

Jan Fagerberg



Innovation,
Economic
Development
and Policy
SELECTED ESSAYS



Welcome

Seminar, University of Oslo,
September 20, 2018

Thanks

*Jan Fagerberg,
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*.... 18 papers
written over 18
years*

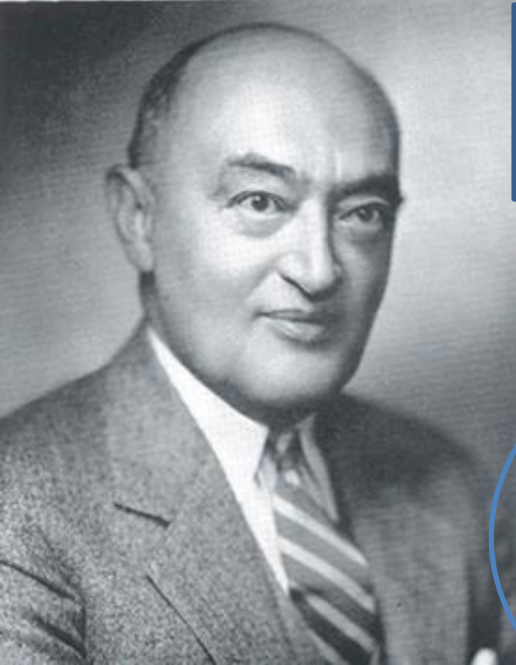
The shaping of an agenda



- Capitalism an **evolutionary** system
- With **technological competition** as driving force
- Outcome crucially dependent on **interaction** between **technological/economic** (“forces of production”) & **social/institutional** factors (“relations of production”)
- .. the **technological & the social** ...
- Theorizing needs to be informed by **historical & empirical** studies

Studying Marx,
Oslo 1977,
Courtesy of
Arne Melchior





Josef Schumpeter: *A theory of capitalist evolution with innovation as the driving force*

Schumpeter on his aims: “*exactly the same as the idea and the aim which underly the economic teaching of Karl Marx*” : (applying “**reasoned history**”)

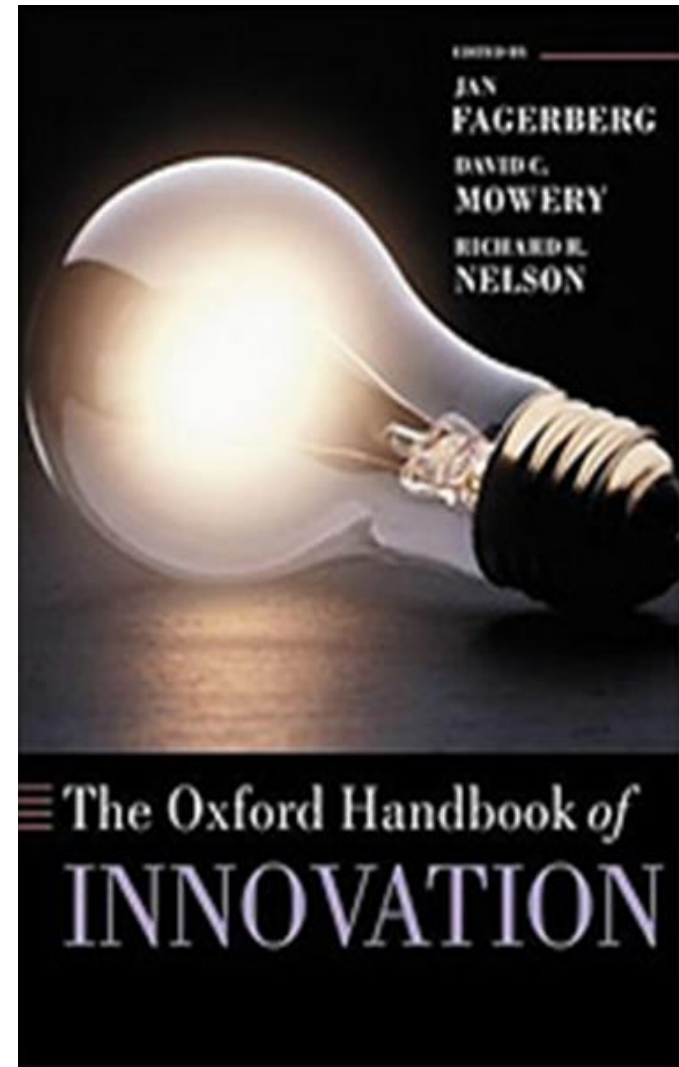
Chris Freeman



- *Innovation: **broad and pervasive***
- *A **social & interactive** phenomenon (Sappho project): **National systems of innovation***
- *Not only **constraining** but also **enabling** (innovation policy)*

Understanding innovation ?

