



Climate Mitigation in the G24

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Mitigation Commitments Among G24 Countries

Paris Pledges

- Globally emissions need to be cut 25-50% below 2018 levels by 2030 for 1.5°–2°C
- Global emissions shares of many G24 are tiny but
 - ▶ Countries have mitigation pledges
 - ▶ Carbon/fuel taxes provide revenue (e.g., for adaptation investment)
 - ▶ Energy security

Country	Mitigation pledge: Reduce...	2030 share of global CO ₂
Argentina	GHGs 15% below BAU in 2030	0.6
Brazil	GHGs 37% below 2005 by 2025	1.5
Colombia	Reduce GHGs 20% (30%) below BAU by 2030	0.3
Ecuador	Reduce GHGs 20.4-25% (37.5-45.8%) below BAU in 2025	0.1
Guatemala	Reduce GHGs 11.2% (22.6%) below BAU in 2030	0.04
Mexico	GHGs 25% below BAU in 2030	1.5
Peru	Reduce GHGs 20% (30%) below BAU in 2030	0.2
China	CO ₂ /GDP 60-65% below 2005 by 2030	33.1
India	GHG/GDP 33-35% below 2005 by 2030	9.2
Pakistan	GHGs 40% below 1990 by 2030	1.1
Philippines	GHGs 25% below 2005 by 2030	0.4
Sri Lanka	Reduce GHGs 4% (20%) in energy below BAU by 2030	0.07
Algeria	Reduce GHGs 7% (22%) below BAU in 2030	0.3
Ethiopia	Reduce GHGs (64%) below BAU in 2030	0.04
Ghana	Reduce GHGs 15% (45%) below BAU in 2030	0.04
Kenya	Reduce GHGs (30%) below BAU in 2030	0.1
Morocco	Reduce GHGs 13% (32%) below BAU in 2030	0.2
Nigeria	Reduce GHGs 20% (45%) below BAU in 2030	0.2
S. Africa	GHGs to 398-614 mn tons in 2025 and 2030	1.0

Source: IMF

Note. Conditional pledges in parentheses.

Carbon Pricing

Central role in mitigation policy

- Across-the-board incentives, cost-effective, price signal for investment, raises revenue, domestic environmental co-benefits, administratively straightforward

