



**Smarte Ausblicke rund um Energie, Mobilität
und Infrastrukturen?
Ist „smart“ das neue „nachhaltig“**

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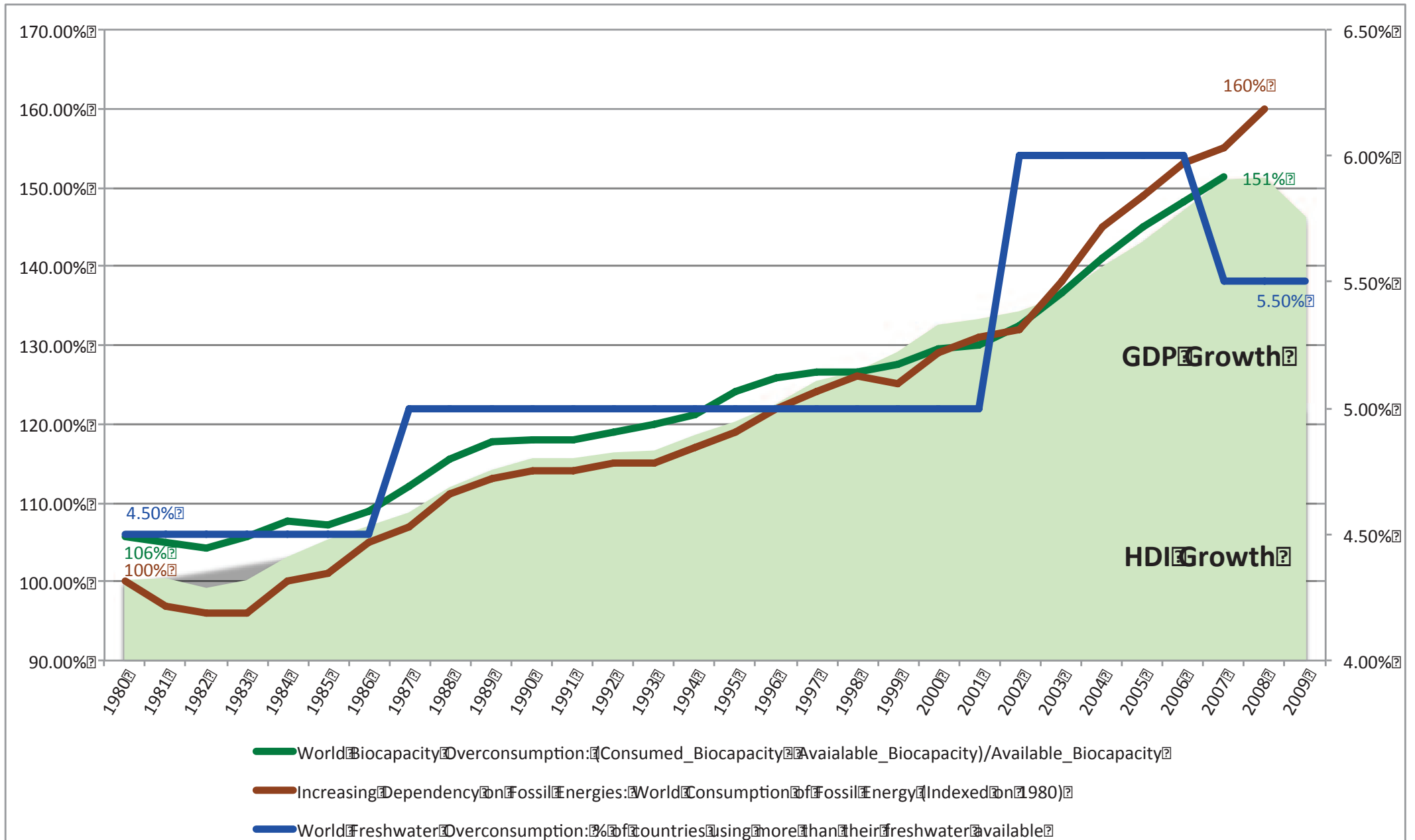
Ist „smart“ das neue „nachhaltig“ ?
Aber was ist eigentlich „nachhaltig“ ?

Was ist « nachhaltig »



Nachhaltige Entwicklung und Wachstum: Ein Widerspruch ?

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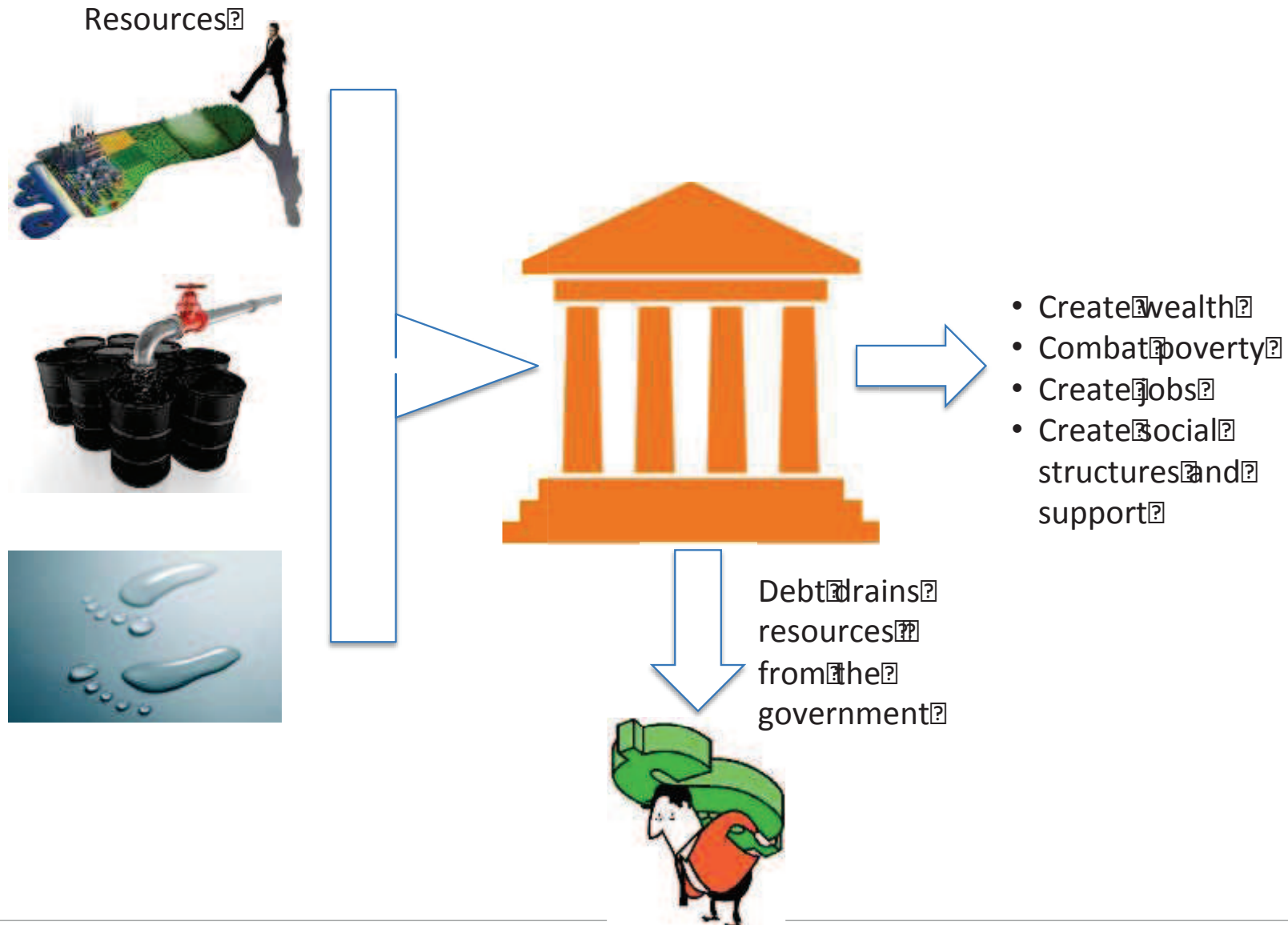
Wettbewerbsfähigkeit als Wachstumsmotor *hauptstadtregion schweiz* *région capitalesuisse*

