

Decarbonising large portfolios

Dirk Schoenmaker, Erasmus University & CEPR CEPR webinar, 12 June 2023



The energy transition challenge



Transition in the real economy:

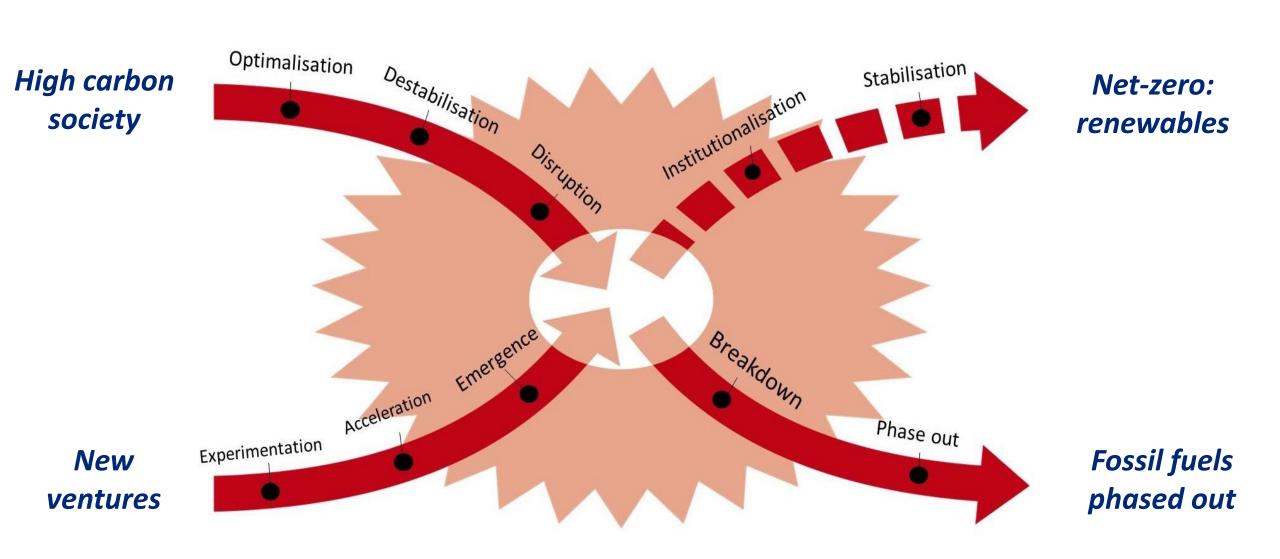
- Exogenous, or
- Endogenous?

What are the roles of the players?

- 1. Governments
- 2. Institutional investors
- 3. Companies
- Sweet spot is effective cooperation to speed up transition

Energy transition





Economic paradigm



Equilibrium economics is working horse model (e.g. CAPM)

- What goes up (e.g. stock prices due to ESG preferences), comes down
- > Transition risk is increasingly seen as a **systematic risk**, but still considered to be **exogenous**

But transition is about structural change from current high-carbon state to net-zero state

- Need for systems approach
- Solutions depend on action of key players in system -> endogenous

Example of systems approach

Montreal Protocol put a regulatory ban on CFCs that deplete the ozone-layer

Systems approach - 1



Ecological constraint is binding

- ➤ Limited carbon budget for 1.50 / 20 Celsius limit
- Transition of high-carbon sectors
 - Supply: oil & gas companies
 - Demand: transport, real-estate, carbon-intensive manufacturing

Role of key players – **government**

- > Shaping markets (e.g. market for hydrogen) to get transition from fossil to renewable
- > Full range of policy: R&D subsidy, tax, regulation, public procurement and investment
- Complementary role investors -> co-investing in new ventures, infrastructure, etc.

Systems approach - 2



Role of key players - investors

- Transition of high-carbon sectors
 - Supply: oil & gas companies
 - Demand: transport, real-estate, carbon-intensive manufacturing

Three types of companies

- 1. **Green** -> you can just invest
- 2. Grey, that wants to change -> you can invest with engagement to speed up transition
- 3. Grey, that does not want to change -> you should stay away (stranded asset)

Second type is opportunity for **cooperation** between investors & companies

Win-win strategy -> investor and company both reap benefits of future-proofing business model

