



### 03: Clusters, institutions and institutional change

# Goals

- Continue discussing the economic underpinnings of Ukraine conflict and link it to the last lecture on inequalities
- Introduction ‘institutions’ and ‘evolution of institutions’ as key concepts that differentiate economic geography from economics
  - Prepare the grounds for understanding different versions of capitalism (next lecture)
  - Prepare the grounds for understanding money as a central institution of modern societies (sixth lecture)
- Show how ‘institutions’ and ‘evolution of institutions’ can help better understand the conflict in Ukraine

# Program

- Nina Kammermann: Wie realistisch ist 'la station service' jetzt in Angesichts des Ukraine Konflikts?
- Ukraine: Economic underpinnings - Discussion
- Free book of the week - Pierre Bayard 'How to talk about books one has not read'
- Clusters (regional concentration of economic activity)
- Evolutionary theorising & institutional approaches to understand economic activity
  - Evolutionary theorising (Schumpeter, Kondratieff)
  - Institutions (Veblen, Seabright, Nelson)
    - Institutional change (Nelson, Pierson)

# Nina Kammermann

- Wie realistisch ist la station service jetzt in Angesichts des Ukraine Konflikts?

# Ukraine - economic underpinnings of the conflict

- Link to previous lecture on inequalities - the Russian oligarchs
  - Die Oligarchie (von altgriechisch ὀλιγαρχία oligarchia „Herrschaft von wenigen“, zusammengesetzt aus ὀλίγοι oligoi „wenige“ und ἀρχή archē „Herrschaft, Führung“) ist in der klassischen (antiken) Verfassungslehre die Entartung der Aristokratie.
  - Die Oligarchie bei Platon (427–347 v. Chr.) ist die gesetzlose Herrschaft der Reichen, die nur an ihrem Eigennutz interessiert sind.
  - In Russland und in weiteren Nachfolgestaaten der Sowjetunion wird der Begriff Oligarch seit den 1990er Jahren auch für Unternehmer verwendet, die in der chaotischen Zeit nach dem Zerfall der Sowjetunion auf verschiedenen Wegen zu großem Reichtum und politischem Einfluss gekommen sind.
- Communism has been replaced by capitalism with a democracy thinly veiling an oligarchy.

# Military conflict - cui bono? (who benefits?)

99.59 USD

+12.62 (14.51%) ↑ seit Jahresbeginn

Geschlossen: 4. März, 19:58 GMT-5 • Haftungsausschluss  
Nachbörse 100.00 +0.41 (0.41%)

1 T. | 5 T. | 1 M. | 6 M. | YTD | 1 J. | 5 J. | Max.

105.00 USD Mi., 2. Feb.

EPA: AM

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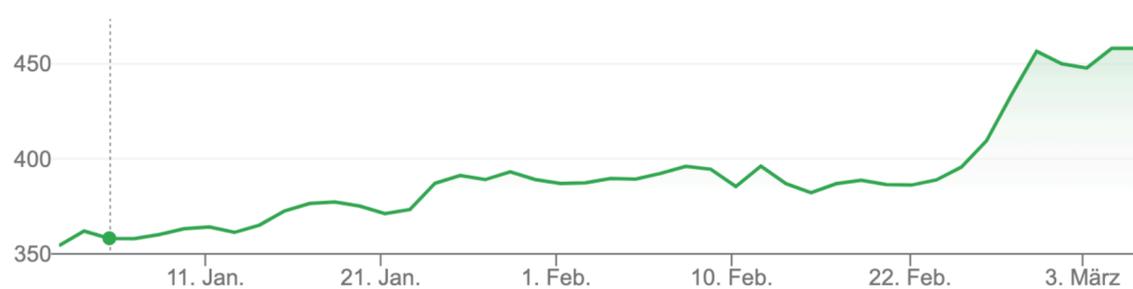
p. 148.62 Mrd.  
38.55

CDP-Rating A-  
52-Wo-Hoch 104.34  
NYSE: LMT 72.74

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Max.

