FAIR CLIMATE

Green taxes against ecological inequality

Karlygash Kuralbayeva

Department of Political Economics, King's College London

KING'S College LONDON

Carbon taxes and resource-rich countries

- Domestic consumption
  - The Pigovian tax principles
  - Other benefits: reducing air pollution, congestion etc.
- Export of fossil fuels:
  - Poor deals/ low profit taxes
  - But, carbon tax configured to carbon content of oil: i) pre-empt heavy oil taxation in oil consuming countries (e.g., Border taxes); ii) more rents captured by producers
- Three key challenges in setting taxes right with energy transitions
  - Don’t want to `kill the golden goose`: not to deter investment
  - Fully capture the rents
  - Consider externalities

Carbon pricing

- 85% of global emissions are currently not priced; ¾ of the emissions that are covered by a carbon price at US$10/tCO2
- The current levels of carbon prices are insufficient: US$50 to US$100/tCO2; US$200-US$450/tCO2
- Explicit carbon pricing can be complemented by shadow pricing
- Reducing fossil fuel subsidies
  - US$548 bln in 2013, or 5% of GDP, and 25-30% of government revenues in 40 (most) developing countries (IEA, 2014)
  - US$55-90 bln/year in 2005-2011 (OECD 2013)
  - Oil and gas subsidies reduce electricity prices to 30-45% in the Middle East countries

What is required to achieve the targets of the Paris agreement?

- **Climate policy packages implemented by all countries**
  - Carbon pricing
  - Complementary policies
  - Facilitating policies: climate policies need to be politically acceptable

- Country policy design:
  - Supports continued development and poverty reduction
  - Balance between implicit and explicit pricing

Carbon pricing and other policies

- **Complementary policies**: in the context of other market failures and distributional impacts
  - Border carbon tariffs

- **Facilitating policies**: climate policies have to be socially and political acceptable

Climate dividends: people's payout

- **Average tax burden remains the same but low-income households are better off**
  - Rich: $100 to $200; Poor: $50 to $100;
  - Each receives $75: Poor: better off by $25

- **Per-capita payouts are becoming popular:**
  - Switzerland: carbon tax on heating fuels; rebate on health insurance
  - Canada: incoming federal scheme: rebate of 90% of carbon tax

How to win public support for a global carbon tax

- **Survey 4,997 citizens in 5 countries: India, South Africa, Australia, UK, USA**

- **The following three strategies for distributing revenues from a global carbon tax:**
  - Sharing them among citizens
  - Supporting mitigation across the world
  - Lowering income taxes

Country Policy Design: national and local circumstances

- Leapfrog fossil fuel technologies:
  - Small-scale solar energy and mini grids can provide modern energy in low-density, remote rural areas in developing countries
  - Energy infrastructure: potential lock-in effects
- Possibly slower and more moderate emission reductions
  - The opportunity cost of consumption is higher in developing countries
  - Some substitution options might not be available
  - Above the HDI of 0.8, carbon emissions and the HDI are decoupled
- Climate change presents more risks to fossil-fuel-rich developing countries

CONCLUSIONS

- Current climate action is insufficient to achieve the main Paris Agreement objectives
  - 85% of emissions are not priced
  - All countries have to implement climate policy packages
- Carbon pricing is an indispensable part of a strategy to reduce emissions
  - May need to be complemented by other well-designed policies
  - Other benefits generated by carbon pricing should be taken into account
- Is sustainable development possible?
  - Many country characteristics should influence design of climate policies: resource endowments, ability to innovate etc

ADDITIONAL SLIDES

Carbon taxes and aviation

- Aviation is a significant contributor to climate change
  - Emissions are growing faster than for any other mode of transport
  - Emissions are double/triple by 2050
- How to tax?
  - Remove subsidies:€3 billion a year for operation and infrastructure
  - Ticket taxes: UK introduced in 1993; easier to raise revenues than VAT
  - Fuel taxes: domestic and international flights; renegotiate international air service agreements
- Other options
  - Should we fly less?
  - Electrofuels: enormous amount of renewable energy
  - Electric planes?: not very realistic as yet

