



Low Carbon Ukraine

Policy advice on low-carbon policies for Ukraine

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Federal Ministry
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Designing a suitable Emissions Trading System for Ukraine

Squaring EU convergence, price certainty and competitiveness

Rouven Stubbe (Consultant, Berlin Economics)

Berlin/Kyiv, February 2024

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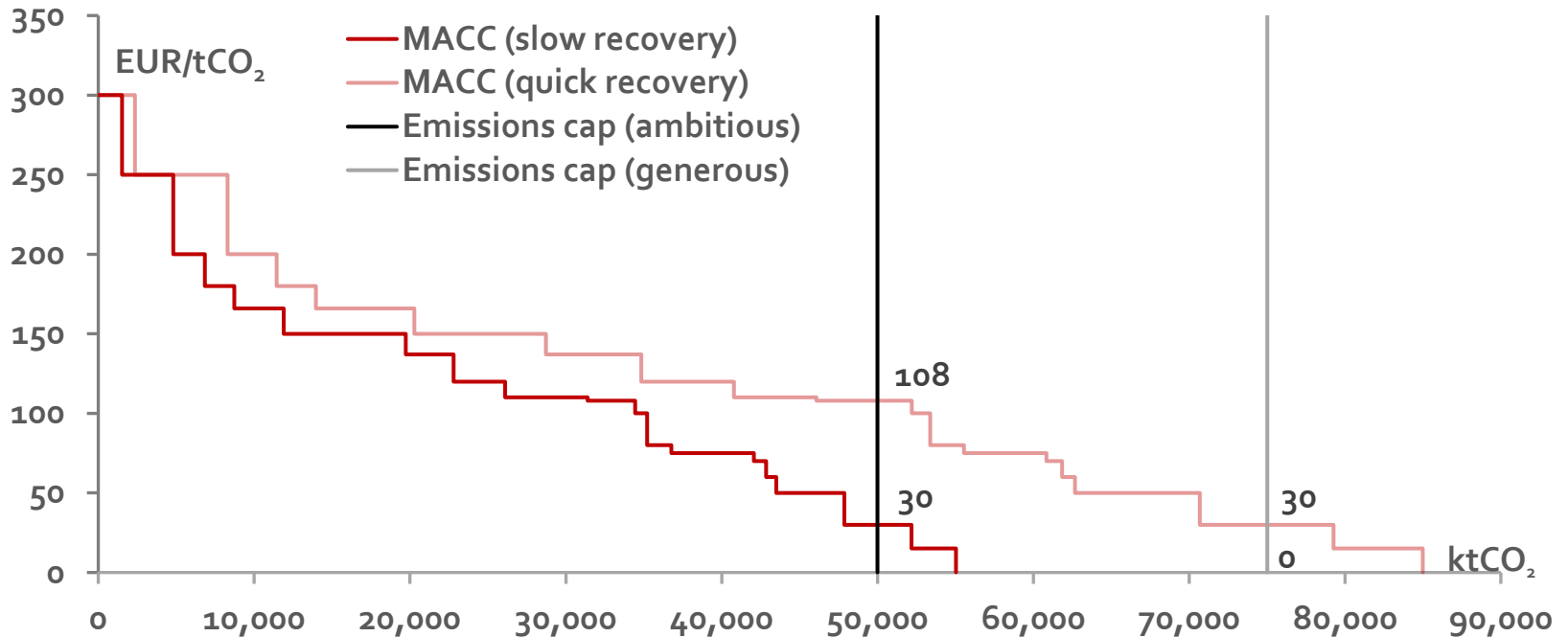
Background: Prospects for ETS in Ukraine

- **Challenge**: full alignment with EU climate legislation and policy instruments while repelling the russian full-scale invasion.
 - **EU accession process**: Ukraine needs to significantly **step up climate policy ambition** in coming years (EU 2050 climate neutrality target)
 - **Carbon pricing**: Most efficient path to cost-effective, cross-sectoral emissions reductions
 - either stepping up carbon taxation (currently <1 EUR/tCO₂)
 - or introducing emissions trading system (ETS)
 - **Commitment to introduce ETS** as part of UA-EU Association Agreement
 - Could also facilitate exemption from EU-CBAM for electricity exports (further conditions apply)
 - Also required as part of EU accession process
- **ETS development currently in progress**
- legal framework
 - institutional design

Carbon pricing under uncertainty – the case of Ukraine (1/3)

- **Carbon price uncertainty is inherent to any ETS**
 - Price is determined by market forces (supply and demand for allowances)
 - Demand depends on economic growth, technological progress and other structural changes to the economy
- **Carbon price uncertainty would be extremely high for Ukraine**
 - Heightened uncertainty regarding the structure of Ukraine's future energy sector and industrial asset base
 - Large uncertainties concerning the timing and dynamics of Ukraine's post-war reconstruction and economic recovery
 - **Large uncertainty about future demand for fossil fuels and thus emissions allowances**
- **Difficult for ETS allowance cap-setting**
- **Same cap could lead to extremely different carbon prices under different scenarios for post-war recovery**