Eröffnung	131.00	Marktkap.	10.81 Mrd.	52-Wo-Hoch	137.60
Hoch	134.70	KGV	22.41	52-Wo-Tief	81.85
Tief	128.60	Rendite	0.95%		



Eröffnung	450.05	Marktkap.	124.77 Mrd.	CDP-Rating	B
Hoch	462.66	KGV	20.13	52-Wo-Hoch	462.66

NYSE: RTX

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245.29 USD

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Nachbörse 247.60 +2.31 (0.94%)

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NYSE: GD

+ Folgen

468.57 USD

+83.04 (21.54%) ↑ seit Jahresbeginn

Geschlossen: 4. März, 19:50 GMT-5 • Haftungsausschluss  
Nachbörse 470.00 +1.43 (0.31%)

1 T. | 5 T. | 1 M. | 6 M. | YTD | 1 J. | 5 J. | Max.



NYSE: NOC

+ Folgen

Eröffnung	454.14	Marktkap.	73.14 Mrd.	CDP-Rating	A-
Hoch	472.94	KGV	10.76	52-Wo-Hoch	472.94
Tief	450.01	Rendite	1.34%	52-Wo-Tief	295.16

# Cui bono? (Oil price)

06:05 am CDT 07/03/2022

Technicals

**WTI Crude** (March Contract)

**122.99 +6.20%**



1D | 1WK | 1M | 1YR | Max

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# Sources to explore for Ukraine

- Academics as journalists:
  - [theconversation.com](https://theconversation.com) (free)
  - [higgs.ch](https://higgs.ch) (paywall)
- Journalists consulting academics
  - [Heidi.news](https://heidi.news) (prix libre pour jeunes)
  - [renegadeinc.com](https://renegadeinc.com) (free)
- Book summaries
  - [GetAbstract.com](https://getabstract.com) (paywall)
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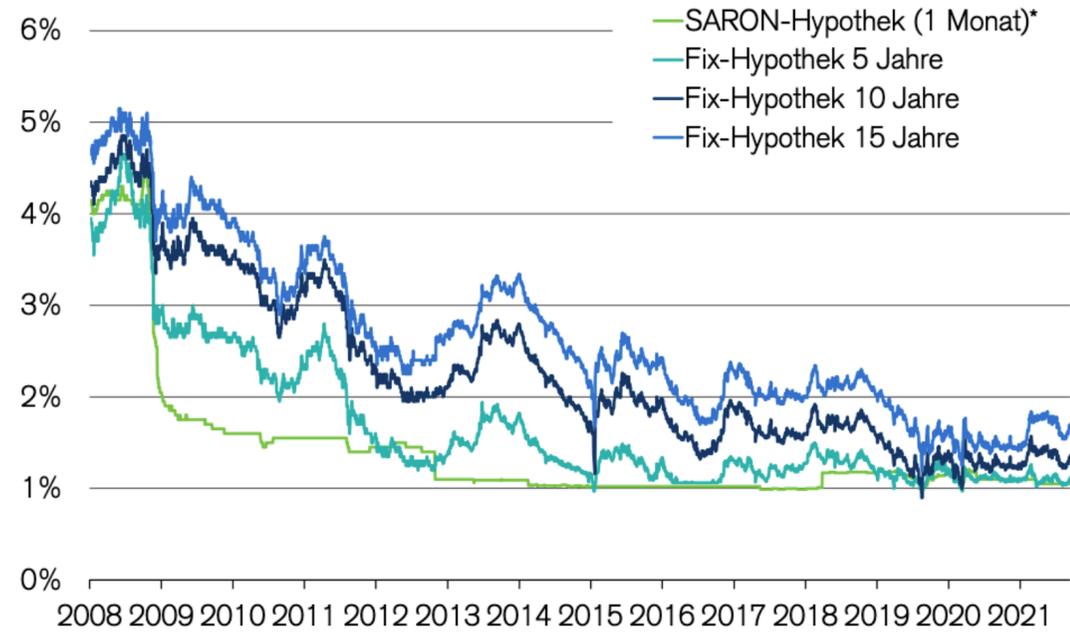
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**GRIN** 😊

Wissen finden & publizieren

**Abb. 10: Hypothekenzinsen verschiedener Laufzeiten**

Hypothekenzinsen bei Neuabschluss, in %



\* Zinssatz Saron-Hypothek ab 21.09.2020. Früherer historischer Zinssatz: Flex-Rollover-Hypothek (3-Monats-Libor).

