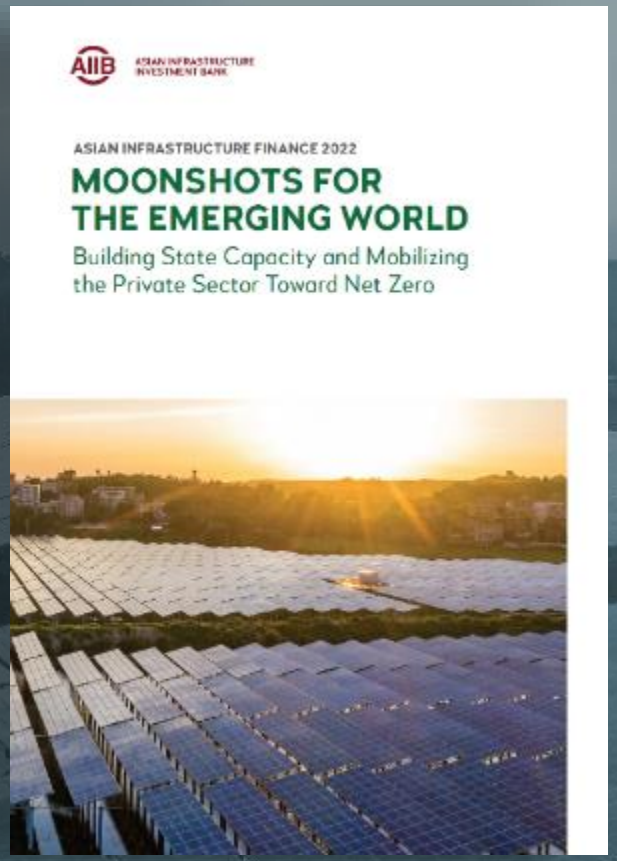
ASIAN INFRASTRUCTURE INVESTMENT BANK

Moonshots for the Emerging World - Transforming State Capacity and Mobilizing Private Sector Toward Net Zero

Asian Infrastructure Finance Report 2022



ONLY

Context: net-zero transition not happening fast enough

- Large fossil fuel footprint in EMDEs
- Little innovation and adoption of green tech

“Moonshot” Mission-oriented approach

Enhance state capacity to

- Transform state institutions
- Enable and crowd in private sector

Net Zero moonshots for the emerging world

1. **State-owned institutions** must go from laggards to leaders
2. **Private sector** has much to contribute, but conditions must be right
3. **Green technology adoption** at the center of the net-zero transition
4. A **meaningful carbon price** a litmus test of commitment to net zero
5. Carbon price not sufficient – need **mission-driven coordination**
6. Ensure that **transition as smooth and fair as possible**

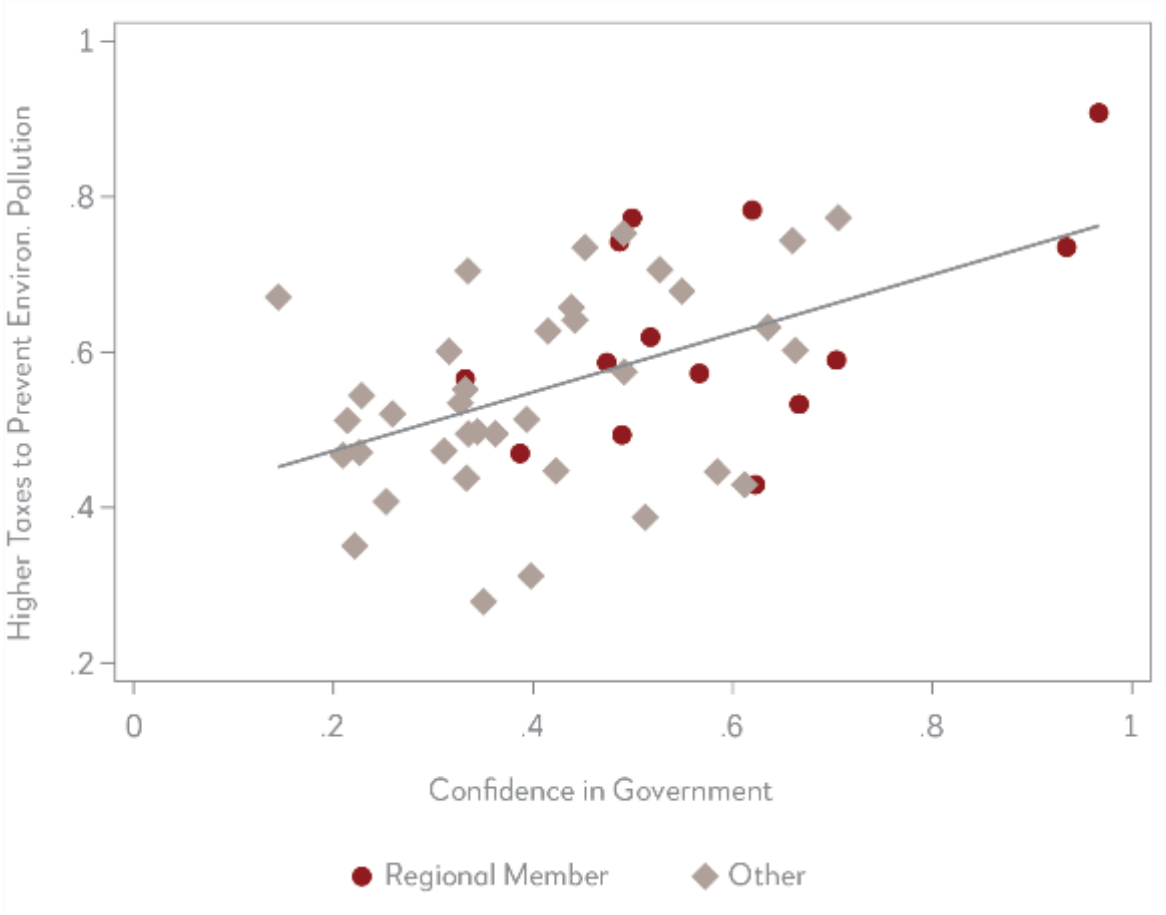
NWFI – Egypt's renewables moonshot

- Long pipeline of renewable projects (solar and wind)
- Phasing out fossil fuel assets (with just transition programs)
- Partners EBRD, AIIB, EIB…
- Concessional finance from US for transition compensation
- Climate performance-linked debt from Germany
- Renewables equipment FDI in local production

Trust and fairness – foundations of state capacity

- **Trust in government** necessary for environment action and compliance
- **Common interest** society and **just transition**
- Net-zero transition need to be **smooth and fair** to be supported over time