- Competitiveness is mostly defined around the following important elements:_____
- Key for factor-driven economies:
 - Institutions
 - Infrastructure
 - Macroeconomic environment
 - Health and primary education
- Key for efficiency-driven economies
 - Higher education and training
 - Goods market efficiency
 - Labour market efficiency
 - Financial market development
 - Technological resources
 - Market size
- Key for innovation-driven economies
 - Business sophistication
 - Innovation

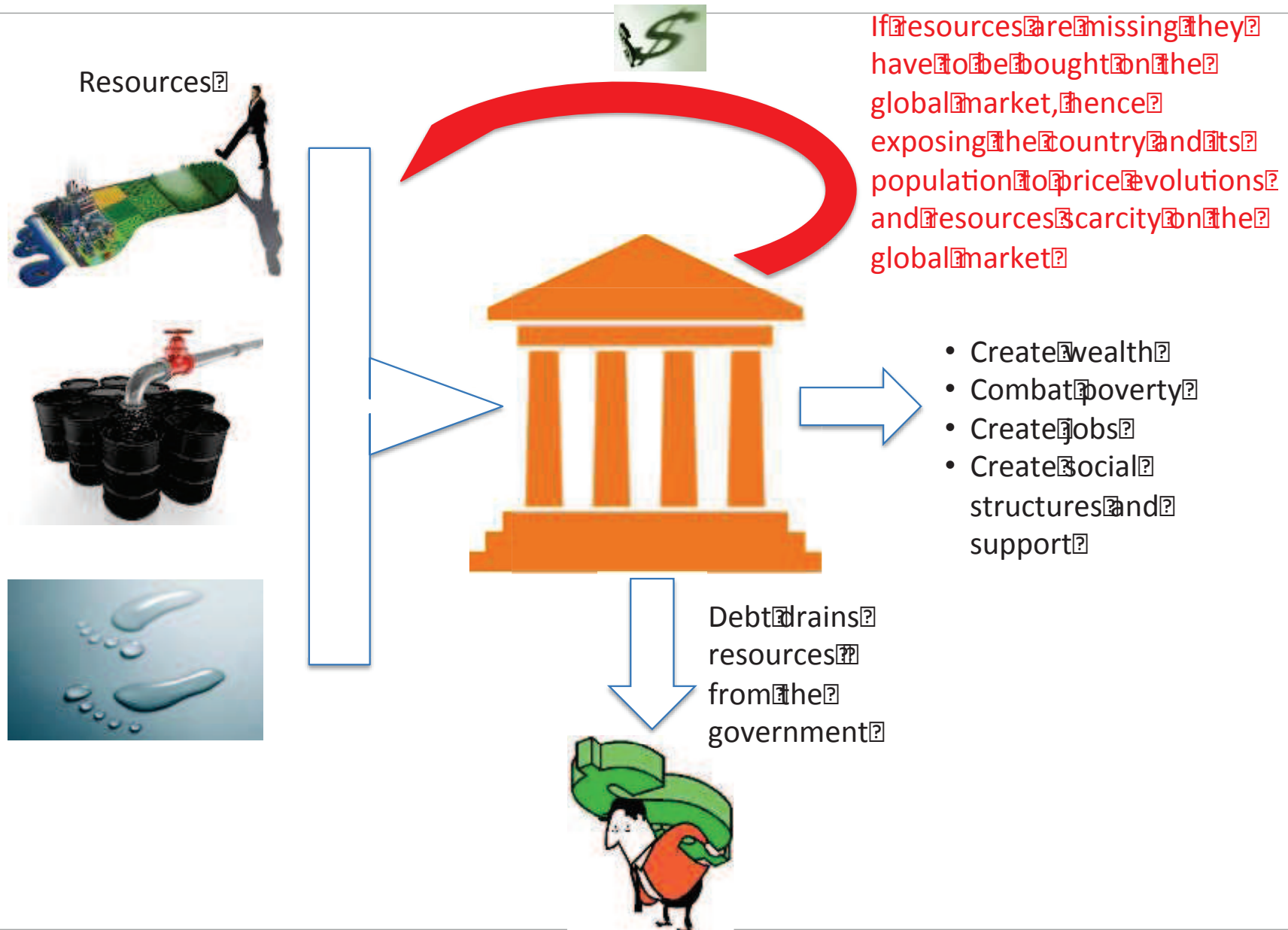
But what about the
role of resources ?

What about the social
infrastructure?

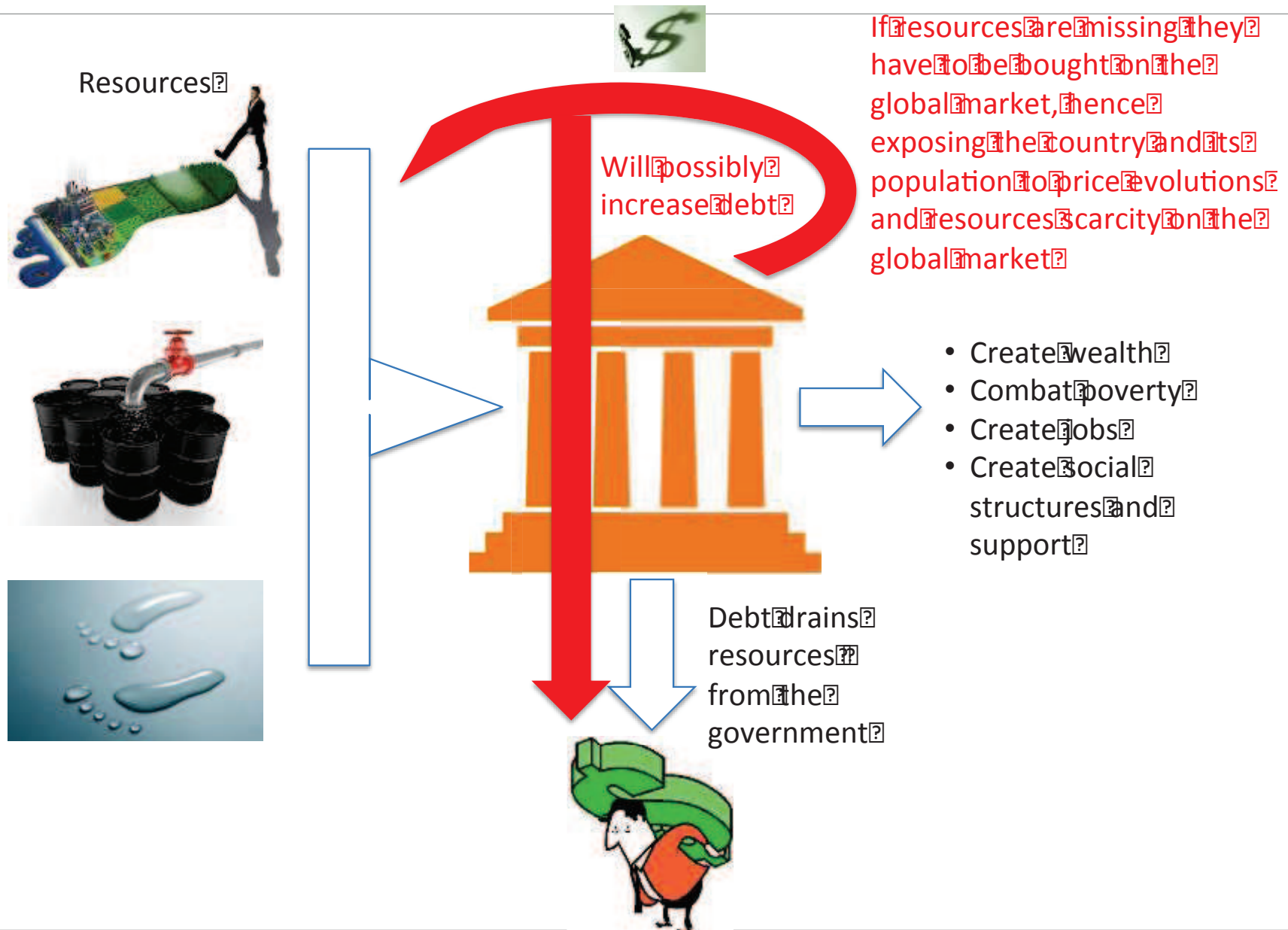
Ressourcen und Wettbewerbsfähigkeit *hauptstadtregion schweiz* *région capitale suisse*