Quelle: Credit Suisse

Letzter Datenpunkt: 14.09.2021

# Stock market & housing bubble

**SMI - HISTORISCHER CHART**



Wählen Sie einen Chartzeitraum aus:

von

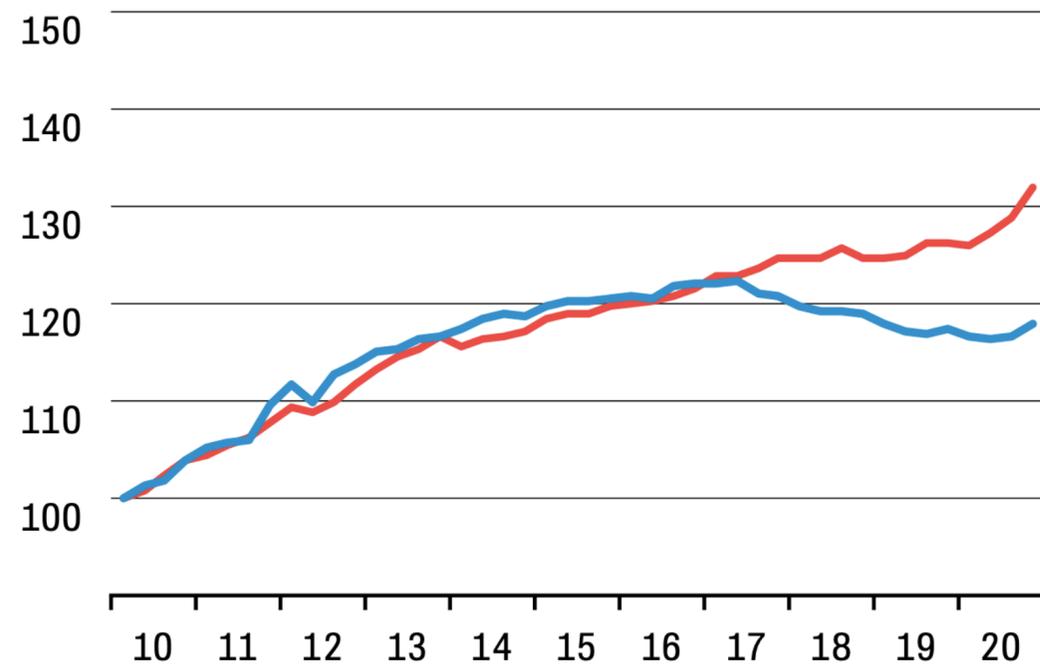
2009

bis

2022

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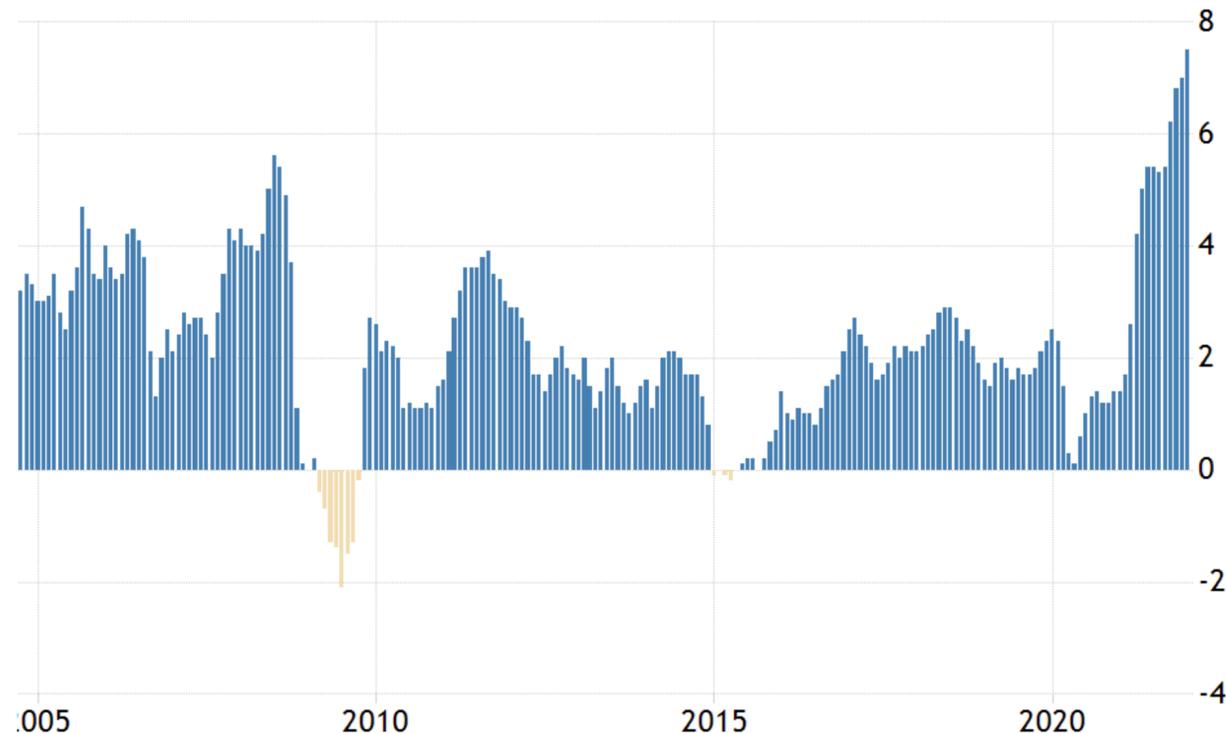
**Entwicklung der Angebotspreise (Index 1. Quartal 2010 = 100)**