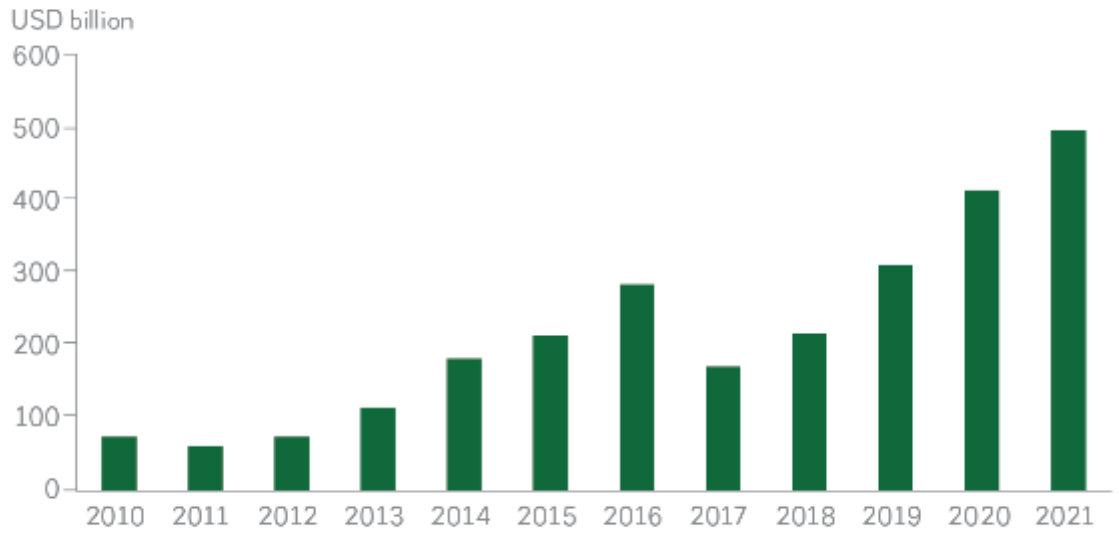
Figure A.4: Confidence in Government and Environmental Concerns



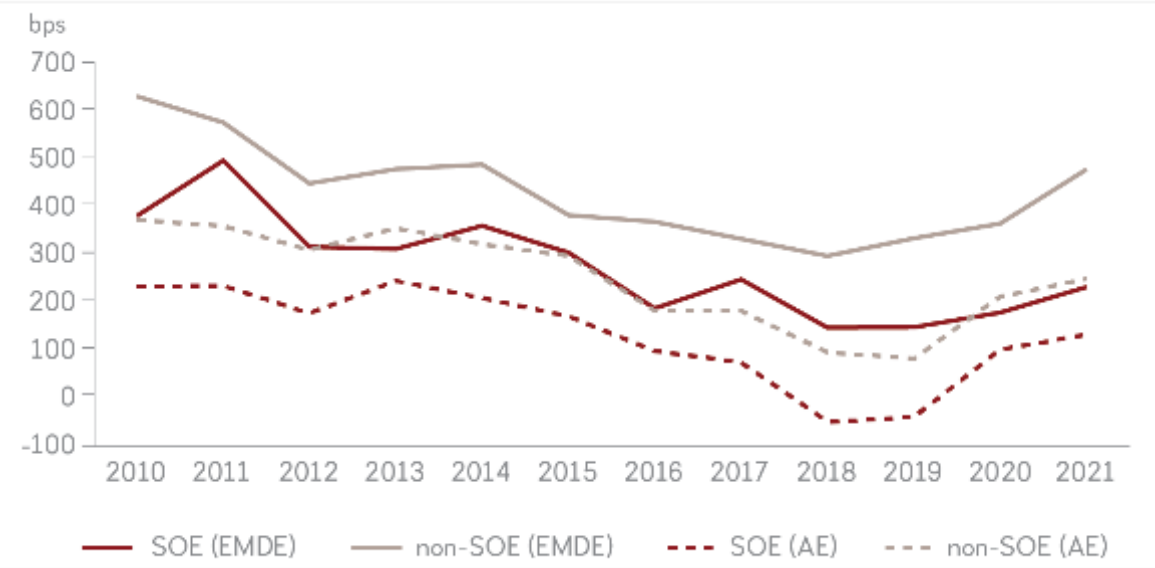
State-Owned Enterprises – strong financing capacity

SOE Bond issuances in EMDEs

SOEs account for around 60 percent of market



Yields at issuance of SOEs vs private



SOEs in EMDEs become active in capital markets, and receive better financing compared to the private sector.

Note: Data above are for infrastructure sectors only.
Data source: IJGlobal, ORBIS, and AIIB staff estimates.

