Ariadne @ Brussels 7 December 2023

# TARGETED SOCIAL COMPENSATION AND IDENTIFICATION OF VULNERABILITY: WHAT IS NEXT FOR SCIENCE TO SUPPORT POLICY?

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#### AGENDA

- Welcome and aim of the workshop (5 min)
- Framing the problem (5 min), followed by inputs:
  - Inputs by **academics** (T. Douenne, L. Stern, S.Feindt/M. Pahle; 5 minutes each): Where does the **science stand**? Why is targeting so important, and yet **so difficult**?
  - Inputs by **consultants/think tanks** (M. Catuti, K. Schumacher & N. Unger; 10 min each): Where does **policy action** and related applied research in member states **stand**? Is support for the vulnerable about to be implemented, and actually targeted?
  - Reactions from EU COM (T. Siebern-Thomas, E. Srnová; 5 min each)
- Open discussion (45 min)





#### BACKGROUND AND AIM

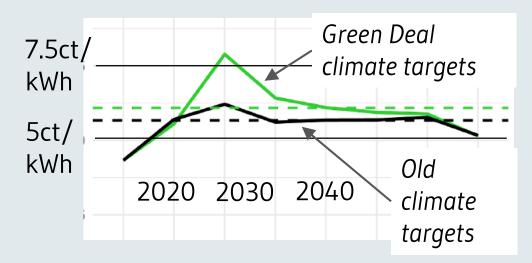
With more stringent climate policies and higher energy prices it has become clear that supporting vulnerable groups will be of the essence. The creation of the Social Climate Fund spearheaded this discussion on the EU level, established criteria and is now prompting implementation in EU member states. In this event we will discuss what role science can play to support this process, and which research is needed beyond "traditional" distributional impact analysis that informed the first wave of the debate. The focus of the discussion will be targeted social compensation [and investment support], and the identification of vulnerability, which have already emerged as key topics.





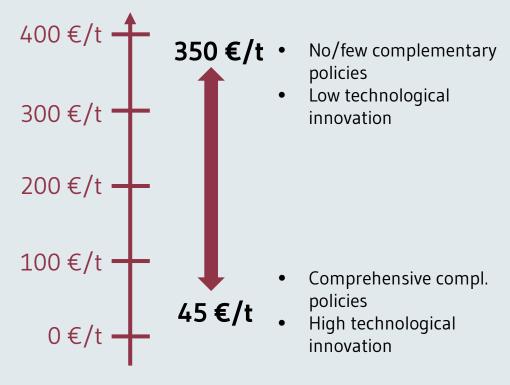
#### WHERE ARE ENERGY PRICES BOUND TO GO IN THE MID TO LONG TERM?

# Average EU wholesale electricity price bound to rise in next years, but will fall afterwards?



Source: Pietzcker et al. (2021)

#### Range of modelled ETS2 prices (2030)

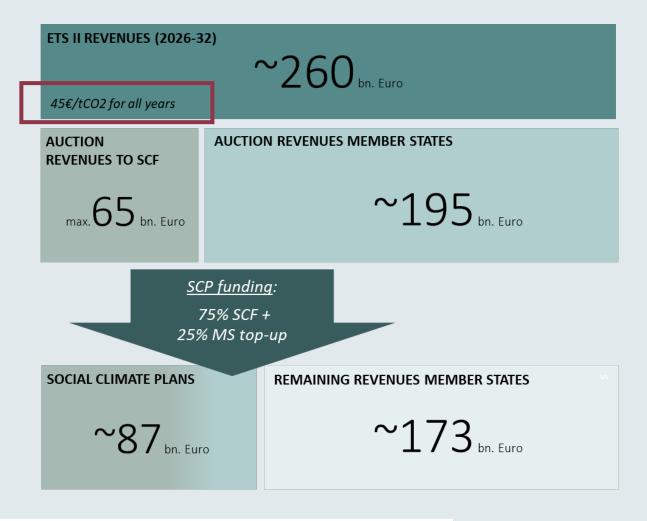


Source: Günther et al. (in preparation)





### ETS REVENUES TO COMPENSATE AND ALLEVIATE: SOCIAL CLIMATE FUND, AND MORE



#### **Beneficiaries SCF**







#### **Eligible measures SCF**

#### DIRECT INCOME SUPPORT

• Temporary, max. 37.5% of SCPs

# MEASURES/INVESTMENTS TO LOWER RELIANCE ON FOSSIL FUELS

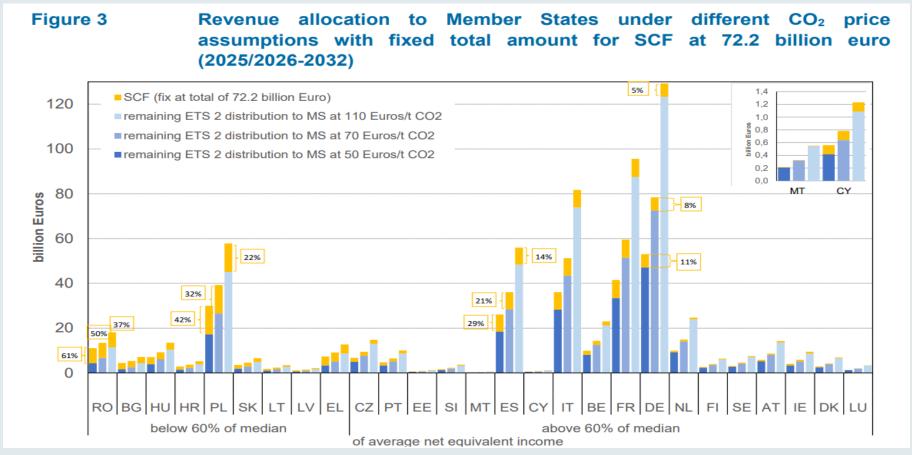
- Energy efficiency of buildings, decarbonisation of heating and cooling
- Access to zero- and low-emission mobility and transport

