The Macroeconomic Impact of the Energy and Climate Provisions of the US IRA: Evidence for the EU

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European Commission

Motivation

US Inflation Reduction Act (IRA)

- Target: energy & climate industries
- $391bn in tax provisions
- Local Content Requirements

Concern: Relocation of firms' investment and production from EU to US in green sectors

European industry pivots to US as Biden subsidy sends 'dangerous signal'

Politicians warn of investment exodus across Atlantic, driven by US incentives and cheaper gas prices

At Davos, European Distress Over a 'Made in America' Law

The U.S. Inflation Reduction Act stirred talk of a trade war, but also proposals for a similar E.U. initiative to stimulate green investment.

This Paper

Research Question: Quantify Long-run Macro Impact of IRA on EU's Green Sectors

1. No consideration of available EU green funding
2. With consideration of available EU green funding
   [full & partial absorption]

Main Findings

- With use of green EU funds: strong growth prospects of EU's green sector, despite IRA adoption
- High/Full absorption necessary to unlock positive effect

Previous Literature

Rusch et al. (2023): ECB's Euro Area and Global Economy Model (EAGLE)

- Model approach: increase in subsidies for intermediate goods in the US
- Short/medium-term impact on Euro Area (total) production negative, but small

Attinasi et al. (2023): Multi-country, multi-sector model

- Model approach: trade cost shock that decreases rel. price of US-produced goods
- Negative and non-negligible effect on EU's green industries

► But: **Simultaneous increase in EU's green funds not considered!**

Green Funding in the EU

Increase in EU Green Funds in MFF 2021-27: ~ €330bn

- Main drivers: (1) creation of NextGenEU, (2) increase in green target in budget
- Considers only climate funding, not other related targets, e.g. biodiversity

Summary Stats on Green Funds in MFF 2021-27

- Average green funds per MS: ~ €19bn
- Average increase in green funds (rel. to prev. MFF): ~ €12bn [= 3.6% of GDP]

Modelling the Macro Impact

CORTAX: Corporate Taxation Model

- Applied Computable General Equilibrium Model
- 30 countries (EU27, US, UK, JP), linked via trade and firm investments
- 3 firm-types: domestic, int’l MNE HQ, int’l MNE subsidiary
- Firms maximize their value, s.t. country-specific tax rules
  [determines: investment, employment, production, profit shifting, debt-equity etc.]
- Calibrated based on 2019 data
- One-sector model (results scaled by size of green sector)

Modelling the Macro Impact

Calibration for the US

- Net costs of IRA over ten years: $241bn (CBO)
- Equivalent to 0.13% of GDP (p.a.)
- Modelling: increase in CIT deductibility that matches net fiscal impact