State-owned financial institutions – development capacity

Systemically important

Distinct capacities

- National Development Banks
- Sovereign Wealth Funds
- Central Banks

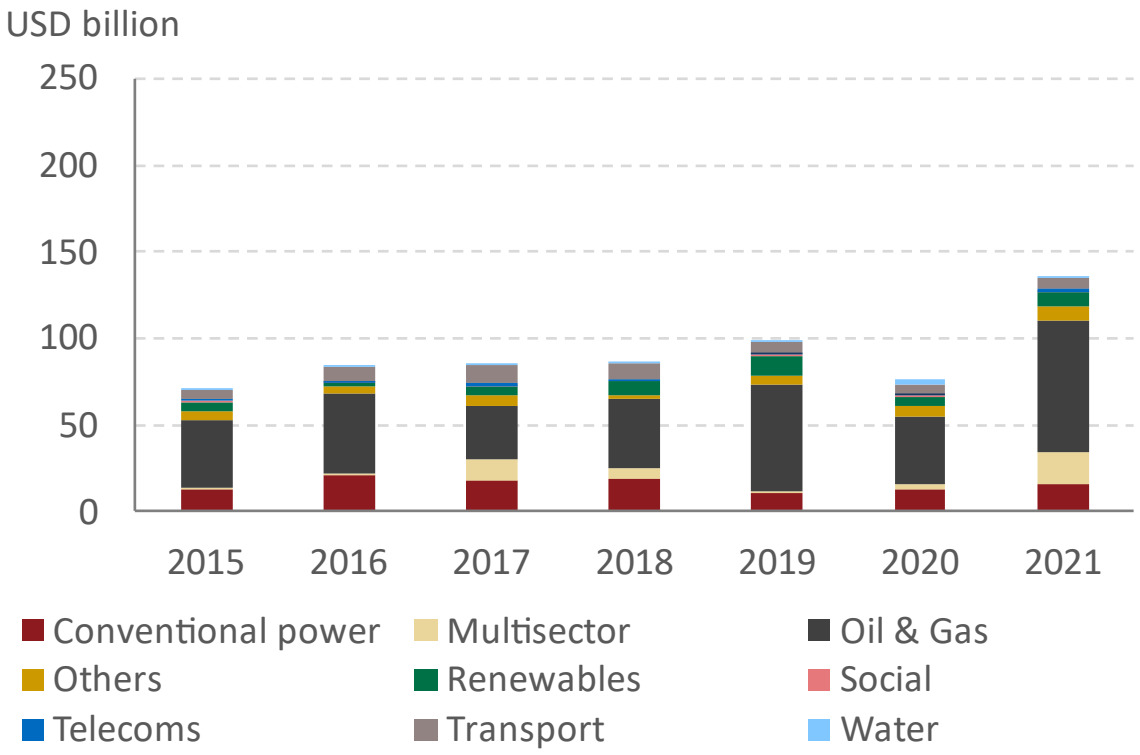
Take on different project

- Larger projects with longer tenors

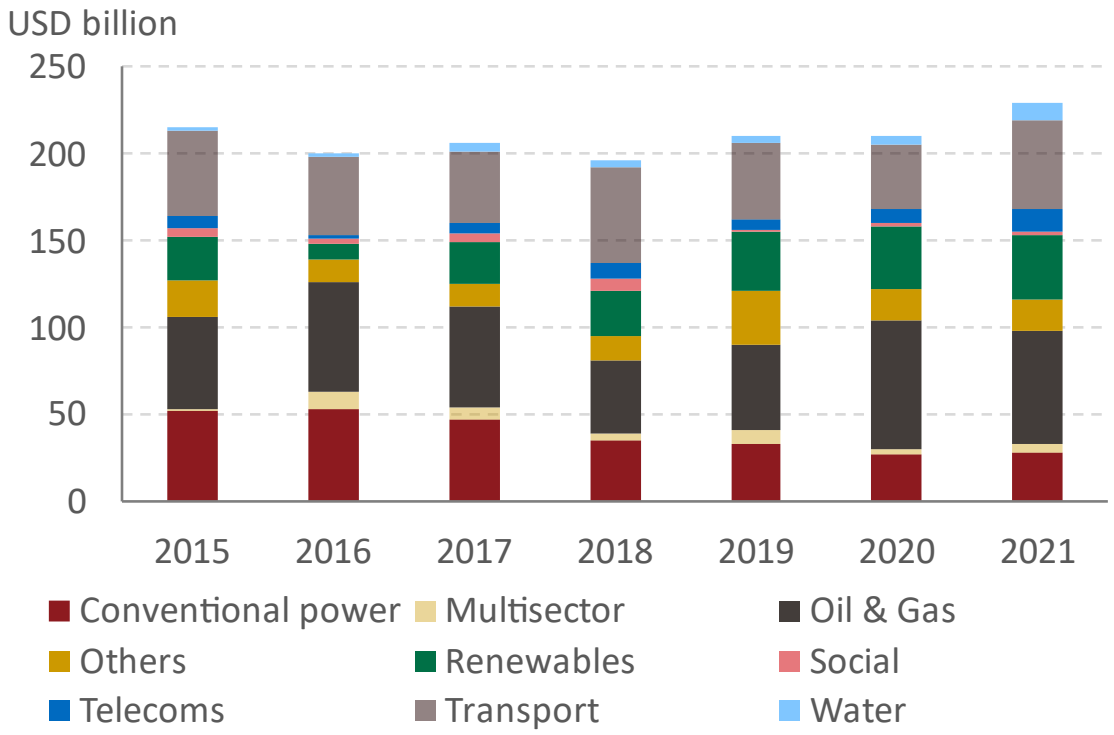
Partner with private sector

SOE large legacy fossil fuel assets continue to grow

SOE Investments in EMDEs



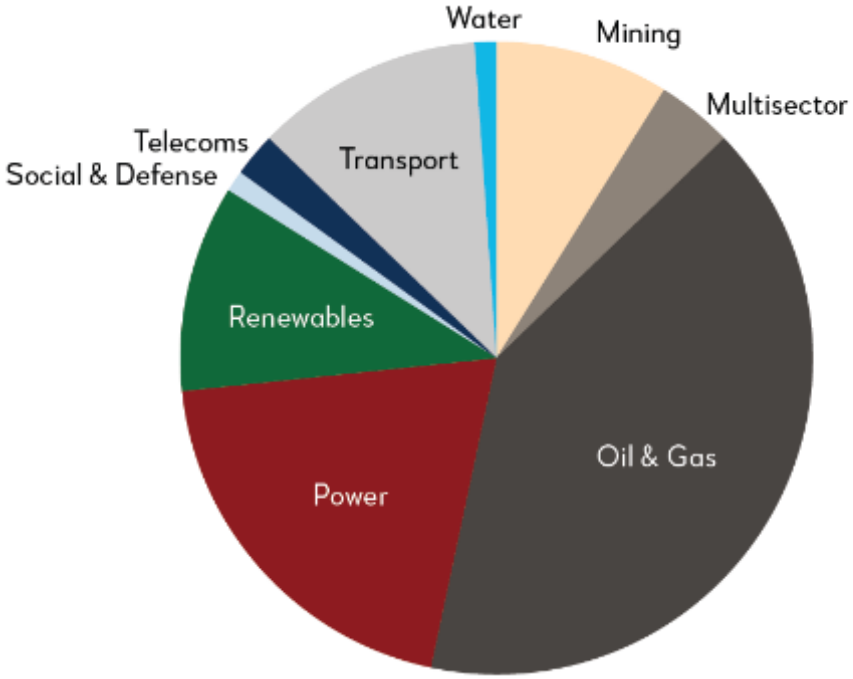
Private Sector Investments in EMDEs



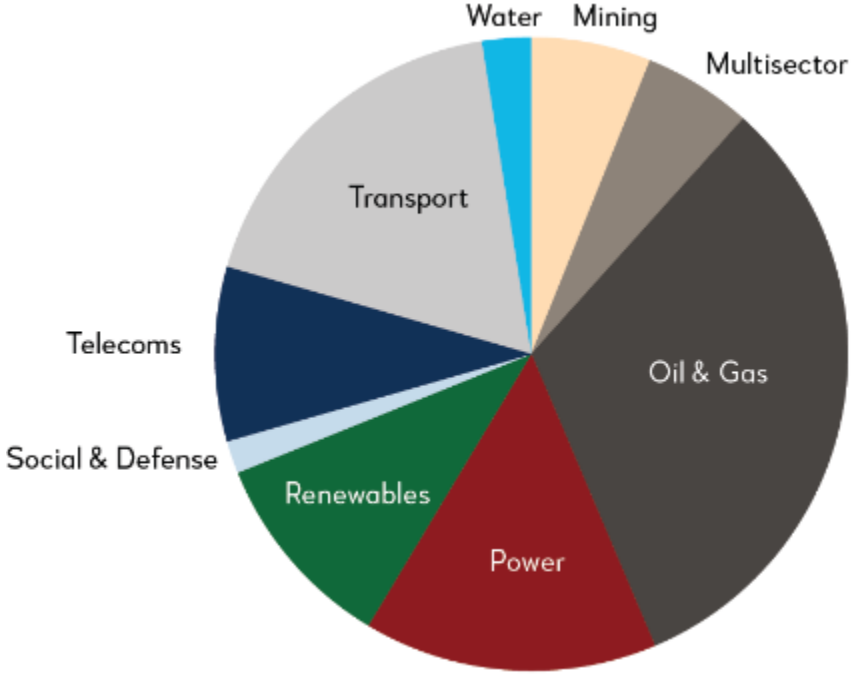
Data source: IJGlobal, ORBIS, and AIIB staff estimates.

State-owned banks favor fossil fuels assets

Closed transaction by sector – at least one SOB lender EMDEs (2015-2021)



Closed transaction by sector – no SOB lender EMDEs (2015-2021)



Data source: IJGlobal, ORBIS, and AIIB staff estimates.

