

# Finance Ministers' Coalition for Climate Action

Sherpa Meeting  
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## Session 4: Mobilizing finance for climate action

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# Structure

- What is climate finance?
  - cut emissions & increase resilience
- Why mobilize climate finance?
  - a need and opportunity
- How can we mobilize it?
  - instruments finance ministries can leverage
- How can we signal commitment to it?
  - towards a principle

# What is climate finance?

‘Climate/green/sustainable/low-carbon’ finance **aims at:**

- **reducing emissions** and **enhancing sinks** of greenhouse gases, and/or,
- **reducing the vulnerability** and **increasing the resilience** of human and ecological systems to negative climate impacts.

Source: UNFCCC, [Standing Committee on Finance](#), 2014

# What is climate finance?

## Public sources & intermediaries

### **Ministries & Government Agencies:**

- Finance & economy ministries
- Environment & energy ministries

### **Development Finance Institutions:**

- Bilateral Aid agencies
- Multilateral – e.g.
- Export Credit Agencies
- National Development Banks (NDB)
- Multilateral Development Banks (MDB)

### **Climate Funds:**

- Global Environment Facility (GEF)
- Adaptation Fund (AF)
- Climate Investment Funds (CIF)
- Green Climate Fund (GCF)

## Private sources & intermediaries

### **Corporate actors:**

- National/regional utilities & independent power producers
- Manufacturers & power companies
- Corporate end-users

