Risks in carbon markets: lessons-learned from the Flexibility Mechanisms under the Kyoto Protocol

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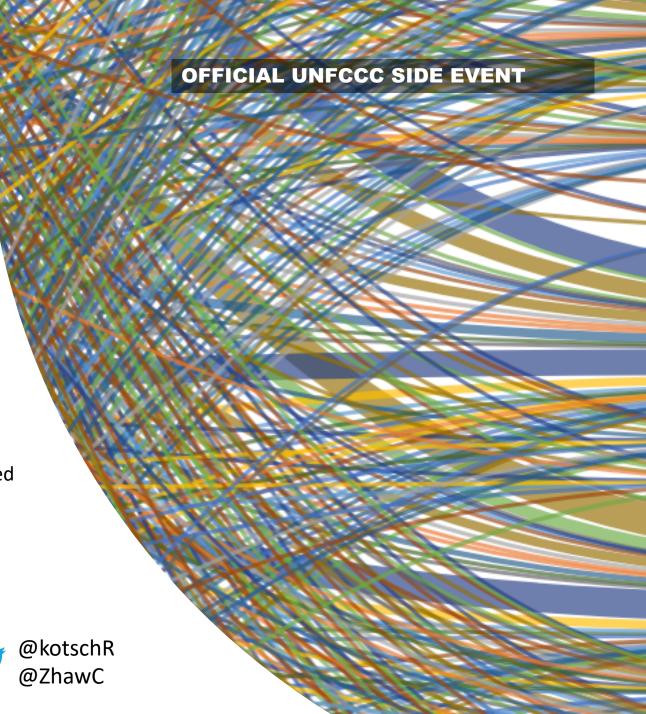
With Prof. REGINA BETZ and Prof. PETER SCHWENDNER