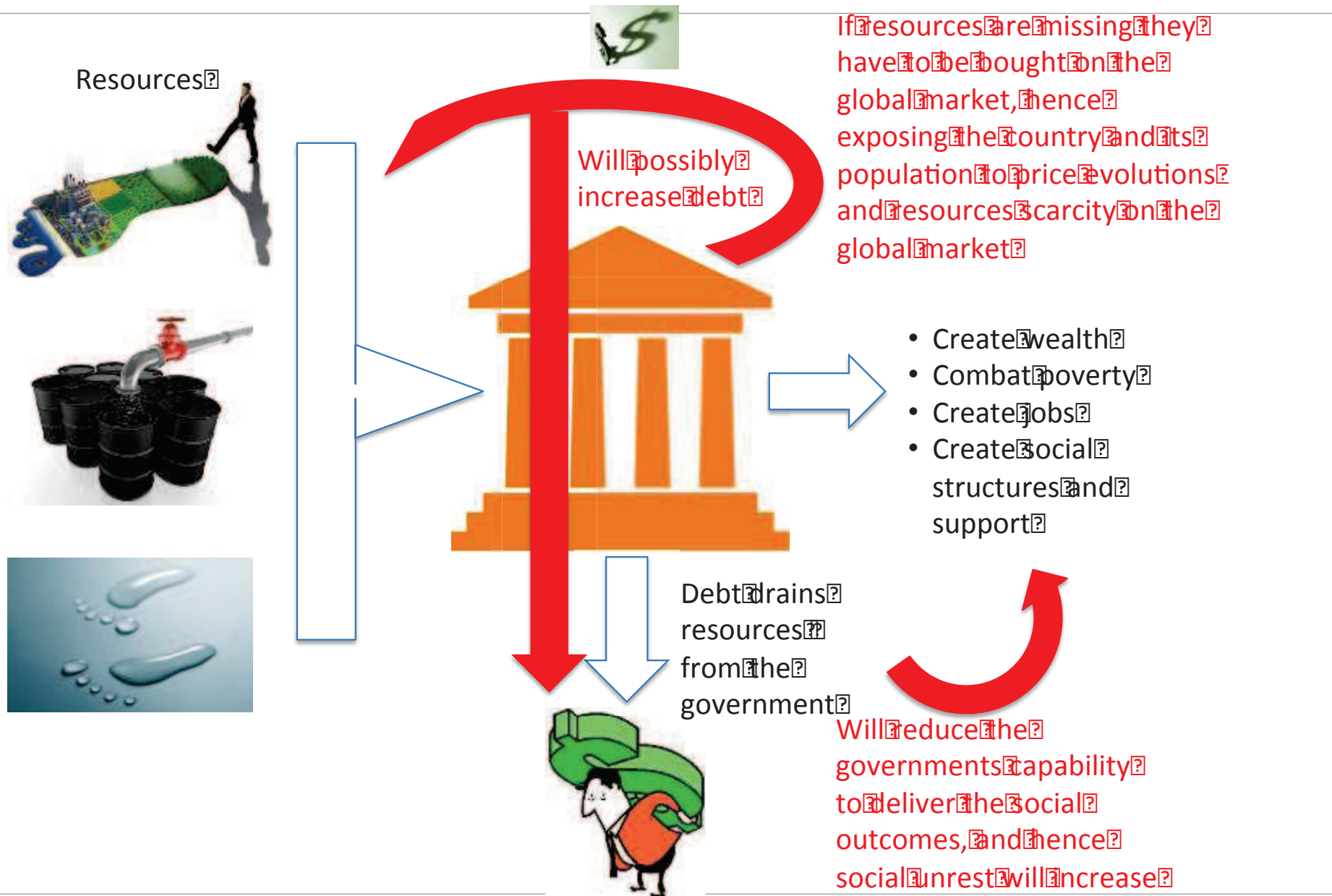
Ressourcen und Wettbewerbsfähigkeit *hauptstadtregion schweiz* *région capitalesuisse*



Ressourcen und Wettbewerbsfähigkeit *hauptstadtregion schweiz* *région capitalesuisse*