Carbon pricing under uncertainty – the case of Ukraine (2/3)



Ukrainian ETS prices under two illustrative scenarios and two potential emissions allowance caps

Source: MEPR, UNECE, own assumptions and calculations

→ Span of potential carbon prices for the same emissions cap could be so large that it renders planning for investors and businesses impossible

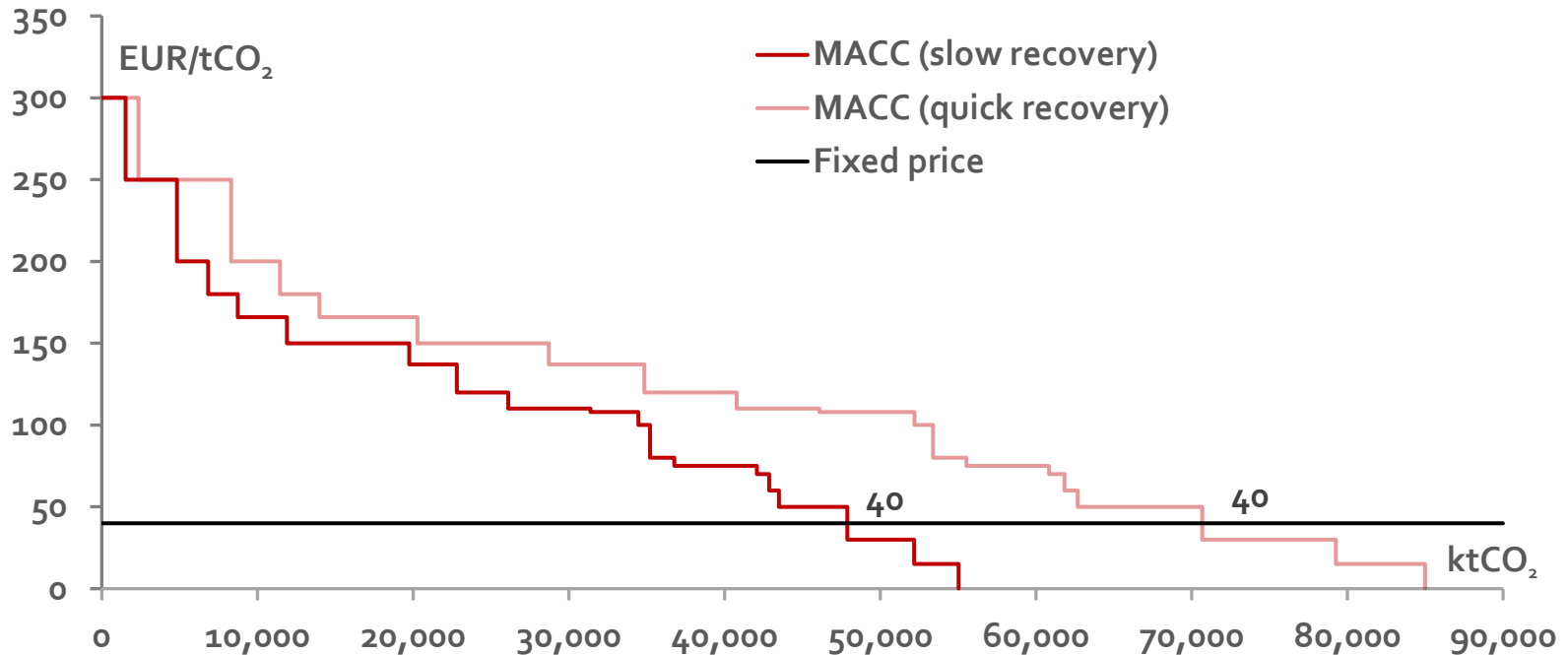
Carbon pricing under uncertainty – the case of Ukraine (3/3)

- Avoiding such a high level of carbon price uncertainty will be paramount for a successful ETS design.
- Without a predictable carbon price, the level of green investment will be significantly lower.

→ How to reduce carbon price uncertainty in an ETS?