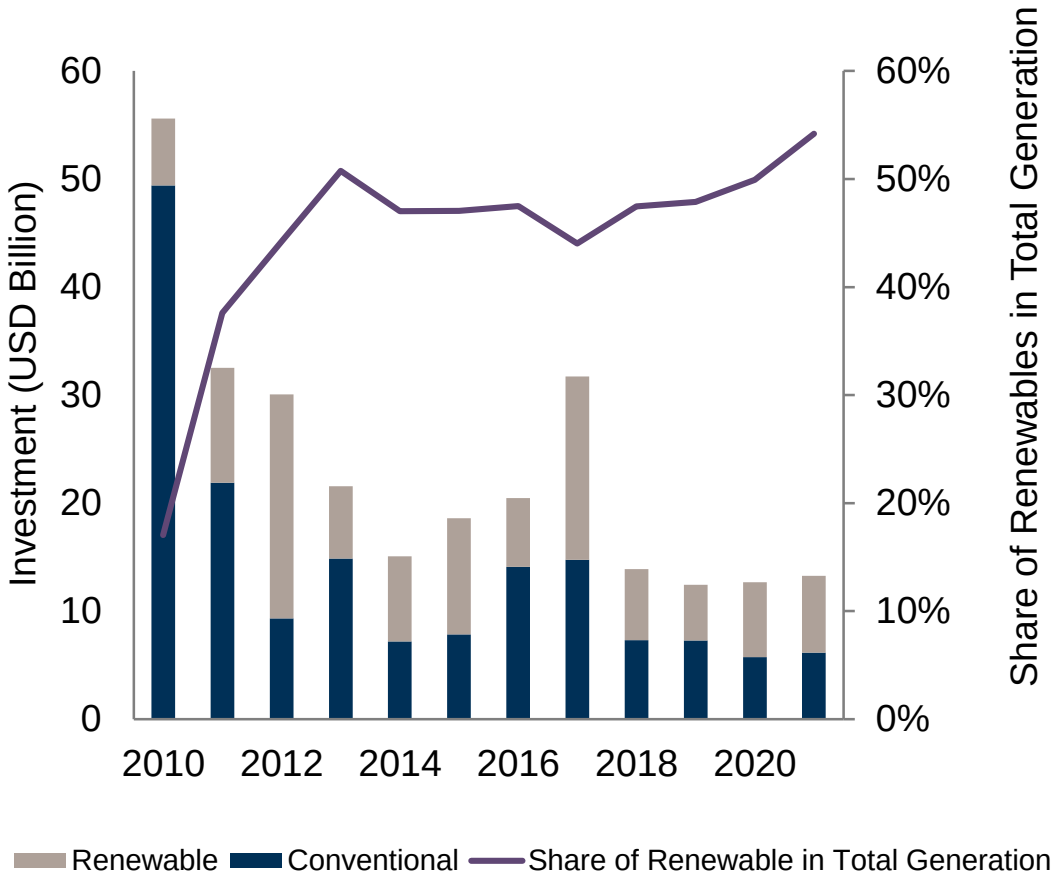
SOEs and SOFIs – from Net Zero laggards to leaders

- From **fossil fuels** to renewables
- Greening **value chains**
- Mobilizing **private capital**
- **Governance reform** critical
- **SOEs and public banks central** to collaborations and coordination across value chains

Private participation in green infra requires stronger push

- **Strong shift toward clean energy**; some South and Southeast Asian economies continue to add fossil fuel capacity
- **Transport** investment **dominated by roads**; EV development, and greener power, vital to reduce emissions
- **Railroads** account for small share
- **Investment in other low carbon transport** volatile and concentrated in a few economies

PPP Investment in Electricity Generation in Asia

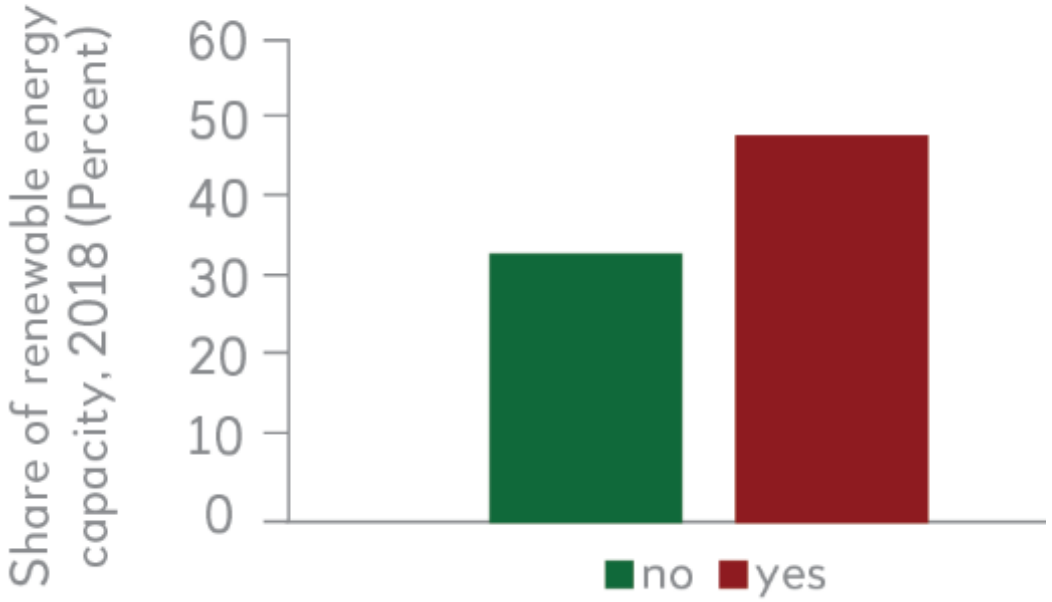


Data source: World Bank PPI Database, and AIIB staff estimates.

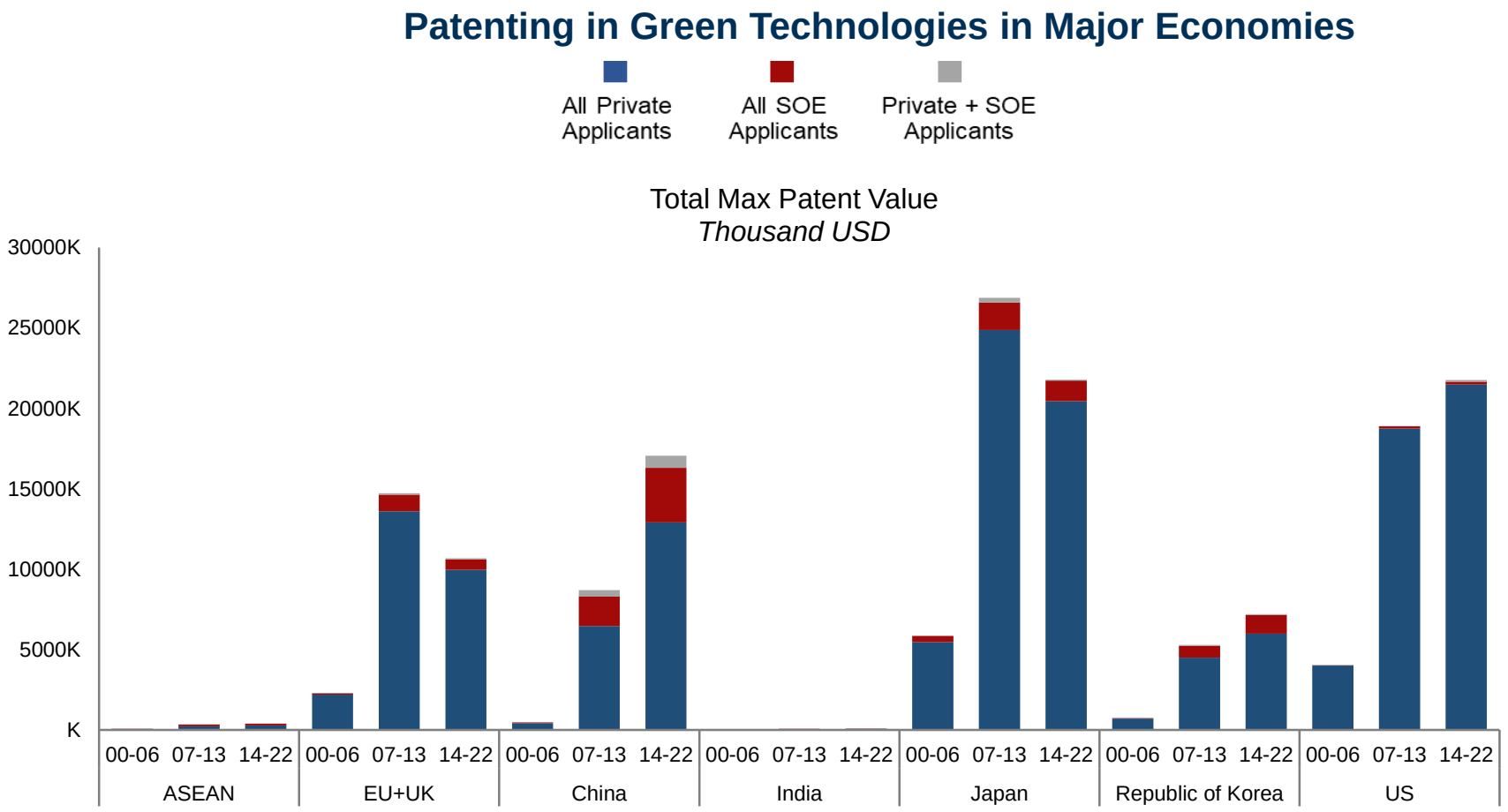
State reforms can catalyze more net-zero private capital

