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Facilities, travel distance and sports participation

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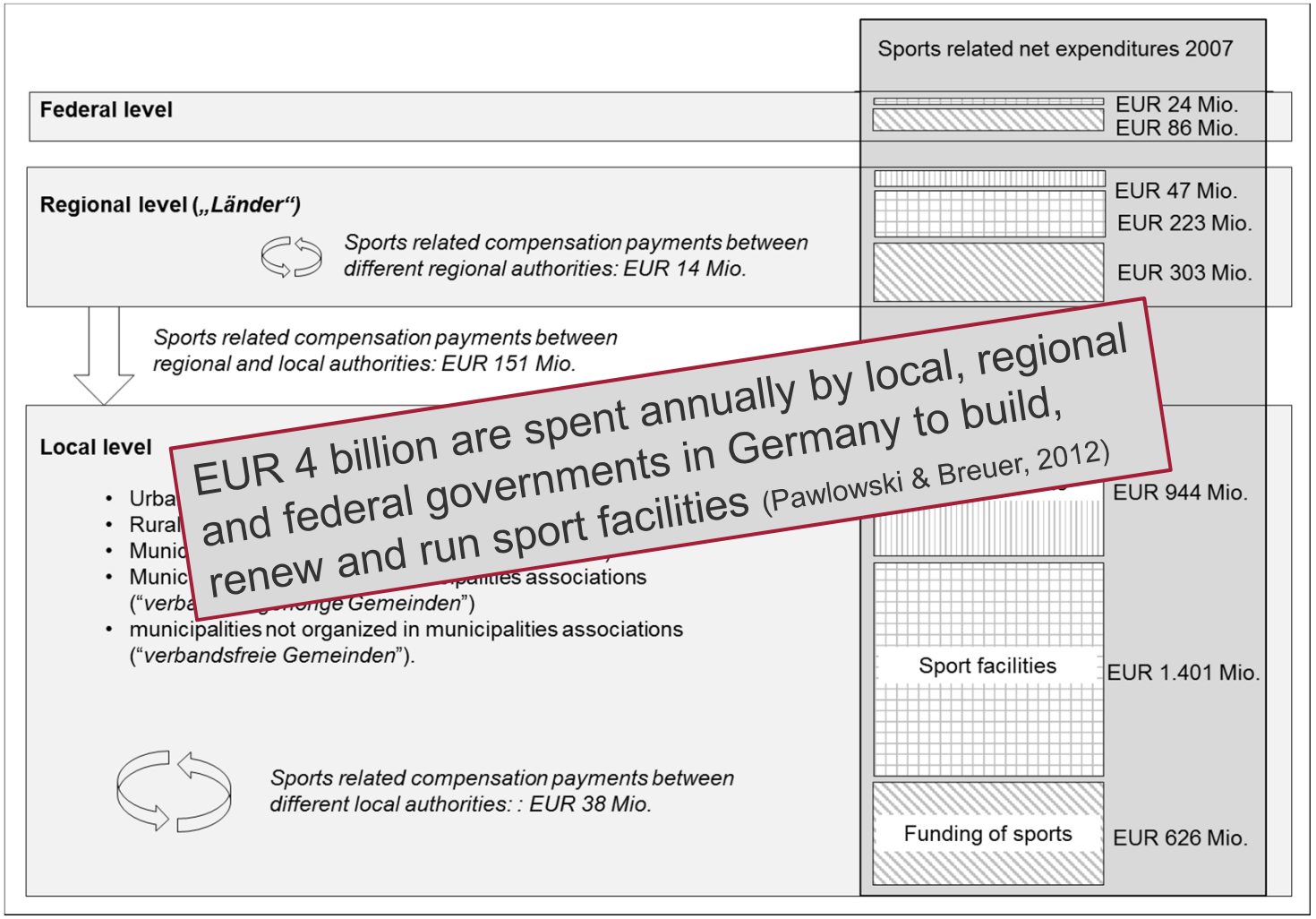
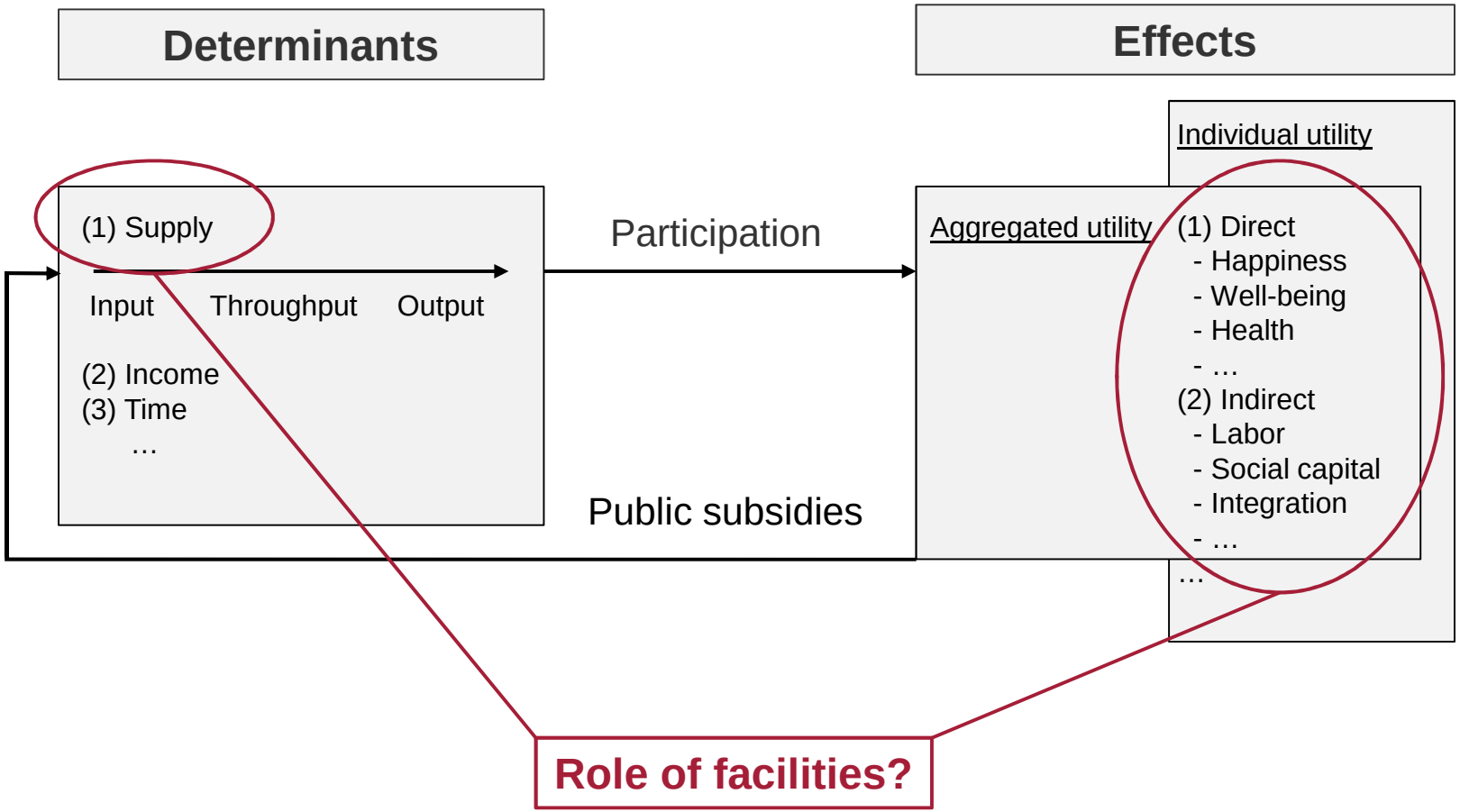
1. Introduction