- **Option 1:** Transitional period with fixed prices (no hard cap)
- **Option 2:** Price collar with increasing carbon price floor

Option 1: Transitional period with fixed prices (no hard cap)



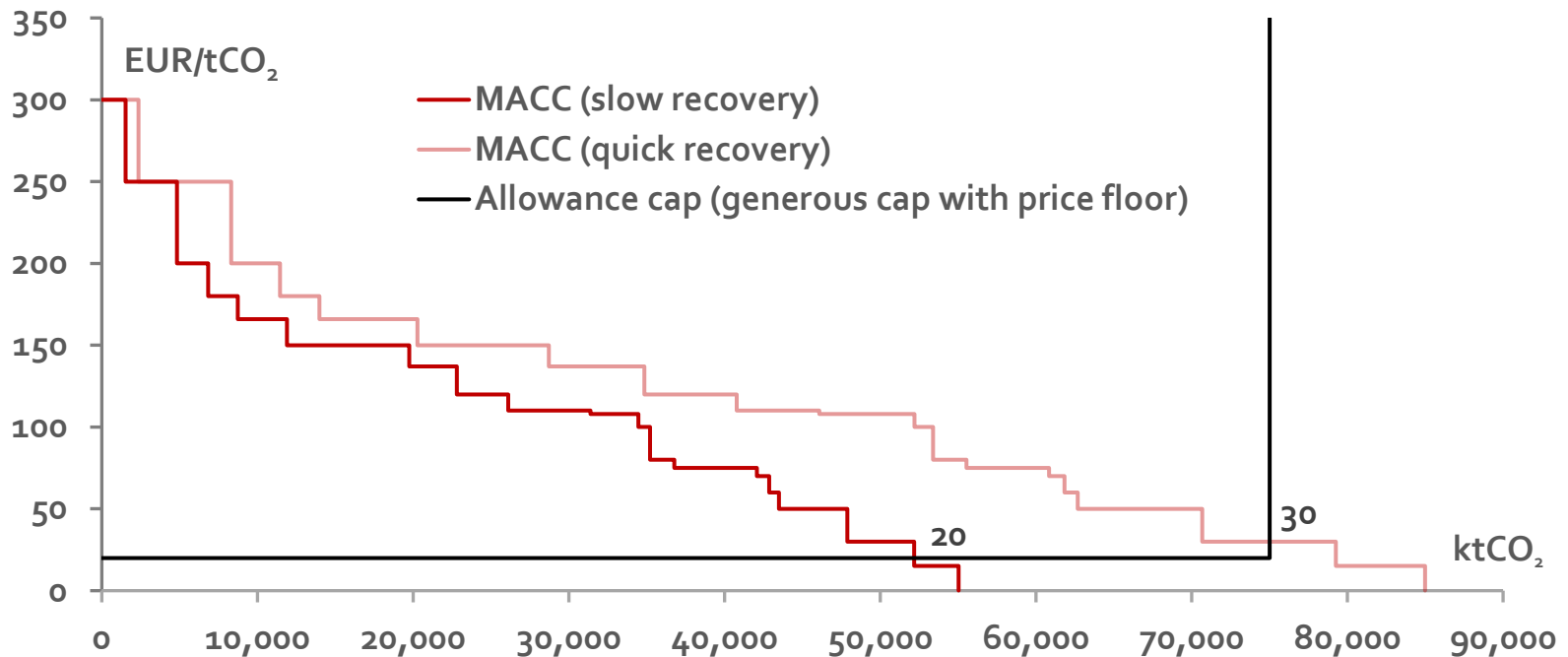
Ukrainian ETS prices under two illustrative scenarios, with fixed price

Source: MEPR, UNECE, own assumptions and calculations

→ Simple and easy

→ Examples: German ETS for buildings and road transport (precursor to EU-ETS II), New Zealand ETS and former Australian ETS during initial periods

