



based on a decision of the German Bundestag



Mapping Climate and Energy Finance: Lessons Learnt from Czechia

Michaela Valentová, Czech Technical University in Prague together with Jaroslav Knápek and Aleksandra Novikova

Climate investment capacity (CIC): climate finance dynamics & structure for financing the 2030 targets



Project overview

Climate investment capacity (CIC): climate finance dynamics & structure for financing the 2030 targets



2018









Why tracking?

Regulation on the Energy Union Governance

NECP binding template, Section 5.3i

- 5.3. Overview of investment needs
 - existing investment flows and forward investment assumptions with regard to the planned policies and measures
 - ii. sector or market risk factors or barriers in the national or regional context
 - iii. analysis of additional public finance support or resources to fill identified gaps identified under point ii

Paris Agreement

Article 2 §1

This Agreement, (...), aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by a.Holding the increase in the global average temperature to well below 2°C...

h Increasing the ability to adapt

c. Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development

Supported by









Concept and methodology

What

Who invests how much into what kind of measures and which intermediaries and financial instruments facilitate these flows.

How

A bottom-up approach tracking investment at a technology/measure level, aggregating it to sector level and then to country level.

+ Institutional setup, investment patterns, proportion of public/private spending

Potential over- and underspending for further investigation Comparing countries may help understand how to improve policies

A significant amount of input data
 No policy impacts/effectiveness, no gaps to reach targets

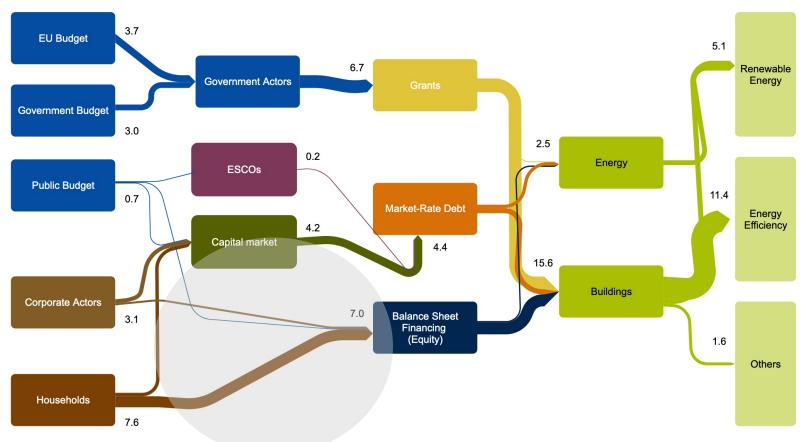
Federal Ministry
for the Environment, Nature Conserval
and Nuclear Safety







The 2017 Climate and Energy Investment Map for Czechia (CZK billion)



Notes

a) All financial flows represent total tangible investment including public support into the reduction of GHG emissions with one exception, namely electrical appliances in the buildings sector. Financing of intangible measures is excluded.

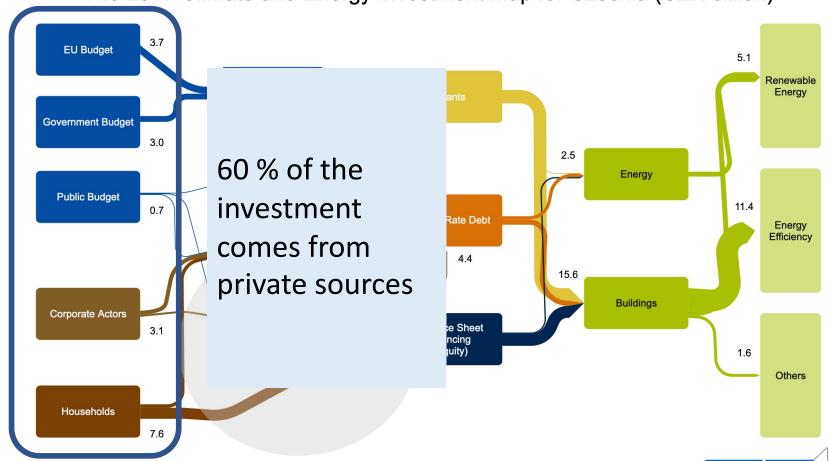
b) The government budget includes state budget, mainly from the EU ETS revenues, but it excludes public procurement and administrative costs. Regional and municipal investments are covered in the public budgets.



c) Debt owed does not represent the actual finance flows (e.g. debt repayment), but it is shown to highlight the original investors or asset owners who make use of public and commercial financial institutions as financial intermediaries. The map includes only primary investment flows, e.g. the resources available to investors at the time they had to cover for their capital expenses. It does not cover therefore such financial instruments as guarantees, green bonds, the cost of capital or debt repayment by investors, the compensation payments from the public budget to energy generators supplying renewable electricity under the feed-in tariff, and others.



The 2017 Climate and Energy Investment Map for Czechia (CZK billion)



Notes:

a) All financial flows represent total tangible investment including public support into the reduction of GHG emissions with one exception, namely electrical appliances in the buildings sector. Financing of intangible measures is excluded.

