?
- How do the answers to all of these questions differ by level of economic development and national economic specialisation?

Thank you

Annex 1: What can we learn from the ICT revolution and globalisation?



■ Similarities

- Particular sectors will be most affected, but indirect effects will reach all sectors (e.g. those resulting from rising energy prices)
- Labour reallocation will play a central role (even if much of it cannot be predicted)
- Green technologies will have deep and pervasive impacts on workers and jobs in all sectors of the economy

■ Differences

- Not clear if green growth will raise overall skill requirements, but it will change the mix of skills in demand
- Green taxes may be able to reap “double-dividends” (less pollution and more jobs) if they are recycled so as to reduce labour taxation
- Decoupling production from environmental damages may put downward pressure on wages as production cost rise relative to the output of marketable goods and services

Annex 2 - The Role of Employment and Social Policy in Green Growth



- E&S policies are crucial “supporting actors” in a comprehensive Green Growth Strategy
 - Environmental and innovation policies have the leading roles...
 - but production cannot be decoupled from environmental damage without also transforming work and the labour market
 - E&S policies should enable the green transition, while also assuring it is smooth and just...
 - but this is complicated by our limited ability to predict what a green labour market will look like

- Managing multiple types of labour market transitions
 - Reallocation of workers from declining “brown” sectors and firms to growing green sectors and firms
 - Retraining workers on continuing jobs as they are re-engineered