Source: *translated from* Pawlowski & Thieme (2016, p. 316)

1. Introduction



Game plan

1. Facilities as possible determinants
2. Facilities as possible moderators
3. Discussion

Game plan

1. Facilities as possible determinants

- **1.1 Available space**
- **1.2 Travel distance**
- **1.3 Travel time**

2. Facilities as possible moderators

3. Discussion

1.1 Available space

(Wicker, Breuer & Pawlowski, 2009, *European Sport Management Quarterly*)

- **Data**
  - CATI survey of a representative sample of people living in Stuttgart
  - Secondary data on sport infrastructure in all 23 urban districts
- **Approach**
  - Impact on regular sports activity of whether or not the living area counts to the least supplied 20% of urban districts regarding (per person):
    - Gyms, sports fields & public playground areas in square meters
    - Swimming pool square meters
    - Number of fitness centers
    - Forest area hectares
  - Hierarchical non-linear modelling

1.1 Available space

(Wicker, Breuer & Pawlowski, 2009, *European Sport Management Quarterly*)

- **Key findings**

  Bad supply of…

  …gyms, sports fields & public playground areas has a negative impact for age groups **19-28 years** and 29-35 years

  …swimming pools has a negative impact for age groups 3-18 years, **19-28 years** and 65+ years

  …fitness centers has a negative impact for age group **19-28 years**

  …forest area has a negative impact for age group 65+ years

1.2 Travel distance

(Steinmayr, Felfe & Lechner, 2011, *European Review of Aging and Physical Activity*)

- **Data**
  - KIGGS (German-wide representative survey for the age group 0-17 years, including a survey for parents), focus in the paper: age group 3-10 years
  - Secondary data on communities (sport facilities etc.)
- **Approach**
  - Road and linear distances between children's home and sports facilities
  - PSM: comparing physical activity levels of children living close to a sports facility with those living further away from a sports facility

1.2 Travel distance

(Steinmayr, Felfe & Lechner, 2011, *European Review of Aging and Physical Activity*)

- **Key findings**

1. Travel distance matters for sports organized in **sports clubs** (not outside)
2. Travel distance matters in **smaller cities and villages** (not in larger cities)
3. Moving closer to a facility may increase a child's likelihood to participate in some sports (organized by a sports club) by more than **10% points**
4. Effect heterogeneity
   - Travel distance matters more for **kindergarten children**
   - Effects are larger for **girls** than for boys
   - Effects are larger for children living in **West** (than East) Germany

1.3 Travel time

(Pawlowski et al., 2009, *European Sport Management Quarterly*)

- **Data**
  - *see "1.1 Available space"*
- **Approach**
  - Self reported travel time
  - Factors influencing DTIME, i.e. the difference between the (i) maximum time people are willing to spend travelling to reach the sport facilities of their most practiced sport and (ii) the time people currently need to reach this facility
  - Tobit type I and II modelling

1.3 Travel time

(Pawlowski et al., 2009, *European Sport Management Quarterly*)

- **Key findings**

1. Most popular sports are running, swimming, fitness, soccer and gymnastics
2. Willingness-to-travel particularly high for **ball games**, **swimming** and **dancing**
3. **Men** are willing to spend **more** additional travel time than women for tennis, volleyball, badminton and handball (no significant diff. for other sports)
4. **Age** has a **positive impact** on DTIME for swimming and handball
5. **Involvement** has a significant positive impact on DTIME for most sports

Game plan

1. Facilities as possible determinants

2. Facilities as possible moderators

2.1 Beneficial effects of sports
2.2 Setting relevance

3. Discussion

2.1 Evidence on the beneficial effects of sports

(for an overview see Cabane & Lechner, 2015, *Journal of Economics and Statistics*)

- Health
- Well-being
- Cognitive and non-cognitive skills
- Education
- Labor
- **Social capital**
- …

2. Facilities as possible moderators

2.2 Lack of evidence on setting relevance

(very few exceptions, for instance Schüttoff et al., forthcoming, *Social Science Quarterly*)

"The results show that regular sports participation during adolescence has positive effects on different indicators of social capital (…). The largest effect is found on the bonding indicator, i.e. to helping friends. (…) since these effects seem to develop predominantly in ***sports clubs*** *(in contrast to other organizational formats) the empirical evidence of this study is suggestive of the relevant societal role of non-profit clubs as institutions for practicing sport."*

Game plan

1. Facilities as possible determinants

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3. Discussion

3.1 Implications
3.2 Outlook

3.1 Implications

- "The closer the sportier?" Yes, but effect heterogeneity
  - Socio-demographics
  - Type of sport
  - Type of sport facilities
- Managerial and policy implication that follow from this line of research
  - Location of facilities (centralization vs. decentralization)
  - Selection of type of facilities (dependent on target groups)

3.2 Outlook

- More research on
  - Sport specific relevance
  - Target group specific relevance
  - Moderating role of facilities
  - Other publicly funded settings (parks, recreational areas, etc.)

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Thank you!