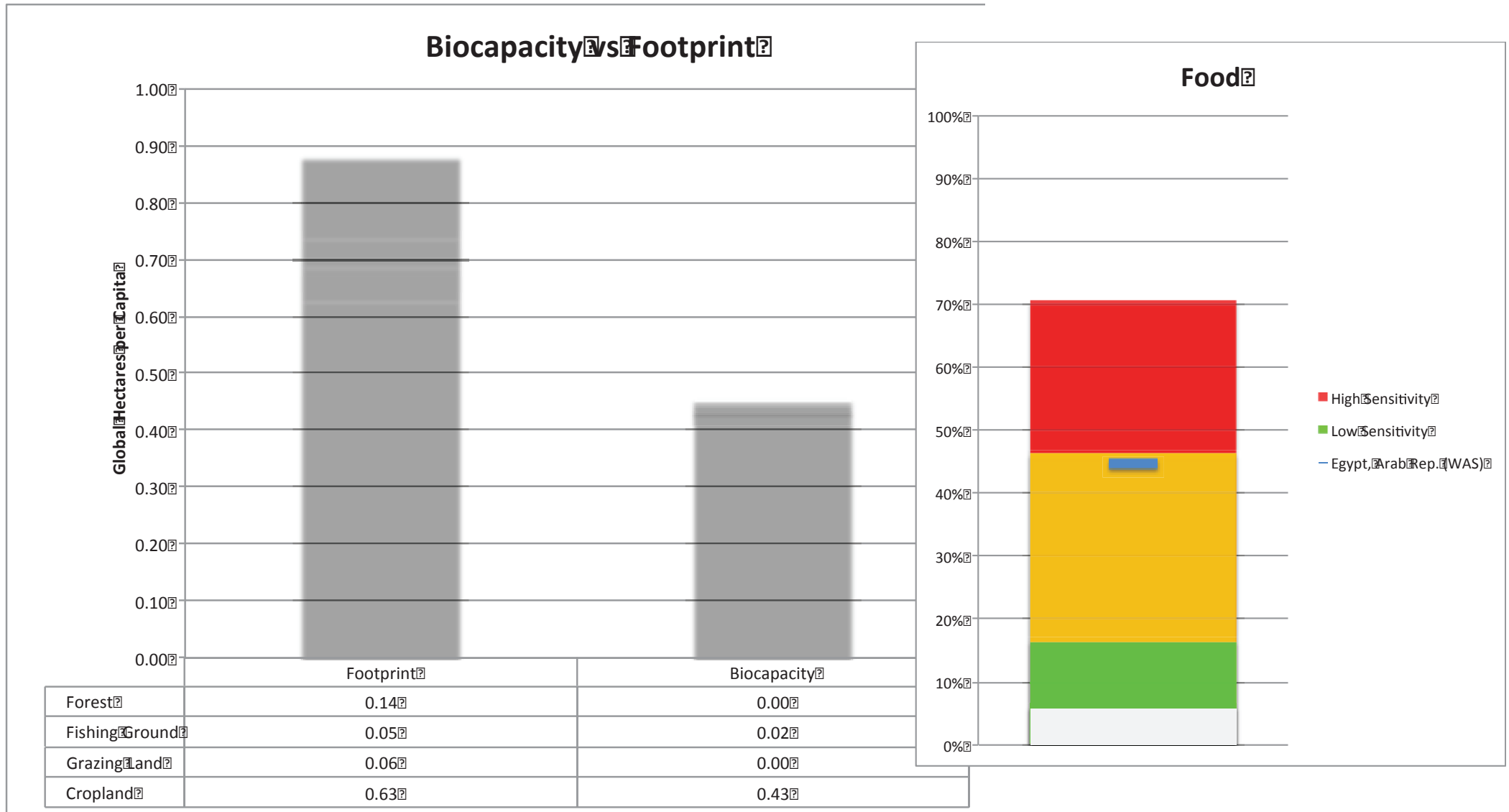


Ressourcen und Wettbewerbsfähigkeit *hauptstadtregion schweiz* *région capitalesuisse*



Ein Beispiel: Ägypten

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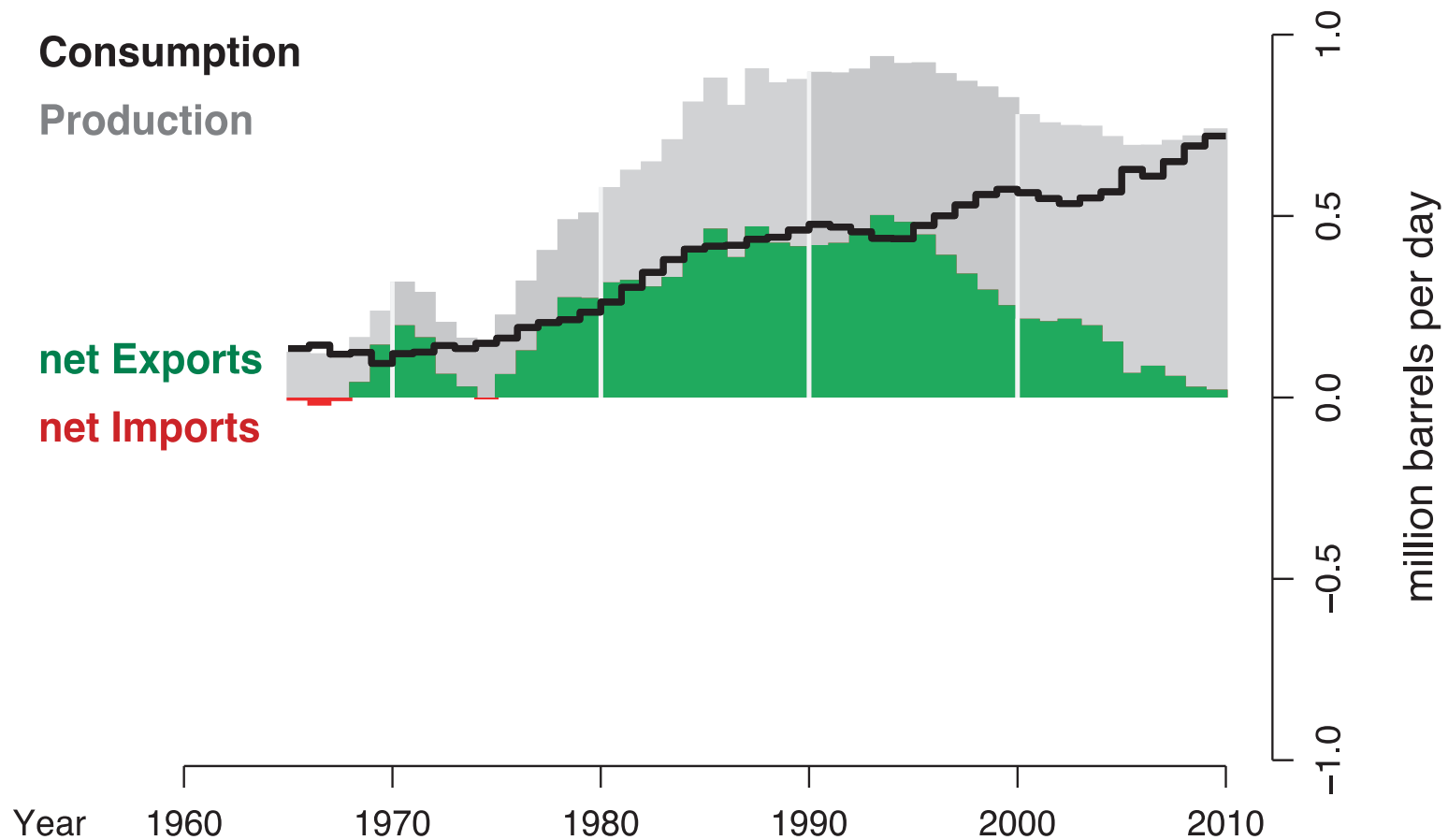


