ECLAC/CEPAL Conference on "Rural-urban linkages for inclusive development policies" in Bogota, Colombia August 29-30, 2019

# Networks and clusters: Toward a relational perspective of global and local linkages

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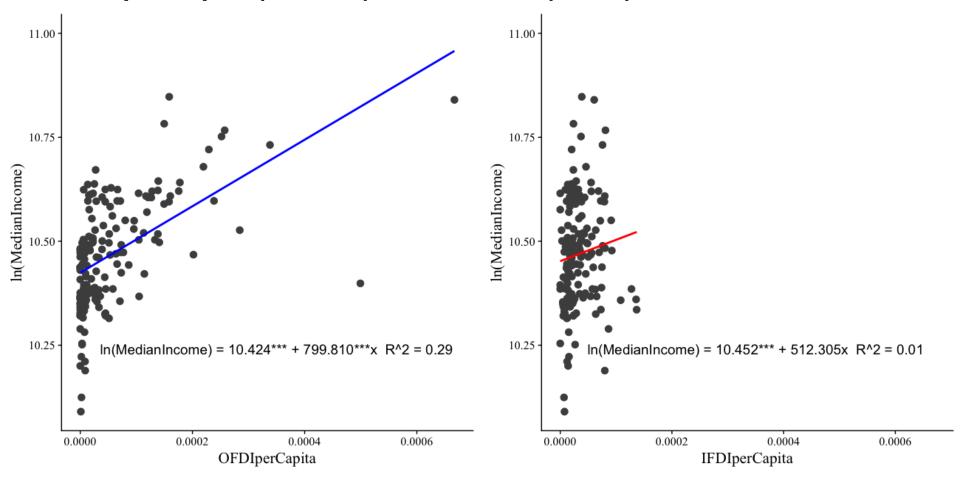


#### 1. Inequality and regional development

- Globally, poverty levels are decreasing
  - % of population under poverty line at all-time low
- BUT: increasing spatial/social inequality in incomes and economic opportunities within countries
- Countries react differently:
  - Germany: strong effective regional policies (by constitution)
  - China: authoritarian central state directs massive investments
  - USA: no strong regional policies laissez faire
- Populism is on the rise with policies against globalization
  - Large support for anti-immigration agendas
  - Trade wars and policies against global trade
  - Strong resentments against foreign investments



Relationship median income (2013) and cumulated outward/inward FDIs per capita (2005-13) in U.S. cities (CSAs) (Bathelt & Buchholz 2019)





#### Structure of presentation

- 1. Inequality and regional development
- 2. The relational economy and geography
- 3. Spatial networks and development: Missing links
- 4. Cluster development: Local, regional, global networks
- 5. Towards a relational policy of local and global linkages



#### 2. The relational economy and geography

- How to resolve current spatial/social divides?
  - Developed vs. developing countries (currently difficult to target with anti-globalization policies)
  - Intra-urban/regional inequality
  - Inter-urban inequality
  - Urban vs. rural divide
- The latter two require the creation of economic links between growth centers and developing cities/regions
- Such linkages cannot be based on costs alone
  - Development requires knowledge & technology transfers
  - Ongoing learning process
  - Associated with the development of trust and community
- → Thus, we are dealing with a RELATIONAL ECONOMY



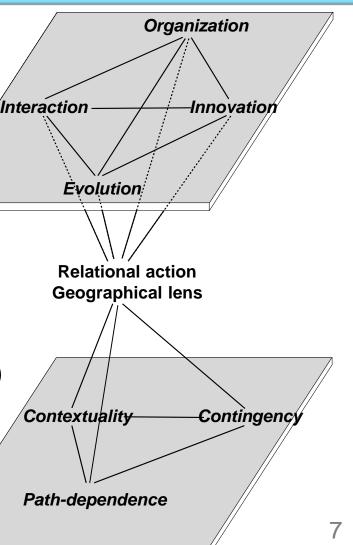
#### Fundamental conditions of the relational economy

(Bathelt & Glückler 2003; 2011; 2018)

- Contextuality
  - Economic action is embedded in structures of social/ institutional relations
  - Firms are bound to supplier-customer networks
- Path-dependence
  - Economic action depends on consequences of former action
  - Decisions made in the past cannot easily be reversed
- Contingency
  - Economic action is not pre-determined
  - Firms can always deviate from existing paths
- → Altogether, firms often form networks, engage in long-term relations and become partners of others



- Firms in the relational economy:
  - Interaction within/between
  - Organizations
  - Creating innovation and growth
  - Resulting in an evolutionary dynamic
- Geographical lens 3 types of networks are crucial:
  - Local links (buzz; spillovers)
  - Regional links (urban-rural connect)
  - Global links (global buzz; pipelines)





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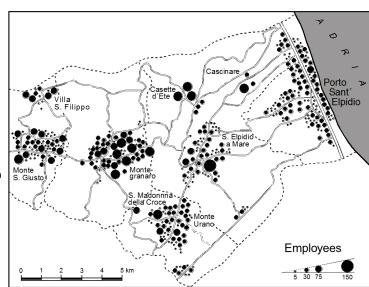
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#### 3. Spatial networks and development – Missing links