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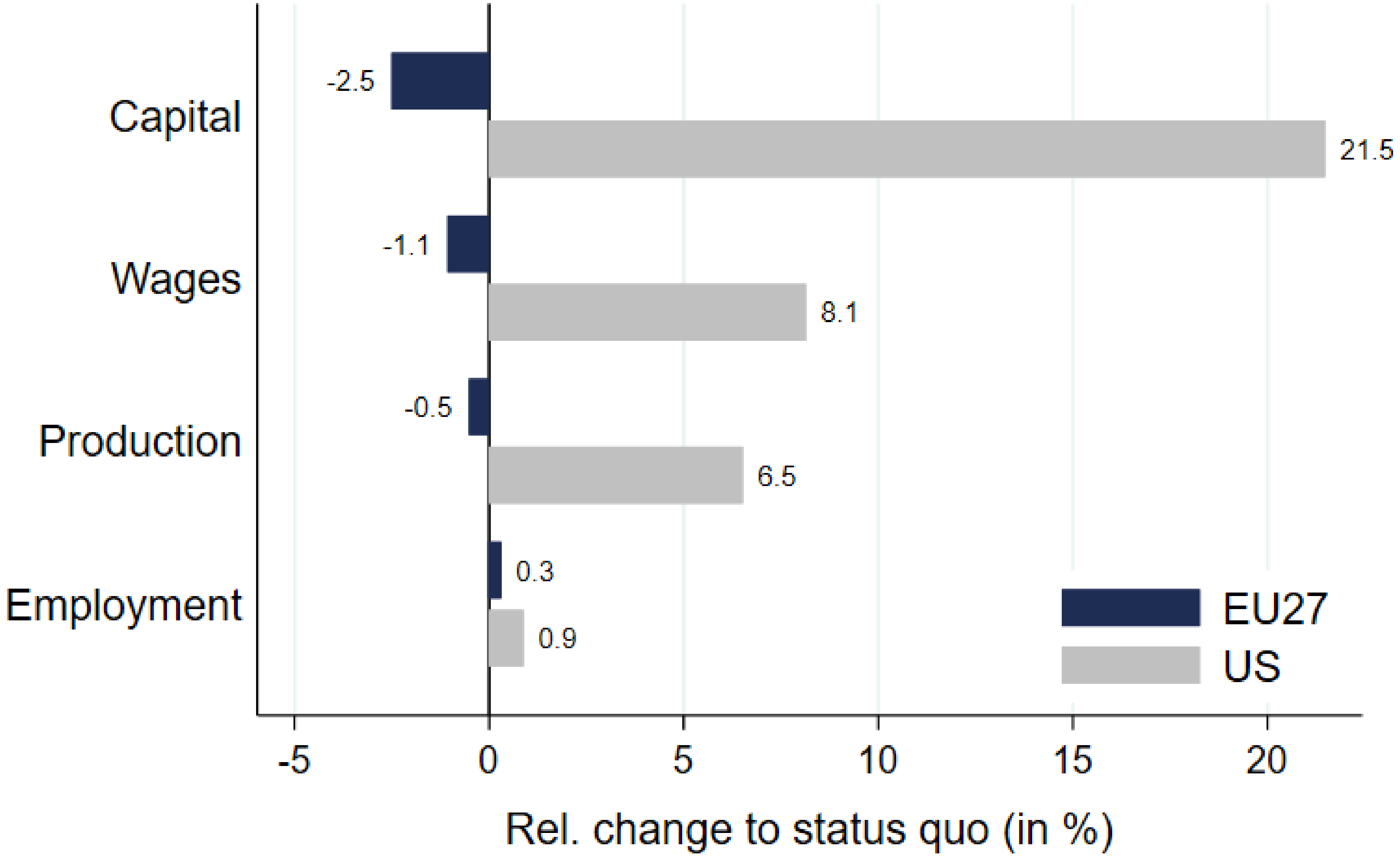
Modelling the Macro Impact

Calibration for the EU

- Assumption: Additional green funding → permanent TFP ↑
  [0.12% increase in TFP per percent of increase in funding rel. to GDP]
- Refinancing of green funds via higher permanent gov't debt [+2.3%]
- Green funding initiatives at the country-level not considered

