Financing The Green Transformation
Challenges and Opportunities

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I would like to draw attention to three questions ...

1. Which investment needs arise for the green transformation?
2. What are the challenges in financing these investments?
3. What need for action does this result in?
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The transformation to climate neutrality requires climate-friendly investment of EUR 5 trillion in Germany

Necessary climate protection investments by economic sector
In EUR billions

Source: Prognos/Nexus; KfW Research
Financing the transition requires mobilizing private investments

Public and private sources of investments in NECPs
In percent

Source: Nationale energy and climate plans (NECPs), EIB
High capital supply and demand for green projects

Greentech innovation financing on the rise
Annual number of deals (bubbles) and average deal size (in mEUR)

Dynamic green bond market development
Volume of issued green bonds in Germany (in EUR billions)

Note: 2021 as of October 2021. Greentech is defined as the combined categories of Cleantech, Climate tech and Agritech companies in the PitchBook database.
Source: Pitchbook, EIF (left); Bloomberg (right)
The transformation to climate neutrality requires high levels of (private) investments. Due to high capital availability and attractive financing conditions, profitable green projects should (so far!) have little difficulty in being financed.
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Transformation requires innovation and intelligent financing

Note: Blue: Private finance instruments and structures; Green: Public finance instruments and structures
Regulatory uncertainty is the major obstacle to climate investments

Obstacles to climate investment in EU and USA
In percent

Note: Base is all firms in EIBIS 2020. Question: “To what extent is the following an obstacle to investing in activities to tackle weather events and emissions reduction? Is it a major obstacle, minor obstacle or not an obstacle at all?”
Source: EIB
Risk-taking investors are needed to establish market readiness for green technologies

Importance of capital market financing relatively small in the euro area

Ratio of capital market financing to bank financing

Availability of venture capital varies
In percentage share of GDP

Note: Left graph: Excluding trade finance and advance payments. Capital market financing: Debt securities, other liabilities, listed equity shares, non-listed equity shares and other shares. Bank financing: Loans. Euro area excluding Malta and Cyprus. Right graph: Israel cannot be included owing to lack of data. The figure for 2019 has been used for the United States.
Source: OECD, GCEE
Trade-off between improved climate-related information and bureaucratic requirements

SME investment financing
In percent

Causes of difficult borrowing
Percentages of firms that indicate access to credit has worsened

- Documentation requirements: 72.9%
- Disclosure requirements: 71.4%
- More loan collateral: 66.4%
- Lengthy processing: 61.2%
- Higher interest rates: 37.0%

Source: KfW SME Panel 2021 (left); KfW Business Survey 2021 (right)
Despite attractive conditions, both common and idiosyncratic obstacles can hinder financing private climate investments.
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“Shifting the trillions” requires a conducive environment

1. Reliable climate policy, esp. rising carbon price
2. Transparency about climate-relevant properties and risks
3. Access to capital market and equity financing
4. Public investment and technology promotion as leverage

Source: KfW Research
Development banks provide important impulses for the real economy and the financial market in the transformation

**Leverage for private investments**

KfW 15 years EBS: 180 billion commitment volume → EUR 480 billion investments

**Design and establishment of green financial products**

KfW Central player in the market for green bonds (supply and demand side), approaches in the VC area (KfW Capital)

**Establishing green technologies without market readiness**

KfW EBS efficiency houses, offshore wind energy in Germany

**Model for green banking processes**

KfW SDG mapping; Roadmap Sustainable Finance

Source: KfW Research
Key success factor for mastering the transition to a climate-neutral future is an investment-friendly environment. Development banks provide important supporting impulses.
Thank you for your attention!