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Leveraging private funds in developing countries

Global challenges and examples from Vietnam/Peru

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&

Climate Strategies

4 questions regarding „leverage“

- **How** can private funds be leveraged?
- What is a **reasonable leverage factor** (leveraged/leveraging finance)?
- Is the leverage factor a **good indicator for efficiency in mitigation**?
- Which „private funds“ are **to be counted to the 100 Billion $** (by 2020)?

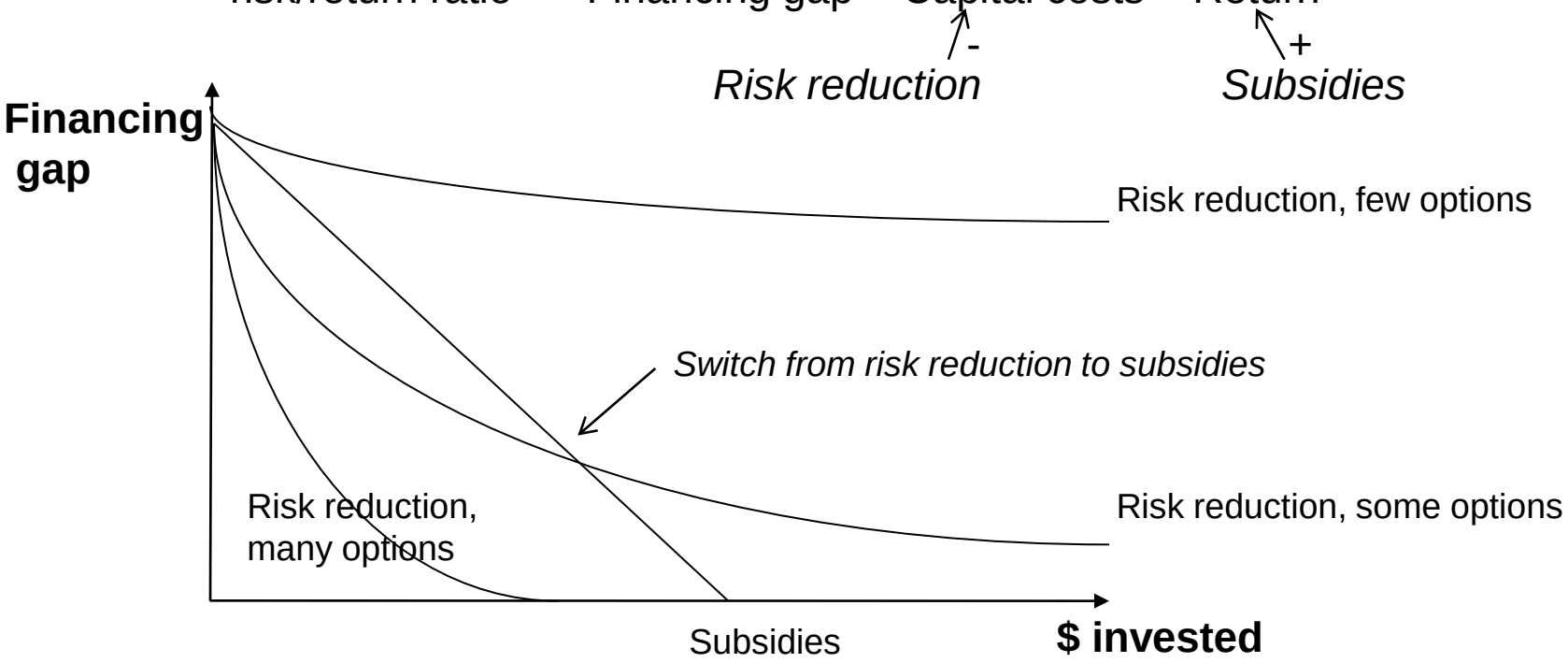
How can private funds be leveraged?

Depends on type of barrier for investment

Barrier	Leveraging tool
Access to capital	**Risk reduction,** e.g. Export risk guarantees, currency risk insurance, public equity
Incremental costs	**Subsidies,** e.g. carbon credits, feed-in-tariff or taxes on fossil fuels/removal of subsidies
Information / knowledge barrier	**Capacity building** for business sector *(missing in UN negotiations!),* for carbon market *(significant correlation with projects in LDCs, but causality?)*
Regulatory / infrastructure barrier	**Improving the enabling environment,** e.g. regulatory reform (core business environment often neglected!), improving the electricity infrastructure

How can private funds be leveraged?