Example 1 – oil sector



Oil majors

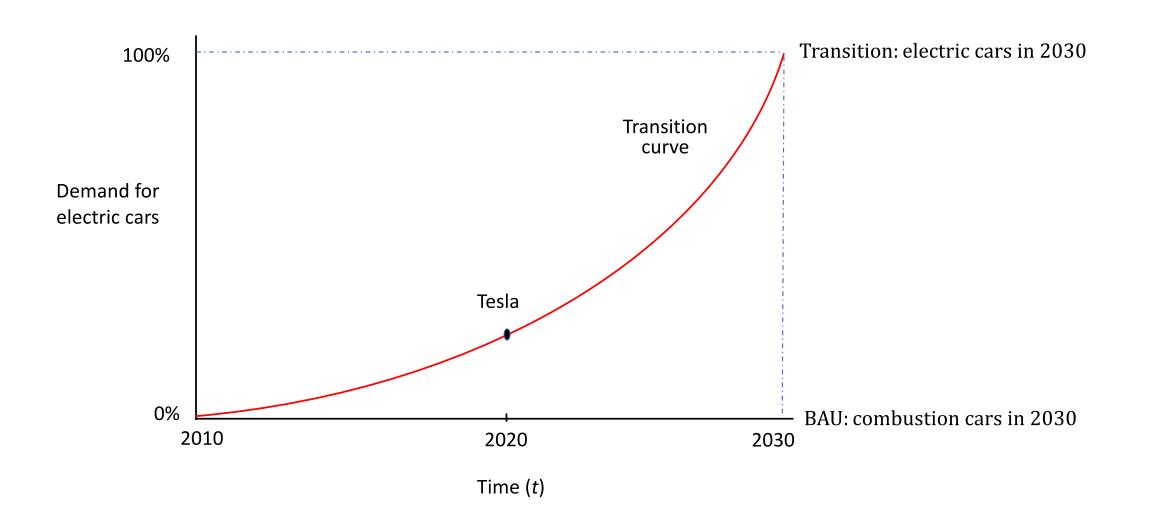
- ➤ Most still **focused on fossil** -> 80%/90% of capex in fossil
- > Some are **preparing for future** -> 50% capex in fossil 50% in renewables (portfolio approach)
- > Some are **fully switching** -> 80%/90% capex in renewables

Role of institutional investors

- Voting e.g. Follow This resolutions
- Engagement e.g. coordinated engagement and smart targets (mixed success)