Option 2: Price collar with increasing carbon price floor



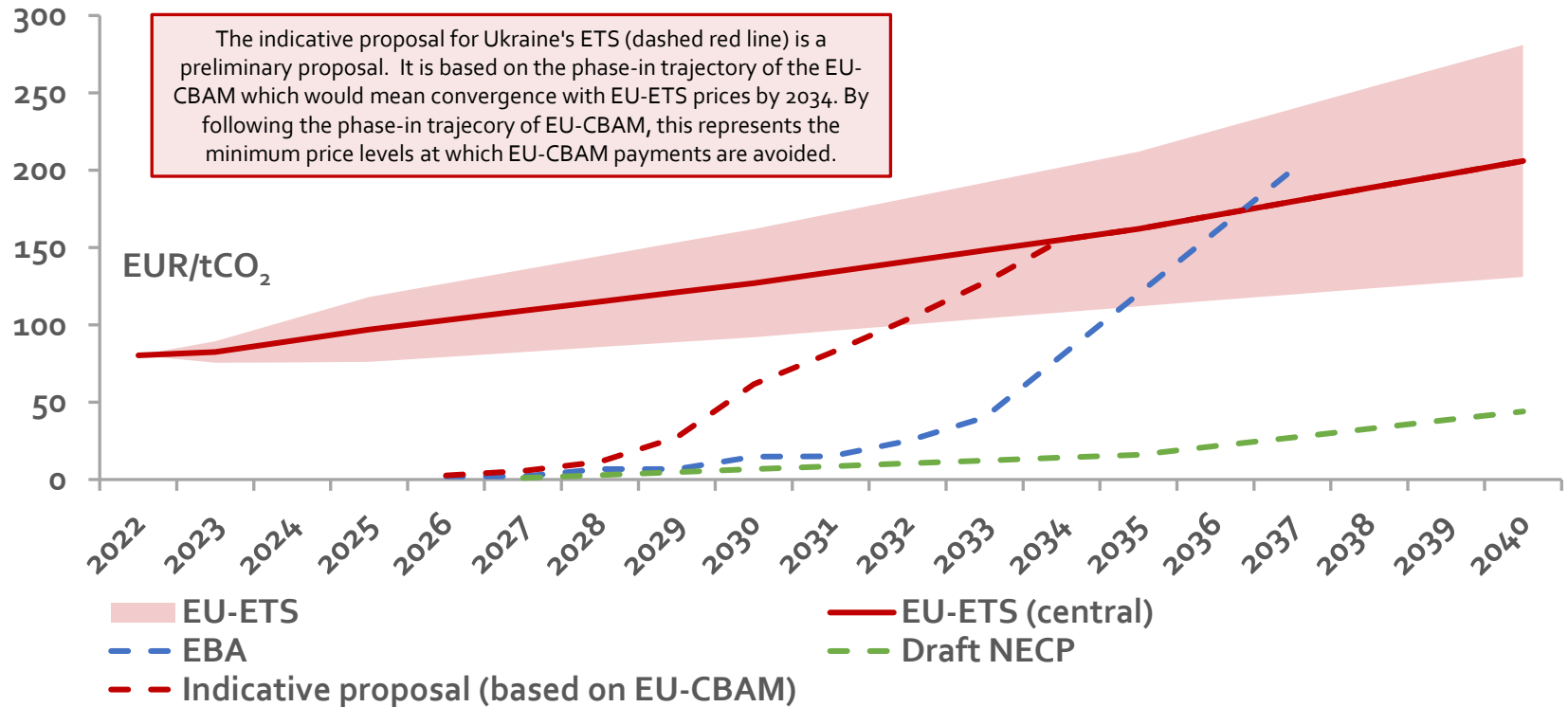
Ukrainian ETS prices under two illustrative scenarios, with generous allowance cap and price floor

Source: MEPR, UNECE, own assumptions and calculations

→ More complex but feasible

→ Examples: UK ETS, UK during EU-ETS, California-Québec, RGGI (Northeastern US), current New Zealand ETS

Price path matters for EU convergence & CBAM



Proposed price trajectories for Ukraine's ETS (vs. EU-ETS price forecasts)

Sources: Pahle et al. (2023), EBA, NECP modelling workshop, own calculations

→ Convergence with EU-ETS prices to avoid a carbon price shock at EU accession

→ Follows phase-in trajectory of CBAM to avoid CBAM payments

Conclusion

- **High uncertainty in a Ukrainian ETS could jeopardise the scheme without a strong price stability mechanism**
- Predictable carbon prices are essential for businesses and investors to form reliable price expectations and **plan investments**, including in green and low-carbon assets
- **Two options for a reliable price stability mechanism:**
 - **Option 1:** Transitional period with fixed prices (no hard cap)
 - **Option 2:** Price collar with increasing carbon price floor
- A predictable **price convergence to EU-ETS price levels** is also essential to **avoid a carbon price shock upon EU accession**
 - Moreover, also helps to **retain carbon revenues in Ukraine** that would otherwise be collected by EU-CBAM
- Price (floor) trajectory should be **set and announced for several years in advance** to allow businesses and investors to plan long-term investments
- A well-designed **carbon leakage protection** system based on partial free allocations and/or a domestic Ukrainian CBAM could help **avoid excessive adverse impacts on Ukraine's energy-intensive industries**

Further readings...



Policy Proposal Series [PPr/01/2024]

Designing a suitable Emissions Trading System for Ukraine Squaring EU convergence, price certainty and competitiveness

Rouven Stubbe
Tommaso Ficara
Pavel Bilek
Anubha Bhatia
Henriette Weser
Robert Kirchner



Berlin/Kyiv, 2024

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Policy Briefing Series [PB/02/2024]

Exemption of electricity exports from EU-CBAM Conditions for exemption and assessment for Ukraine

Henriette Weser
Rouven Stubbe
Pavel Bilek



Berlin/Kyiv, February 2024

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Head of Energy and Climate

Robert Kirchner

kirchner@berlin-economics.com

Project Manager

Elena Budaragina

budaragina@berlin-economics.com

www.lowcarbonukraine.com

Tel.: +49 30 2064 34 64 – 0