Access to capital/risks and incremental costs are 2 sides of the same coin:
risk/return ratio -> Financing gap = Capital costs – Return



How can private funds be leveraged?

Country studies Peru/Vietnam: Overview

- Rapidly growing middle-income countries, 2-3% emission growth per year. Peru is a major forestry emitter

- Significant low-cost (<10$/tCO2) reduction potential remains;

  >15 MtCO2 (+REDD) in Peru

  >150 MtCO2 in Vietnam, annually per 2020

- Planned national policies, CDM and international programmes will only reduce baseline emissions by 10-12% (by 2020)

How can private funds be leveraged?

Country studies Peru/Vietnam: Removing barriers for investment

Barrier	Leveraging tool: existing	Leveraging tool: needed
Access to capital	Green Trust Funds	Funds for SWH(Peru)
Incremental costs	CDM payments Feed-in-tariff /tenders	PoAs / New market mech. Electricity tariff (Vietnam),
Information / knowledge barrier	Cleaner Production Centers / few ESCOs, CDM (PoA) Capacity building	Data improvement: forestry (Peru) & wind, rice cultivat. (Vietnam), capacity building for new market mechanisms
Regulatory barriers	First EE labels, transport planning (still to be improved)	Efficiency standards (both countries), grid expansion (Peru)

What is a reasonable leverage factor?

- **Leverage factor: multiple definitions**; we use the following;

$$\text{Leverage factor} = \frac{\text{Mobilised funds (no climate purpose)}}{\text{Mobilising climate finance}}$$

- Leverage factor **up to 10-15 reported in the literature**
- **Our analysis shows lower factor**;
  - CDM: 3-4.5 on average, lower if non-additionality is included
  - GEF: 6 on avearage, less than half if only private funds are included
- **High leverage factor: increases probability of non-additionality** (leverage factor of 10 -> 90% of costs are paid by other resources)
- **New risk-reduction tools** (guarantees, public equity) **may have higher factor** but yet to be proofed!

Leverage factor as indicator for mitigation?

- **Clean Development Mechanism** (232 projects)
  - Most-efficient projects (CO2/$) have very low leverage factors
  - Projects with high leverage factors are likely non-additional

- **Global Environment Facility** (370 projects)
  - No significant correlation between leveraged funds & CO2
  - If only private funds: almost significant correlation

- **> Leverage factor is poor indicator for short-term mitigation** (for past tools with CO2 data, what about new tools?)

Which private funds are part of the 100 Billion $?

Possible criteria ➔ / Type of fund ⬇	Addresses barriers: (costs, risks, capacity)	No double counting with CO2 targets	Additional to BAU / Influence of negot.?	Data available
Carbon credit payments	✓	×	✓	✓
- Abatement costs	✓	×	✓	(✓)
- Rents	(×)	(×)	✓	(✓)
- Above market price	✓	(✓)	✓	(×)
Low-carbon investment	×	✓	(×)	(×)
- Leveraged only	×	✓	✓	(✓)
Voluntary funds	✓	✓	(×)	(×)
- Donations	✓	✓	(×)	(×)
- Voluntary offsets	✓	(✓)	(×)	(✓)
- Corporate initiatives	✓	✓	(×)	(×)
Private GHG levies	✓	✓	✓/×	(✓)

Conclusions

- **Multiple instruments for leveraging private funds, f(type of barrier)**
  - Risk reduction / paying incremental costs -> close financing gap
  - Capacity building -> for business sector (missing in UN negotiations!)
  - Improving the enabling environment -> e.g. regulatory reforms

- **Leverage factor is overestimated** (2-4 in reality, new tools more?)