FAIR CLIMATE

Green taxes against ecological inequality

Karlygash Kuralbayeva

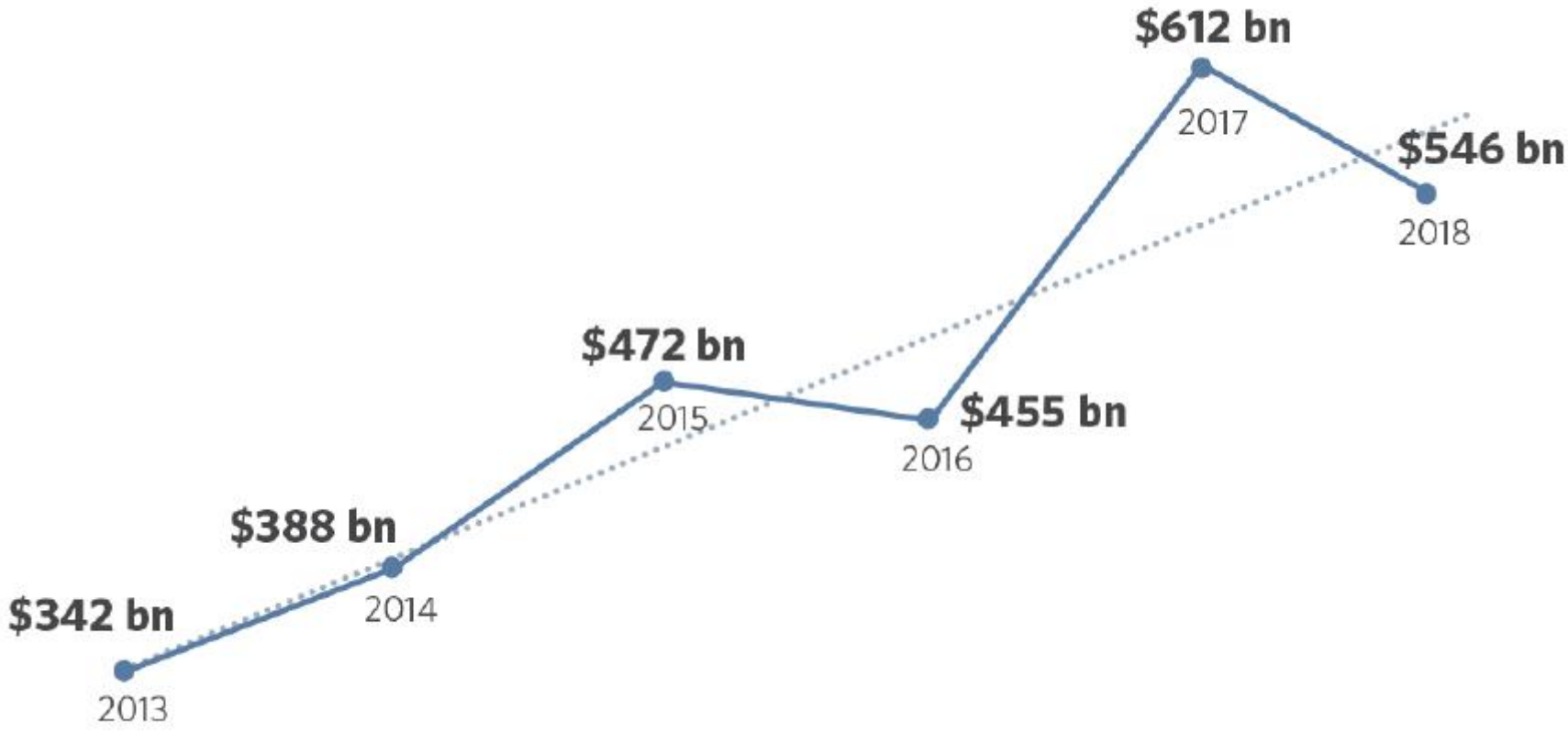
Department of Political Economics, King's College London

KING'S College LONDON

The Paris Agreement temperature target requires

- Decarbonization of electricity production: use of zero-carbon forms of energy or renewable energy
- Enhancing energy efficiency and reducing waste in all sectors
- Preserving and improving natural carbon sinks (management of forests and other kinds of vegetation and soils; changes in agricultural practices)