Three success stories

- Case 1: industrial districts in Italy
  - Flexible specialization and trust
  - Highly localized division of labor between different cities/villages
  - Example: Shoes in Porto Sant' Elpidio (Scott 1988) – entire Marche region: 65% Italian shoe exports
- Policy makers tried to build such districts in other countries



- BUT: little success because of focus on local networks
- Local networks need to be connected to wider markets



- Case 2: fashion cluster in Medellin (Meijia Lopez 2018)
  - Fashion is a core of urban economy: 80,000 direct/indirect jobs with 2,000 suppliers (13% of employment)
  - Regional policy: cluster initiative aimed at building collaborative networks between firms
  - Time-consuming process to build trust
  - Result: 46 firms decided to collaborate in buying supplies
    - . Increased efficiency and competitiveness
    - . Collective learning from Japanese organizational principles
    - . Excellent basis for future collaboration
- What is still needed: link to larger markets (in other countries) for long-term sustainable growth
  - Collective learning of foreign consumer culture
  - Goal: to stimulate product innovation



- Case 3: semiconductors and medical devices in Costa Rica (Gereffi 2018)
  - Government initiatives to strengthen industrial development by attracting foreign investments and creating global linkages
  - Semiconductors: led by Intel's large-scale assembly plant . Few development impulses – no skill development
    - . Later relocated few development triggers overall
  - Medical devices: a larger number of smaller investments
    - . More successful, BUT firms are dispersed across cities
    - . Few linkages between different cities limited effects
- What is missing? A regional strategy to generate spillovers
  - Support of concentrated cluster development
  - As a basis for local suppliers and specialized training programs
- → Targeting upgrading in the future



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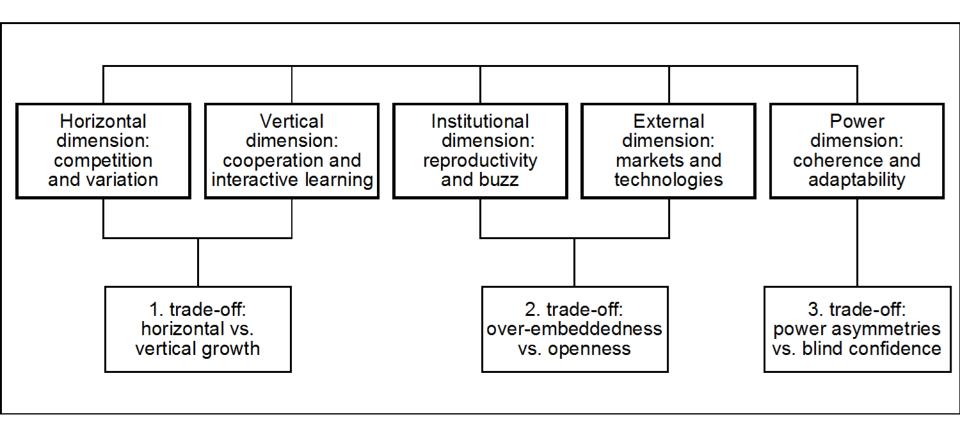


#### 4. Cluster development: Local, regional, global networks

- Conclusion from the three cases:
  - Economic growth/upgrading can benefit from cluster development (with a nucleus in urban areas)
  - Clusters can be drivers of development in surrounding regions
- To be able to produce sustainable growth, cluster must have:
  - Developed cluster dimensions and knowledge linkages
  - Local networks and buzz (Storper & Venables 2004)
  - Global linkages and pipelines (Owen-Smith & Powell 2004)
  - Balanced local, regional, global linkages



Cluster dimensions and trade-offs (Bathelt & Boggs 2005)



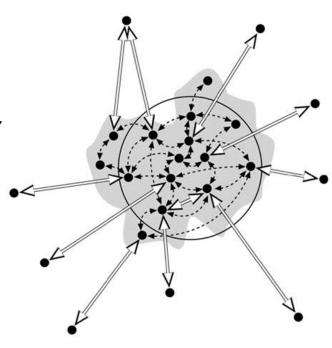


 Advantages of being located in a cluster: local buzz, automatic knowledge flows and trust development (Bathelt 2003)





- BUT: decisive knowledge flows and growth triggers often occur in distant interactions or pipelines
- To participate in these is not an easy task
  - Knowledge flows are not automatic
  - Participation requires investments
  - Trust does not exist by default but needs to be built – takes time/money
- YET: local buzz and global pipelines stimulate each other (Bathelt, Malmberg & Maskell 2004)
  - Self-reinforcing mechanism to generate growth and spillovers
  - BUT: regional support policy needed to avoid negative cluster effects





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#### 5. Towards a relational policy of local and global linkages

- Crucial task for regional policy:
  - How to reduce inter-regional inequality and trigger regional development?
  - One important way: to support inclusive cluster development with balanced local, regional, global linkages
  - This can best be achieved when focusing on an existing industry base (as in Medellin, Third Italy)