- **Efficiency in leveraging „funds“ is a poor indicator for mitigation!**

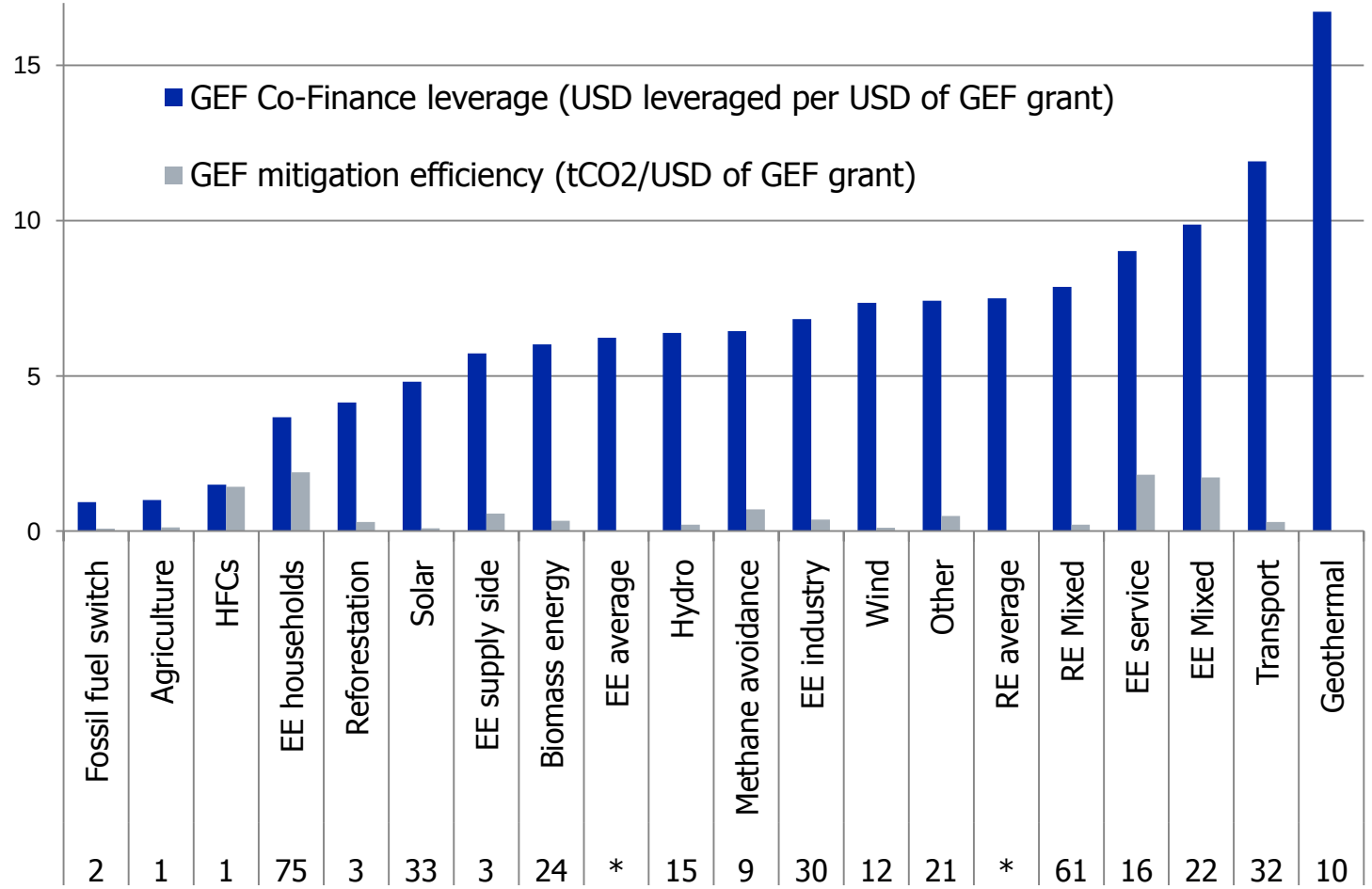
- **Different type of private funds: data constraints** -> efforts needed; **meet different criteria for inclusion in 100 Billion $** -> Political decision what to include

Thank you for your attention!