### **Project developers**

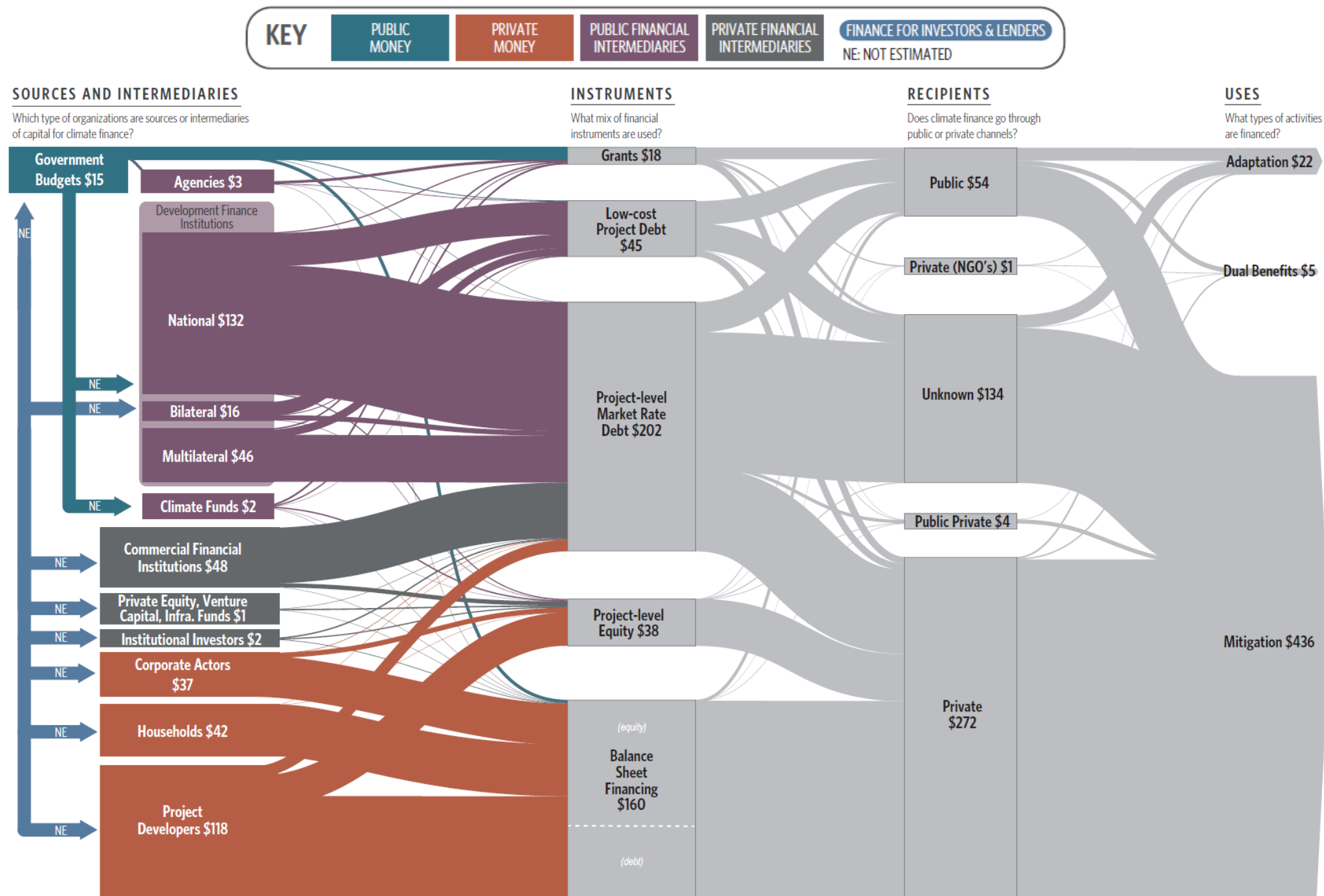
### **Households**

### **Private financial intermediaries:**

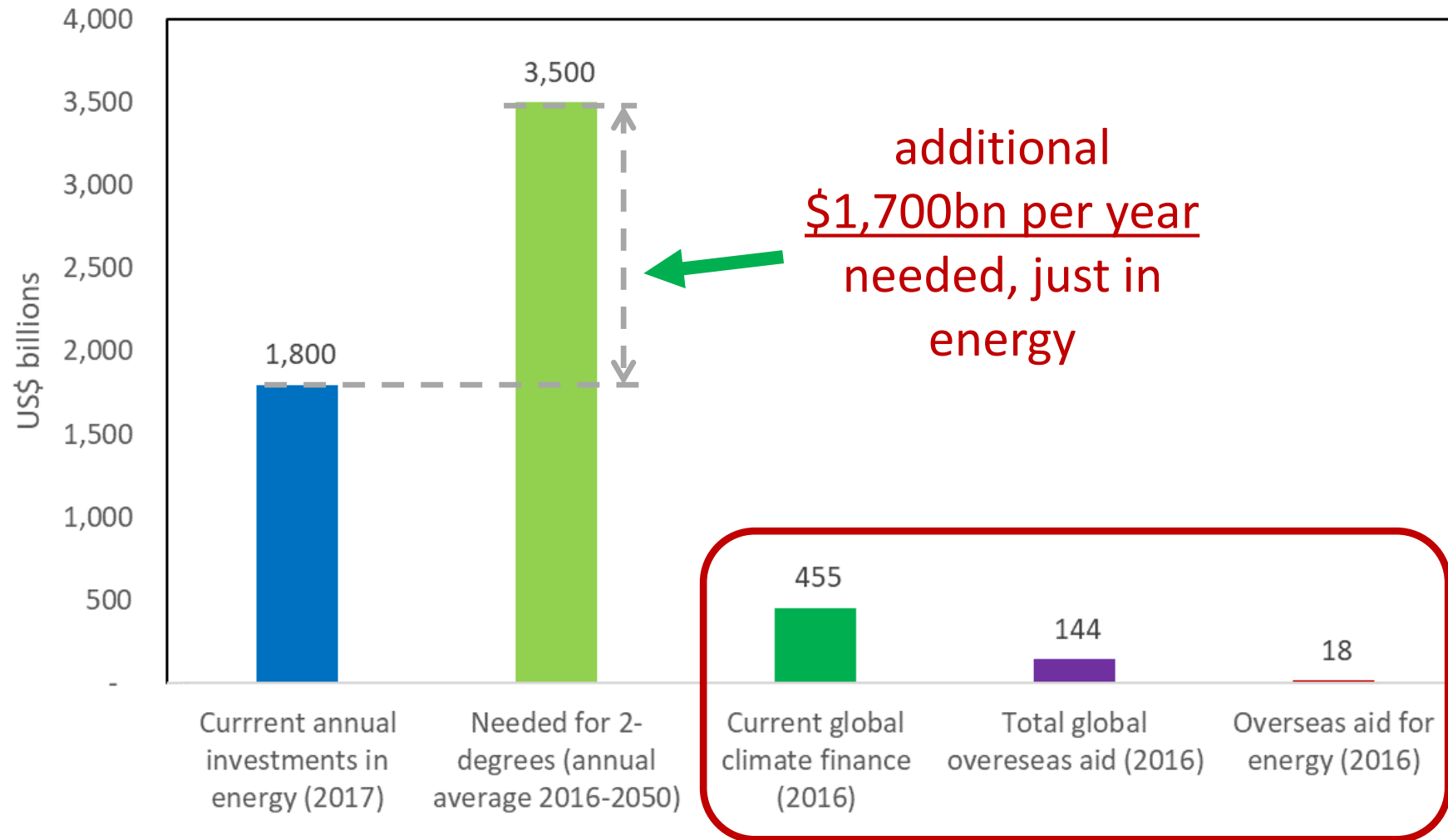
- Commercial Financial Institutions
- Private Equity, Venture Capital & Infrastructure Funds
- Institutional Investors – insurance companies, pension funds & endowments

# Global climate finance flows in 2015/16 (US\$bn)

Source: CPI, [Global Landscape of Climate Finance: An Updated View 2018](#), 2018. Shows sources/intermediaries, instruments, recipients and uses of climate finance. Figures are 2015/16 annual average in US\$bn.

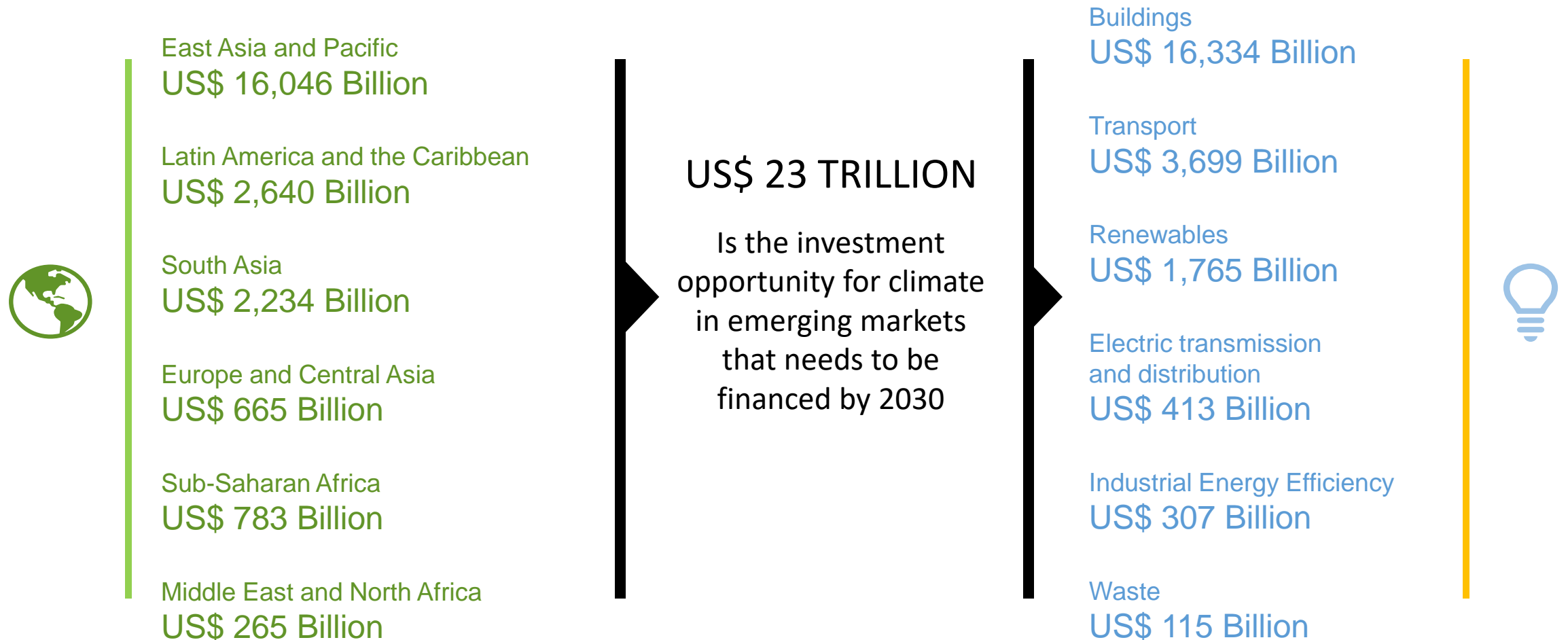


# There is both a need for climate finance...



# ...and an opportunity.

- IFC estimates there is a private finance opportunity of >\$23tn by 2030 in emerging markets



