







based on a decision of the German Bundestag

Kick-off Workshop in Latvia

24 January 2019

CIC2030 methodology for tracking national climate and energy investment flows

Case study of Germany 2010/2016

Aleksandra Novikova
Institute for Climate Protection, Energy and Mobility (IKEM)

Contents

- Introduction
- Project questions
- Scope and boundaries
- Sources and intermediaries
- Instruments
- Uses

- Regulation on the Energy Union Governance requires
 designing national energy & climate plans (NECPs)
 - Annex I: a binding template
 - Section 3 "Overview of investment needs"
 - Chapter 5 on "Impact assessment of planned policies and measures"
 - Existing investment flows into decarbonization





IKEM

Introduction

Climate finance landscapes / climate and energy investment maps:

- Comprehensive bottom-up mapping of financing flows dedicated to climate change action and energy transition
- Covering both end-investment and supporting financial flows from public and private stakeholders
- Drawing the picture of how the financial value chain links sources, intermediaries, project managers and the end investment (EEA)

CIC2030:

2019: Germany IKEM2019: Czechia CVUT

2019: Latvia RTU

Existing studies:

2011 – 2017: Global CPI 2014 – 2017: France I4CE

2012: Germany CPI 2016: Belgium Trinomics

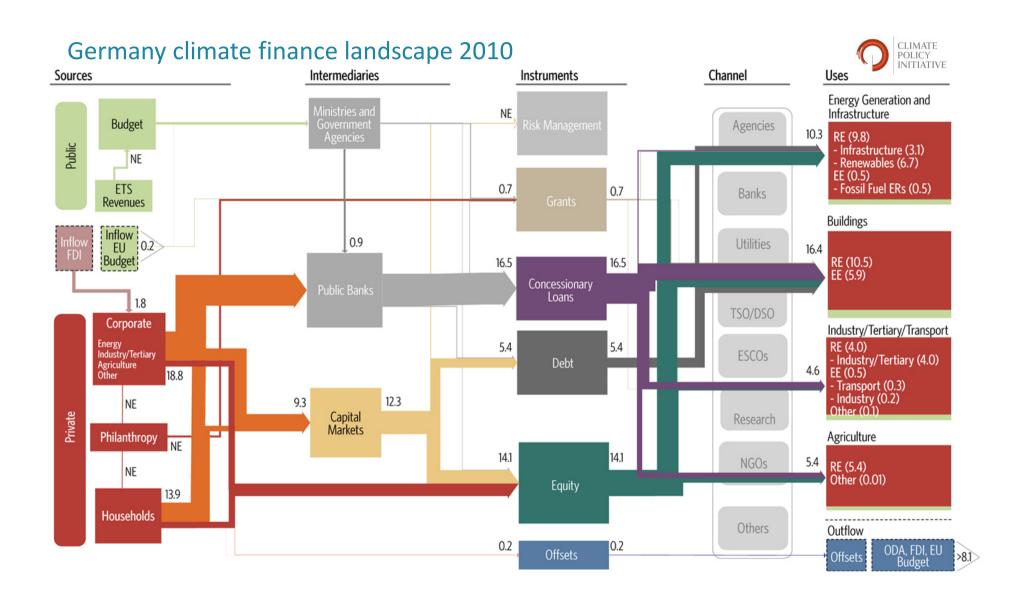
2014: Indonesia CPI 2017: Côte d'Ivoire CPI











Questions of tracking investment in Germany

- ► How much capital was invested climate and energy transition in 2016?
- Who were the main investors and what made this investment possible?
- What financing instruments were the most common?
- What type of measures were invested in?
- What has changed since 2010?







Advantages and limitations of the concept

Advantages:

- A visual snapshot of stakeholders, finance flows, and recipient
- Potential over- and underspending for further investigation
- Comparing countries' landscapes may help understand how to improve policies

Limitations:

- A significant amount of input data
- The results do not permit to assess directly
 - The impact or effectiveness of policies and actions
 - Gaps to reach climate targets
 - Leverage of private money by public finance

Supported by:







Scope and boundaries

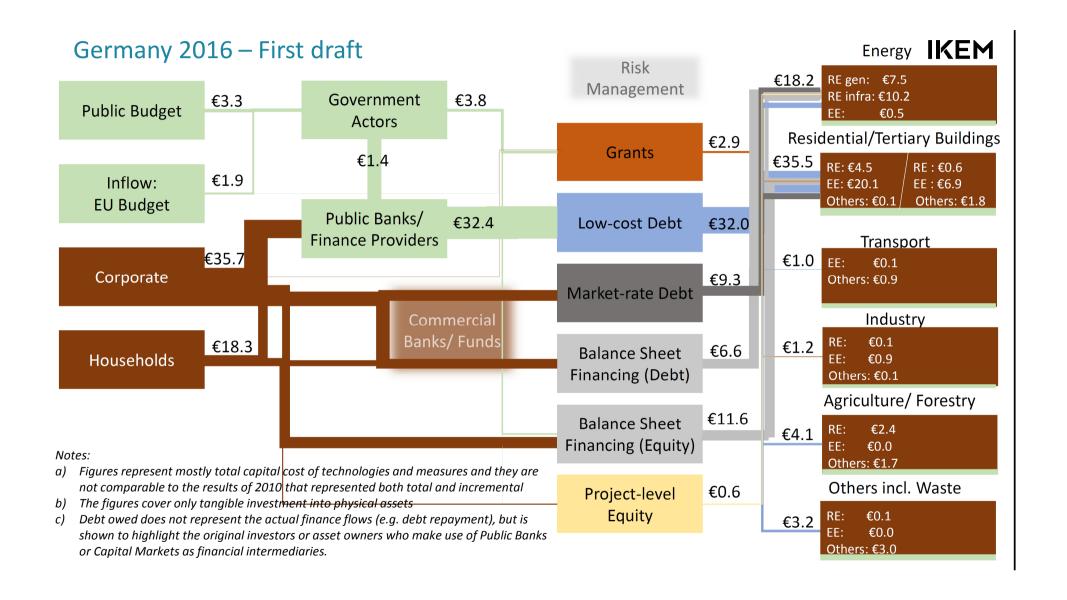
- Temporal scope:
 - Year which the latest data is available
- Sectoral scope mitigation / adaptation:
 - Energy generation and grid, industry, buildings, transport, agriculture
- Measures:
 - Climate-specific investment vs. climate-related
- Investment scope:
 - Tangible vs. intangible investment
- Cost definition:
 - Incremental vs. total capital investment

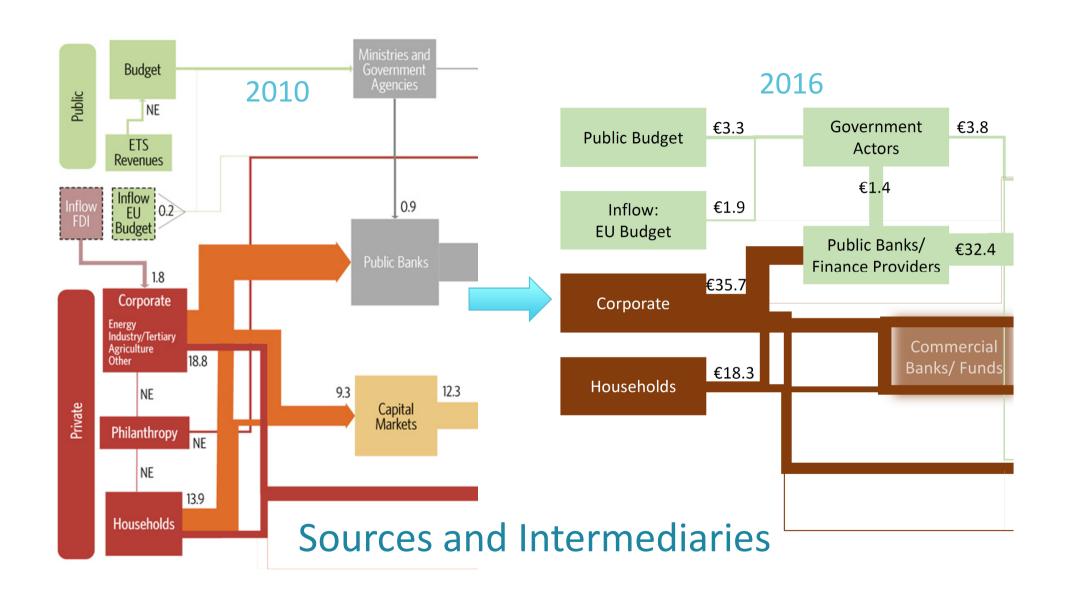
Supported by:

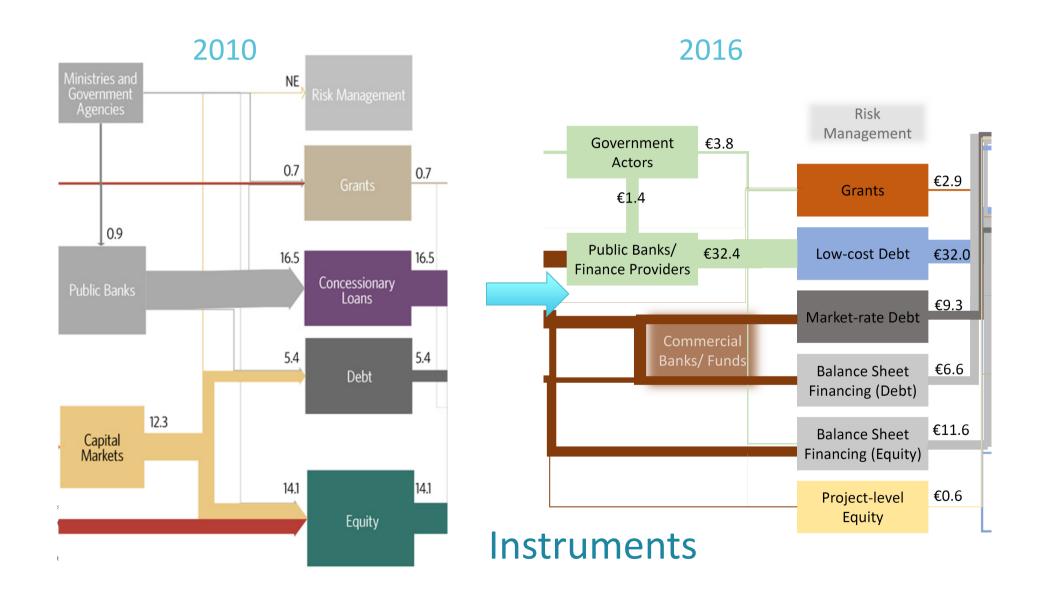




IKEM







Uses Sector comparison 2010 2016 Instruments Channel Uses Energy **Energy Generation and** Risk Infrastructure €18.2 RE gen: €7.5 Agencies Management RE infra: €10.2 10.3 RE (9.8) EE: €0.5 - Infrastructure (3.1) - Renewables (6.7) Residential/Tertiary Buildings €2.9 EE (0.5) Grants €35.5 _{RE: €4.5} - Fossil Fuel ERs (0.5) RE: €0.6 0.7 Banks EE: €20.1 EE: €6.9 Buildings Others: €0.1 Low-cost Debt €32.0 Utilities 16.4 Transport RE (10.5) EE (5.9) 16.5 €1.0 EE: €0.1 Concessionary €9.3 Others: €0.9 ket-rate Debt Loans TSO/DSO Industry Industry/Tertiary/Transport RE: €0.1 €1.2 RE (4.0) - Industry/Tertiary (4.0) €6.6 5.4 Balance Sheet €0.9 **ESCOs** Debt Financing (Debt) Others: €0.1 EE (0.5) - Transport (0.3) Agriculture/ Forestry - Industry (0.2) Other (0.1) €11.6 **Balance Sheet** RE: €2.4 €4.1 Research Financing (Equity) €0.0 Agriculture Others: €1.7 14.1 NGOs Others incl. Waste 5.4 €0.6 RE (5.4) Project-level Other (0.01)

Equity

EE – energy efficiency

RE - renewable energy

Equity

IKEM

€0.1

€0.0

Others: €3.0

€3.2

Discussion points

- Map concept:
 - Sources, intermediaries, instruments, sectors and their segments
- Map elements:
 - Sources, intermediaries, instruments, sectors and their segments
- Sectoral scope mitigation:
 - Energy generation and grid, industry, buildings, transport, agriculture
- Measures:
 - Climate-specific investment vs. climate-related
 - Tangible vs intangible
- Cost definition:
 - Incremental vs. total capital investment

Supported by:









Aleksandra Novikova aleksandra.novikova @ikem.de

IKEM – Institut für Klimaschutz, Energie und Mobilität e. V. Magazinstraße 15 – 16, 10179 Berlin

www.ikem.de