— Eigentumswohnungen — Einfamilienhäuser

# Inflation: capitalism-induced or war-induced?

- Current problem in Western societies after 14 years of QE (quantitative easing = central banks creating a lot of money to overcome the crisis)
- INFLATION
- In the US Inflation has increased from 2.6% in March 2021 to 7.6% in January 2022



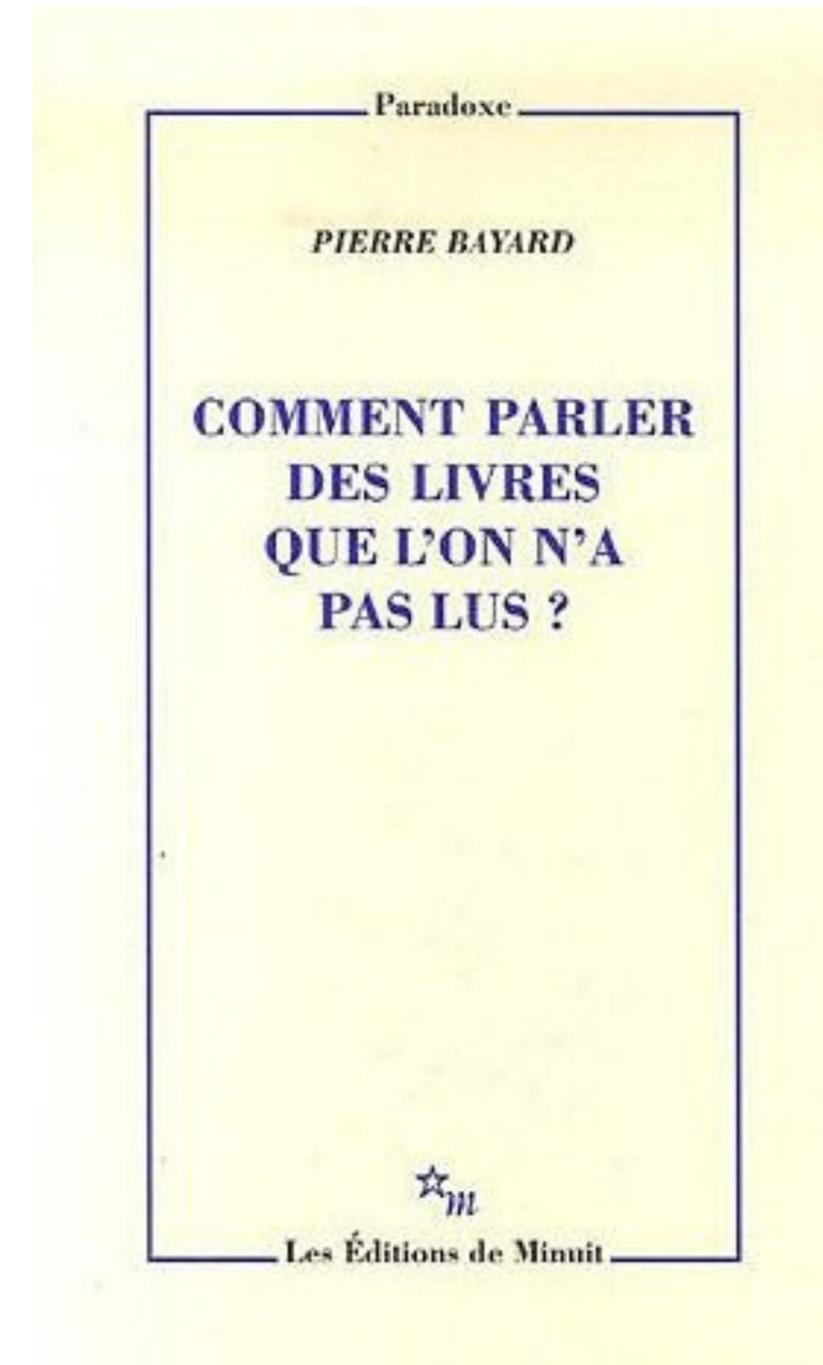
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# Free book of the week