# ...and an opportunity.

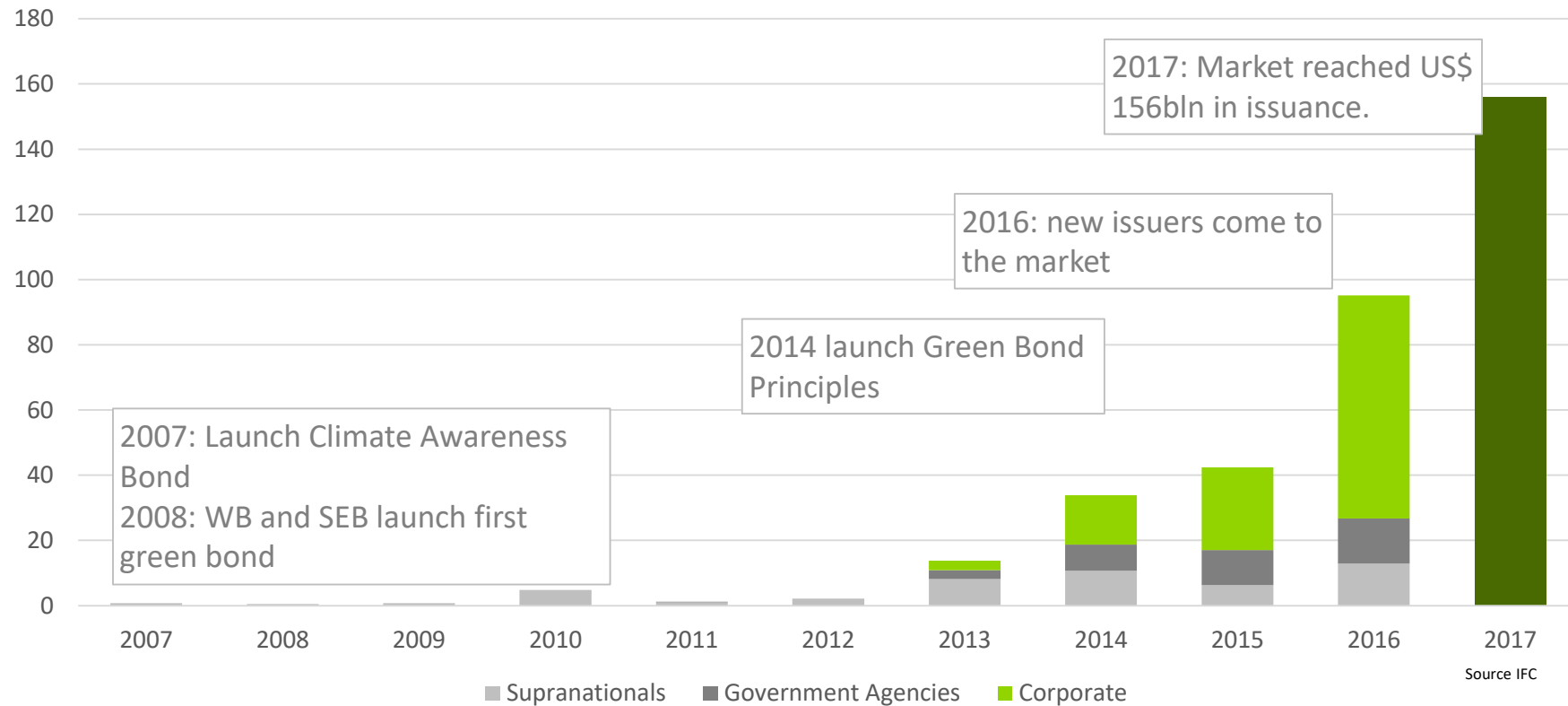
SHADES OF GREEN: INVESTMENT POTENTIAL BY REGION AND SECTOR (\$ BILLION)

	Wind	Solar	Biomass	Small Hydro	Geothermal	All Renewables	Electric Transmission & Distribution	Industrial Energy Efficiency	Buildings	Transport	Waste	Subtotal	
East Asia Pacific	231	537	48	34	16	866	392	143	13,235	1,357	53	16,046	>1000
Latin America and Caribbean	118	44	45	11	14	232	0	21	901	1,460	26	2,640	>500<1000
South Asia	111	211	16	0	0	338	0	85	1,543	255	13	2,234	>250<500
Europe and Central Asia	51	39	6	7	6	109	0	57	410	78	11	665	>100<250
Sub-Saharan Africa	27	63	3	3	27	123	0	0	153	499	8	783	>50<100
Middle East and North Africa	50	46	0	1	0	97	21	1	92	50	4	265	>25<50
Total Climate-Smart Investment Potential by Sector (\$ billion)	588	940	118	56	63	1,765	413	307	16,334	3,699	115	22,633	<25



## ...and an opportunity.

- Example: market for **green bonds** rises from \$0.8bn to \$156bn pa in ten years, facilitated by international and national agencies



# ...and an opportunity.

- Example: market for **green mortgages** rises from \$0.1bn to \$27.6bn pa in 5 years (2012-17)



