



Energy Cooperatives as an Alternative Investment in the Age of Negative Interest Rates

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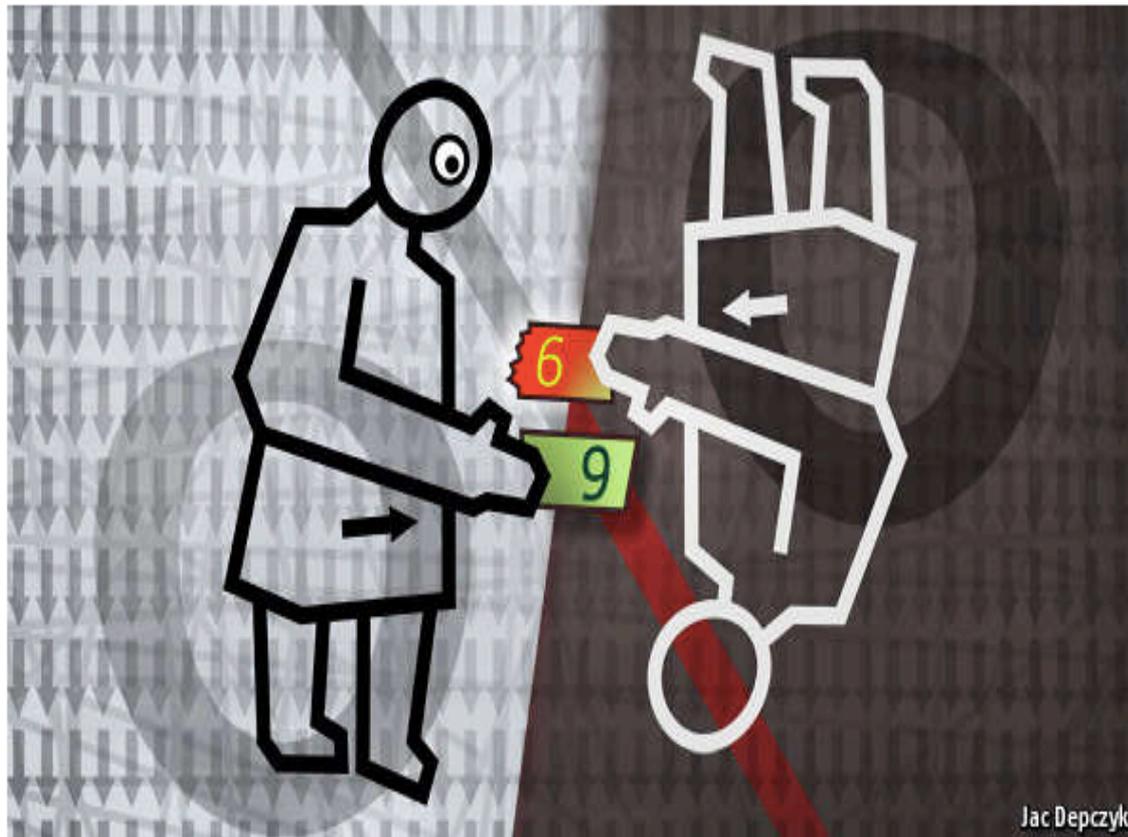
Berlin, 29 June, 2015

Free exchange

Worse than nothing

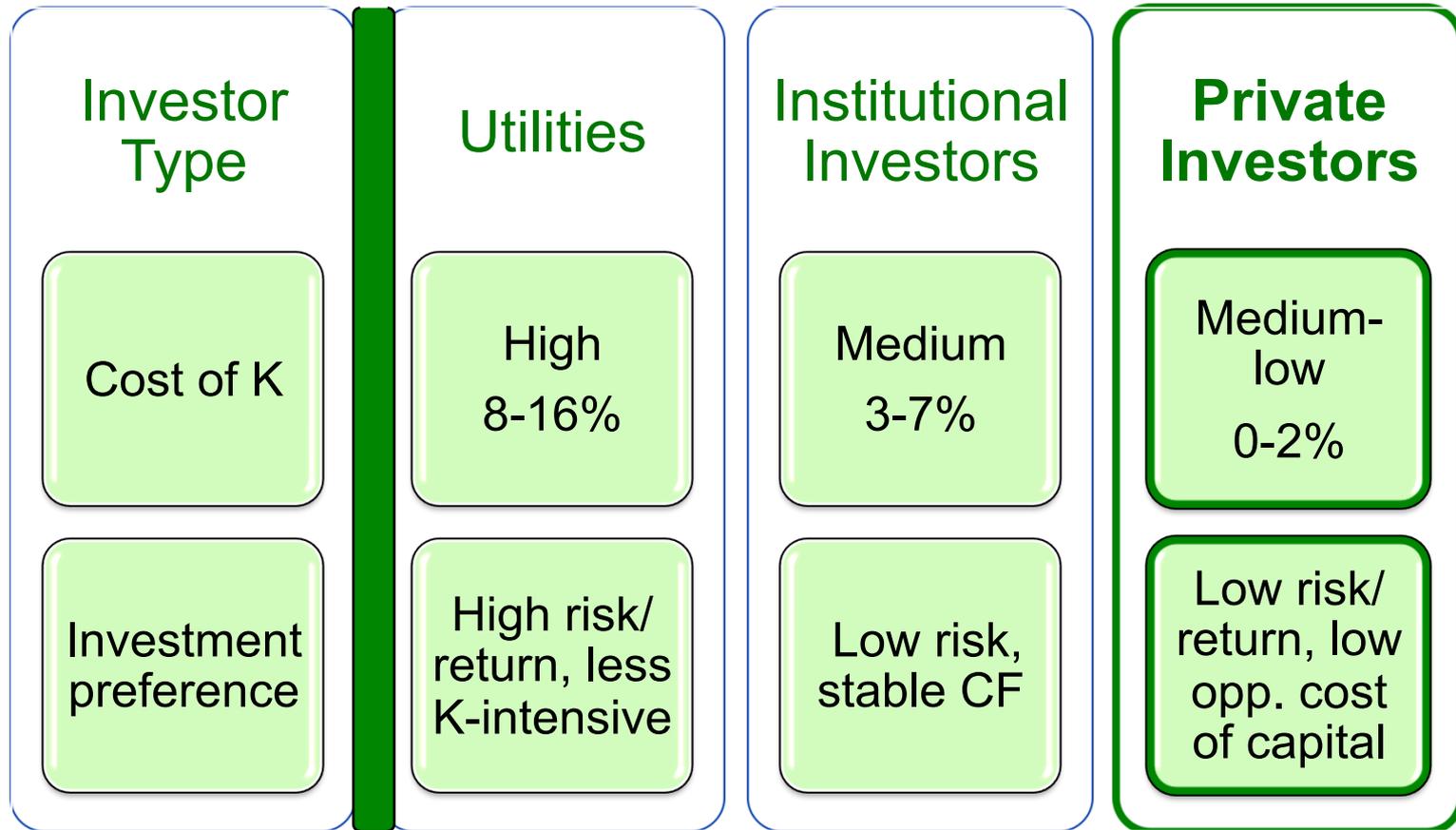
Negative interest rates do not seem to spur inflation or growth—but they do hurt banks