Total Climate Finance Flows, 2013-2018



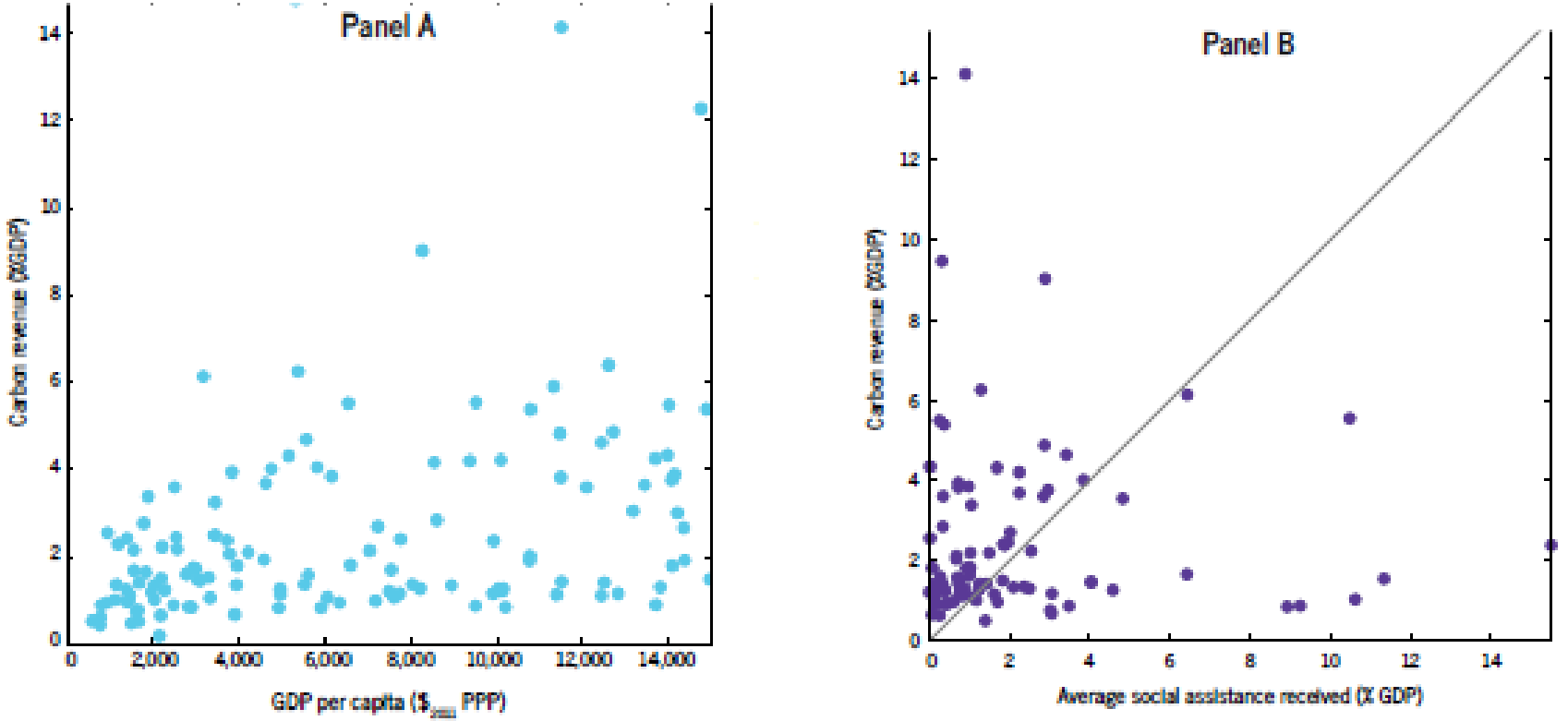
Source: CPI 2019

Actions still fall short of what is needed…

- **Mitigation (supply-side energy system investments):**
  - Between USD 1.6trl to USD 3.8trl annually; until 2050
  - Only between 15 and 35% of what is required
- **Adaptation:**
  - About USD 180bln annually; from 2020 to 2030
  - Only about 24% of what is required

Tapping carbon-pricing revenues

- **Explicit carbon-pricing instruments can raise significant revenue**
  - US$30/tCO2 cold lead to more than 1.5% of GDP local revenues
  - 60 out of 87 countries: double current levels of social assistance



Source: Shock Waves Report, by Hallegatte et al. 2015.

What is required to achieve the targets of the Paris agreement?

- **Climate policy packages implemented by all countries**
  - Carbon pricing
  - Complementary policies
  - Facilitating policies: climate policies need to be politically acceptable
- Country policy design:
  - Supports continued development and poverty reduction
  - Balance between implicit and explicit pricing
- Dynamic and adaptive climate policy designs
  - The long-term credibility and predictability
- International cooperation across countries
  - Credible mutual commitments and stable incentive structures