- **Governance plays a vital role**. For example, most-efficient-producer tariffs favor renewables
- **Competitive bidding** helps countries bring down the costs of adding renewable capacity
- **Robust contract management** encourages renewables, susceptible to delayed tendering and renegotiation

Electricity Tariffs set by most efficient supplier



In green technologies, focus on comparative advantage



Data source: ORBIS Intellectual Property, and AIIB staff estimates.

Innovation and tech adoption require policy frameworks

- Net Zero requires tech **innovation and adoption** and mix of policies
- **Carbon pricing** alone unlikely to build innovation base but can ensure other interventions economically sound
- **EMDEs** also **need access** to finance and technology, requires facilitation.

State capacity building for net zero transition

Credibility

- Benchmarking and getting best practices
- Reforming/mandating SOEs and SOFIs
- **Enact emission pricing and reduce fossil fuel subsidies** (protect vulnerable groups)

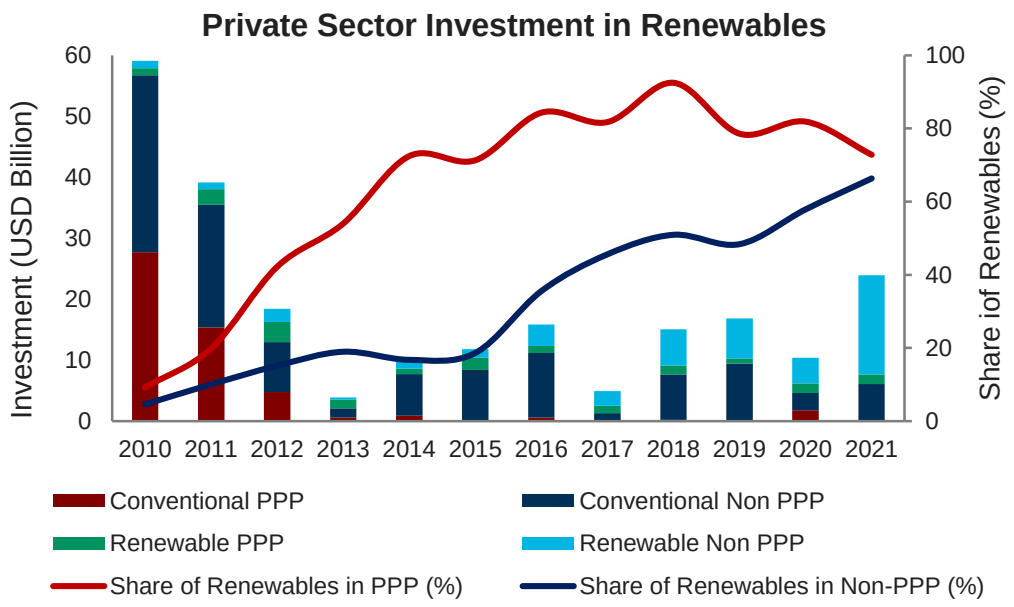
Coordination

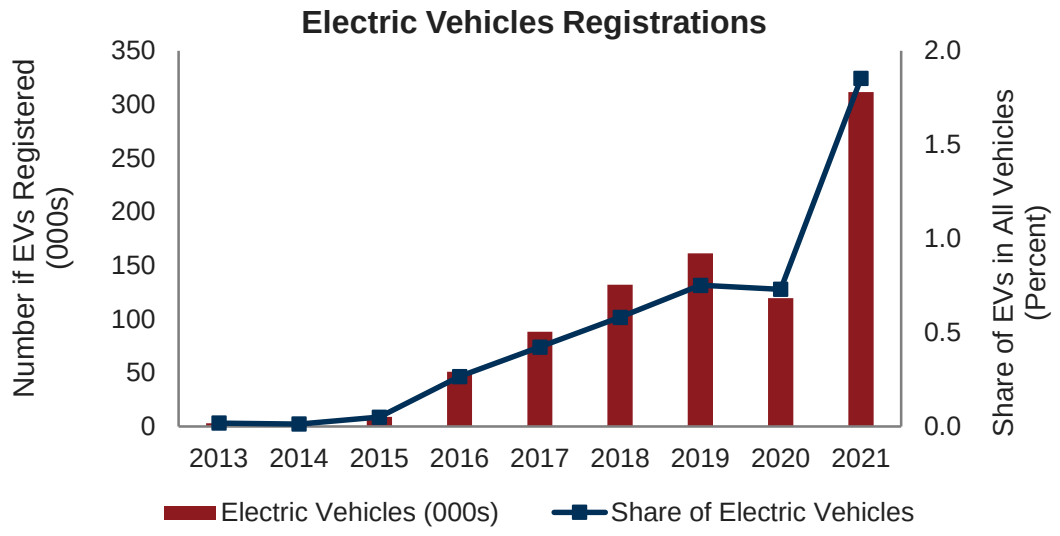
- **Dedicated body to inform and monitor mplementation**
- Track businesses' transition understanding and planning
- Look at whole of value chain
- Read and educate public

Expertise

- **Dedicated institutions for green technology adoption**
- Harnessing private sector skills and MDBs
- FDI and investment promotion to get technology and skills