Ein Beispiel: Ägypten

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Egypt : Oil

2009 exports decreased by 26. %

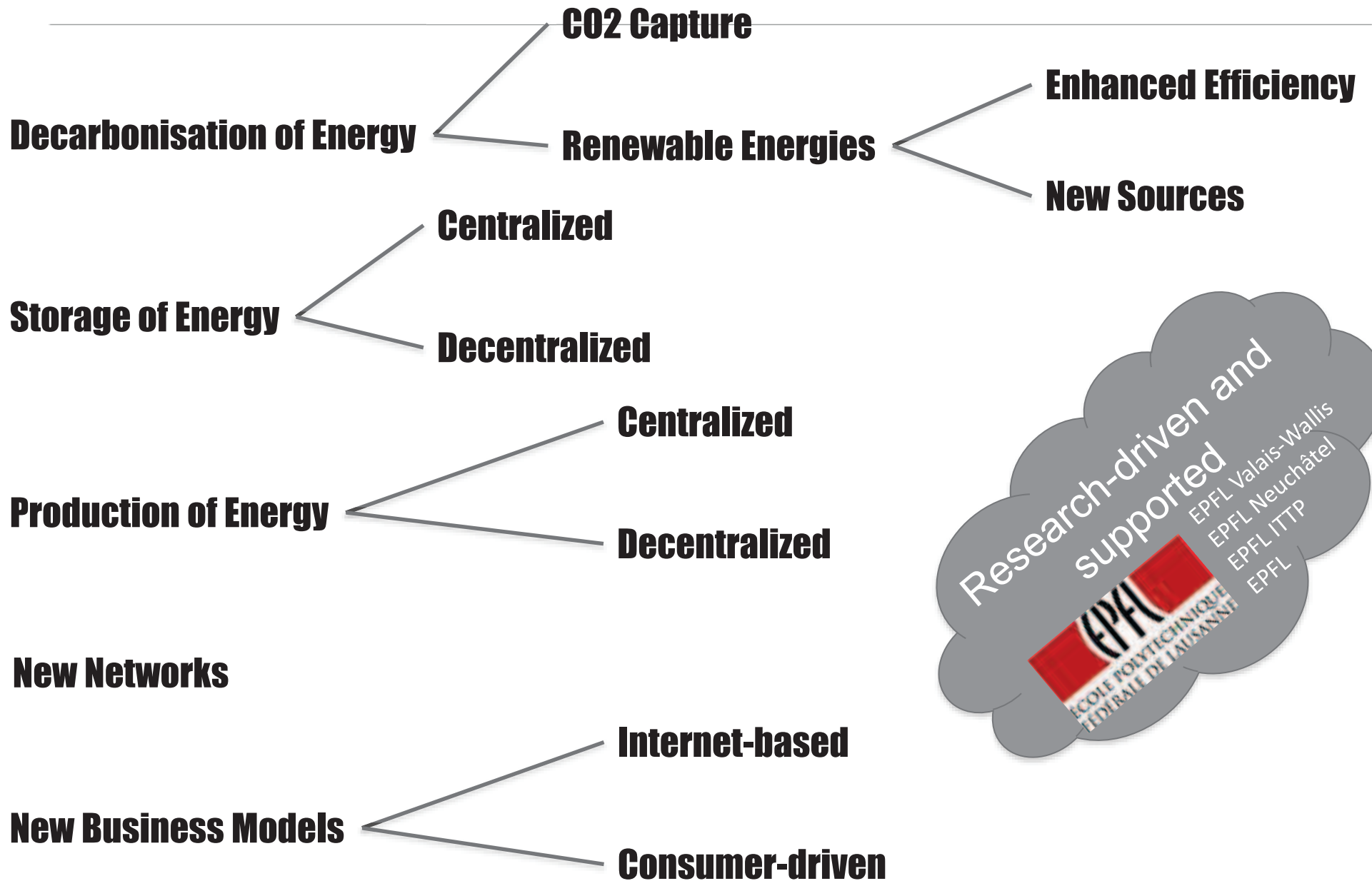


Data: BP Statistical Review 2010 Graphic: mazamascience.com

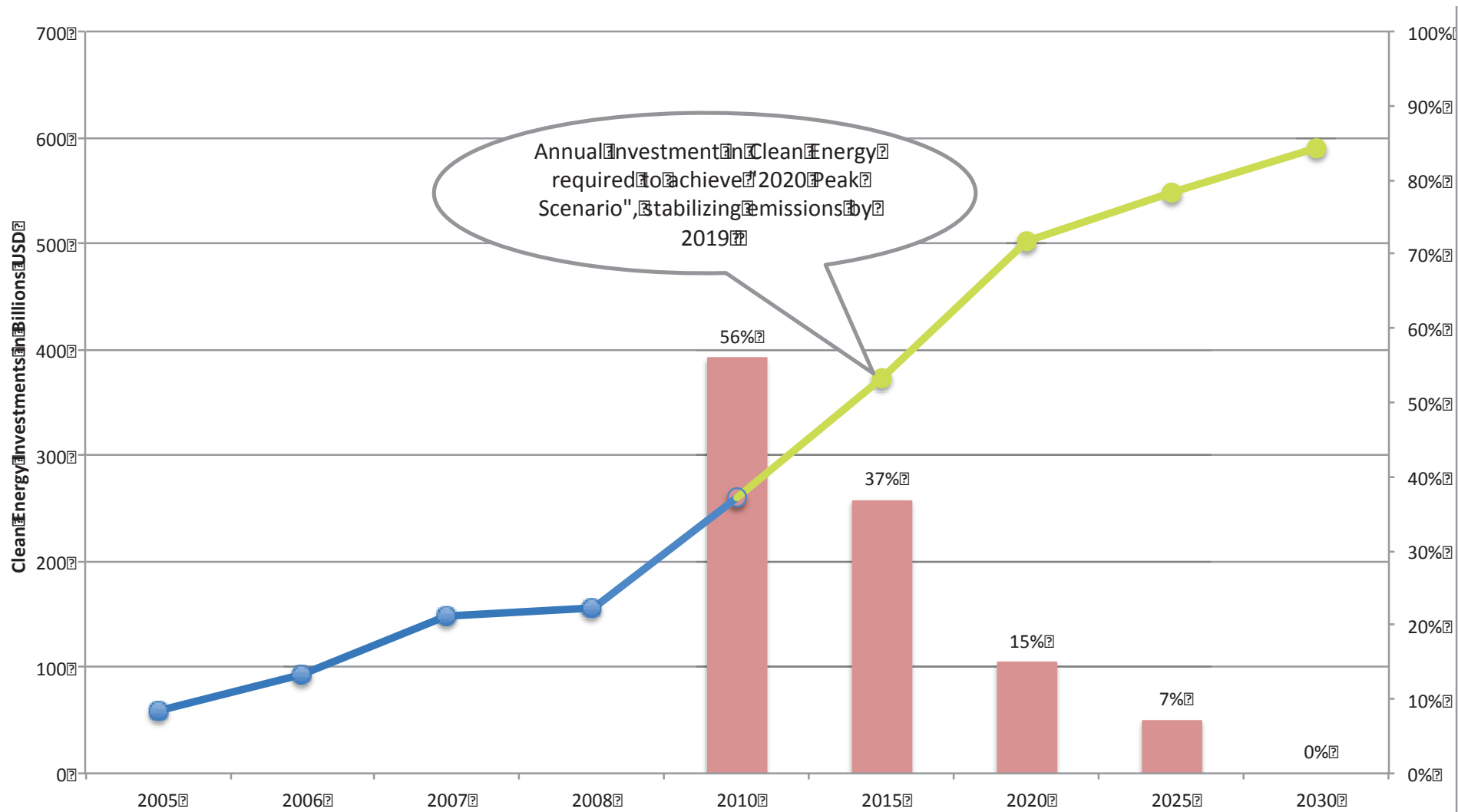
Smarte Ausblicke Energie

Smarte Energie