## Green mortgages

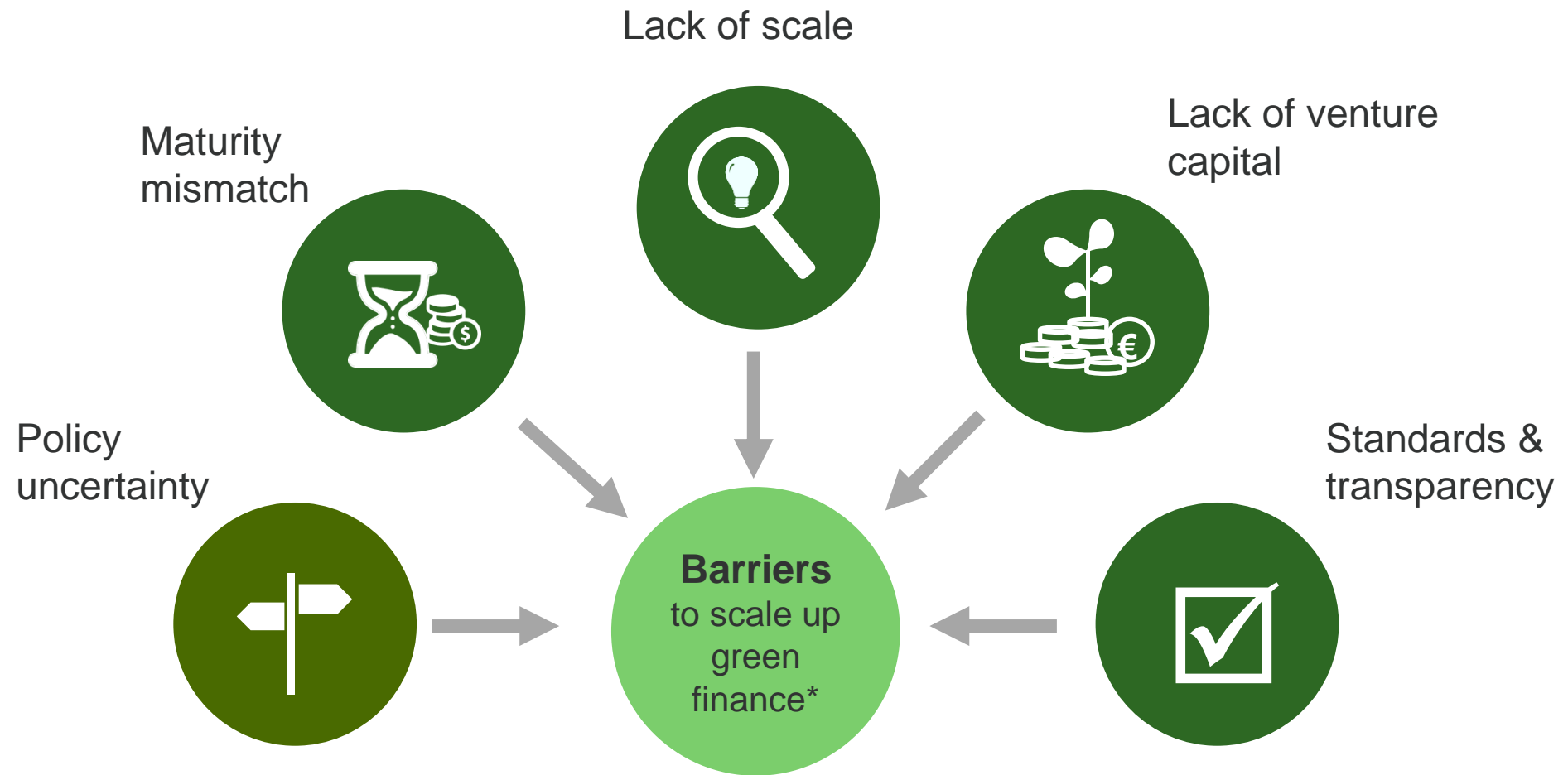
- Adjustment of traditional mortgage, offering better terms when building meets energy efficiency criteria

Evolution in green mortgage backed securities

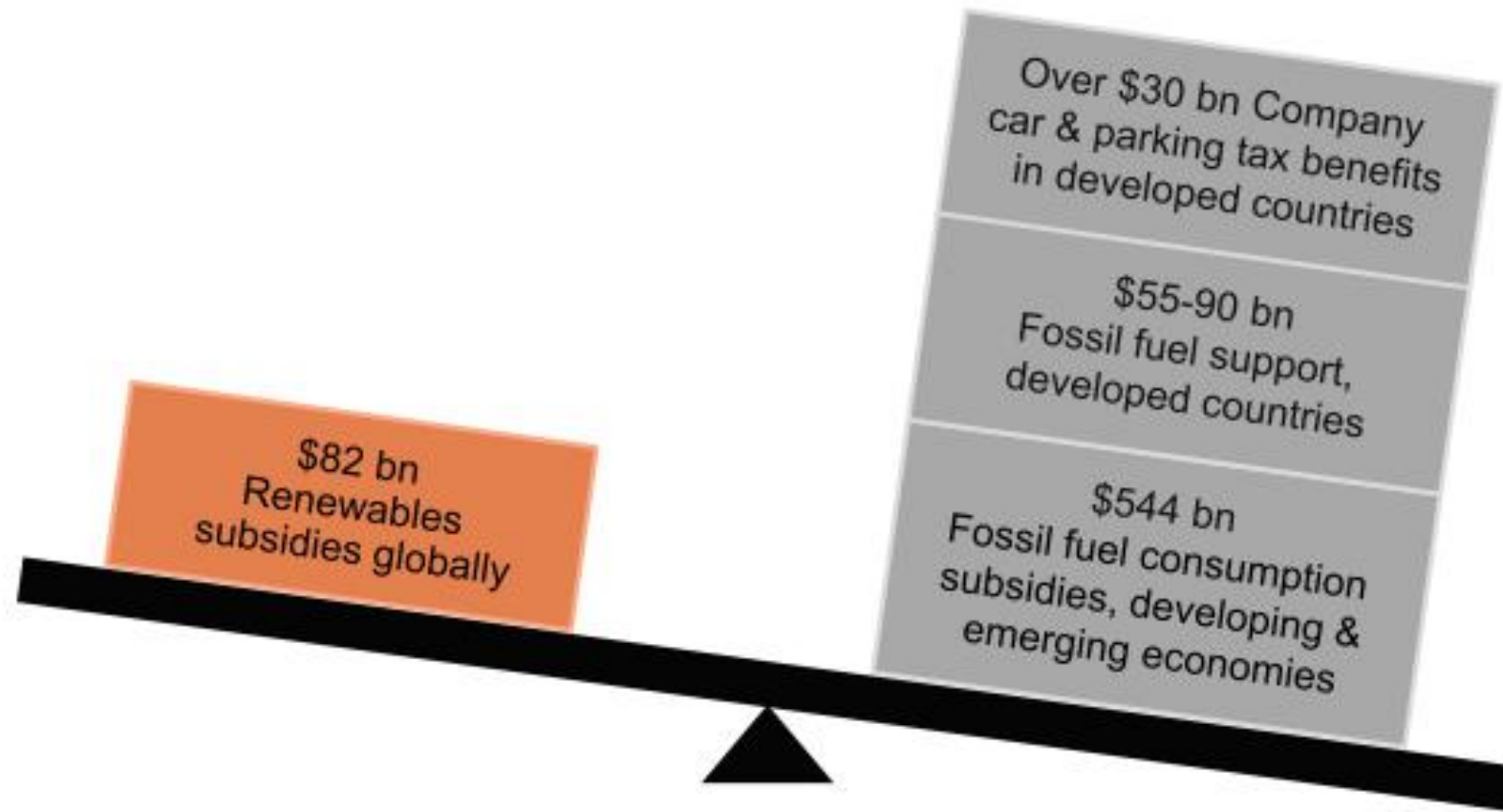


Source: Fannie Mae, as of Q4 2017

# But there are persistent barriers to green instruments in the financial sector...



...while the real sector faces perverse incentives.