Feb 21st 2015 | From the print edition



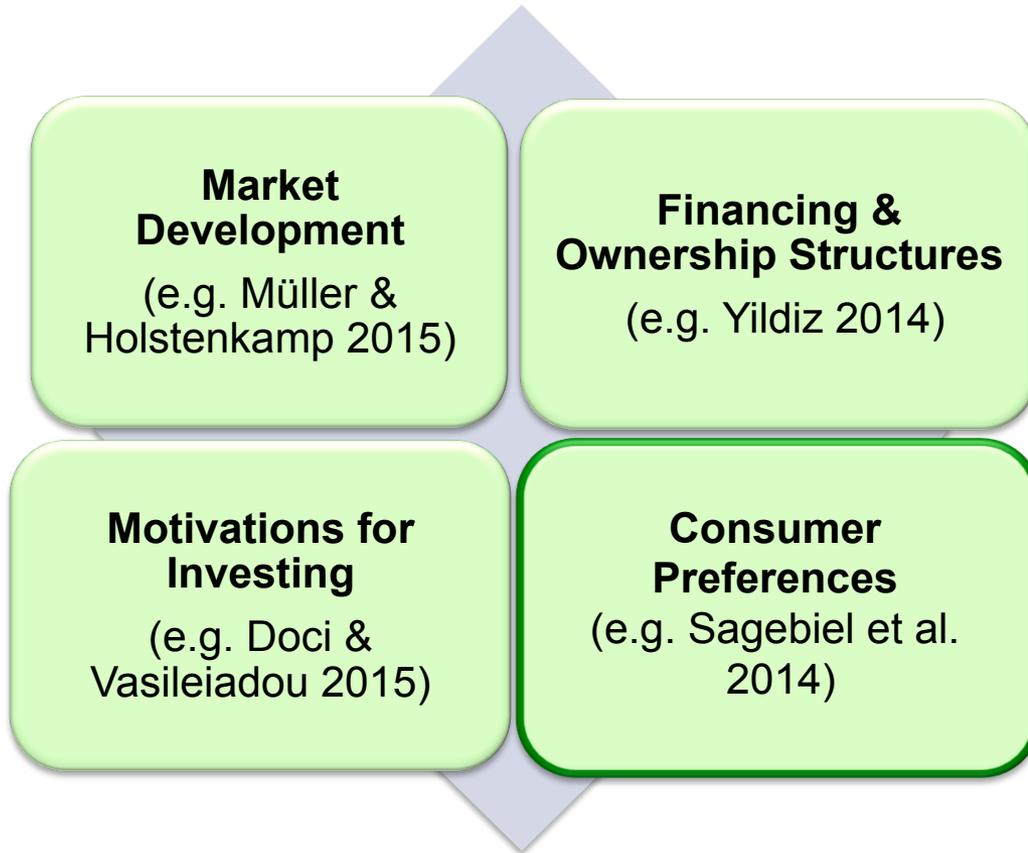
Jac Depczyk

Investment Decision-Making & Hurdle Rates



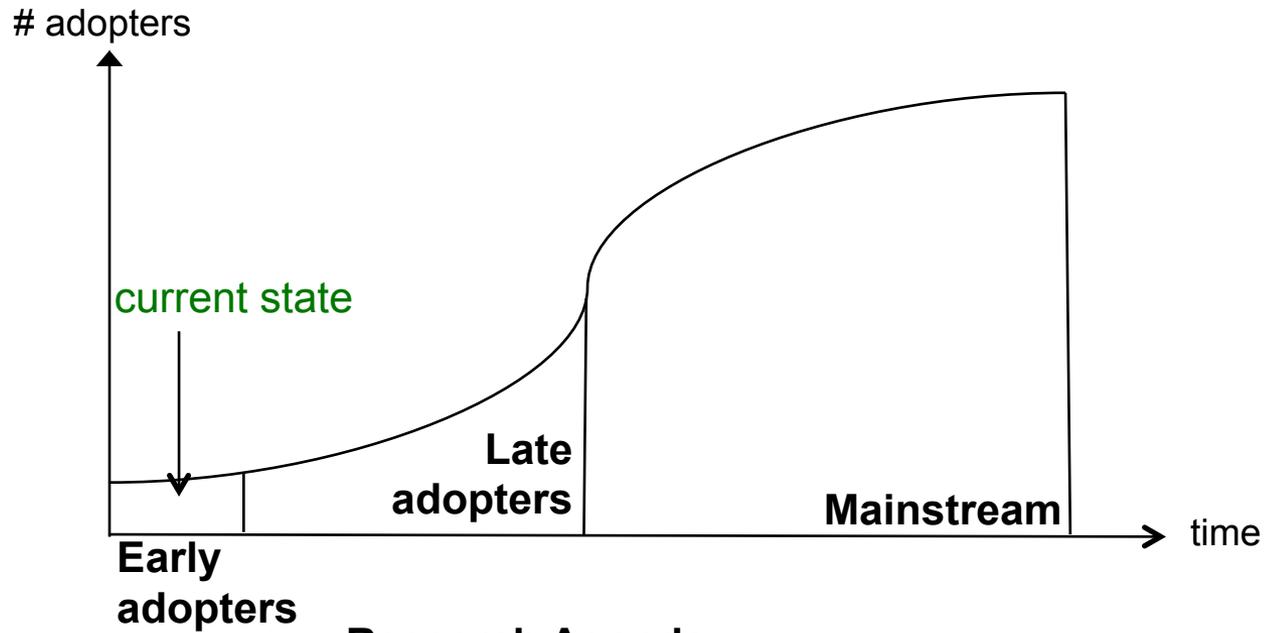
Source: Helms, Salm, Wüstenhagen (2015), "Renewable Energy Investment Decision-Making" in Renewable Energy Finance, ed. C. Donovan, Imperial College Press