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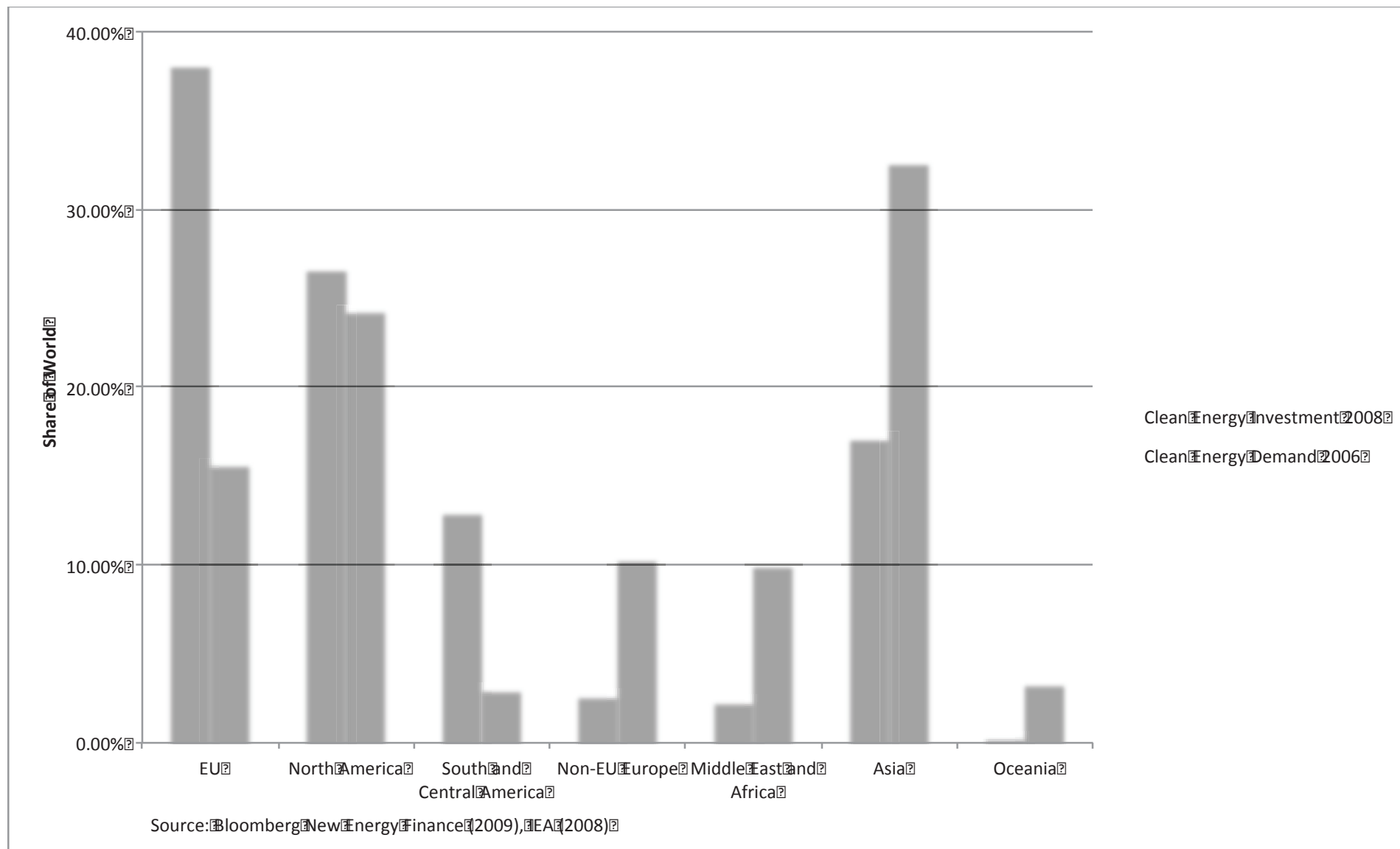


Erforderliche Infrastrukturinvestitionen *hauptstadtregion schweiz* *région capitales suisse*



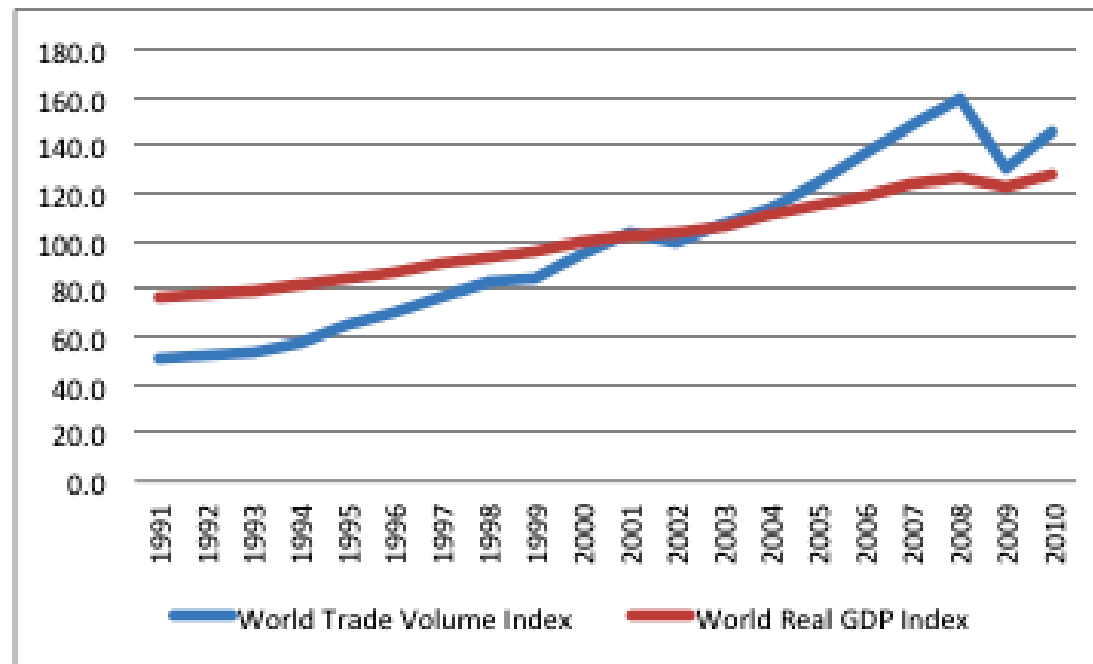
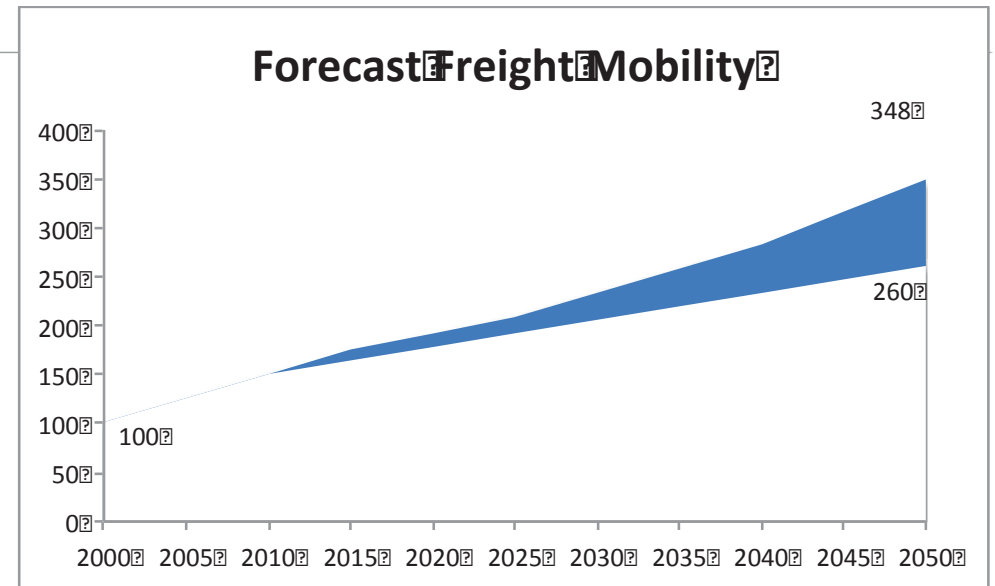
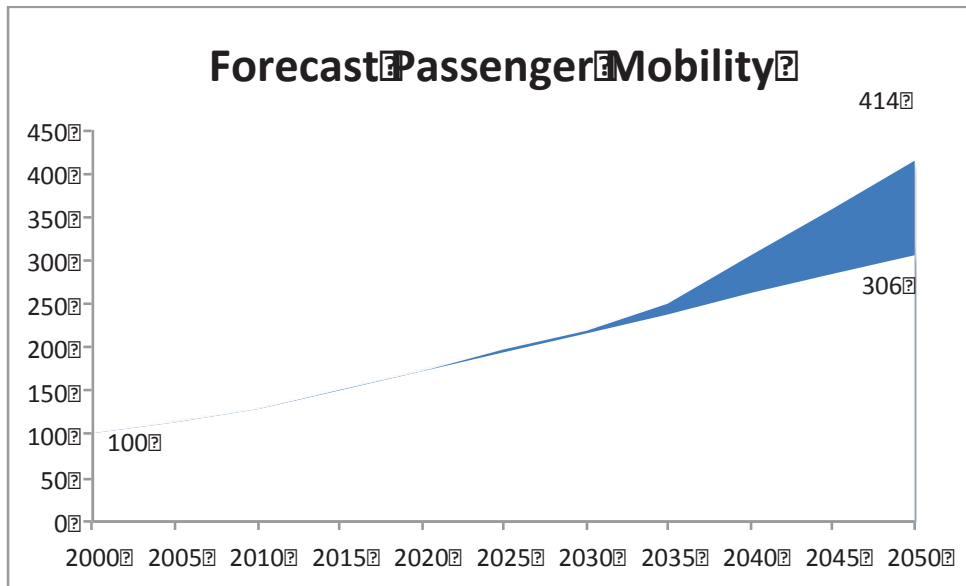
Source: Bloomberg New Energy Finance 2010