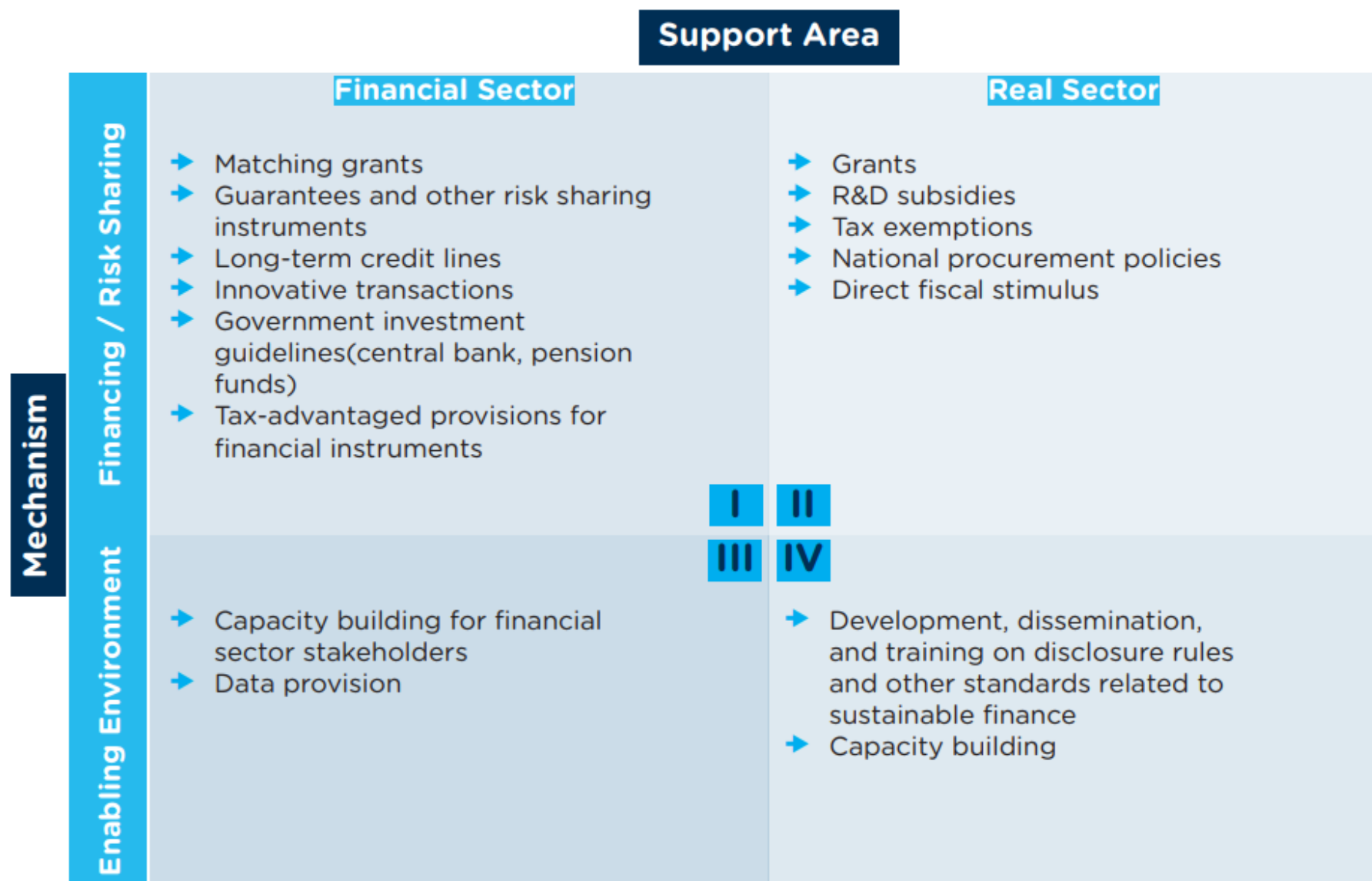


Sources: OECD (2013), Inventory of Estimated Budgetary Support and Tax Expenditures for Fossil Fuels; IEA (2013), World Energy Outlook; IEA (2013), OECD (2014, forthcoming)

# Finance ministries can help tackle barriers

- **Creating an enabling environment** – greening the financial sector via regulation (e.g. climate risk disclosure) and real sector (improving the business environment, tweaking public procurement, putting a price on pollution)
  - *Chile example: energy auction reforms plus CO2 taxes help raise renewable investment from [\\$0.2bn to \\$3.5bn 2011-14](#); renewables rise from [5% to 18% of energy mix 2014-18](#)*
- **Risk-sharing** – facilitating investments in the financial sector (e.g. guarantees, credit lines, building markets for green instruments) and the real sector (grants, R&D subsidies, tax exemptions, direct fiscal stimulus)
  - *UK example: [Green Investment Bank](#) ‘crowded-in’ domestic private finance, attracting £8.6bn of private capital using £3.4bn public funds (2.5:1 ratio), to address market failures in green infrastructure (wind, waste, and bioenergy)*