INDIA’S TRANSITION TO NET ZERO: ROLE OF STATE AND PRIVATE SECTOR



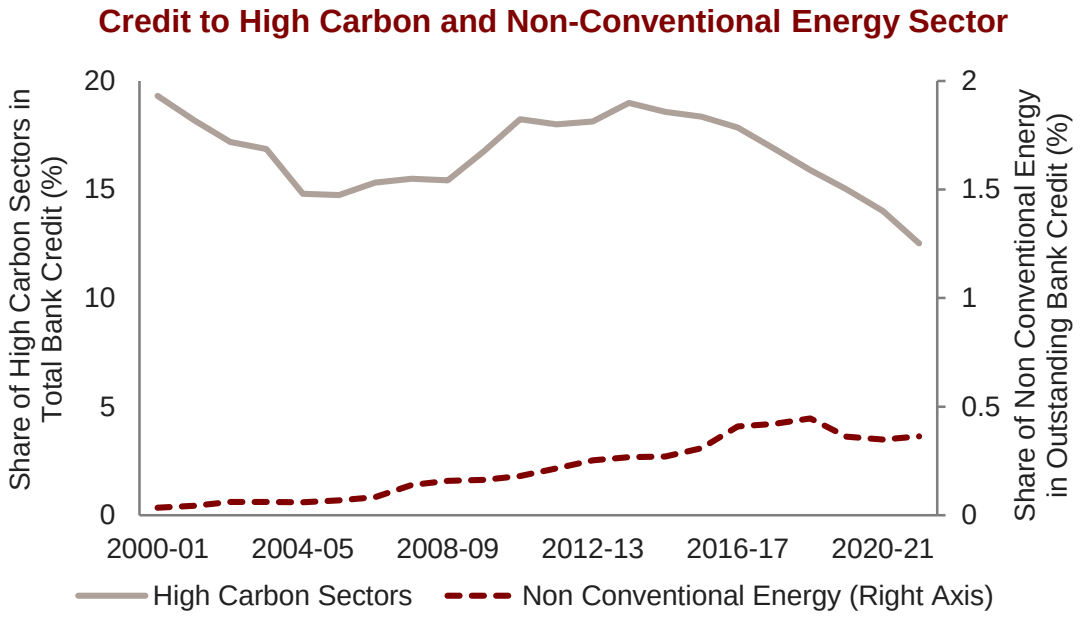


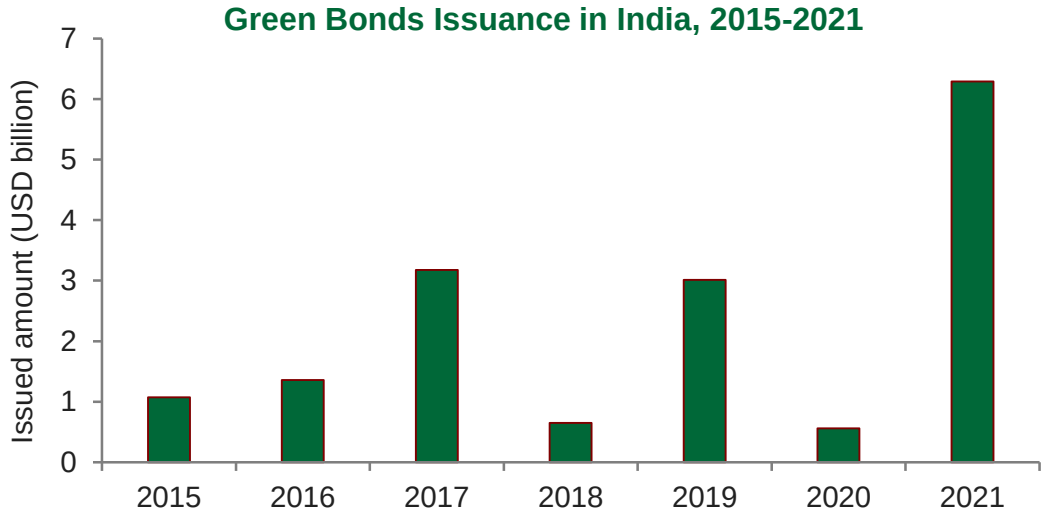
Data source: World Bank PPI Database, IJGlobal Dataset, Vahan Database and AIIB staff estimates.

Private sector leading but more needed

- **Net Zero** by 2070
- **Fossil-fuel intensity varies** across SOEs and non-SOEs within same sectors
- **Private sector does renewables**
  - Distinct shift in past 10 years
  - SOEs must go into renewables
- **Low carbon transport** nascent
  - Roads get most private investment
  - EVs picking up but less than 1.0%

Green finance at a nascent stage





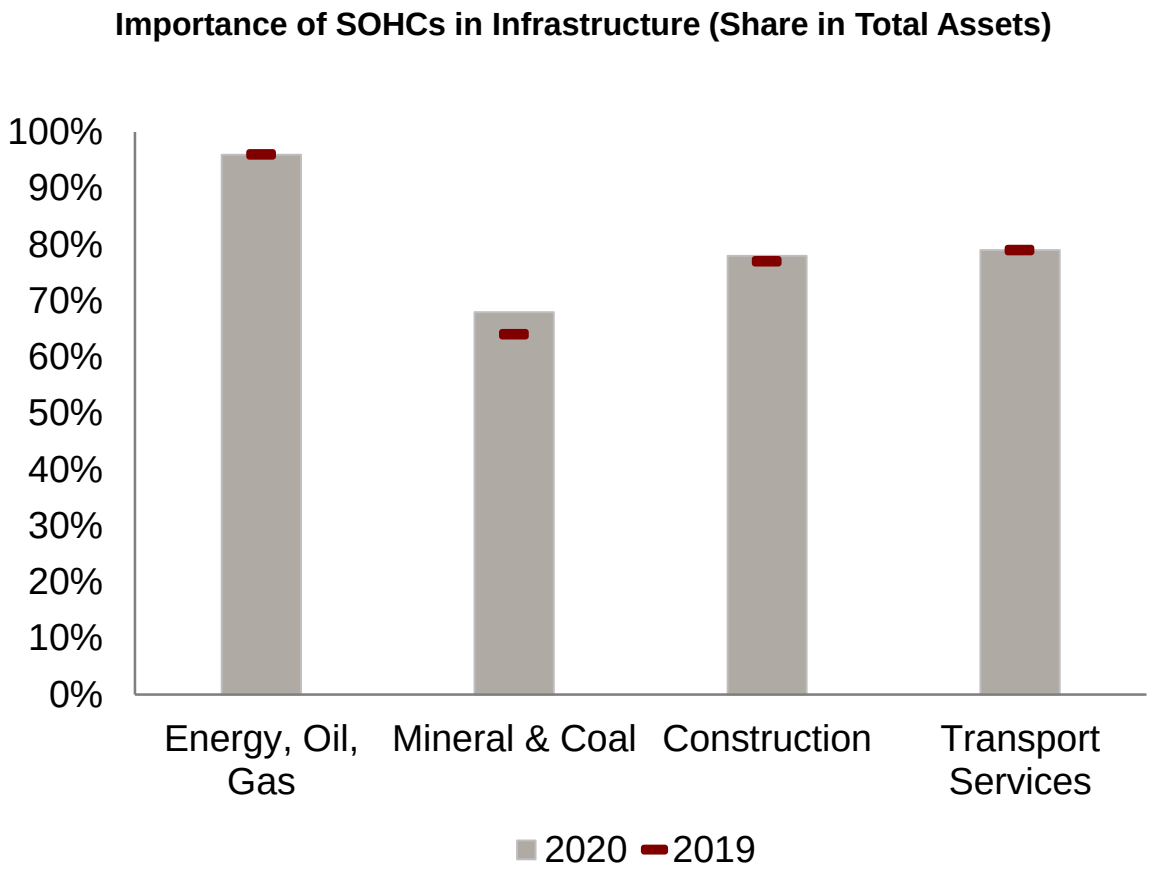
- **Credit to renewables** still small
- **State-owned banks** largest lender to renewables with private banks increasing
- **FDI inflows into** non-conventional energy sector increased but remain small
- **Green bonds** emerging as important instrument to mobilize climate finance

Data source: CEIC, and AIIB staff estimates.