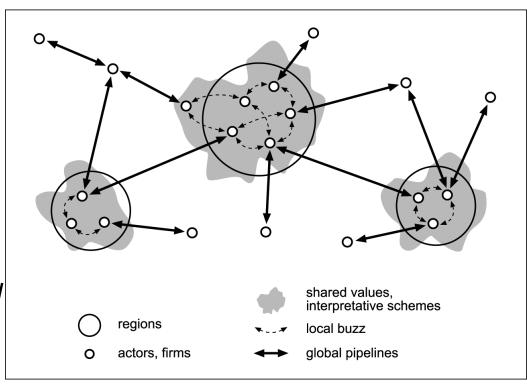
Three levels of balanced linkages are necessary:

- 1. Localized industry nucleus or cluster (typically within a city)
  - Basis for localized linkages and, over time, inter-firm trust
  - Specialized labor market
  - Creative knowledge flows



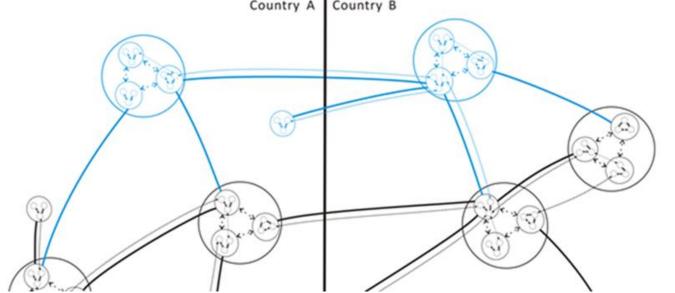
#### 2. Regional network building (Bathelt 2007)

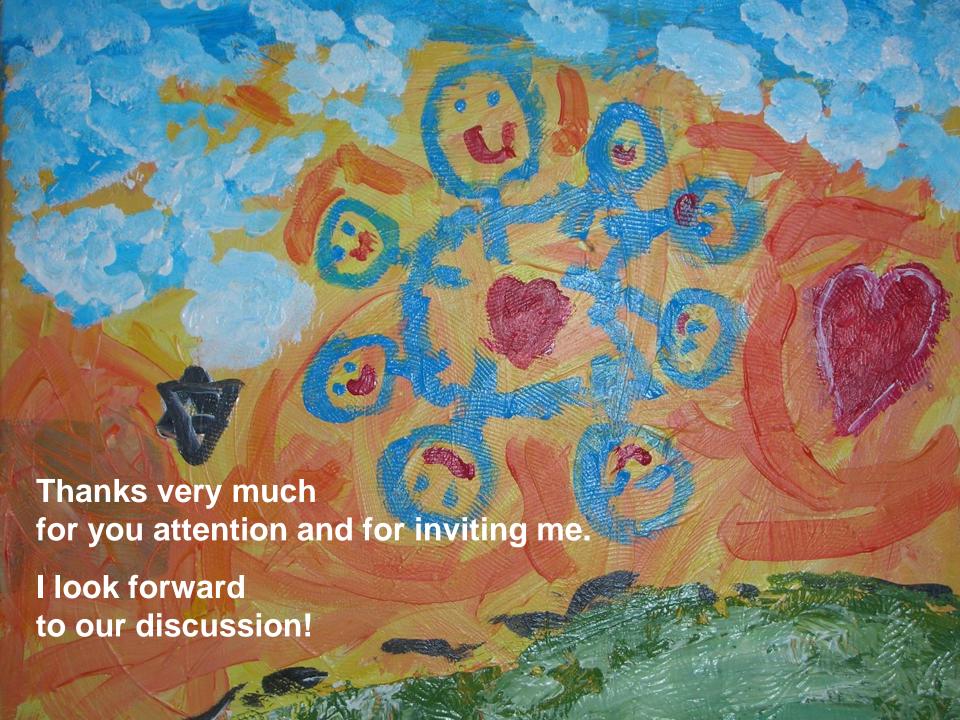
- To create spillovers in broader regional economy
- Key: there needs to be a joint industry base
- Building supplier linkages
- Engaging urban and rural firms in events that address joint interests (e.g. global markets, new technologies)





- 3. Generating international linkages
  - Creating access to other markets through inward/outward investments (Cantwell & Iammarino 2003) and/or links with ethnic migrant communities (Portes & Sensenbrenner 1993; Saxenian 2006)
  - Linking with industrial cores to establish international knowledge flows – e.g. global cluster networks (Bathelt & Li 2014; Li & Bathelt 2018)
  - Using experiential knowledge to produce customized goods

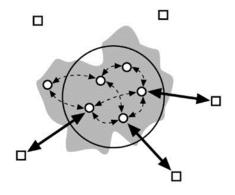




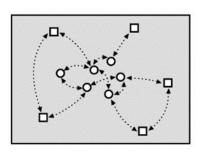


- How to establish global pipelines?
  - One possibility: targeted participation in leading international trade fairs (Maskell, Bathelt & Malmberg 2006; Bathelt & Schuldt 2008)
  - Collective exhibits to showcase regional capabilities
  - Learning from others and picking up ideas for new products
  - Using events to create international linkages

A Permanent cluster (before trade fair)



B Temporary cluster (during trade fair)



Permanent cluster (after trade fair)