- Traditionally: A **fragmented** knowledge-base with little **interaction**
- Searching for an overview and **synthesis: OUP Handbook** *(with David Mowery and Dick Nelson): ch.1 and 9 (with Manuel Godinho)*
- Exploring the **nature and evolution of innovation studies (part 2, ch. 5-8)**, *with Ben Martin, Bart Verspagen, Tommy Clausen, Magnus Gulbrandsen ...*
- Striking: **Breath** of the knowledgebase & its strong **interdisciplinary** appeal
- But what about the **future**? Is the **core** sufficiently strong?



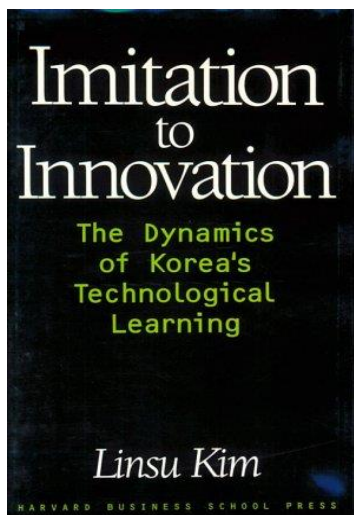
Innovation and development: The role of capability building

Technological capabilities

Linsu Kim (1997):

*“the ability to make **effective use of technological knowledge** in efforts to **assimilate, use, adapt and change existing technologies**”*

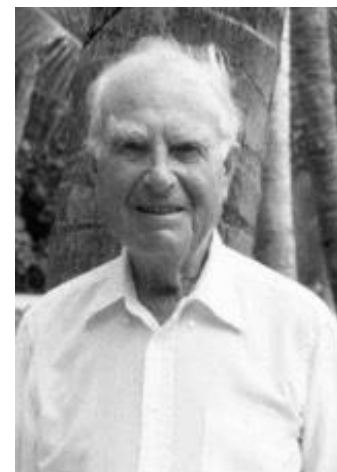
- Innovation capability
- Finance capability
- Production capability



Social capabilities

Moses Abramovitz (1994):

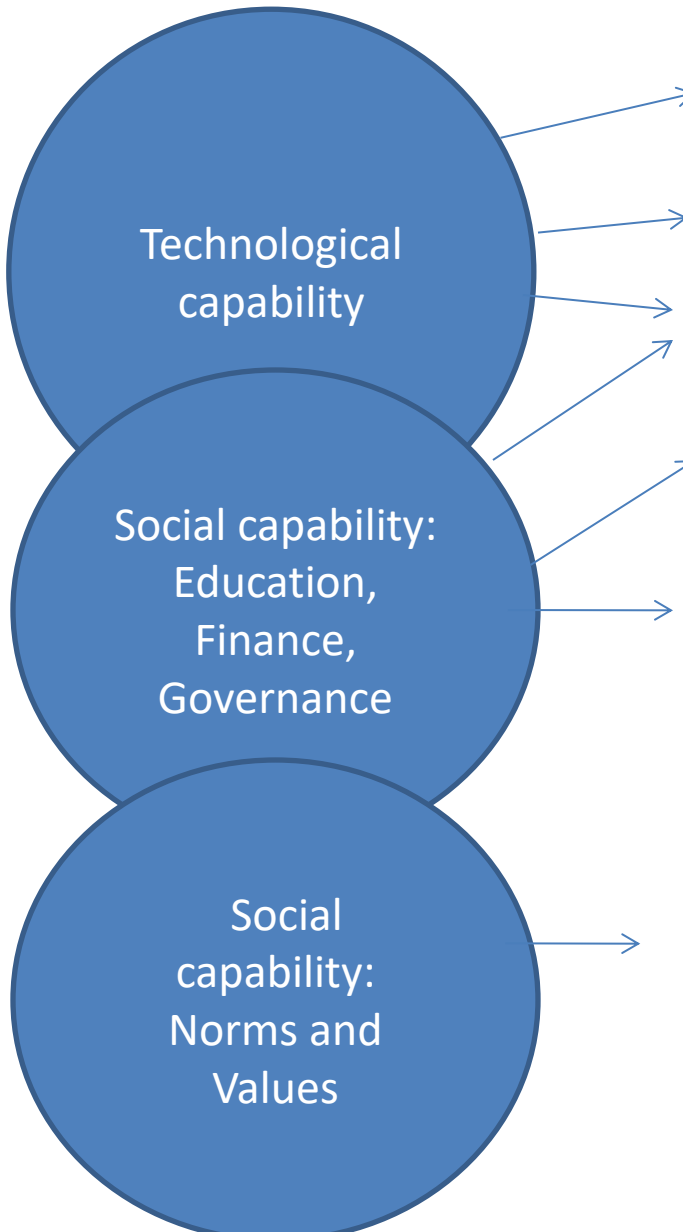
*“Countries’ levels of general **education** and technical competence, the commercial, industrial and financial **institutions** (...) and the **political and social characteristics** that influence the risks, the incentives and the personal rewards of economic activity”*