SUPPORTING (TECHNICAL) MEASURES





#### CONISIDERABLY HIGHER SHARE "OUTSIDE" SCF IN CASE OF HIGHER ETS2 PRICES

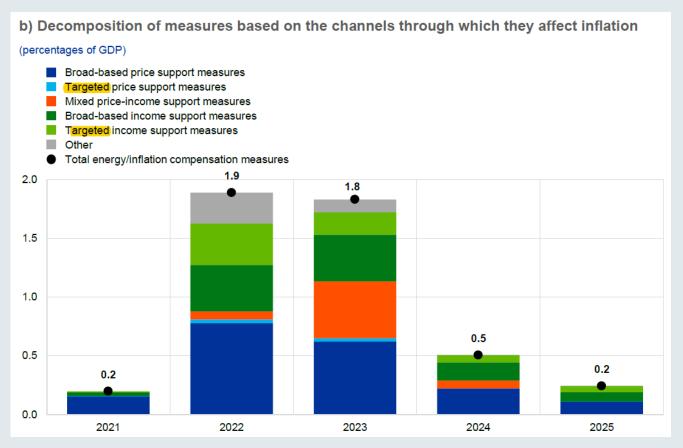


Source: Öko-Institut (2022)





#### ENERGY CRISIS MEASURES SUGGEST MEMBER STATES HAVE LONG WAY TO GO



Source: ECB Economic Bulletin 02/2023

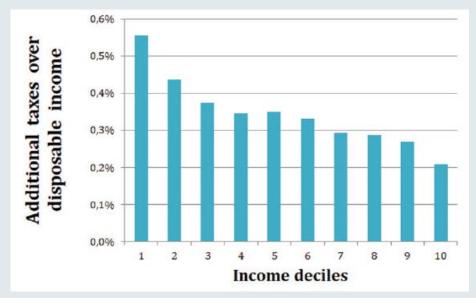
- Measure used during energy
   crisis can shed light on where
   member states stand
- Only a small share of measures were/are targeted
- Was it because of "crisis mode", or because of structural and institutional deficits?





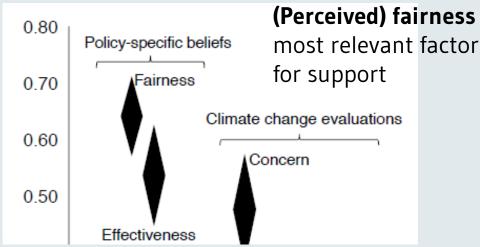
### CONTRIBUTIONS OF SCIENTIFIC RESEARCH SO FAR ("1ST WAVE")

- Distributional implications of taxes/carbon prices ("objective" dimension)
- Public support ("subjective" dimension, perceptions)
- Where to go from here? What are scientific innovations, what is needed for policy making?



Source: Douenne (2020)

Source: Bergquist et al. (2022)







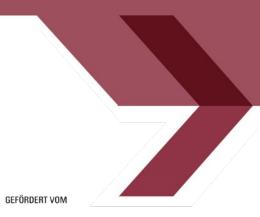
#### INPUTS AND REACTIONS

- Inputs by academics (T. Douenne, L. Stern, S. Feindt/M. Pahle; 5 minutes each):
   Where does the science stand? Why is targeting so important, and yet so difficult?
- Inputs by consultants/think tanks (M. Catuti, K. Schumacher & N. Unger, 10 min each): Where does policy action and related applied research in member states stand? Is support for the vulnerable about to be implemented, and actually targeted?
- Reactions from EU COM (T. Siebern-Thomas, E. Srnová; ~5 min each)





# PLANNED RESEARCH AT PIK/MCC

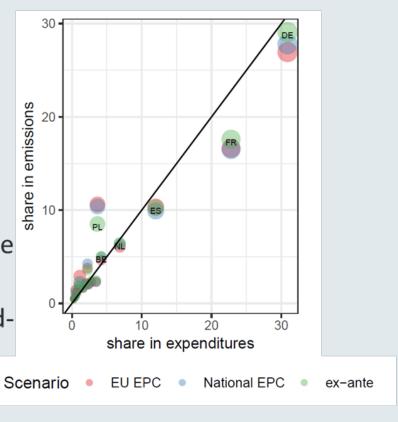






# Vicious circle of revenue recycling?

- Revenue recyling used as a remedy for public opposition
- Without source-side adjustments:
  - might increase the share in emissions of poorer countries and the most affected households
- → Well-designed and targeted revenue use required
- Here: only short-term adjustments: midto long-term required, too







## How to model the mid- to long-term effect of revenue recycling?

- Multi-regional Computable Generable Equilibrium model coupled with household microsimulation
  - Allows to combine the production side with the use side and disentangle the impacts into expenditure side, labor, capital income and transfers
    - Weitzel et al 2023, Vandyck et al. 2022, Frederickson, Landis and Rausch 2021
- Usually: household deciles or representative households
  - Identify different important household types for the coupling, e.g. differences in elasticities, risk of energy poverty, ...
- No analysis of the emission increase caused by transfers
- Avoided damages, local air pollution?





GEFÖRDERT VOM

Source: S. Feindt