Latest Streams of Energy Coop Research



Market Potential for Energy Coops in CH

Diffusion of Innovation, Rogers

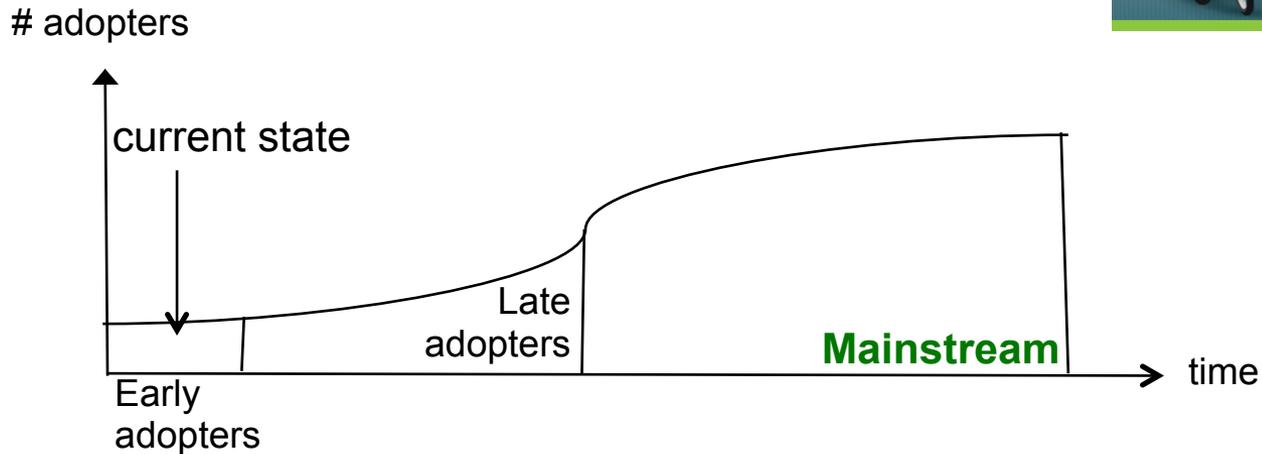
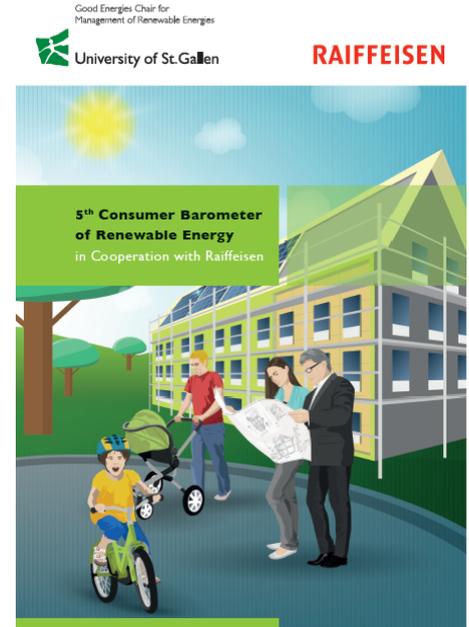


Research Agenda:

- Mainstream consumers surveyed
- Characterize late adopters
- Now conducting interviews with eGs
- Fall 2015 survey of “early adopters”
- Compare the groups
- Evaluate market potential

Data and Methods

Representative survey with 1,246 Swiss respondents
German and French-speaking cantons
Conducted in Feb/March 2015
Online panel of amPuls market research institute
Homeowners 52% of sample

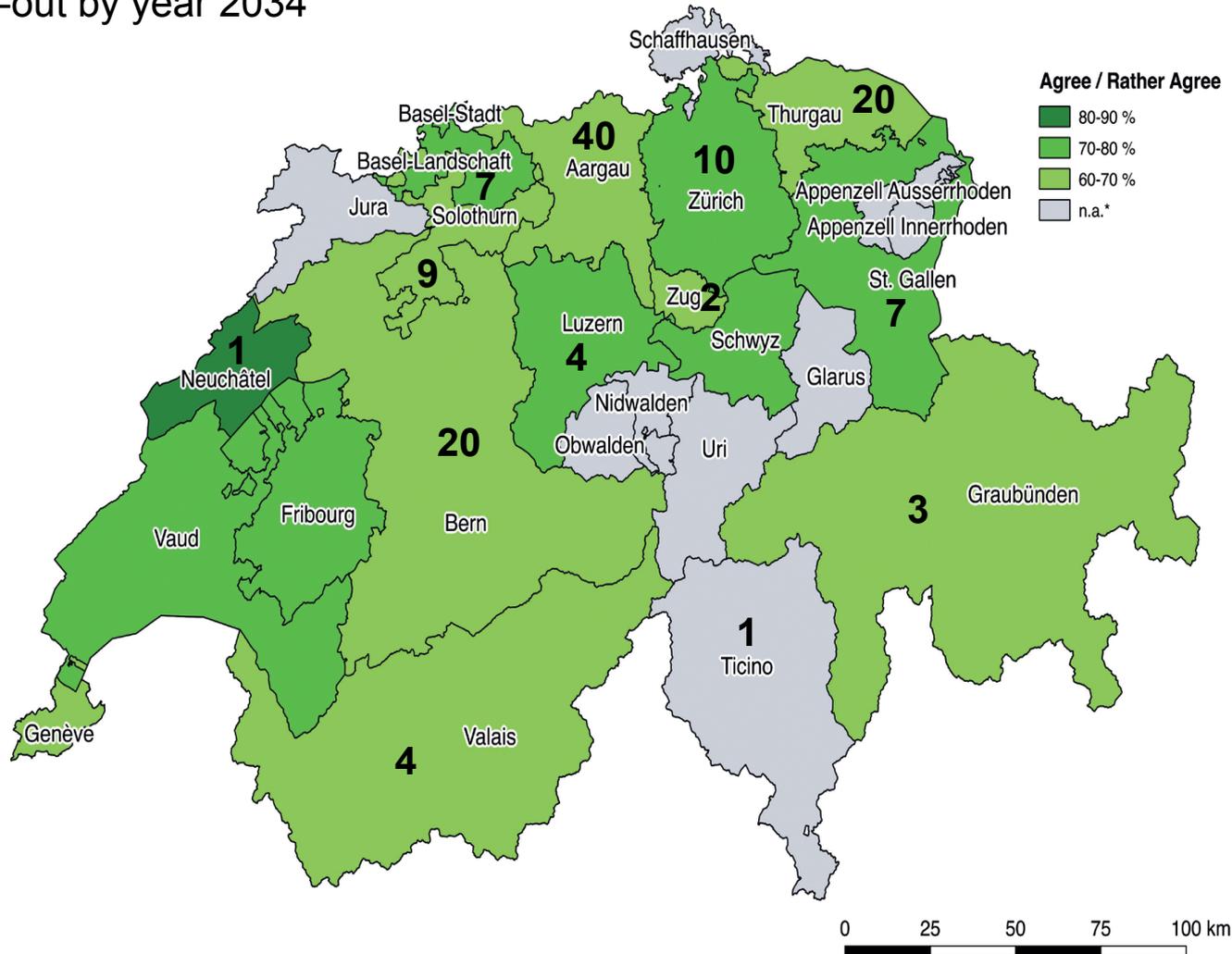


Energy Cooperatives in Switzerland

- Electricity mix 2014: hydro 56%, nuclear 38%, RE 4%, fossil 2%
- Energy Strategy 2050: nuclear phase-out, 24.2TWh new RE, 3.2TWh hydro*
- In 2012, there were 128 energy coops in Switzerland**
- Increase from 124 in 2011
- Difference in sizes: 95% micro size, 3% middle-sized, 2% large
- ADEV, est. 1985, produced 44 GWh of electricity in 2014, which is 0.075% of Swiss electricity demand

Cantonal Distribution of Energy Coops

“At a referendum, I would vote for a gradual nuclear phase-out by year 2034”



