THE IMPACT OF CLIMATE POLICIES ON COMPETITIVENESS

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- The introduction of environmental policies raises concerns about their costs and their impact on firms' "competitiveness"
 - Particularly if environmental policy stringency differs across countries
- Is this concern founded?
 - Environmental Policy Stringency (EPS) indicator
 - Energy prices/taxes
 - Carbon prices

Past changes in environmental policy stringency have been significant



— EPS (OECD average) (left axis)

--- Industry energy price average across 25 OECD countries in USD/ton of oil equivalent (right axis)

Increased ambition on average, but diverging: EPS 1995 & 2015



2015 + 1995



Figure 2.1 A cost-effective low-carbon transition requires higher carbon prices

Share of emissions from energy use priced above EUR 30 per tonne of CO2, estimate for 2018



OECD work on environmental policies & economic outcomes

- We used an indicator of Environmental Policy Stringency (EPS) and energy prices to assess the impact of environmental policies on
 - Multiple measures of economic performance: productivity, trade, investment, FDI, employment
 - Environmental performance (energy consumption, CO2 emissions)
- But is the past informative for the future?

Energy prices: Past versus future changes needed to reach a 50 USD carbon price



• Reaching the goals of the Paris Agreement does not imply stronger increases in environmental policy stringency compared to what has been observed recently



- The impact of the EU ETS on carbon emissions and firm performance
- The impact of energy prices and carbon taxes on the French manufacturing industry

EU ETS reducing emissions, not employment



Source: "The joint impact of the European Union Emissions Trading System on carbon emissions and economic performance". OECD Econ. Dept. Working Paper 1515

The French carbon tax on industry has reduced emissions, not employment



Conclusion on economic impacts: Small overall but heterogeneous effects

- Modest aggregate effects on the economy relative to other factors (eg automation, digitalisation)
 - Stricter environmental policies explain 1-3% of the change in manufacturing employment, trade and investment over last 20 years
 - Comparison: labour markets have substantial turnover (US ≈ 40%/year); 25% of jobs at "high-risk" of being automated (Brookings), 35% medium risk
- Small average effects hide heterogeneous effects across sectors and firms
 - Pollution intensive firms/sectors lose, low pollution win
 - High productivity firms win, low productivity lose

Policies affect productivity growth: most advanced firms gain, laggards lose



High pollution pollution intensitv. intensity. high low productivity productivity

High

l ow pollution intensity. hiah productivity

I ow pollution intensity. low productivity

Env'tal policy decreases exports in high pollution sectors, increases exports in low pollution sectors



Small overall effect on employment, but heterogeneity across sectors





- To date, no evidence of important adverse impacts
 - But carbon prices are not very high, and free permits and compensation for cost increases can support the ability to compete
 - And heterogeneous effects: concentrated impacts
- What are the possible tools to avoid competitiveness effects and carbon leakage where the threat becomes real?
 - Border carbon adjustments are being considered by the EU. Economics straightforward; practicability, legality and politics harder
 - Alternatives: free permits/cost compensation (current), excise taxes, abatement payments, elimination of environmentally harmful subsidies, removal of trade barriers to diffuse environmental technologies, increased support to innovation and adoption

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