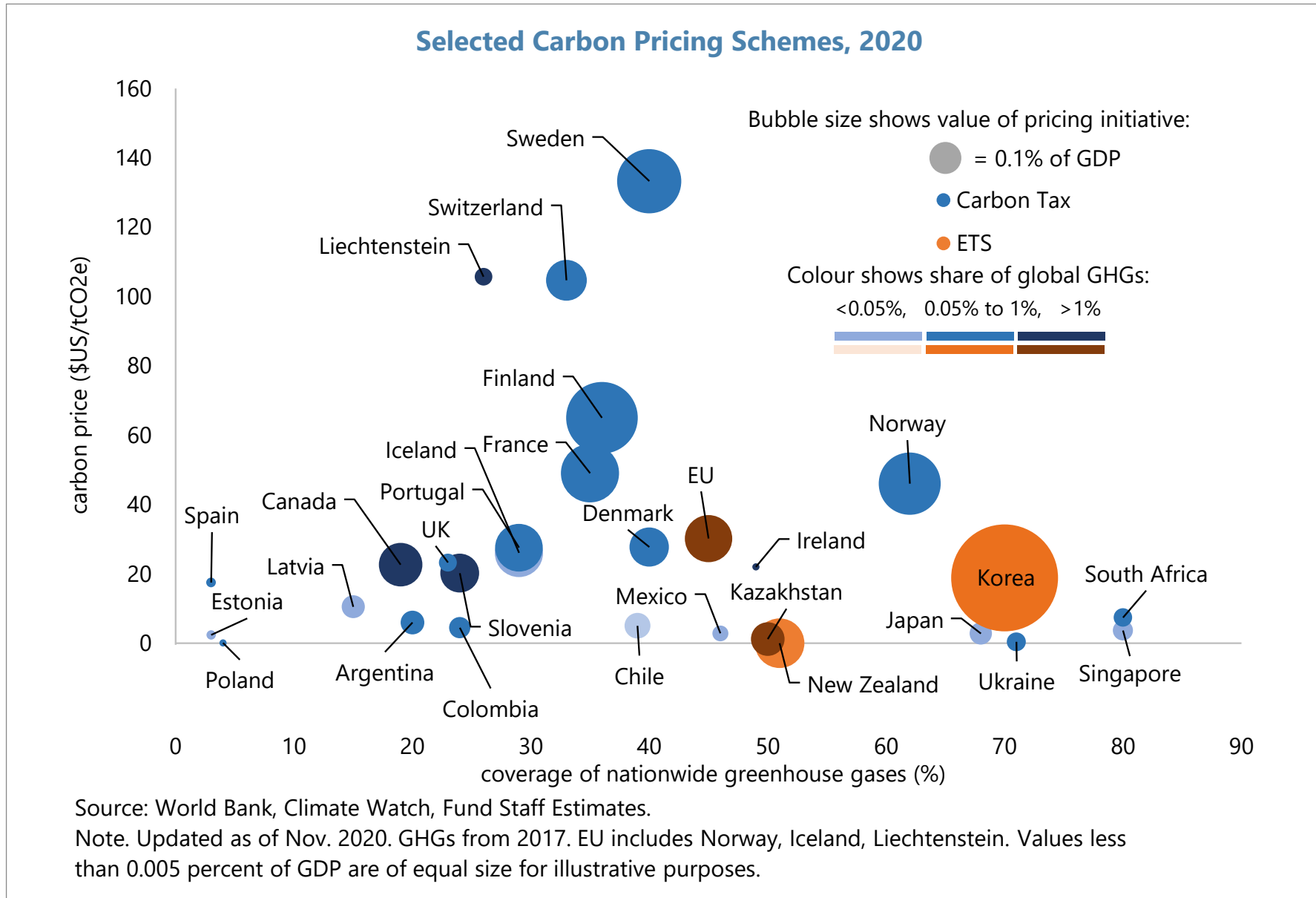
Basic design details are critical

- Cover power, industry, transport, buildings
- Predictable and rising price