N=1,222

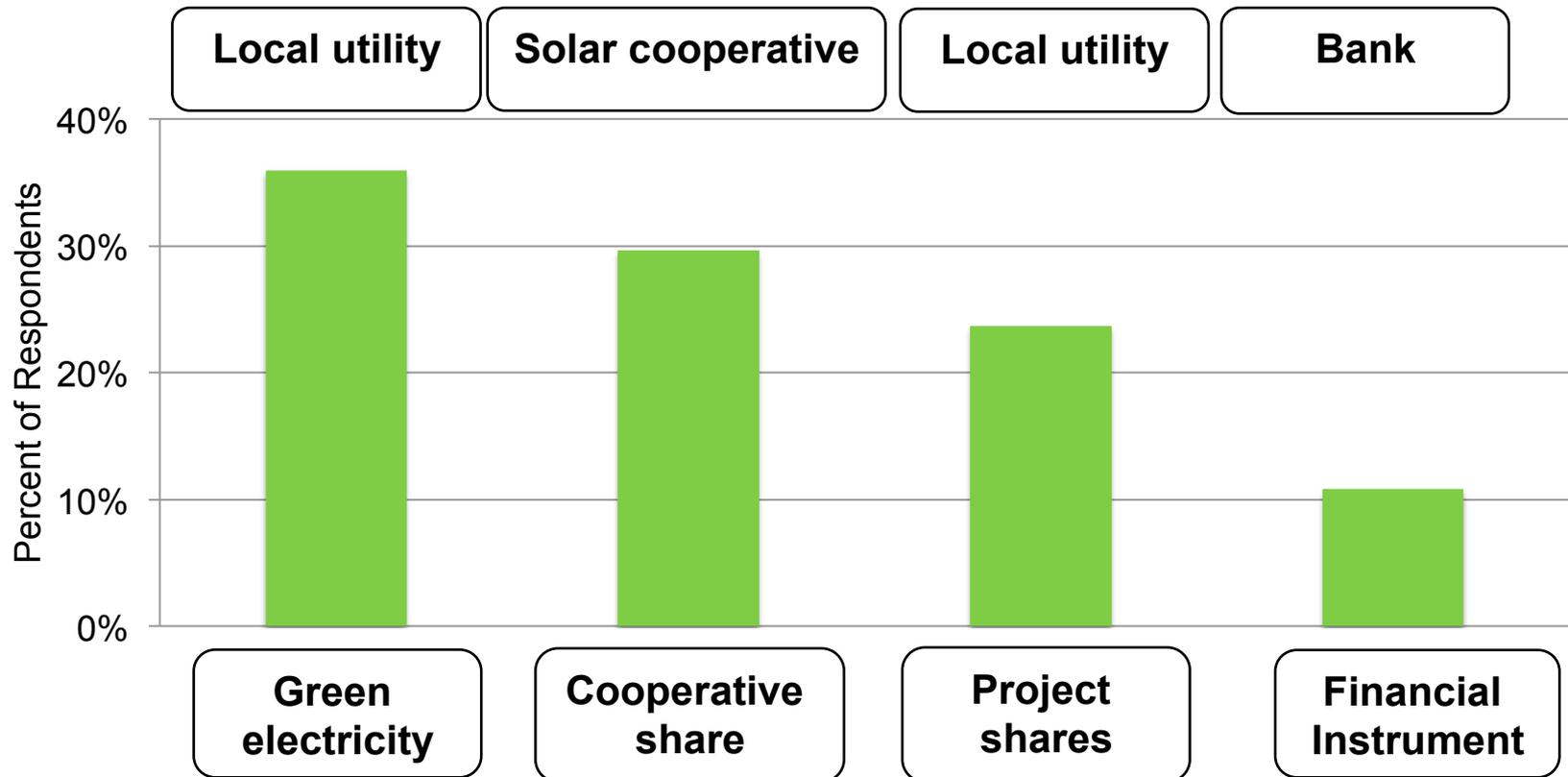
Good Energies Chair for Management of Renewable Energies



*sample not large enough for conclusions

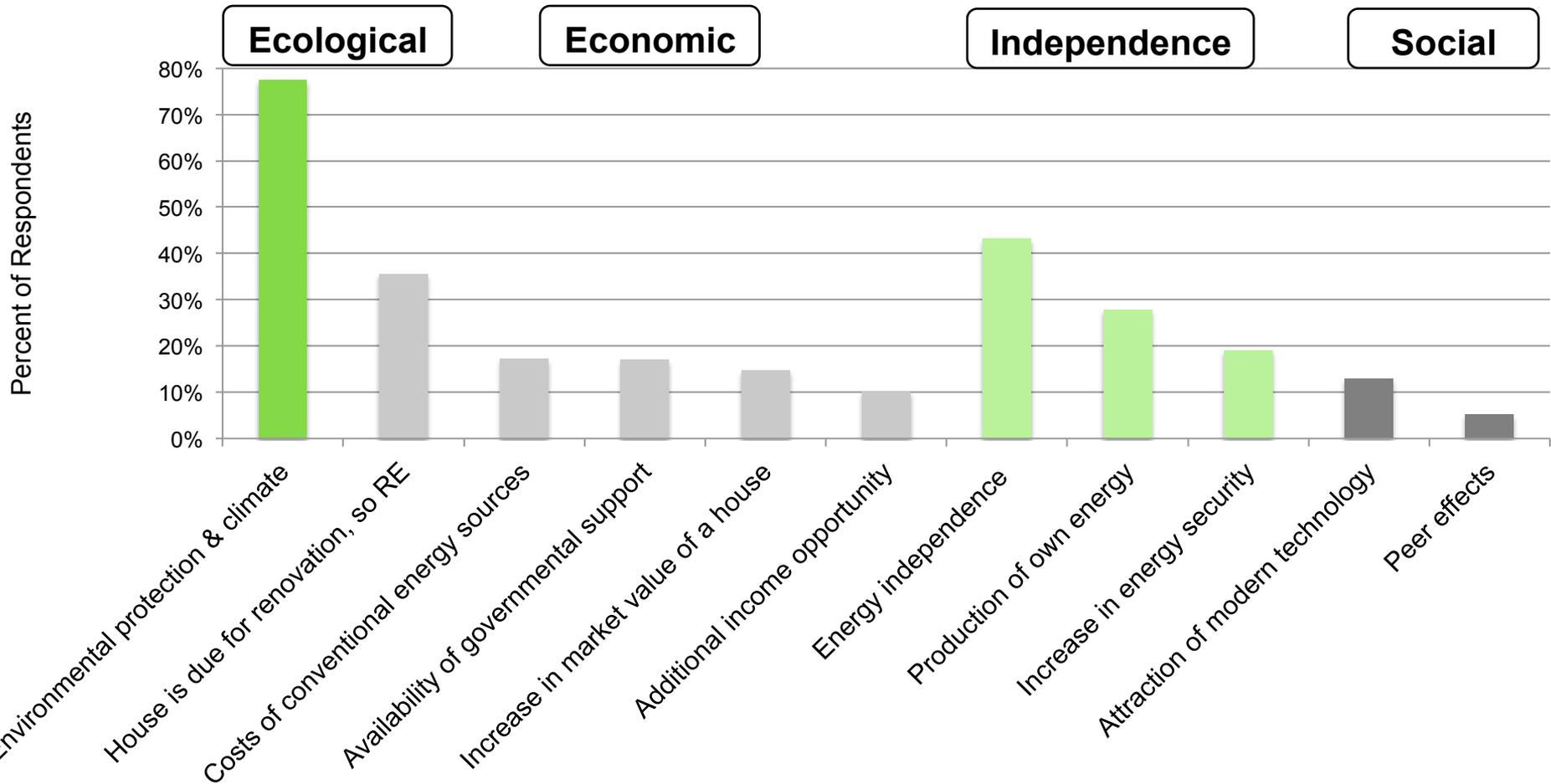
New Business Models for Financing Renewables

“Imagine a large solar power plant being developed in your community. Which of the following investment options would you prefer?”