INDONESIA’S STATE AND PRIVATE SECTOR: UNDERPINNINGS FOR NET ZERO

Entrepreneurial state still dominate infrastructure

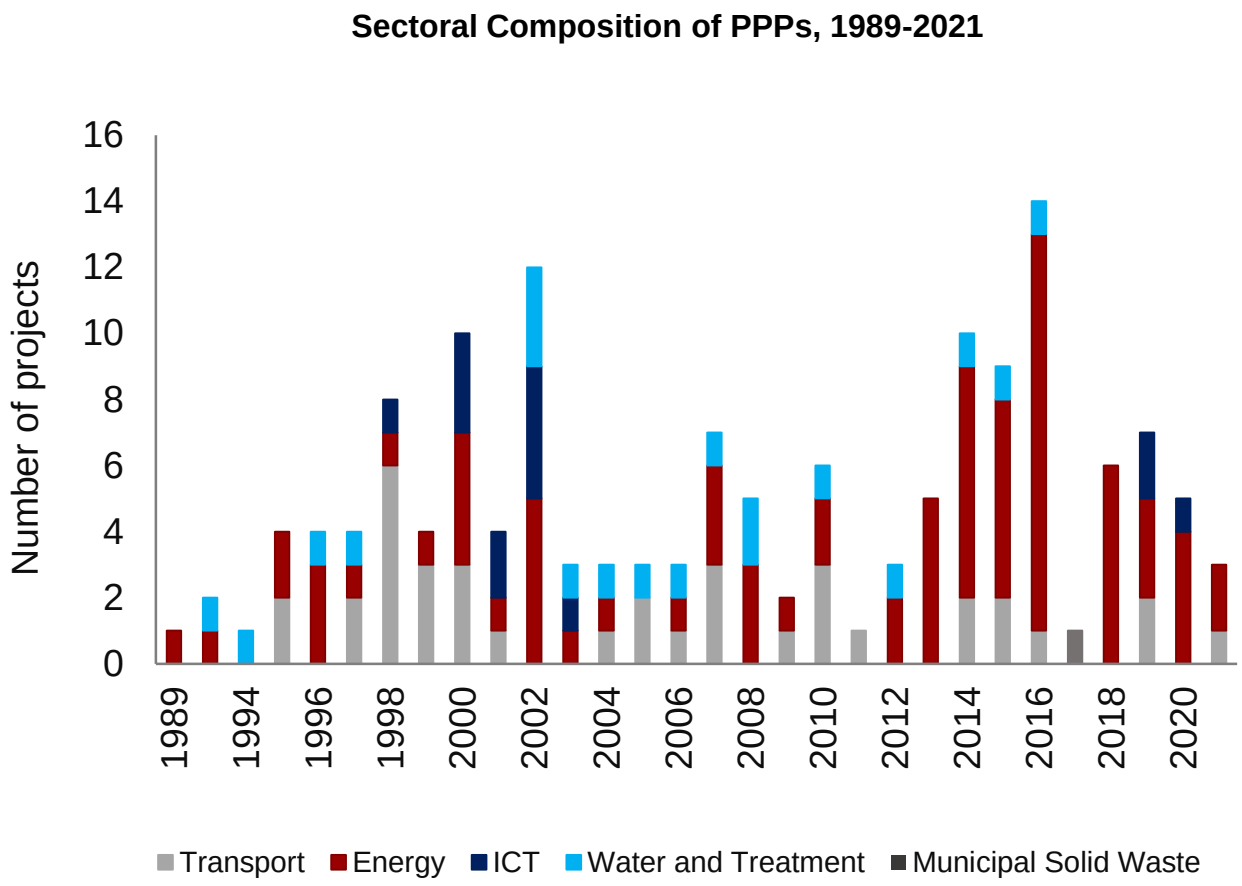
- Infrastructure provisions by SOEs sustained throughout series of reforms
- SOEs and State-owned holding companies (SOHCs) dominate assets across sectors



Data source: Government of Indonesia, Ministry of State-Owned Enterprises, ORBIS, and AIIB staff estimates

Energy PPPs dominate, renewables not caught on

- Evidence that private sector more profitable, creating more efficient investments
- PPP framework reforms encouraged private participation, mostly in energy and transportation, but impact not sustained

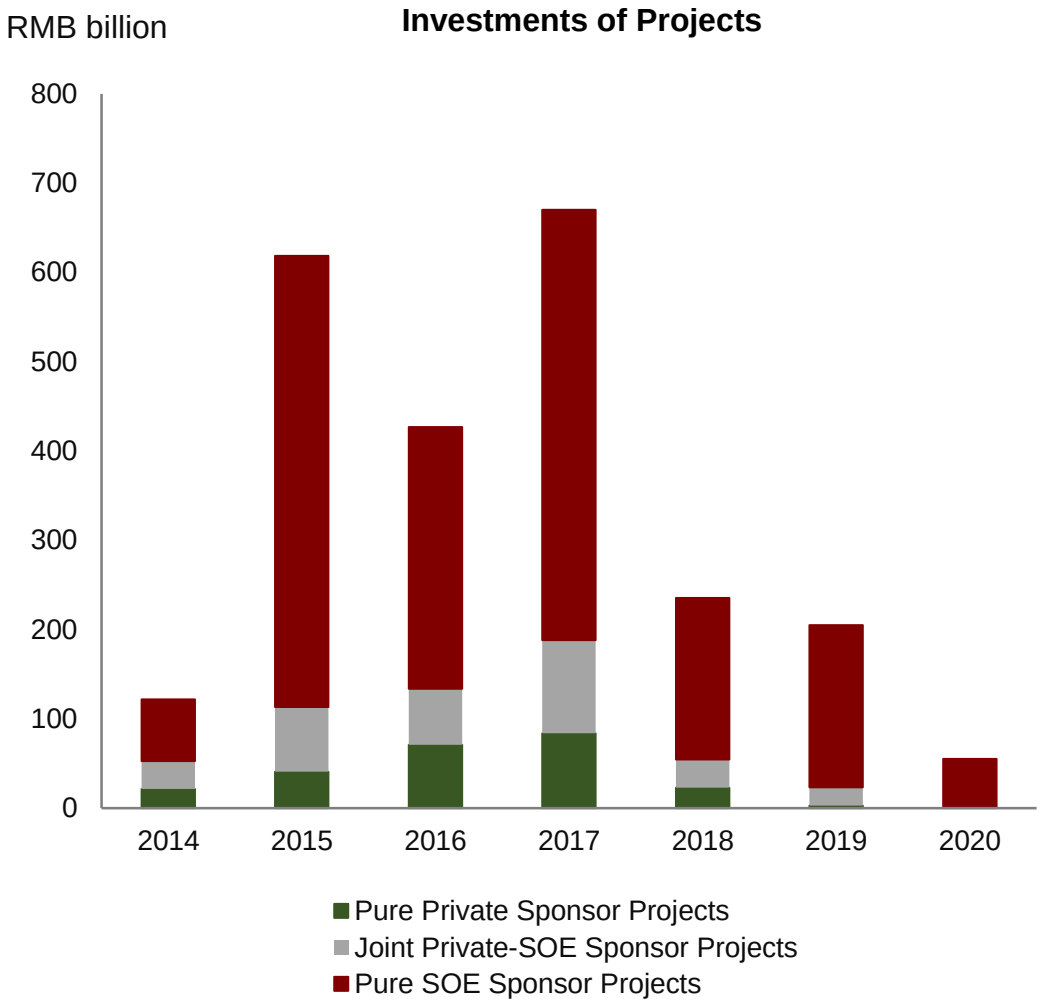


CHINA’S POLICY REFORM AND PROGRESS TOWARD NET ZERO

Entrepreneurial state key to efficiency and environment

- SOE reforms core to China's development
- Governance of SOEs transformed
  - Privatization improved efficiency
  - Changed evaluation of SOE managers improved environment
- Private sponsors play important role in environmental PPPs
- PPPs increasingly driven by institutional strengths and less by fiscal constraints

Ownership Types of Environmental PPPs in China (2014-2020)