- Use revenues productively

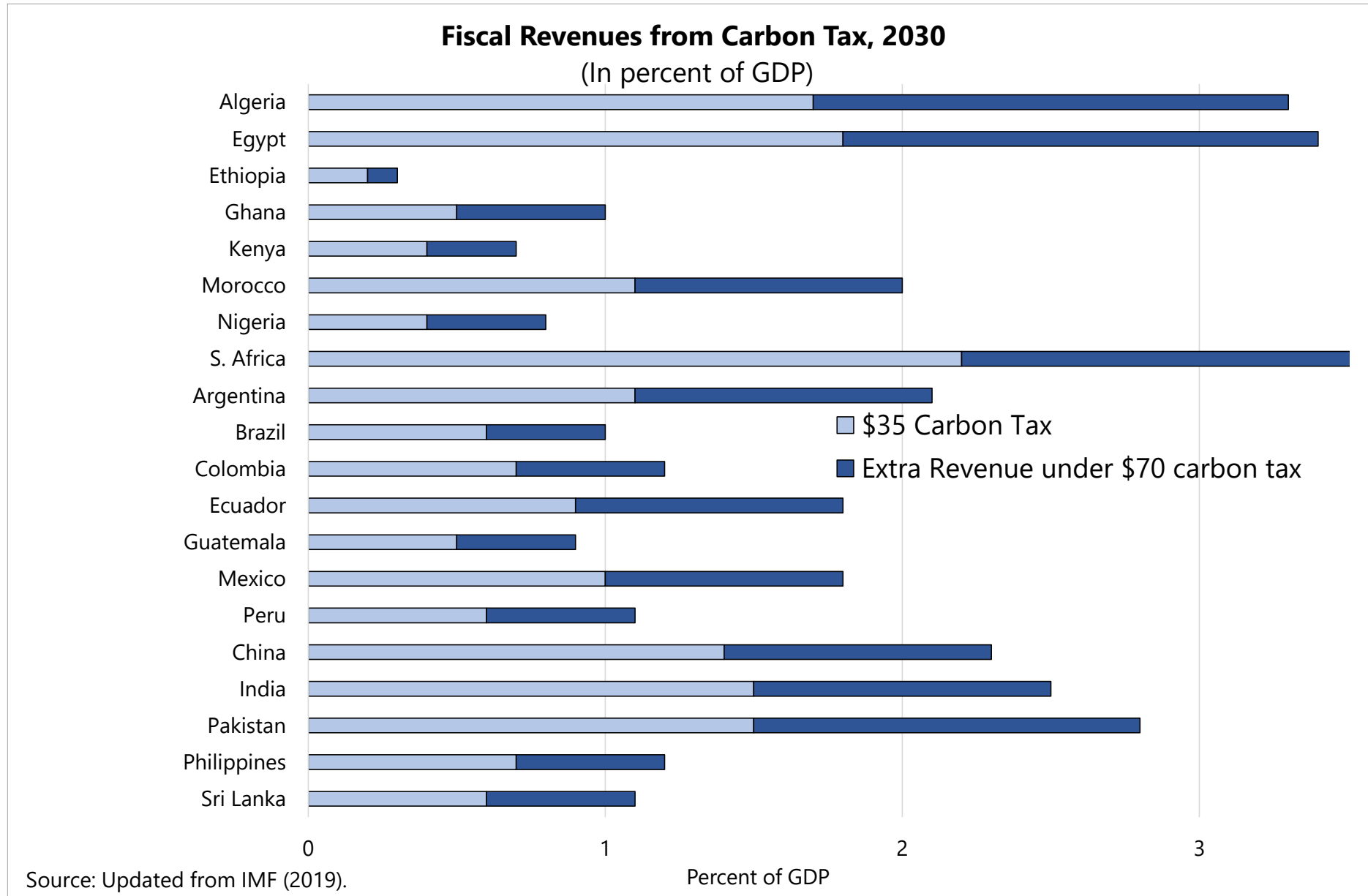
Carbon taxes are a natural carbon pricing instrument