Erforderliche Infrastrukturinvestitionen *hauptstadtregion schweiz* *région capitales suisse*

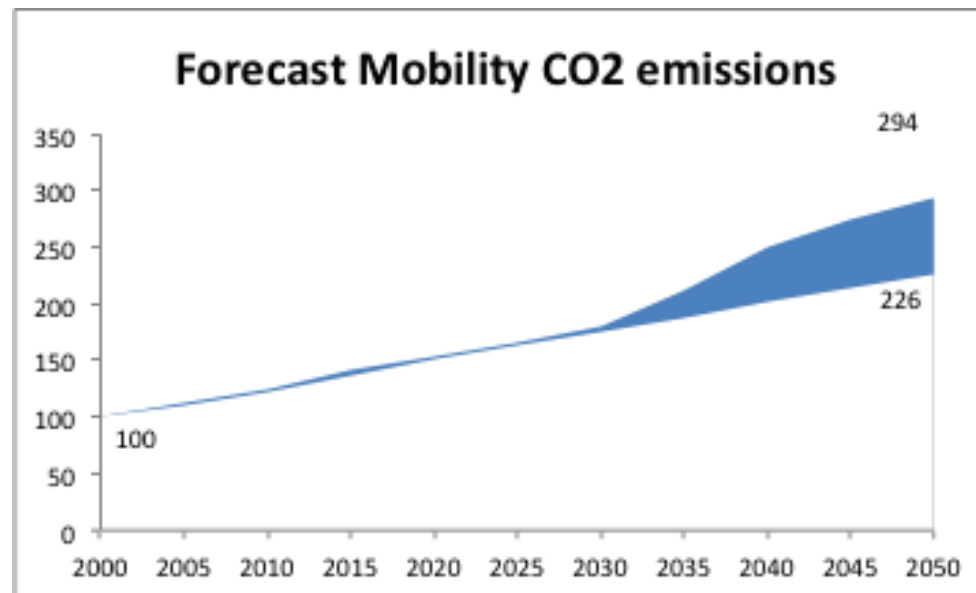
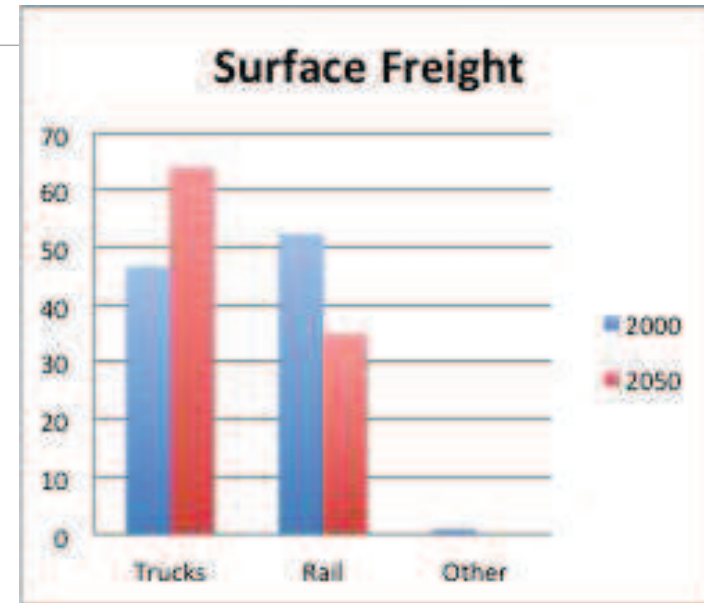
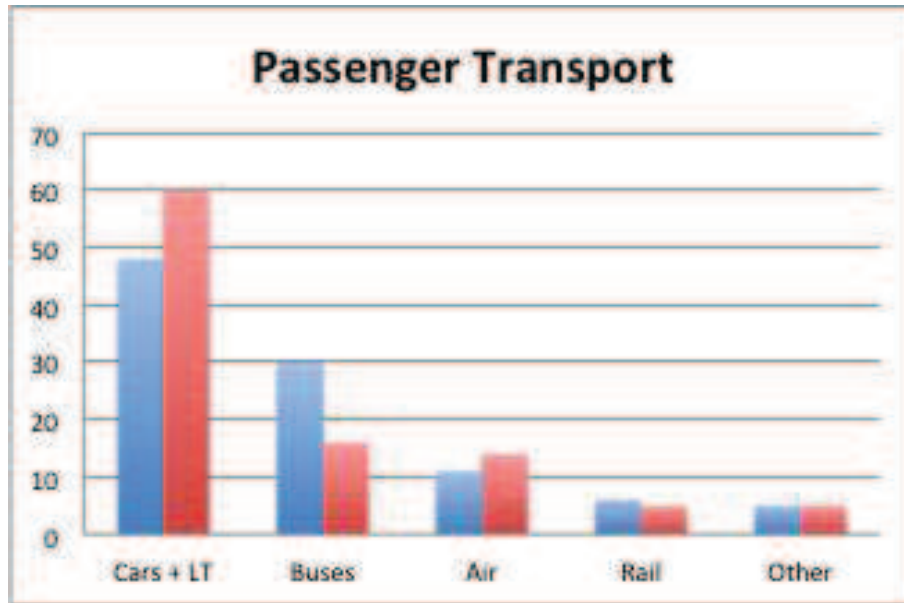