Moses Abramovitz

(chapter 3 + part III, ch. 9-13)

Researching Capabilities and their effects: Letting theory & evidence interact (with Martin Srholec, chapters 11-13)

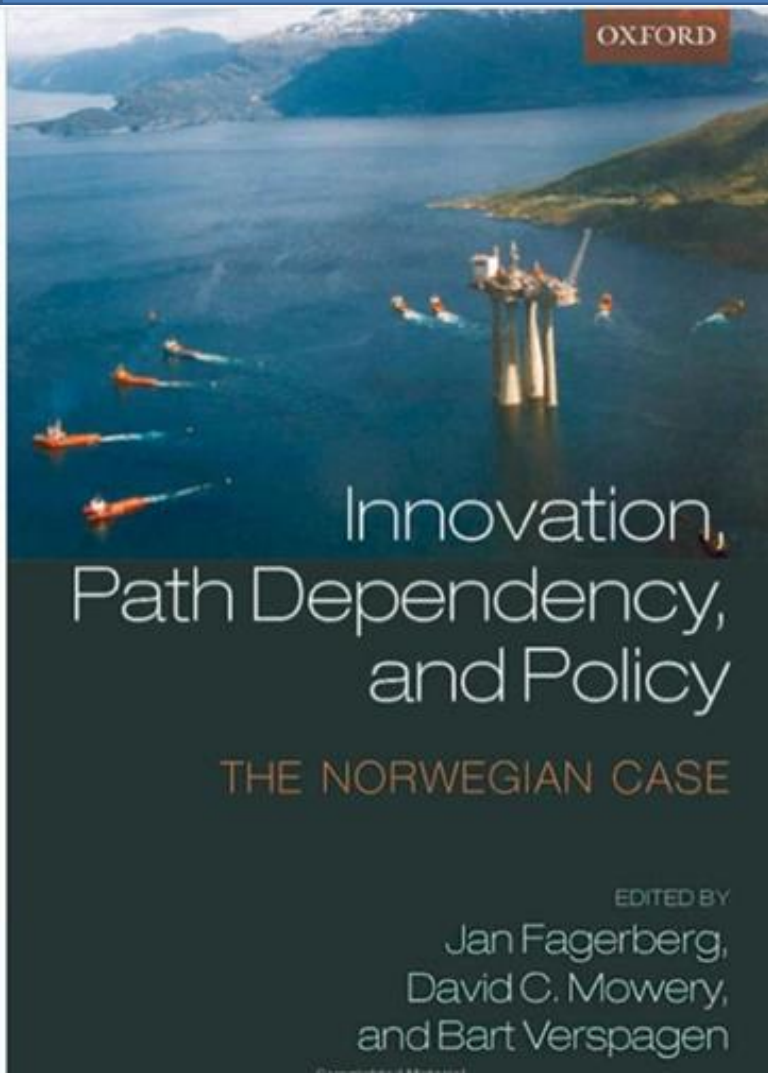


Dimension,	Indicator
Innovation capability	Scientific publications, R&D and patents
Production capability	International (ISO) standards, ICTs, internet
Finance capability	Access to bank credit, stock-market, venture capital
Education	Primary, secondary and tertiary education
Political characteristics: governance	Corruption, law and order, independence of courts, property rights, business friendly regulation,
Social characteristics: norms & values	Equality, inclusiveness, tolerance, cooperative behaviour, trust, honesty