**FIGURE E.2** TYPOLOGY OF PUBLIC FINANCE INTERVENTIONS IN SUPPORT OF SUSTAINABLE FINANCE

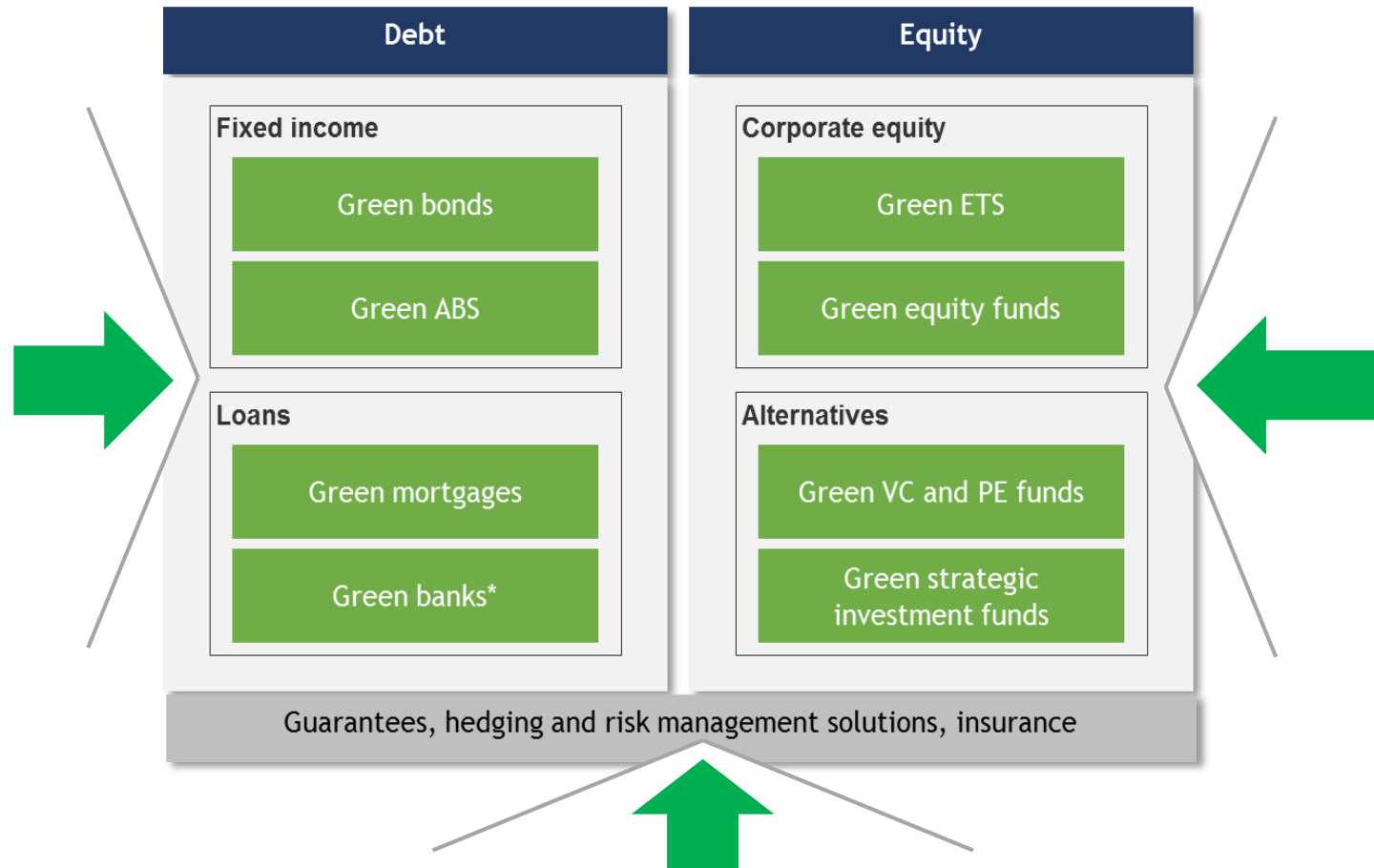


Source: UN Environment/WBG Roadmap Team.

# This can help ramp-up climate finance instruments

## Greening the financial sector:

- Mandatory disclosures
- Fiduciary duties
- Supervisory activities (stress tests, capital requirements etc.)



## Creating an enabling environment in the real sector:


- Pricing externalities (e.g. CO2 taxes)
- Subsidies
- Public procurement

## Risk-sharing in the real and financial sector:

- Guarantees & loans

# How can we signal commitment to mobilizing climate finance?

## Common commitments, consistent with different ambition levels

Finance Ministers commit to taking actions to mobilize climate finance	increasingly ambitious Principle language		
			
	Commitment to helping to mobilize private finance, for example by fostering <b>enabling environments</b> through national regulations and policies	Previous, plus: <b>specific interventions into the marketplace</b> , e.g. greening the financial system through climate risk disclosures, altering incentives in energy markets	Previous, plus: <b>commitment to use national resources</b> , e.g. through Green Investment Banks/greening of national development banks, guarantees/loans & subsidies etc.



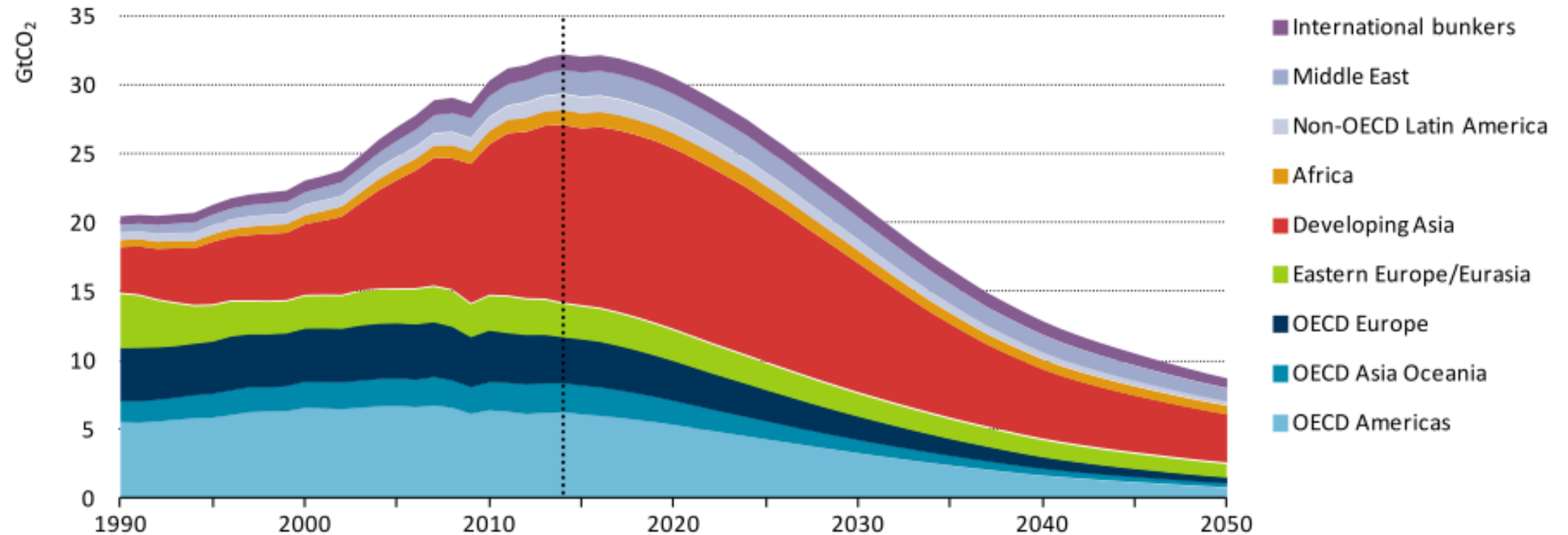
# Discussion

- What are the key issues we need to keep in mind when seeking to mobilize climate finance?
- How do we frame a principle on climate finance mobilization that:
  1. embraces ambition and signals collective commitment,
  2. is inclusive, i.e. allowing participation by countries at different stages (e.g. financial market depth) and with different administrative capacities?