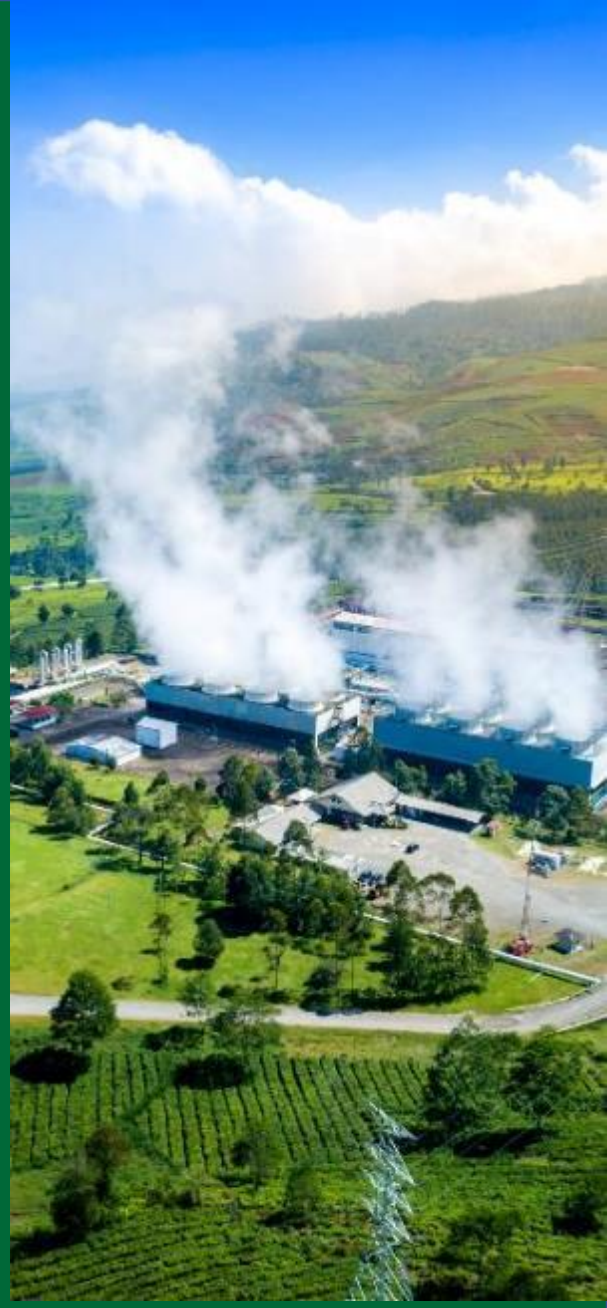


Data source: National PPP Platform, and AIIB staff estimates.

Achieving net zero: Coordinate market and planning tools

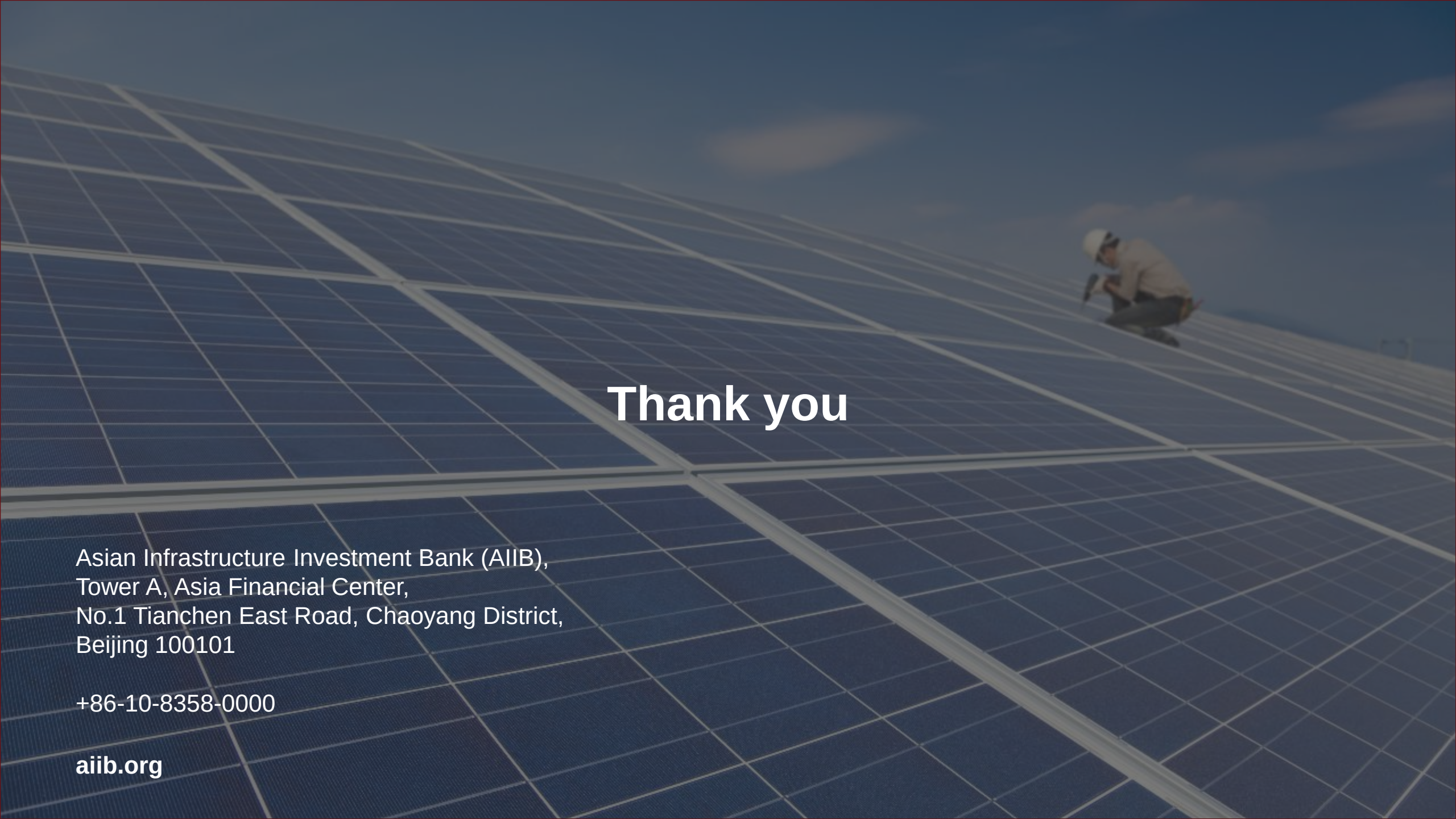
- **Market-oriented reforms and competition gradually introduced in power sector**
- **Unbundling of monopoly increased efficiency, but did not affect environment**
- **Biggest nationwide emissions trading system (ETS) (power sector, 40% of emissions)**
- **ETS pilots:**
  - Reduced carbon emissions.
  - Did not adversely affect economic output.
  - Raised climate awareness.
  - Impact on green innovation more subdued

SUMMARY



Moonshots for the emerging world

- Apply **mission-driven policy framework**, coordinate across economy
- Build **state capacity** and reform SOEs/SOFIs to help lead transition
- **Mobilize private sector** skills and capital to build state capacity
- Develop **technology adoption frameworks** adjusted to local conditions
- Facilitate globally to grant **access to finance and technology**
- Ensure **smooth and fair transition**



Thank you

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AIIB supporting members through transition

AIIB taking the next steps to support the Net Zero transition

- Work in an integrated way across projects and sectors. Engage SOEs, SOFIs and crowd in private sector.
- Develop capacity to help build state capacity through projects and in programs supporting projects
- Support green technology and technology transfers to EMDEs (including via other productive sectors)
- Support government coordination of state capacity-building and technology adoption