- A book's contents are just a 'small' part of the book
- Books (i.e. their content) don't change, but their reception can change from one interpretation into its contrary
  - One has to question the contemporary reception of a book's content as much as the content itself
- Bayard sarcastically describes the social process of academics defining themselves by what they pretend to have read



# Recommended reading strategies (Bayard)

- Know the author his / her background, intellectual pedigree, his financial situation
- Know an author's other publications
- Know the contemporary reception of a book in the different intellectual / political 'camps' (when it was first published) and its current reception
- Fast read (inspect table of contents, introduction, one interesting chapter, conclusion)
- Discuss contents with colleagues
- Never admit to not having read an essential book (e.g. Adam Smith's 'Wealth of Nations')

# Clusters

- Focus on **localised concentration of certain economic activities = economic clusters**
  - Swiss watch industry, Hollywood, **Silicon valley**, Tuscan shoe maker industry, software in Bangalore, Murano (Venice) for glassware.
- Ensuing questions:
  - **How can the concentration be explained?** (see A. Marshall)
  - **What starts the concentration?**
  - **Can a cluster be ‘created’ through clever economic policy?** (see Richard Florida)

# Cluster summary

- **Clusters** (concentration of particular types of economic activity) **can only be explained using evolutionary and institutionalist approaches** i.e. by looking how the concentration evolved over time and which institutions were fundamental to start the concentration (and how the changed over time)

# How can clusters (the concentration of industries) be explained?

- Alfred Marshall's Principle of Economics (Book IV, Chapter X 'INDUSTRIAL ORGANIZATION, CONTINUED. THE CONCENTRATION OF SPECIALIZED INDUSTRIES IN PARTICULAR LOCALITIES')
- Main question: **How can the concentration be explained?**
  - When an industry has thus chosen a locality for itself, it is likely to stay there long: so great are the **advantages which people following the same skilled trade** get from near neighbourhood to one another. **The mysteries of the trade become no mysteries; but are as it were in the air, and children learn many of them unconsciously.** Good work is rightly appreciated, inventions and improvements in machinery, in processes and the general organization of the business have their merits promptly discussed: **if one man starts a new idea, it is taken up by others and combined with suggestions of their own;** and thus it becomes the source of further new ideas. And presently subsidiary trades grow up in the neighbourhood, supplying it with implements and materials, organizing its traffic, and in many ways conducing to the economy of its material.

# Cluster authors / concepts / regions

- Alfred Marshall: industrial districts, 1920, Sheffield steel production
  - **agglomeration lowers transaction costs** (cost of doing business)
  - **mutual knowledge and trust are key ingredients**
- Third Italy (Garofoli 1980s, shoes, furniture)
  - flexible production in small firms that compete and cooperate, importance of tacit / embedded knowledge
- Markusen (1996, hub and spoke concept)
  - large vertically integrated firm as coordinating agent in region (e.g. Boeing in Seattle, Airbus in Toulouse)
- Crevoisier (creative “Milieus”, 1995, watches, precision instruments)
  - informal socio-economic relationships between network members, technology “culture”