# Appendix

Example: 2-degrees requires energy-related CO<sub>2</sub> emissions to fall rapidly, with all regions contributing

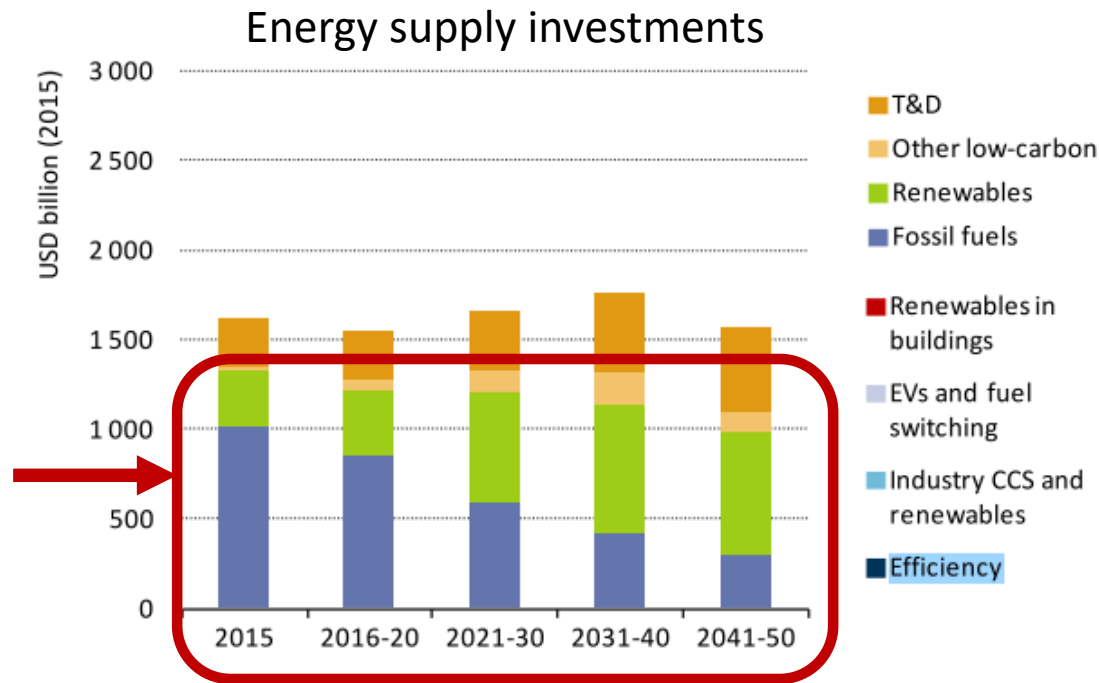
**Figure 2.3 • Energy-related CO<sub>2</sub> emissions by region in the 66% 2°C Scenario**



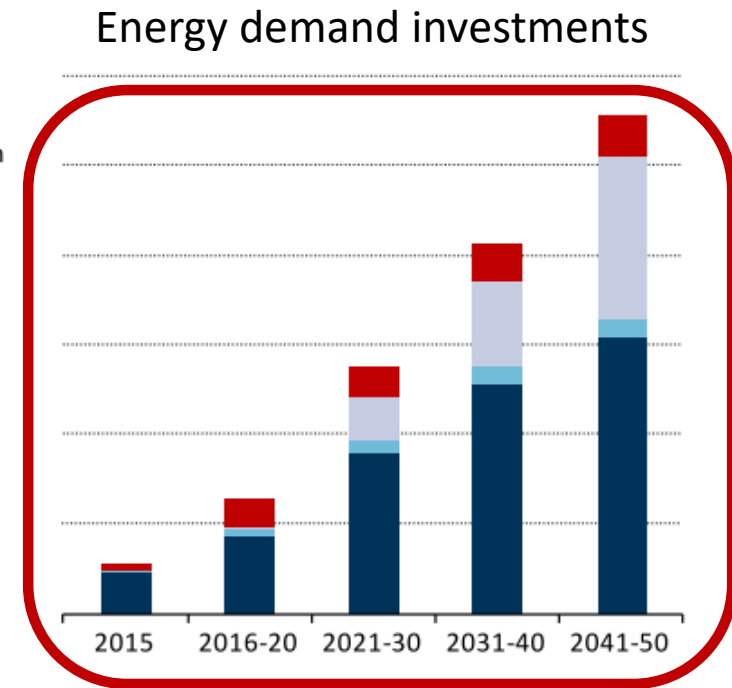
Source: [OECD/IEA 2017](#)