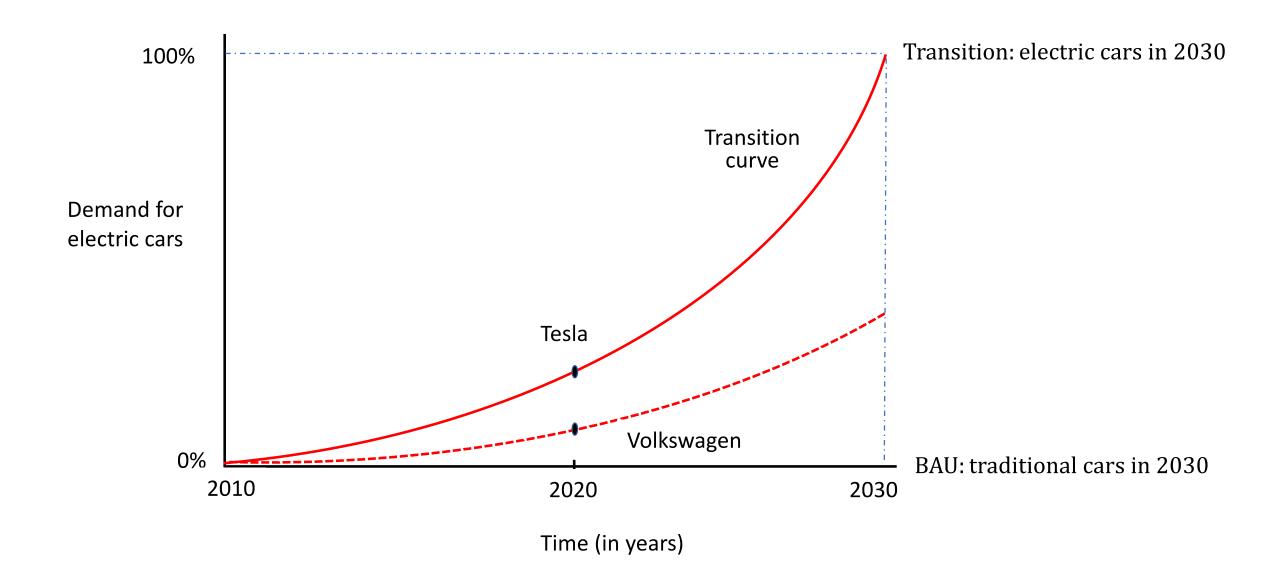
Example 2 – transition of car market





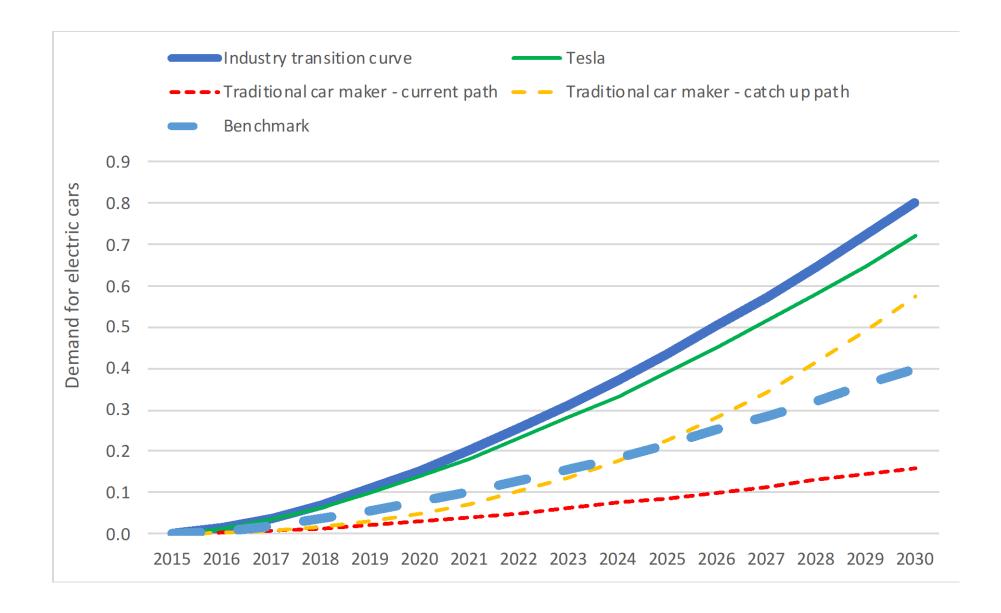
Can Volkswagen catch up?





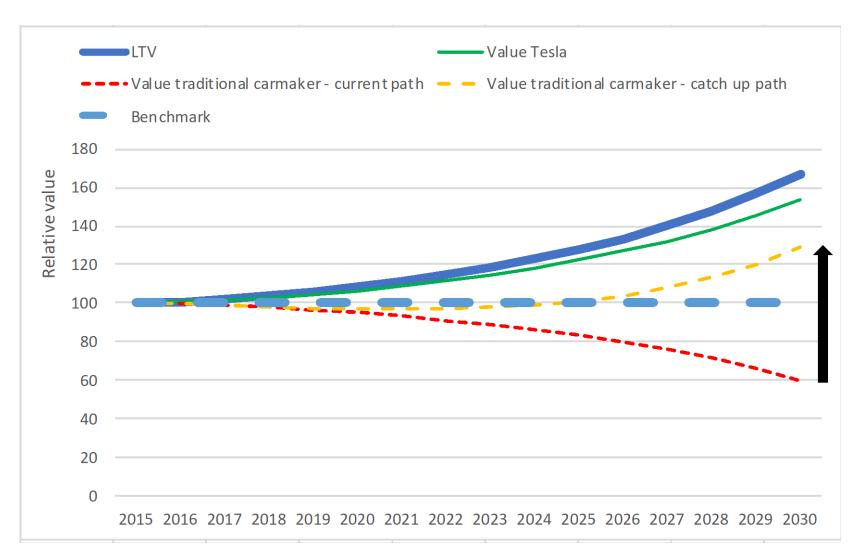
The rise of electric cars





Value implications





Source: A Model of Long-term Value Creation

Companies



Companies

Prime movers to create long-term value

Investors can **support** them

- Engaging on long-term value creation: two-way dialogue
- Supporting large investments
 - E.g. VW announced nearly \$200 bn investment to speed up transition to electric cars

Conclusions



Transition requires systems approach

Government has important role to shape markets

 Sweet spot of cooperation between governments, investors and companies to accelerate transition -> endogenous

Events will increasingly highlight need for transition