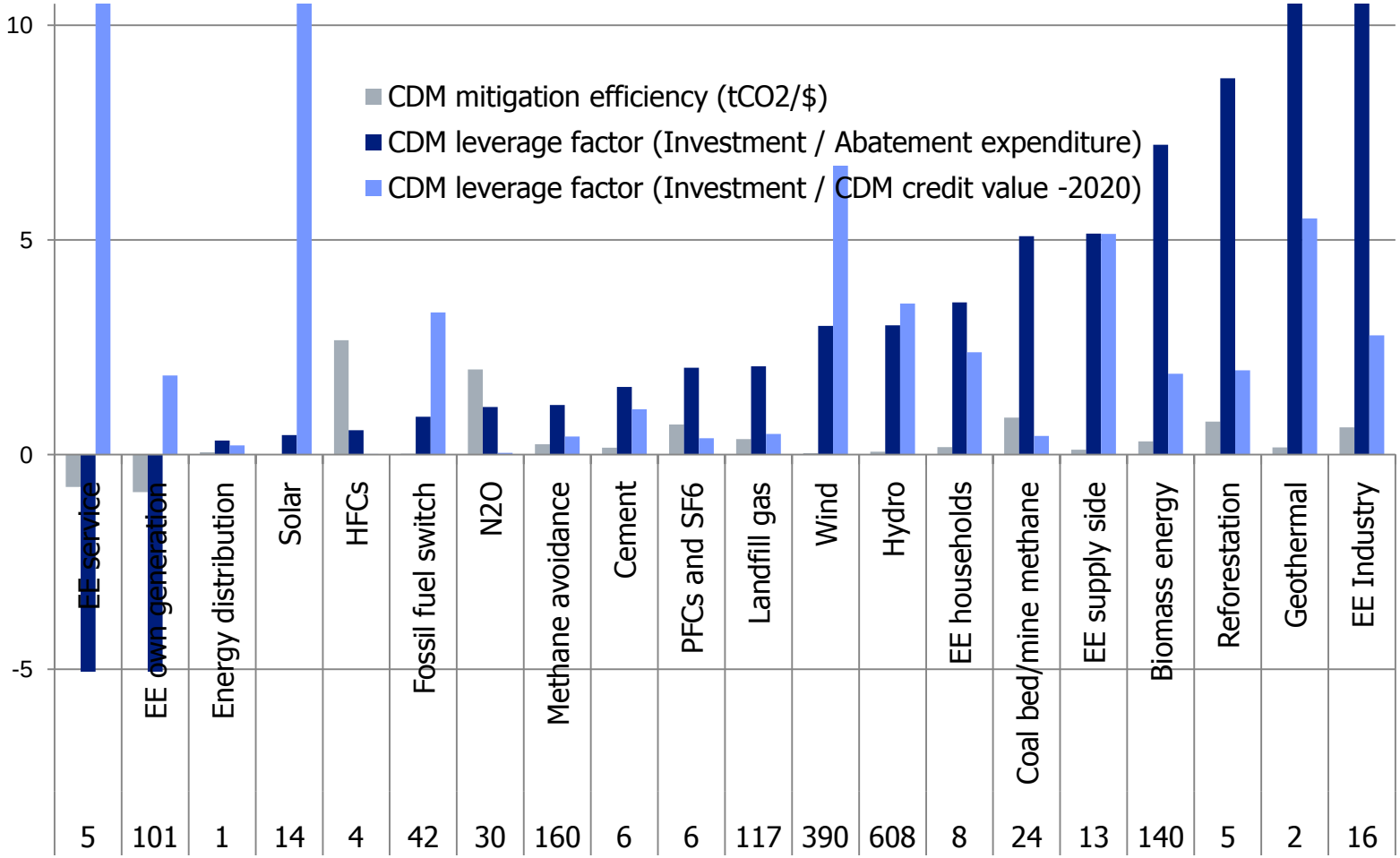
All working papers are online:

http://www.climatestrategies.org/research/our-reports/category/71.html

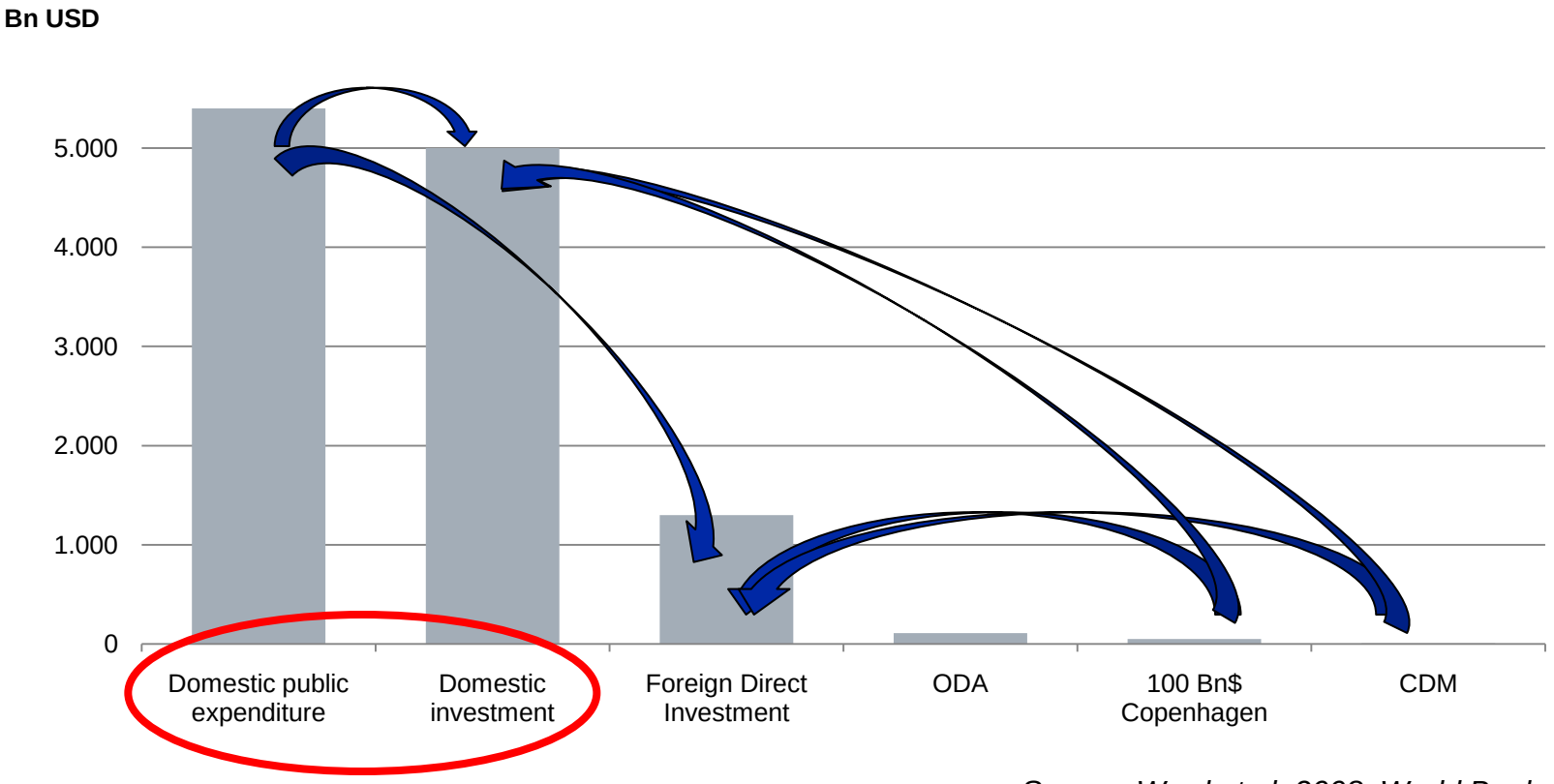
Annex 1


15
10
5
0
GEF Co-Finance leverage (USD leveraged per USD of GEF grant)
GEF mitigation efficiency (tCO2/USD of GEF grant)
Fossil fuel switch
Agriculture
HFCs
EE households
Reforestation
Solar
EE supply side
Biomass energy
EE average
Hydro
Methane avoidance
EE industry
Wind
Other
RE average
RE Mixed
EE service
EE Mixed
Transport
Geothermal
2
1
1
75
3
33
3
24
*
15
9
30
12
21
*
61
16
22
32
10

Annex 2


10
5
0
-5
CDM mitigation efficiency (tCO2/$)
CDM leverage factor (Investment / Abatement expenditure)
CDM leverage factor (Investment / CDM credit value -2020)
EE service
EE own generation
Energy distribution
Solar
HFCs
Fossil fuel switch
N2O
Methane avoidance
Cement
PFCs and SF6
Landfill gas
Wind
Hydro
EE households
Coal bed/mine methane
EE supply side
Biomass energy
Reforestation
Geothermal
EE Industry
5
101
1
14
4
42
30
160
6
6
117
390
608
8
24
13
140
5
2
16

Financing flows in developing countries (2008 $)



Source: Ward et al. 2008, World Bank