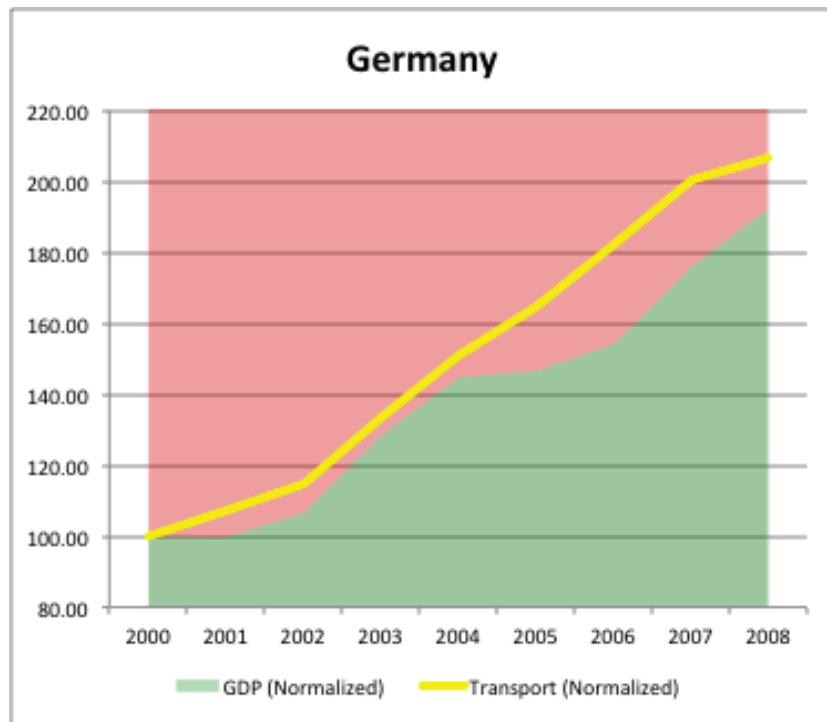
Smarte Ausblicke Mobilität

Einige wichtige Entwicklungen um Mobilität *hauptstadtregion schweiz* *région capitalesuisse*



Einige wichtige Entwicklungen um Mobilität *hauptstadtregion schweiz* *région capitales suisse*





- 21 of the 66 ranked countries have transport growth greater than GDP growth, more than half of the G20, and three of the five BRICS countries. For the European Union, one of them, Germany, is in this situation.
- Because of this significant number of countries exposed to the stress generated by goods mobility, we can foresee a major impact in the coming years on world trade due to saturation and overuse of transport infrastructure.
- This will also imply that the necessity to increase investment in transport infrastructure will become crucial.

Investieren in Mobilitätsinfrastruktur *hauptstadtregion schweiz* *région capitale suisse*

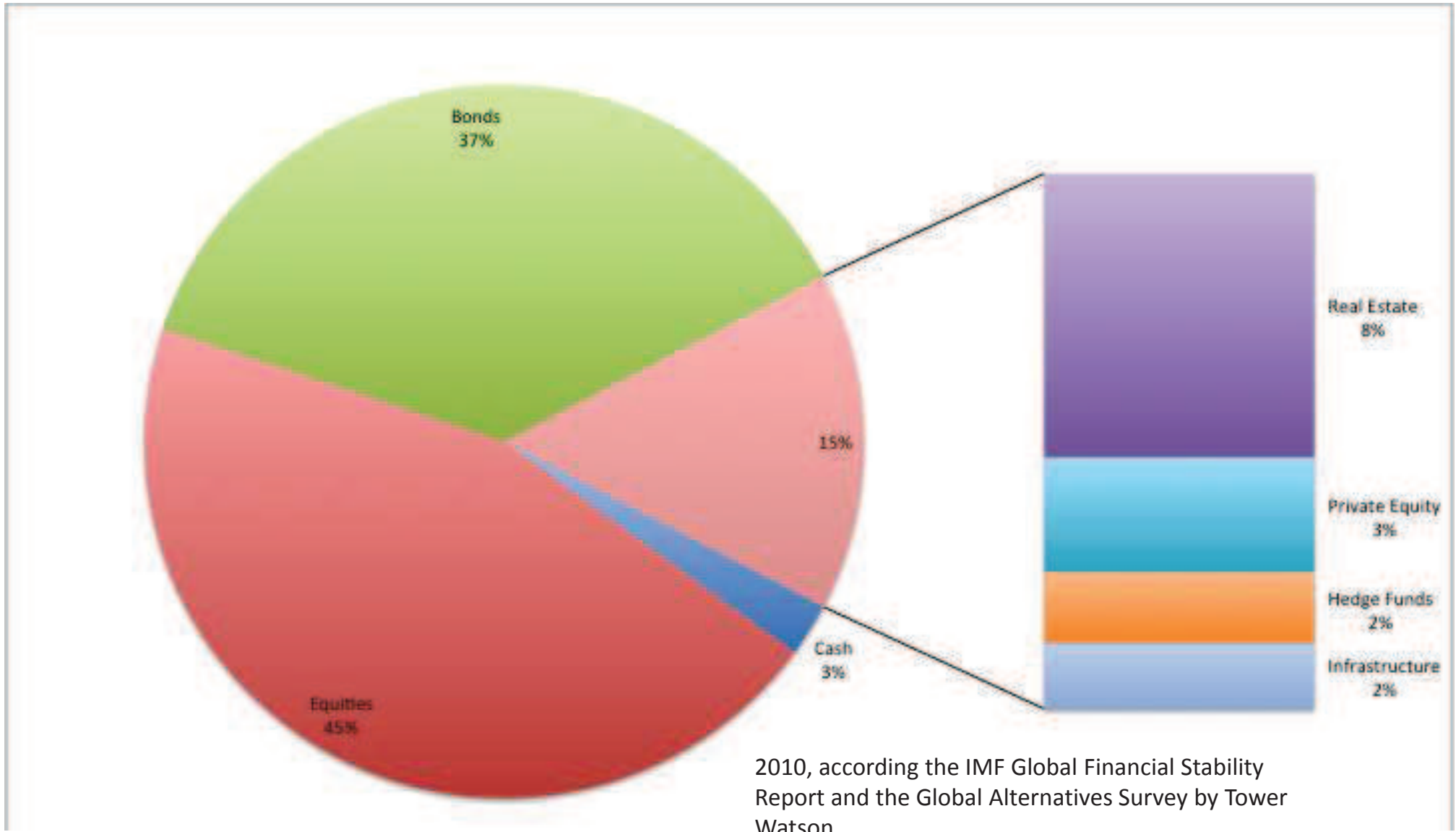
- Looking at investment and maintenance decisions for the transport infrastructure in OECD countries, we can see that only Austria is actually investing more in rail and waterways (we regroup under waterways: inland waterways and seaport infrastructure) than in road and air.
- These investment choices will further contribute to the difficulty in reducing the environmental impact of transport, as it is quite clear that rail and waterways have a much higher chance of reducing the environmental impact than the other modalities.
- And a similar conclusion can be made when looking at the capacity to absorb significant increases in the transport for goods. This analysis also shows the necessity to revisit the use and the development of mobility infrastructure in a more holistic way.

Smarte Ausblicke Infrastrukturen

- We need infrastructure to support a sustainable development
- This infrastructure supporting the needs for a sustainable development, examples are:
 - Support for sustainable energy
 - Support for sustainable access to crucial resources like water
 - Support for sustainable waste management
 - Support for sustainable mobility
- But confronting these challenges of climate change mitigation and adaptation, resource scarcity and energy security will require massive investment in the fundamental reconfiguration of the infrastructure that supports modern society.
- And who could do these investments: governments, developers, banks, ...

Institutionelle Investoren als Finanzquelle? *hauptstadtregion schweiz* *région capitales suisse*

60,000 billions USD (15'000 billions USD for pension funds)



2010, according to the IMF Global Financial Stability Report and the Global Alternatives Survey by Tower Watson