N=1,222

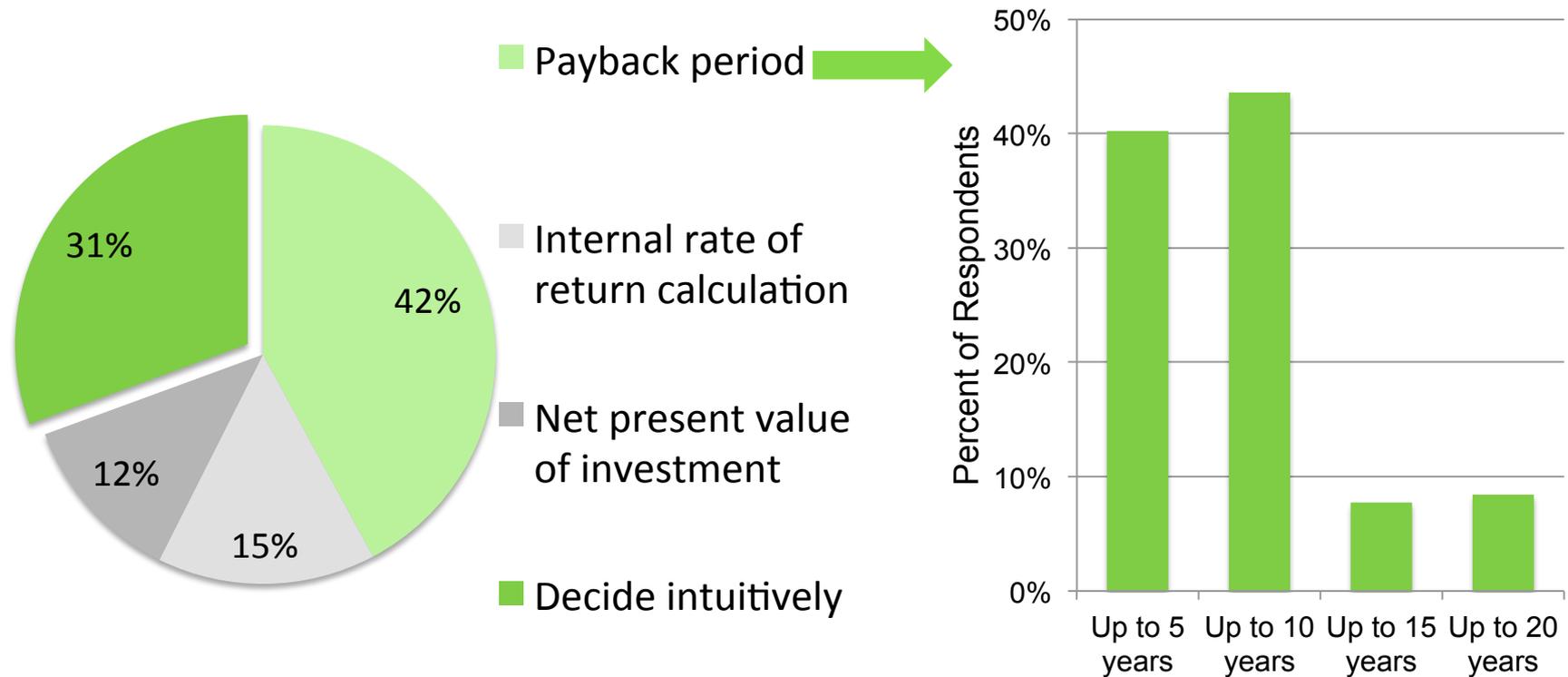
Reasons to Invest into RE



N=1,243; multiple choices possible

Investment Decision Rules of Homeowners

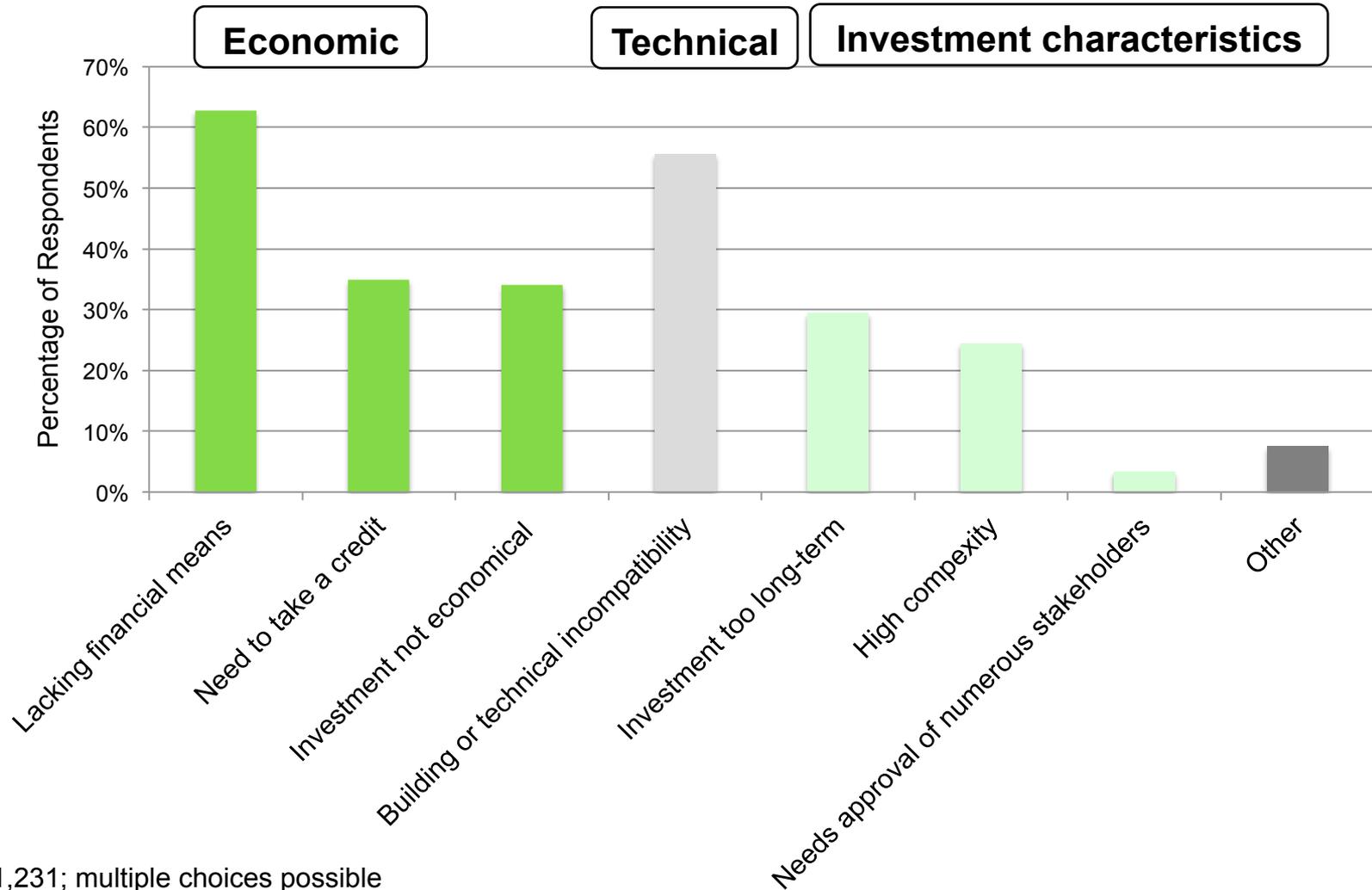
“What financial decision criteria do you use when deciding about an investment in renewable energy or energy efficiency technologies?”