# Regional innovation systems

- Extending “hard” agglomeration effects (shared labor market, proximity of related industries) into soft socioeconomic factors (informal networks between people, sharing of knowledge, culture of doing innovation / business)
- Intrinsically, the innovation systems approaches are dynamic / evolutionary and institutionalist i.e. they underline that the current state can only be understood as a result of previous developments
  - institutions are non-codified rules, i.e. not formal laws but more “rules of the game”)
- focus on particular “industries” that are composed of (regionally) connected firms, but also extend to related industries and partners

# What starts a cluster?

- Research results
  - **clusters cannot be created ex nihilo** (from nothing) but sectoral policies in combination with generally business friendly framework conditions can spur sectoral growth
  - clusters have dimensions
    - **horizontal** (between firms active in similar fields)
    - **vertical** (between the firms and suppliers or customers)
    - **institutional** (set of mostly unwritten rules of interactions between members of cluster, including public agencies like research organizations, local governments)
    - **external** (between firms and international “scene” of competitors / newcomers)
  - cluster development is **path-dependent** and prone to ‘lock-in’ (Tampere in Finland (Nokia headquarter) was lacking in its external dimension and was overwhelmed by Apple’s iPhone)
  - Clusters exhibit **life cycles** i.e. they start, become mature and eventually decline

# The biotechnology example

- Looked at two European, regional biotech promotion initiatives
  - Genopole (Evry, near Paris)
  - BioValley (tri-national Basel area)
- Compared two European initiatives with ‘model’ region in the United States (Cambridge, Massachusetts)
- Insights
  - **Regional approaches**
    - **overrate local factors** (that can be influenced with local policies)
    - **underestimate the importance of national factors i.e. research policy that - combined with long regional trajectories - ‘start’ the concentration process**
    - **underestimate global (market) factors**
  - European policies tried to emulate (=pretend to be) their US role models. This is bound to be difficult since the underlying institutions (=culture) differ significantly.

Can a cluster be 'created': The  
concept of the 'creative class'  
by Richard Florida

# Modern cluster creation? The concept of the 'creative class' I

- jobs attract people, but 'hip' places attract creative people that then create their own jobs. One can measure and promote 'hipness' (this logic is easy to sell as policy prescription).
- Commercial logic for regional / urban development; attract the 'good' ones scare away the 'bad' ones.
- According to Richard Florida, the Creative Class is a key driving force for economic development of post-industrial cities in the United States.
- 'Along with problem solving, their work may entail problem finding'
- Florida argues that the Creative Class is socially relevant because of its members' ability to spur regional economic growth through innovation

# The rise of the creative class II

- The Creative Class is also known for its departure from traditional workplace attire and behaviour. Members of the Creative Class may set their own hours and dress codes in the workplace, often reverting to more relaxed, casual attire instead of business suits and ties.
- Inter-city competition to attract members of the Creative Class has developed.
- The three Ts: talent, tolerance and technology
- Florida and other 'creative class'-theorists have been invited to meetings of the National Conference of Mayors and numerous economic development committees, such the Denver mayor's Task Force on Creative Spaces and Michigan governor Jennifer Granholm's Cool Cities Initiative
- The Creativity Index includes four elements: 'the Creative Class share of the workforce; innovation, measured as patents per capita; high tech industry, using the Milken Institute's widely accepted Tech Pole Index...; and diversity, measured by the **Gay Index**, a reasonable proxy for an area's openness' (2002, pp. 244–5).