# This entails a “fundamental reorientation” of energy investment

**A steady shift from fossil fuel investment to renewables on supply-side...**

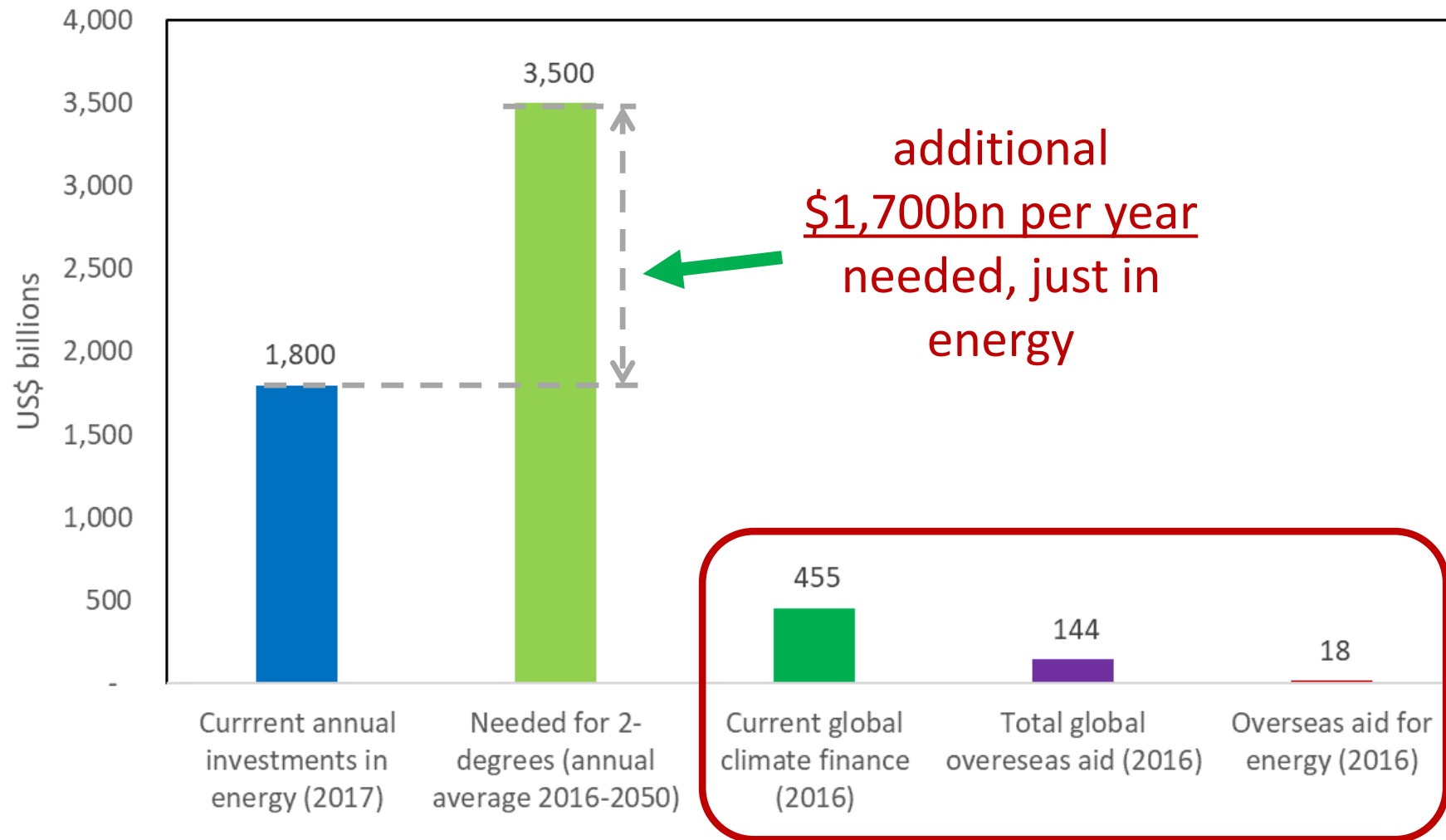


Note: T&D = transmission and distribution; EVs = electric vehicles; CCS = carbon capture and storage.



**...and a massive increase in demand-side energy investments (+10,000%)**

# These energy investment needs are huge, for instance dwarfing development aid (ODA)



**Table 1.2 • Selected policy tools for a reorientation of energy investment**

Type of project	Typical policy tools that facilitate investment	Other measures that can affect future investment decisions
<b>Utility-scale renewables</b>	Auctions for long-term power purchase agreements; portfolio standards; tradable certificates.	Carbon pricing; long-term arrangements with modulated market premiums.
<b>Distributed generation</b> (e.g. rooftop solar)	Feed-in-tariffs and net metering.	Carbon pricing; retail electricity tariff design; minimum performance building standards.
<b>Coal-to-gas switch and biomass power</b>	Carbon pricing; minimum performance standards.	Rules for export credits and multilateral financing; financial disclosure rules.
<b>CCS in industry and power</b>	Grants to cover additional costs of CO <sub>2</sub> capture and storage; CO <sub>2</sub> storage tax credits.	Carbon pricing; CO <sub>2</sub> infrastructure deployment; minimum performance standards.
<b>Industrial energy efficiency</b>	Utility obligations; energy efficiency auctions; mandatory efficiency opportunity audits.	Carbon pricing; minimum performance standards; elimination of energy subsidies.
<b>Buildings and appliances efficiency</b>	Minimum performance standards; utility obligations; property tax repayment schemes; public procurement; tradable certificates; revolving funds.	Energy performance certificates; performance data transparency; energy services companies.
<b>Vehicle efficiency</b>	Fuel-economy standards; fuel and vehicle taxation.	Differential road pricing and congestion policies; elimination of consumer fuel subsidies.
<b>Electric vehicles</b>	Purchase subsidies; charging infrastructure deployment; tradable credits; fleet average fuel-economy standards; exemptions from traffic fees.	Differential road pricing; parking restrictions; minimum performance standards.
<b>Electricity storage</b>	Regulated rates of return; purchase subsidies; utility obligations.	Market design to support flexible resources; deferred network investment strategies; electric vehicle policies that reduce battery costs.

Source: [OECD/IEA 2017](#)

Source: IEA analysis.

**Table 1.3 • Typical sources of financing for various types of energy projects by region**

Types of projects	Mature market economies	Emerging markets with a strong role for state-directed investment	Lower-income developing markets
<b>Oil and gas upstream</b>	Corporate balance sheet; corporate bonds.	Government and state-owned enterprise balance sheet.	Corporate balance sheet; corporate bonds.
<b>Electricity networks; oil and gas pipelines</b>	Corporate balance sheet.	Government and state-owned enterprise balance sheet.	Government and state-owned enterprise balance sheet; development banks.
<b>Conventional power generation</b>	Corporate balance sheet; corporate bonds; project finance.	Government and state-owned enterprise balance sheet; public bank loans.	Government, state-owned enterprise and private conglomerate balance sheet; development banks; export credit agencies.
<b>Utility-scale PV and wind</b>	Project finance; Corporate balance sheet.	Government and state-owned enterprise balance sheet; corporate balance sheet.	Development banks; project finance; export credit agencies; government and state-owned enterprise balance sheet.
<b>Residential solar PV; efficient cars and appliances</b>	Third-party financing; household balance sheet; private bank loans.	Household balance sheet; public and private bank loans.	Household balance sheet; third-party finance.
<b>Electric vehicles; energy efficiency programmes for buildings</b>	Government balance sheet, via tax credits or conditional grants; private bank loans; corporate bonds.	Government balance sheet; public and private bank loans.	Development banks; public and private bank loans.
<b>Early stage and pre-commercial low-carbon technologies</b>	Angel investors; venture capital; corporate balance sheet; government balance sheet via R&D grants.	Government and state-owned enterprise balance sheet.	