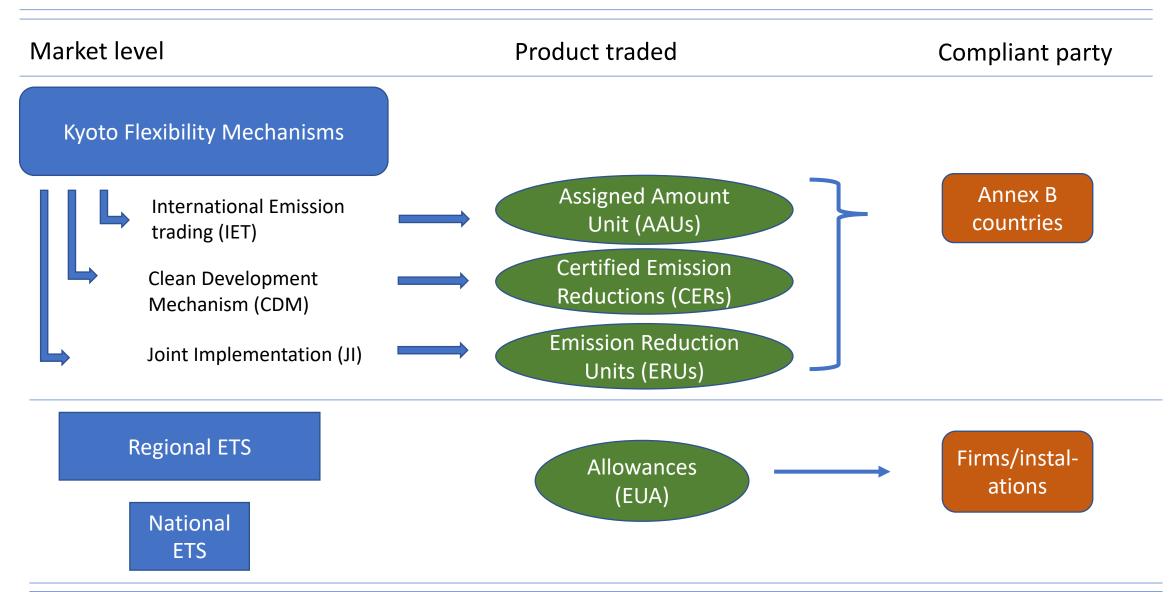






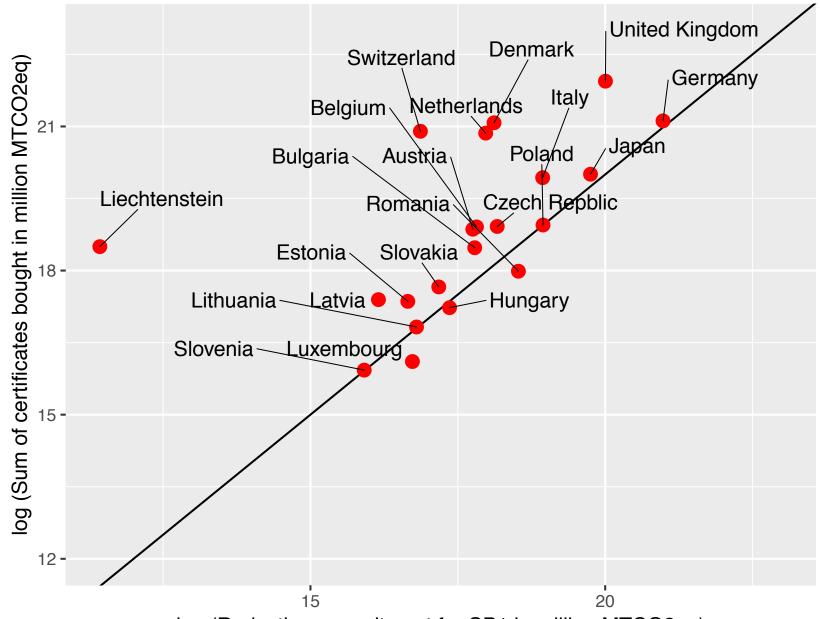


Overview of carbon markets



Trading behaviour during CP1 (2008-2012) — I

Kyoto targets vs sum of AAUs, CERs and ERUs bought 2007–2012

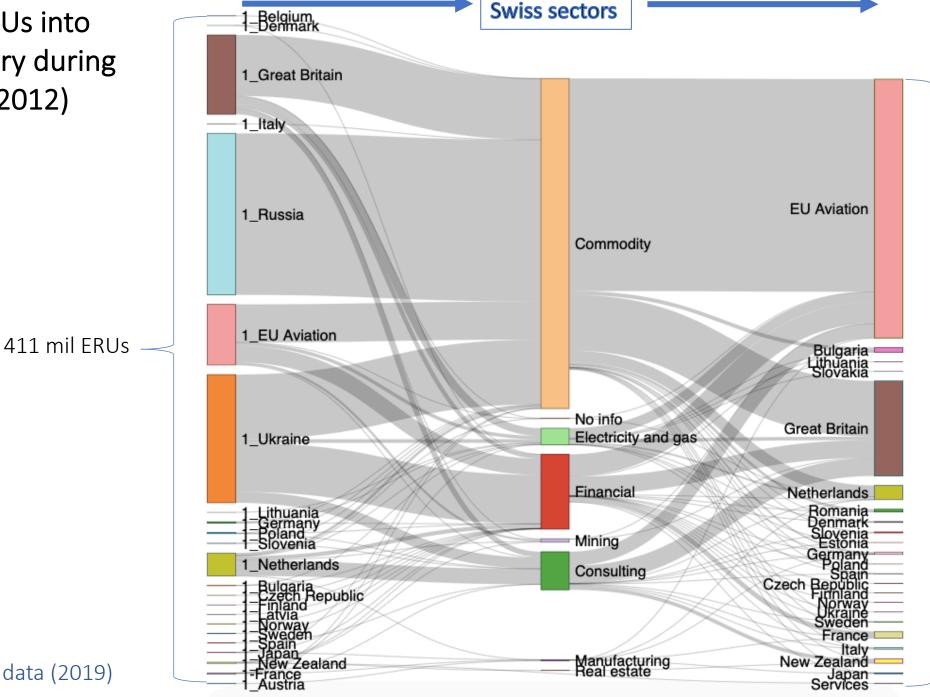


Based on data from the Institute for Global Environmental Strategies (IGES)