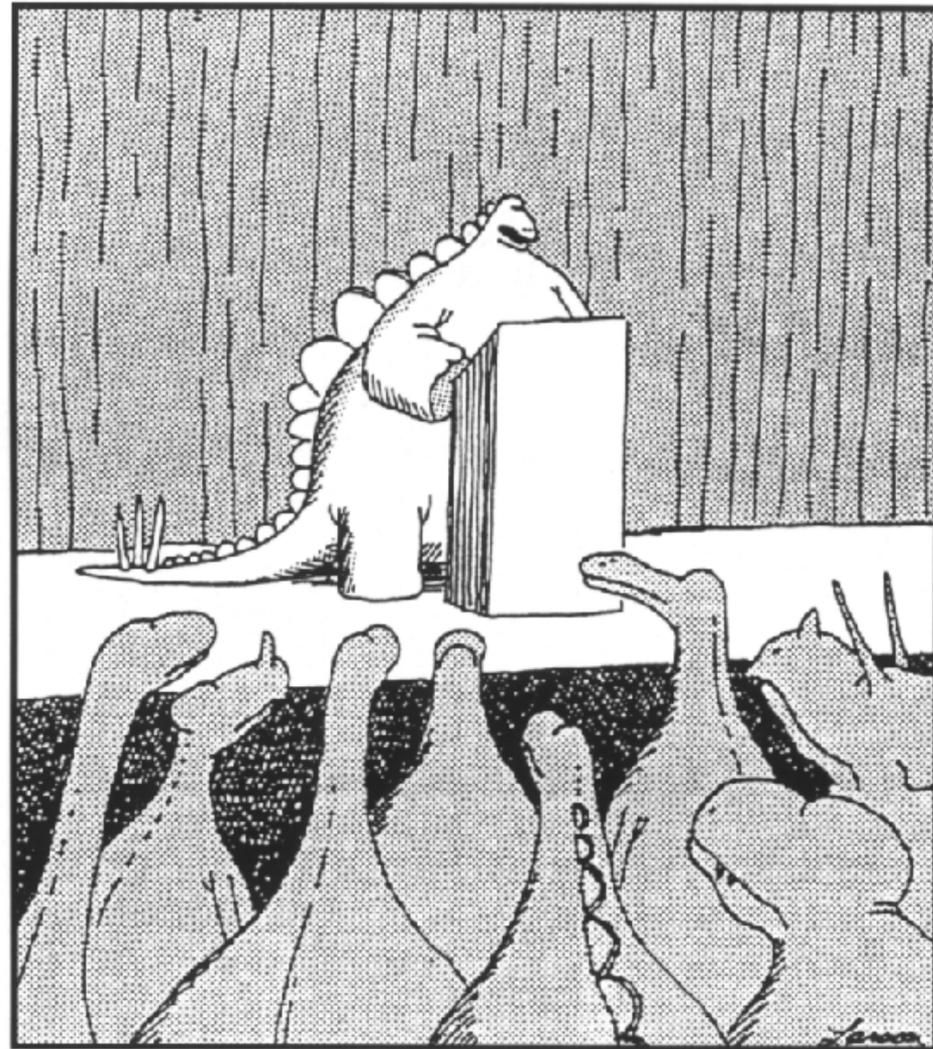
# The rise of the creative class III

- Using this index, Florida rates and ranks cities in terms of innovative high-tech centres, with San Francisco being the highest ranked (2002).
- Research involving the preferences and values of this new socioeconomic class has shown that **where people choose to live can no longer be predicted according to conventional industrial theories (such as ‘people will go to where the jobs/factories are’)**. Creative workers are no longer bound by physical products, rather working with intellectual products. Their migration to metropolitan urban areas where creative work is available is more due to the **attraction of leisure life and community** rather than actual work.
- Jamie Peck argues that the Creative Class theory offers no causal mechanism and suffers from circular logic

# Cluster summary (repeated)

- **Clusters** (concentration of particular types of economic activity) **can only be explained using evolutionary and institutionalist approaches** i.e. by looking how the concentration evolved over time and which institutions were fundamental to start the concentration (and how the changed over time)

# Evolutionary theorising and institutional approaches



“The picture’s pretty bleak, gentlemen. ... The world’s climates are changing, the mammals are taking over, and we all have a brain about the size of a walnut.”

- But first: what are institutions?