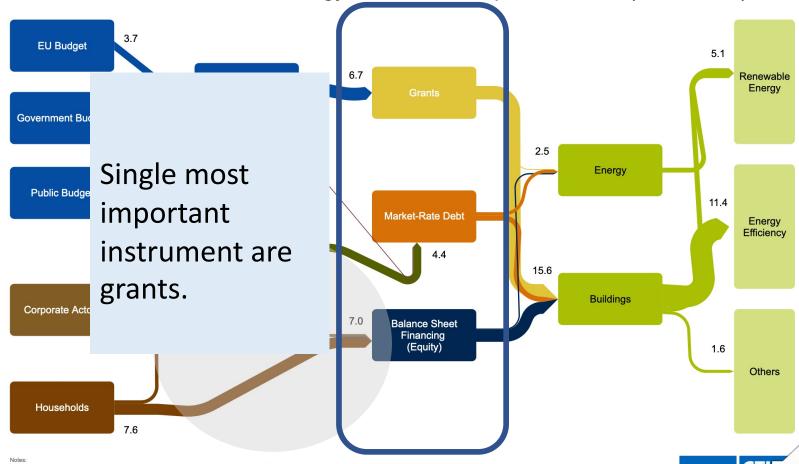
b) The government budget includes state budget, mainly from the EU ETS revenues, but it excludes public procurement and administrative costs. Regional and municipal investments are covered in the public budgets.

c) Debt owed does not represent the actual finance flows (e.g. debt repayment), but it is shown to highlight the original investors or asset owners who make use of public and commercial financial institutions as financial intermediaries. The map includes only primary investment flows, e.g. the resources available to investors at the time they had to cover for their capital expenses. It does not cover therefore such financial instruments as guarantees, green bonds, the cost of capital or debt repayment by investors, the compensation payments from the public budget to energy generators supplying renewable electricity under the feed-in tariff, and others.





The 2017 Climate and Energy Investment Map for Czechia (CZK billion)



a) All financial flows represent total tangible investment including public support into the reduction of GHG emissions with one exception, namely electrical appliances in the buildings sector. Financing of intangible measures is excluded.

b) The government budget includes state budget, mainly from the EU ETS revenues, but it excludes public procurement and administrative costs. Regional and municipal investments are covered in the public budgets.

c) Debt owed does not represent the actual finance flows (e.g. debt repayment), but it is shown to highlight the original investors or asset owners who make use of public and commercial financial institutions as financial intermediaries. The map includes only primary investment flows, e.g. the resources available to investors at the time they had to cover for their capital expenses. It does not cover therefore such financial instruments as guarantees, green bonds, the cost of capital or debt repayment by investors, the compensation payments from the public budget to energy generators supplying renewable electricity under the feed-in tariff, and others.





The 2017 Climate and Energy Investment Map for Czechia (CZK billion) 3.7 **EU Budget** 5.1 Renewable Governi Energy Government Budget Majority of investment in Energy **Public Budget** energy 11.4 0.7 Energy Efficiency efficiency, while renewables "on **Buildings Corporate Actors** hold". 3.1 1.6 Others Households 7.6

Notes:

a) All financial flows represent total tangible investment including public support into the reduction of GHG emissions with one exception, namely electrical appliances in the buildings sector. Financing of intangible measures is excluded.

b) The government budget includes state budget, mainly from the EU ETS revenues, but it excludes public procurement and administrative costs. Regional and municipal investments are covered in the public budgets.

c) Debt owed does not represent the actual finance flows (e.g., debt repsyment), but it is shown to highlight the original investors or asset owners who make use of public and commercial financial institutions as financial intermediaries. The map includes only primary investment flows, e.g. the resources available to investors at the time they had to cover for their capital expenses. It does not cover therefore such financial instruments as guarantees, green bonds, the cost of capital or debt repsyment by investors, the compensation payments from the public budget to energy generators supplying renewable electricity under the feed-in tariff, and others.







Lessons learnt

- Good overview over public finances, but much less available for private sector (e.g. investment channelled through EIB)
- Regular tracking of public investment (in the right format),
 and reporting and surveys of private investment
- Unclear taxonomy of climate investment
- Total and incremental investment leading to low-carbon transition
- Introduce regularity and systematic assessment in combination with the investment needs









Key messages

- Private sector is the main contributor to climate and energy investment.
 - our diagram clearly shows the importance of public financial incentives to mobilise private investment.
- There is a room for a wider plethora of instruments to trigger climate and energy investment
- The current support system does not seem to trigger sufficient investment in the renewable energy supply and infrastructure sector.
- Major share of the climate and energy investment remains untracked (especially in buildings) due to unavailability of data
- Establishing climate finance definitions and methodology as well as systematic tracking of public and private investment is important for comprehensive and unbiased assessment









Thank you.

michaela.valentova@fel.cvut.cz

@ValentMisa

www.ikem.de/en/portfolio/cic2030/



Climate and energy investment map – Czechia

Status report 2017: Buildings and Renewable energy supply & infrastructure

Executive Summary

PREPARED BY

Michaela Valentová Jaroslav Knápek Aleksandra Novikova

December 2019