Interactive innovation: National Innovation Systems & Policy

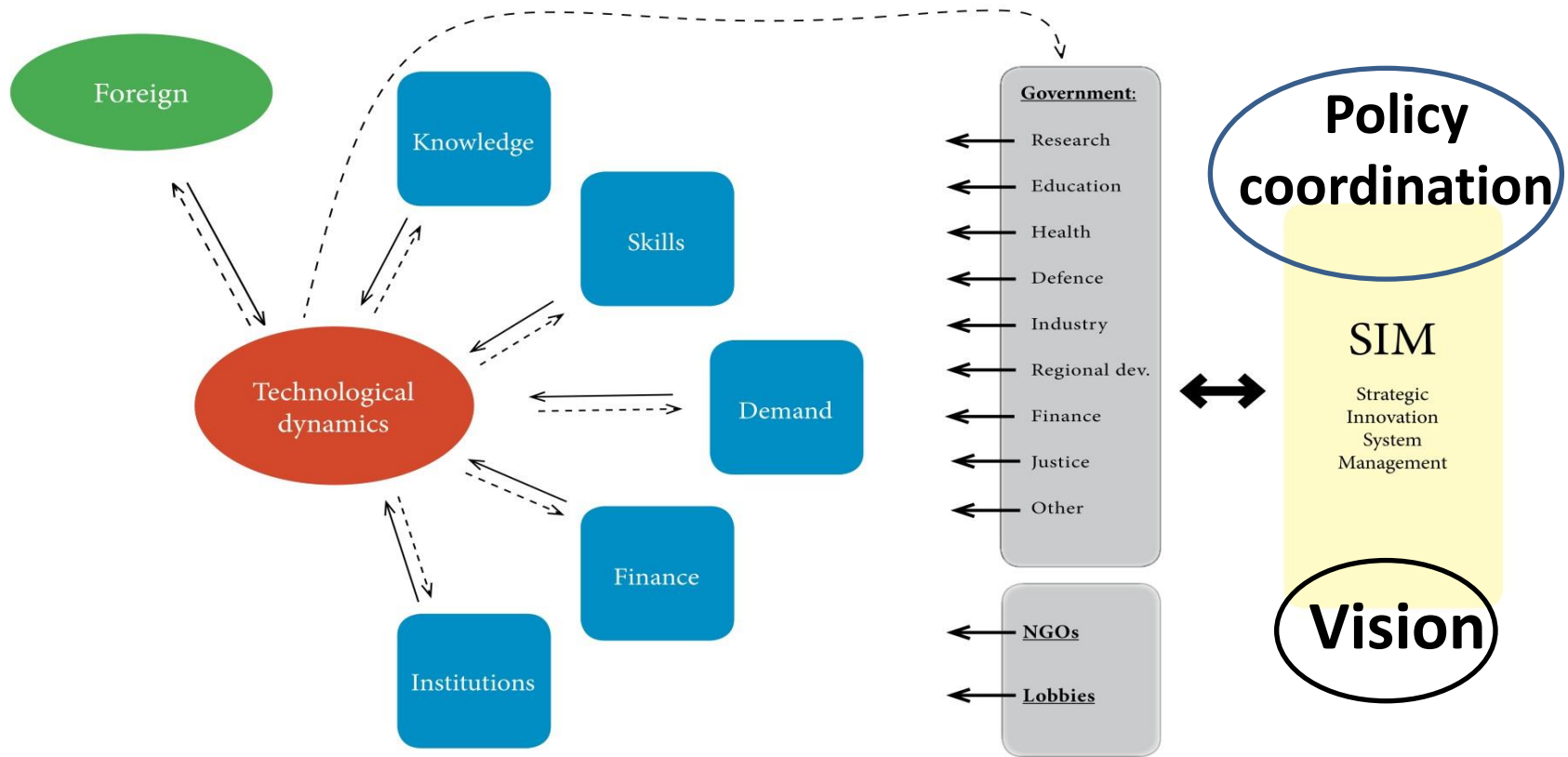
(chapters 4, 14-16)



- A historical and evolutionary perspective: **Coevolution** between industry, national “innovation infrastructure and policy” shape NSIs (*ch. 15 with David Mowery and Bart Verspagen*)
- Which hence may end up **looking rather different** (*ch. 16*)
- But **what goes** on in such systems may still have a lot in common: Recent work (Edquist, Bergek etc.) therefore focuses on the **dynamics** of the system and **factors influencing it** (functions, activities or processes), which **policy** may influence (*ch. 4*)

National Innovation Systems

Complementarities, Policy coordination & Leadership



PROCESSES

POLICY

Source:
Chapter 4

Challenges for governance

The Triple Challenge: Economy, Climate & Governance (ch. 17-18)

- Europe is stuck in a (partly self-inflicted) **stagnation** (*ch. 17 with Bart Verspagen*)
- And need to transform the economy due to the **climate challenge**
- These challenges are **closely related** and require a **coordinated policy response**
- A new **policy stance** addressing **economic and environmental** challenges needed: transforming the economy to **sustainability**, (*ch. 18 with Ben Martin and Staffan Laestadius*)
- With **innovation policy** as a central element - **mobilizing innovation** essential for challenge-driven change
- How? **Innovation in governance** required



Your turn!

(The Future of Innovation Studies needs)



**Volunteers
Needed**