- Price certainty, revenues to the government, build off fuel tax collection
- Trading systems similar benefits if they include price floors, allowance auctions
 - Often confined to power/industry, not always practical (e.g., limited capacity)

Growing Momentum for Carbon Pricing

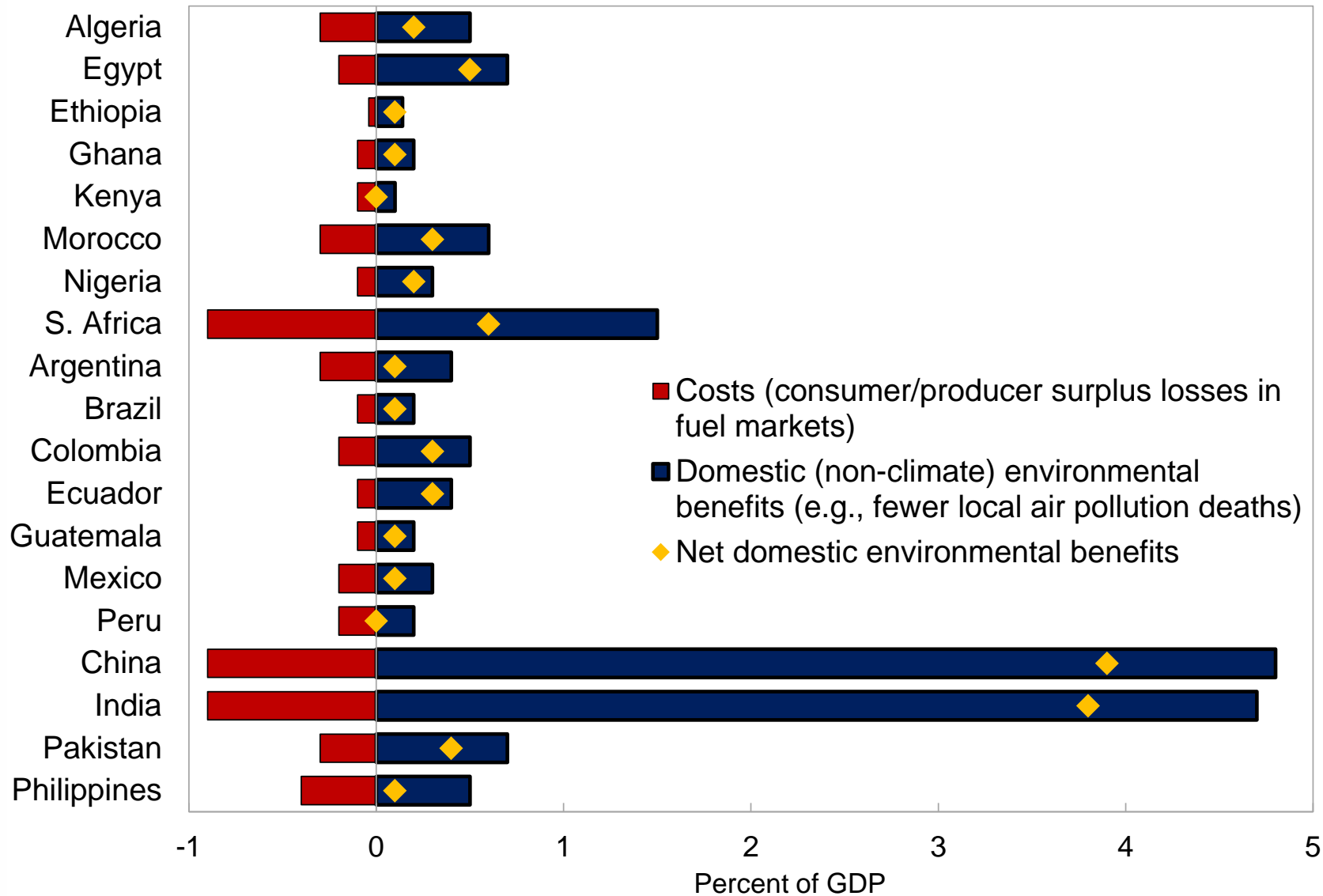


Carbon Pricing would have Significant Fiscal Benefits...