Only homeowners (N=653); multiple choices possible

N=592

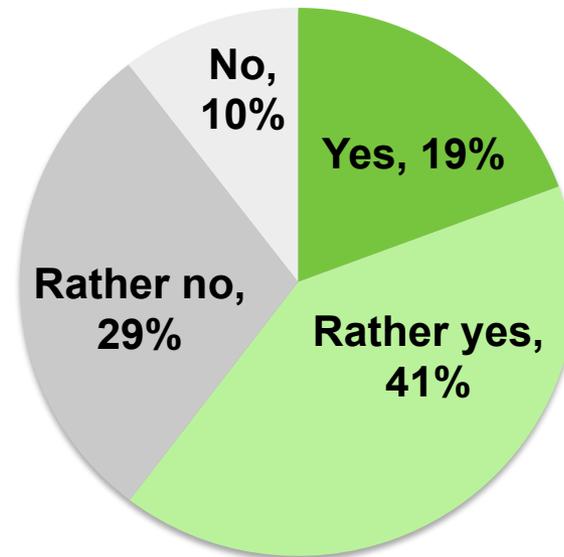
Reasons not to Invest into RE



N=1,231; multiple choices possible

60 % would buy shares in RE project

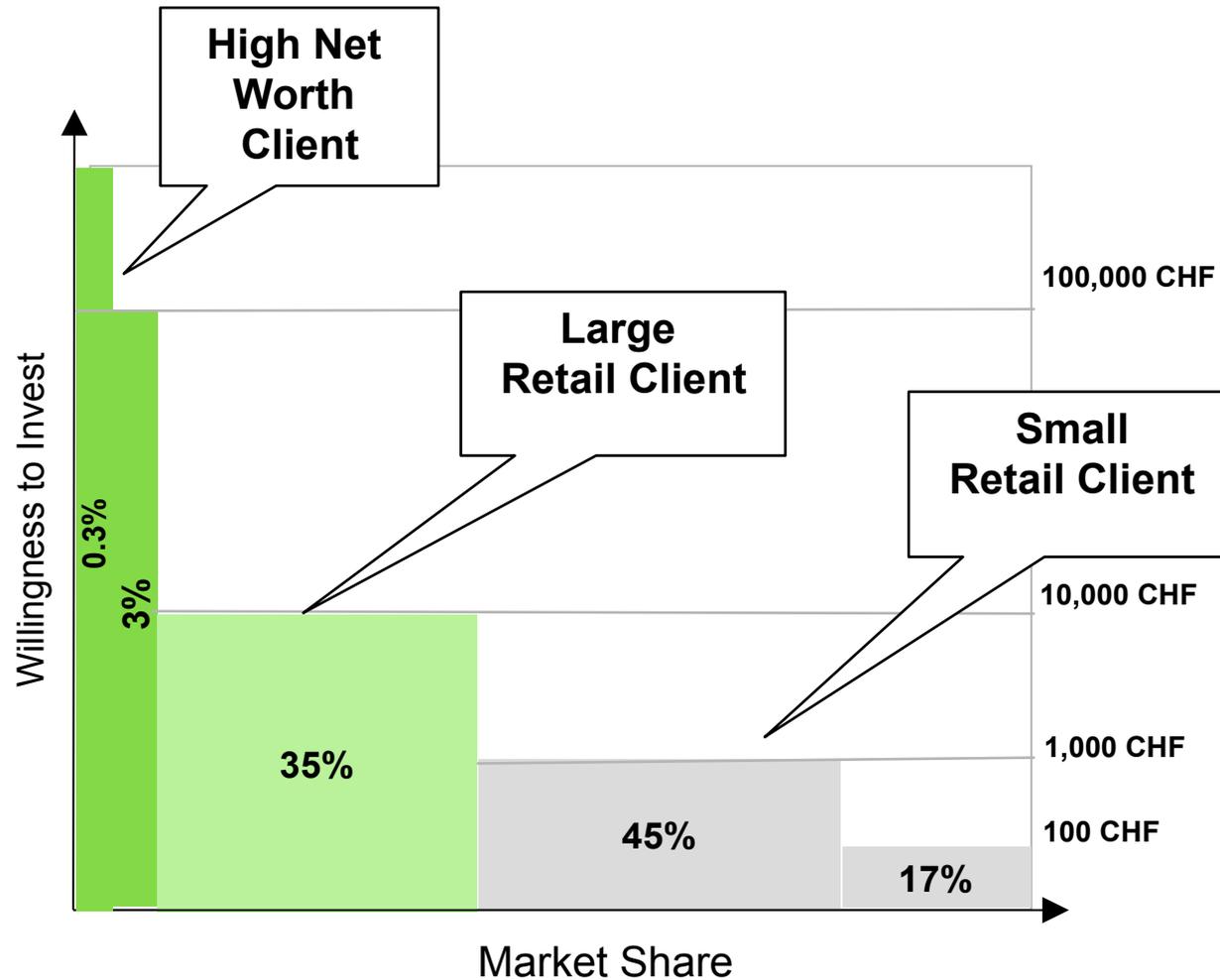
„Can you imagine investing into RE through a community finance project?“



N=1,246

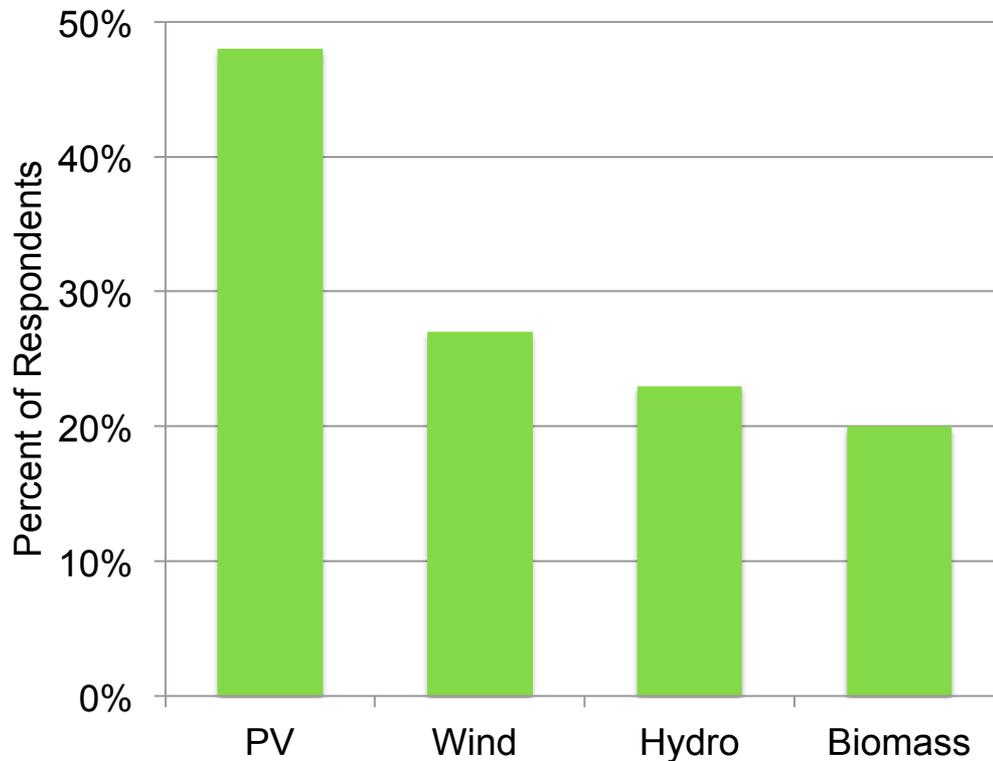
Different Customer Segments in Community Finance

“How much can you imagine investing in a community energy project?”