Results

► Impact on Green Industries, (1) EU funds not considered



Results

- Impact on Overall Public Finances, (1) EU funds not considered

	EU27	US
CIT Rev.	+0.15%	-14.78%
Total Tax Rev.	+0.01%	-0.66%

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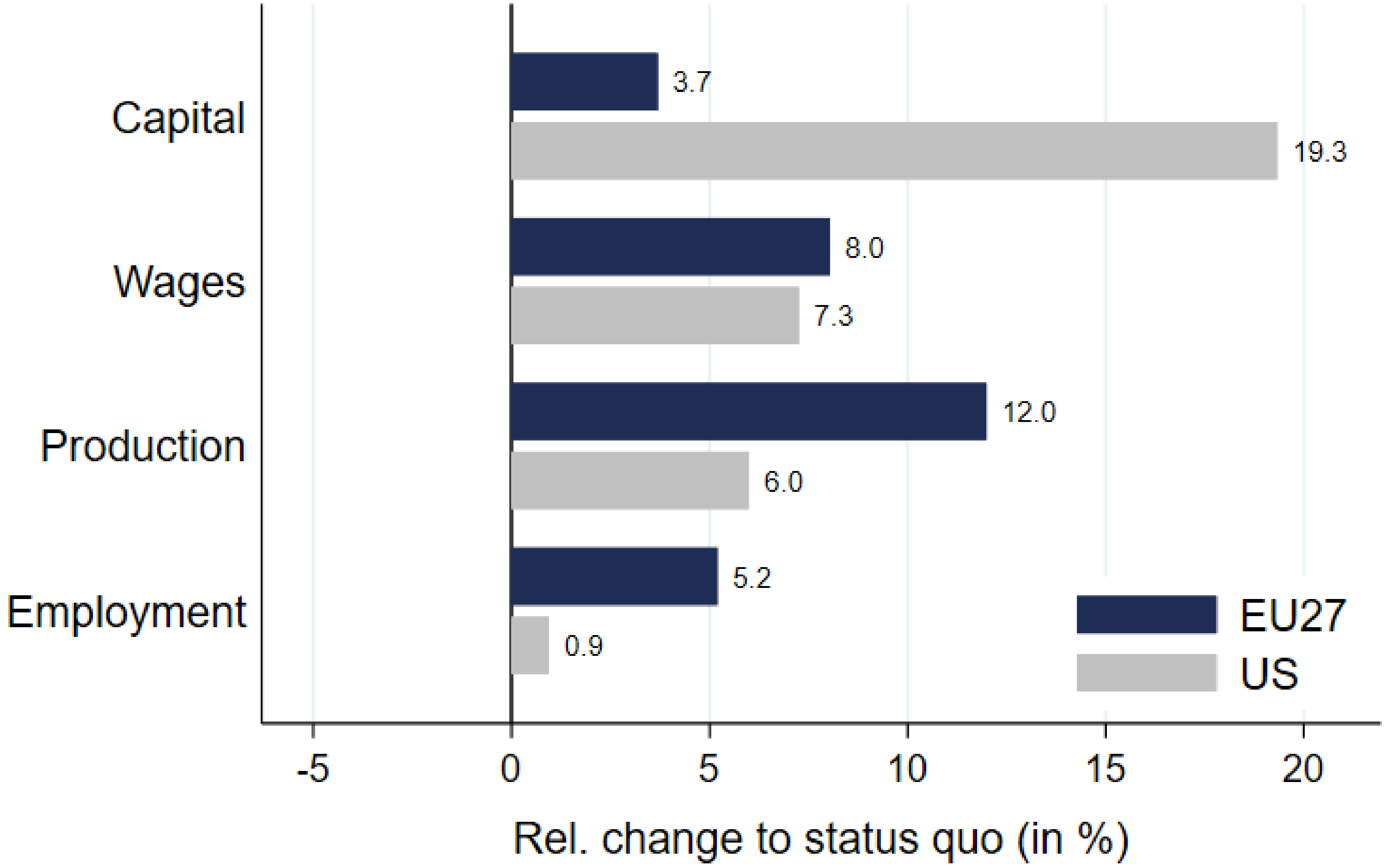
Results

- ▶ Impact on Green Industries, (2) EU funds fully absorbed



Results

- Impact on Overall Public Finances, (2) EU funds fully absorbed

	EU27	US
CIT Rev.	+0.70%	-14.38%
Total Tax Rev.	+0.38%	-0.62%

Conclusion

Key Take-away

→ When assessing the IRA’s impact, green EU funding needs to be considered

- ▶ Without green EU funding

  ↳ investments -2.5%, production -0.5%, total tax rev. +/-0.0%

- ▶ With green EU funding [full absorption]

  ↳ investments +3.7%, production +12.0%, total tax rev. +0.4%

Thank you
and keep in touch

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