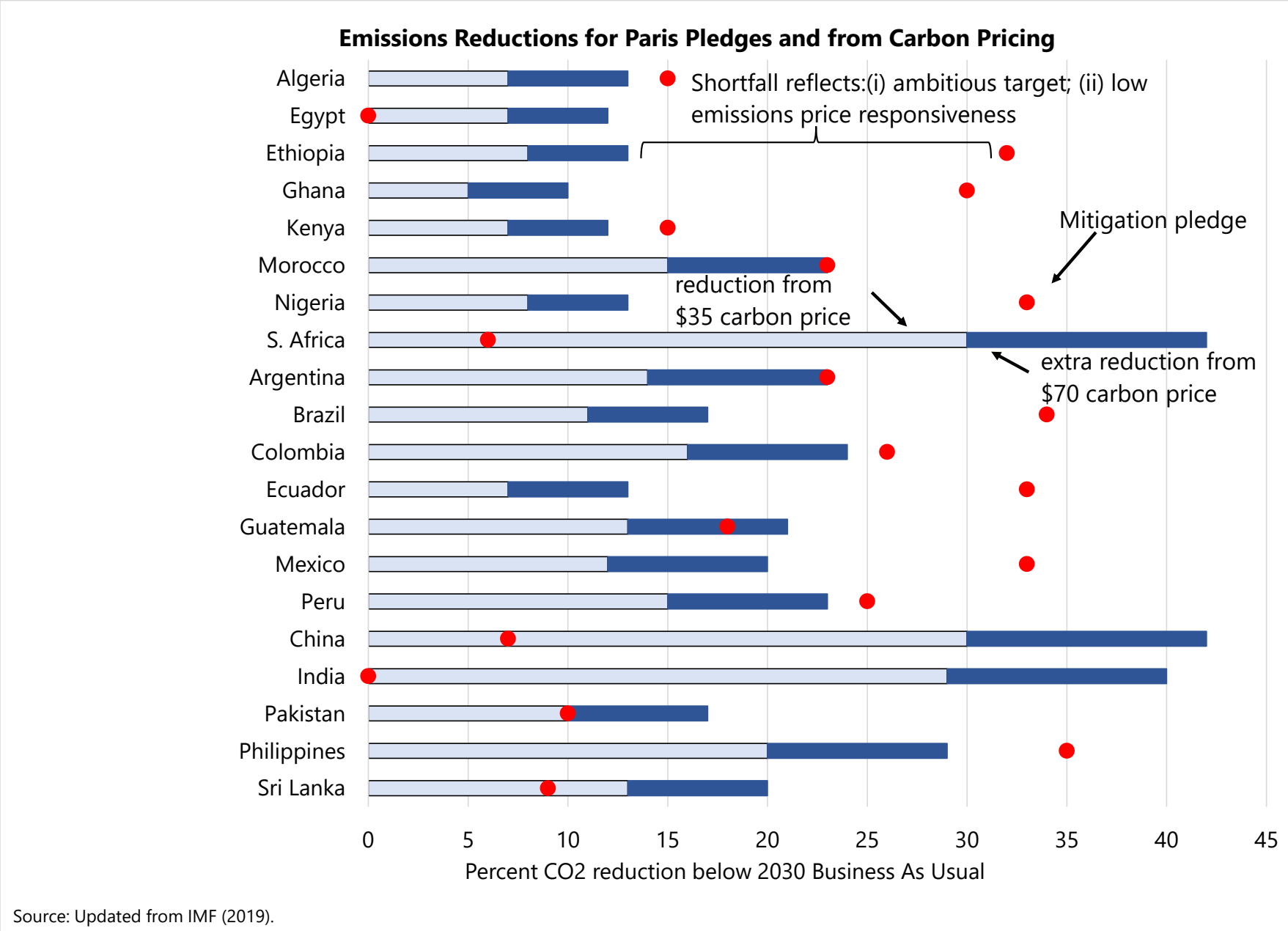


...can be in Countries' Own Interests...

Costs and Net Domestic Benefits of \$70 Carbon Price, 2030



...but Pricing Alone May not Meet Mitigation Pledges



Supporting Policies Needed...

- Reinforcing instruments at the sectoral level
 - ▶ Feebates: sliding scale of fees/rebates on products/activities with $>/<$ average emission rates
 - ▶ No fiscal cost or tax burden on average firm/household
 - ▶ More flexible/cost effective than regulations
 - ▶ Vehicles: $\text{fee} = \text{CO}_2 \text{ price} \times (\text{CO}_2/\text{km} - \text{fleet average CO}_2/\text{km}) \times \text{lifetime km}$
- Public investment
 - ▶ Clean infrastructure networks
- Liberalize energy markets
 - ▶ Enhance effectiveness of carbon pricing
- Just transition
 - ▶ Households: use pricing revenues efficiently/equitably
 - ▶ Low-income: strengthen cash/in-kind transfers; contain electricity price impacts
 - ▶ Industrial competitiveness: emission rates/feebates, border carbon adjustment
 - ▶ Workers/regions: assistance programs

International Carbon Price Floor (ICPF)

- Unilateral action is very difficult
 - ▶ Free rider, competitiveness concerns

- ICPF would focus on large emitters
 - ▶ E.g., China, India, US, EU (other G20 countries)

- Focus on minimum carbon price
 - ▶ Efficient and easily understood parameter
 - ▶ Simultaneous action addresses free rider/competitiveness concerns
 - ▶ Equity: differentiated price floors and/or simple transfer mechanism
 - ▶ Flexibility: allow alternative approaches yielding equivalent emissions outcomes

Table 1. G20 CO2 Outcomes under Alternative ICPF Scenarios	
% reduction in G20 CO2 emissions below baseline, 2030	
Required for 2° (1.5) target ^a	28 (55)
Only China, India, and US implement their Paris pledges	4.1
All G20 countries implement their Paris pledges and ^b none join an ICPF	10.4
China, India, US join a \$50/25 price floor	22.2
All G20 countries join a \$50/25 price floor	25.1
China, India, US join a \$50 price floor	28.1
All G20 countries join a \$50 price floor	31.8
China, India, US join a \$75/50 price floor	29.0
All G20 countries join a \$75/50 price floor	32.8
China, India, US join a \$75/50/25 price floor	28.0
All G20 countries join a \$75/50/25 price floor	31.7

Source. IMF staff calculations.

Note. ^aAssumes CO₂ reduced in proportion to total GHGs.

^bHigher/lower price for advanced/emerging market economies.

^bHigher/middle/lower price for advanced/high income emerging market/low income emerging market economies.