Preferred technologies for community finance projects ¹⁵

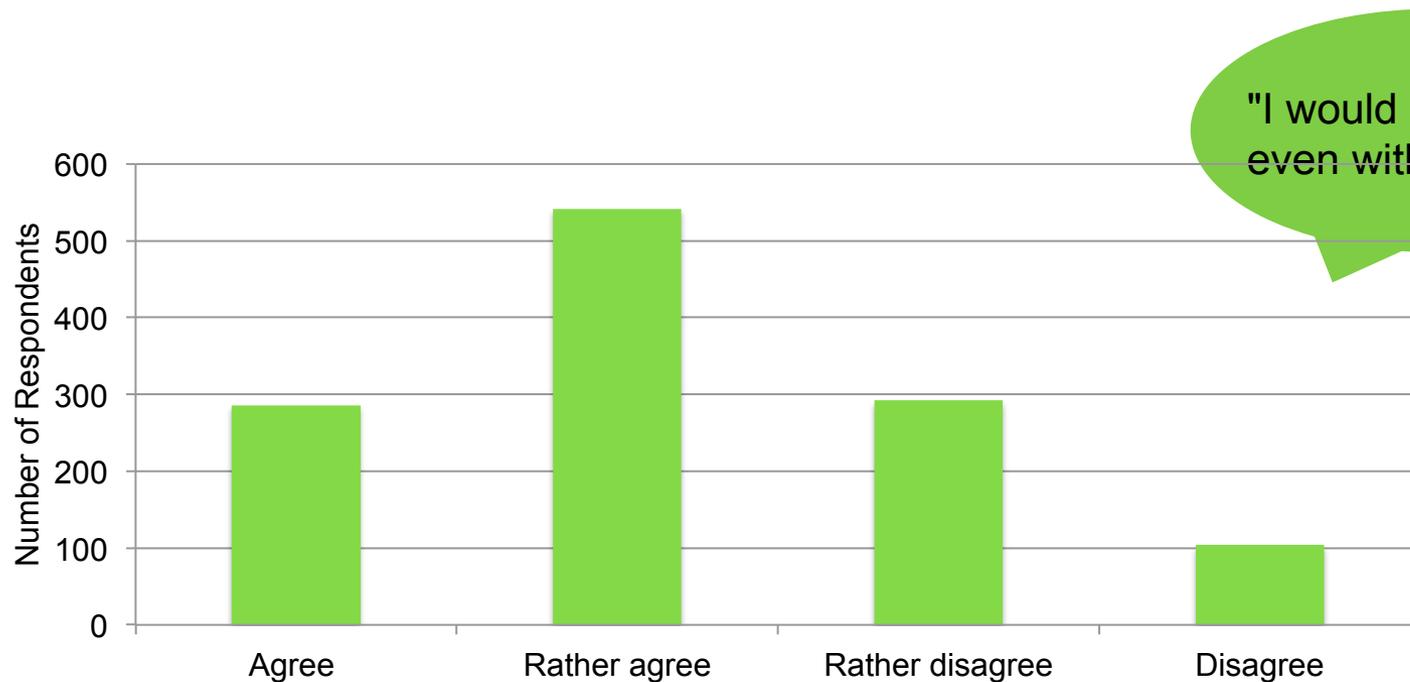
Solar PV is the preferred technology



N=746; only respondents who answered “yes” or “rather yes” to question about investing into community finance project, multiple choices possible

Do Low Returns Scare off Private Investors?

“I would invest into RE even if a relatively low return is expected...”

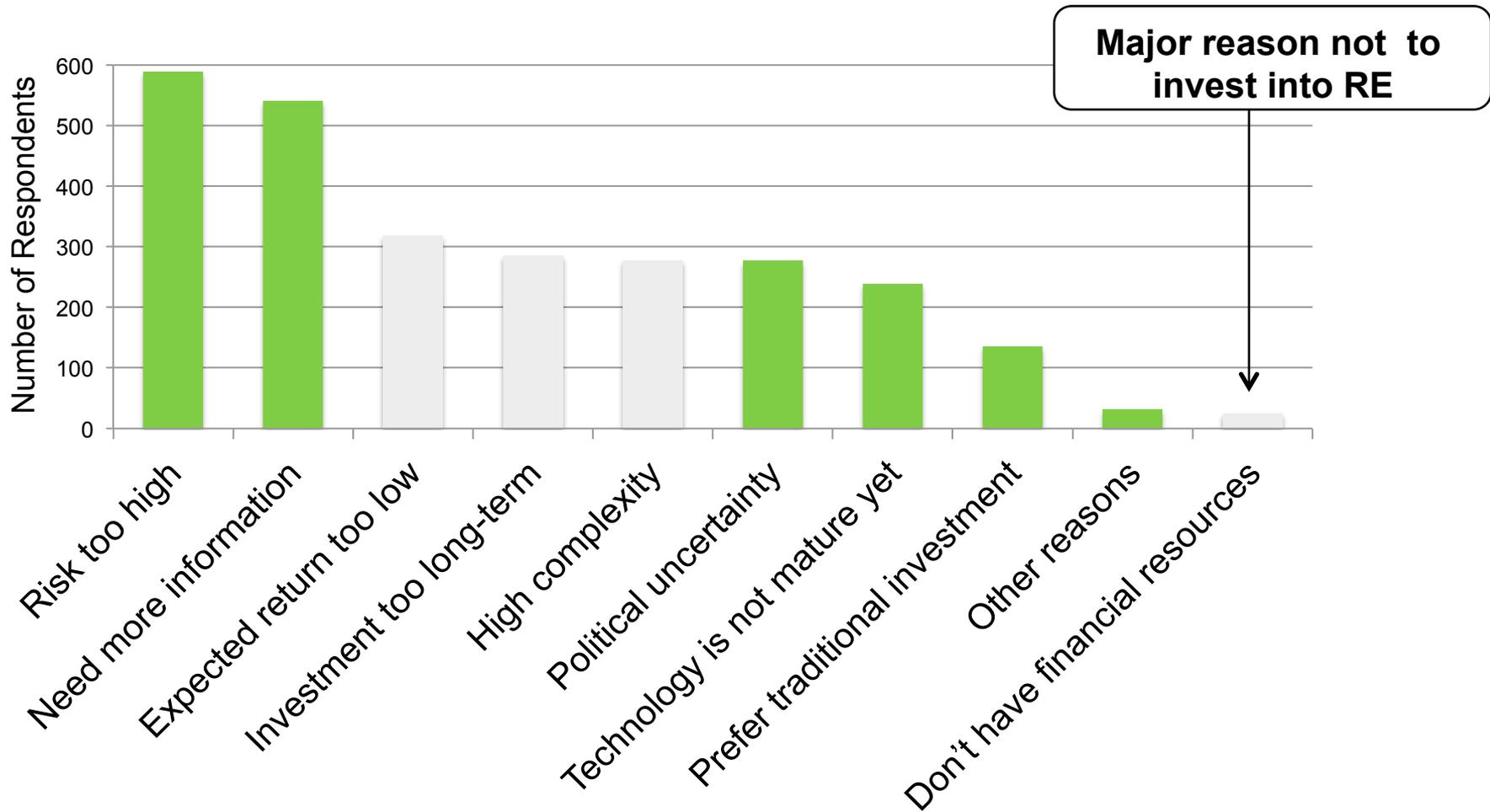


"I would invest in RE even with 0% return"

“Nobody would care about doing good things, unless the return on cooperative RE projects matches comparable investments...”