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Seller Buyer Trading behaviour Belgium Belgium 20 during CP1 and CP2 Denmark **CDM Registry** Czech Repblic (2008-2015)Denmark **EU** Aviation **EU** Aviation 15-France France Trade volume in billions Germany Germany Type of certificate Italy AAU Italy CER Netherlands Netherlands ERU Other Other Poland Romania Russia Spain Poland Spain Switzerland Switzerland 5-Ukraine United Kingdom United Kingdom Japan New Zealand **RAPHAELA** Based on IGES Data 0 -**KOTSCH**

Flows of ERUs into Swiss registry during CP1 (2008-2012)



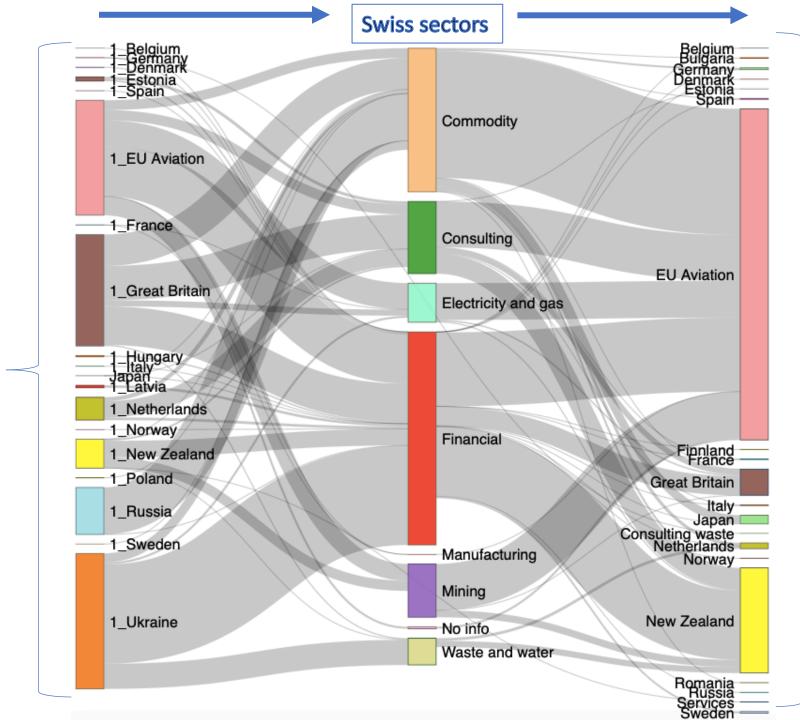
Based on BAFU data (2019)

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354 mil ERUs

Flows of ERUs into Swiss registry during CP2 (2013-2015)

255 mil ERUs



263 mil ERUs

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Based on BAFU data (2019)

Risks in carbon markets and where they arise

	National & regional cap-and-trade (use of intern. certificates allowed)	Intern. cap-and-trade market (AAU market)	Baseline-and-credit market (JI & CDM)
Compliant parties	Private entities	Governments	
Allocation		Over-estimated BAU emissions (hot air)	
Accounting		Double counting	
Project level			Perverse incentives Non-additionality Over-estimated baseline
			Over-estimated baseline
Trading level	Abuses of the market: VAT fraud, cyber crimes (e.g. phishing), money laundering		

Lessons learned: insights for future carbon markets

- International carbon market:
 - Provisions in Paris Agreement that rule out the creation of hot air and bad quality tradable emissions certificates
 - International oversight body
 - Common rules for MRV and reporting of in-flows and out-flows
- EU ETS
 - Financial market oversight
 - Registry management and oversight: opening accounts, suspension of accounts, exclusion of persons with criminal records