N=1,223

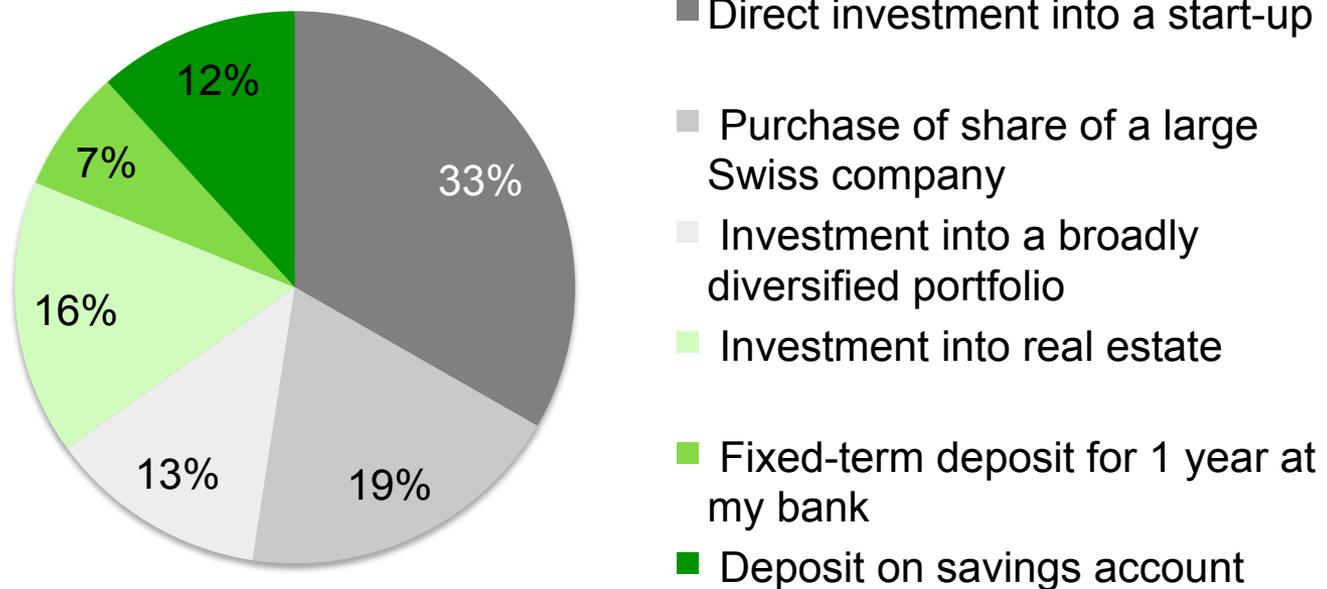
Reasons not to Invest into Energy Coops



N=1,233; multiple choices possible

Perceived Risk of Community Finance Projects

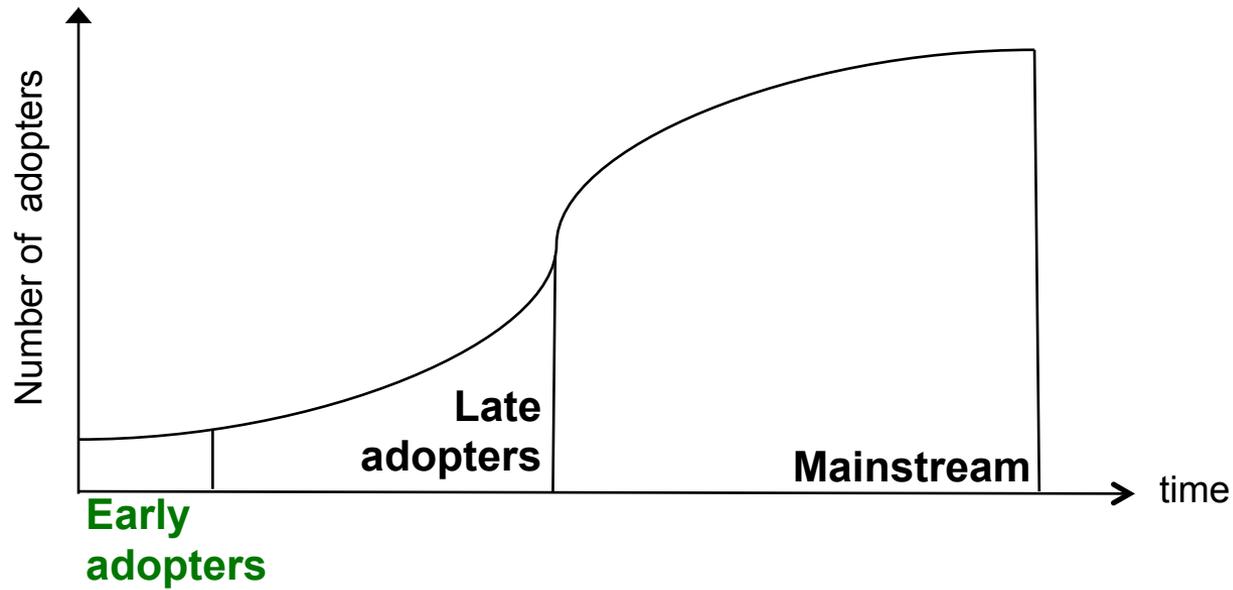
„How risky do you perceive the investment in community finance RE project? As risky or secure as...“



N=1,175

Characteristics of Identified Late Adopters

Diffusion of Innovation, Rogers



Early adopters:

- Not as risk-averse
- Non-profit reasons important
- Later research:
- Risk-return requirements
- Informed about energy questions
- Higher acceptance of RE

Relationship between risk perceptions, return requirements, and energy transition perceptions is not trivial

N=752; only respondents who answered “yes” or “rather yes” to question about investing into community finance project, multiple choices possible

Another Approach: Choice Experiment in Germany

Attributes	Attribute levels
Return on equity	1% - 10%
Investment volume	100€ 1,000€ 10,000€
Technology	PV Hydro Wind
Project location	Distance max. 30 km Within state Within Germany
Partner	Energy coop Local bank Professional investor
Voting rights	No vote One vote Proportional to share
Liability	No liability Limited liability Full liability

Thank you for your attention!

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