# Institutions

- **Definition by Thorstein Veblen** 1899 (Die Theorie der feinen Leute)
  - **widely common and predictable patterns of behaviour** in a society including shared 'habits of thought' as well as of action.
- **the rules of the game** OR
- **how the game is being played** (allows for different varieties)

the notion that institutions define rules for behaviour can mean either that rules set constraints or that behaviour itself follows a set of rules

# Institutions enable us to deal with strangers (Paul Seabright)

- Point of departure: how can you trust - without checking - the baker not to poison you with his / her bread?
- **What makes such cooperation (trust) possible?** The answer consists of **institutions** - sets of rules for social behaviour, some formal, many informal - that build on the instincts of the shy, murderous ape in ways that make life among strangers not only survivable but attractive, potentially even luxurious. **These rules of behaviour have made it possible for us to deal with strangers by persuading us, in effect, to treat them as honorary friends.**
- Effective institutions rely on a minimum of outside supervision, knowing that little outside supervision can make natural incentives go a long way
- Institutions are robust; robust in that those who operate within them can be trusted to do what other expect them to do...**one such robust institution ...is the institution of money**

# Trust and institutions

- Trust is prerequisite to cooperative behaviour
  - Humans are ultrasocial, can trust complete strangers through mechanism of **reciprocity** (+social control exercised through rumour). These formal (e.g. law) and informal (e.g. acceptable behaviour) **codes of conduct are called institutions.** **Institutions evolve over time, mostly only changing slowly.**

# Institutional change

- Nelson, Richard R. Technology, Institutions, and Economic Growth. First Edition. Harvard University Press, 2005.
  - book is concerned with factors that determine economic growth
  - begins by saying that neoclassical growth theory is inadequate (focusing mainly on firms and the innovative capacity)
  - underlines the importance of evolutionary theorising and refuses that market organisation necessarily is the most effective way to govern economic activity
- Pierson, Paul. Politics in Time: History, Institutions, and Social Analysis. Princeton University Press, 2004.
  - is concerned with institutional change

# How does institutional change happen?

- Notion of **critical junctures**, i.e. brief moments in which opportunities for major **institutional reforms appear** (followed by long stretches of institutional stability)
- agents for change
  - previous losers
  - **institutional entrepreneurs** (able to build coalitions for change)
- types of change
  - **layering** (co-existence of old and new, example of French biotech policy)
  - **functional conversion** (old institution new function)
  - **diffusion** (replacement)

# How does institutional change happen?

- Problem: most studies on institutional change focus on ‘triggers’ not causes
  - An adequate theory of institutional development must pay sustained attention to the issue of institutional resilience

# Obstacles to change

- Coordination problems: **difficult to coordinate potential allies around institutional alternatives** (coordinate towards something not-yet-existing)
- **Veto points** (esp. in politics): change affects many geographical scales and every scale has its political system that can prevent such change (nested rules). Politicians also try to secure their legacy by making their decisions as difficult to undo as possible (example: ObamaCare).
- Asset specificity (actors are invested in current system and therefore unlikely to overthrow it) popular expression for this phenomenon: **vested interests**
- Positive feedback; **path-dependent evolution of existing institutions makes alternatives less viable** (e.g. nobody wants to return to communism)

# Likelihood of change

- The arguments advanced here about resilience do not suggest that formal political institutions, once established, will never change, or that institutional reform will always be incremental, or that only the factors that contribute to resilience are relevant in assessing the prospects for institution revision.
- What the current analysis suggests is that **institutions will generally be far from plastic and that when institutions have been in place for a long time most changes will be incremental**

# Importance of 'routines' and dominant design

- **Routines** are ingrained processes i.e. **behaviour done without explicit thinking** (established ways of doing things)
- New routines develop through learning (if learning is shared then one calls this process 'spillovers')
  - example: business practice in biotech: moved from trying to create mass market drugs to 'designer' drugs
- As a best practice / dominant design evolves in a certain industry it becomes more resistant to change
  - e.g. **Apple did not beat Microsoft with Personal Computer, but with the iPhone**

# Evolutionary theorising

- Is **derived from biology**, has been pioneered in economics by Joseph Schumpeter in his landmark book “Capitalism, Socialism and Democracy”
  - **Schumpeter** observed that firms with new technologies first have to upset existing technologies (**creative destruction**) to establish new ones
- **Evolutionary theorising asserts** that there is **change as a result of random variations and a selection environment** (economic efficiency being one, ideology and power others)
  - planned change is usually not regarded as evolutionary
    - ‘Scientific theories are like mutations in that some will succeed and be incorporated into the body of science .. and others will not succeed’

# Evolutionary theorising

- **Technology** also **evolves in an evolutionary fashion that shows great inertia**. This explains why we use a keyboard layout that is not the most effective (QWERTY)
- **Institutional development is strongly path-dependent** (development depends on previous state)

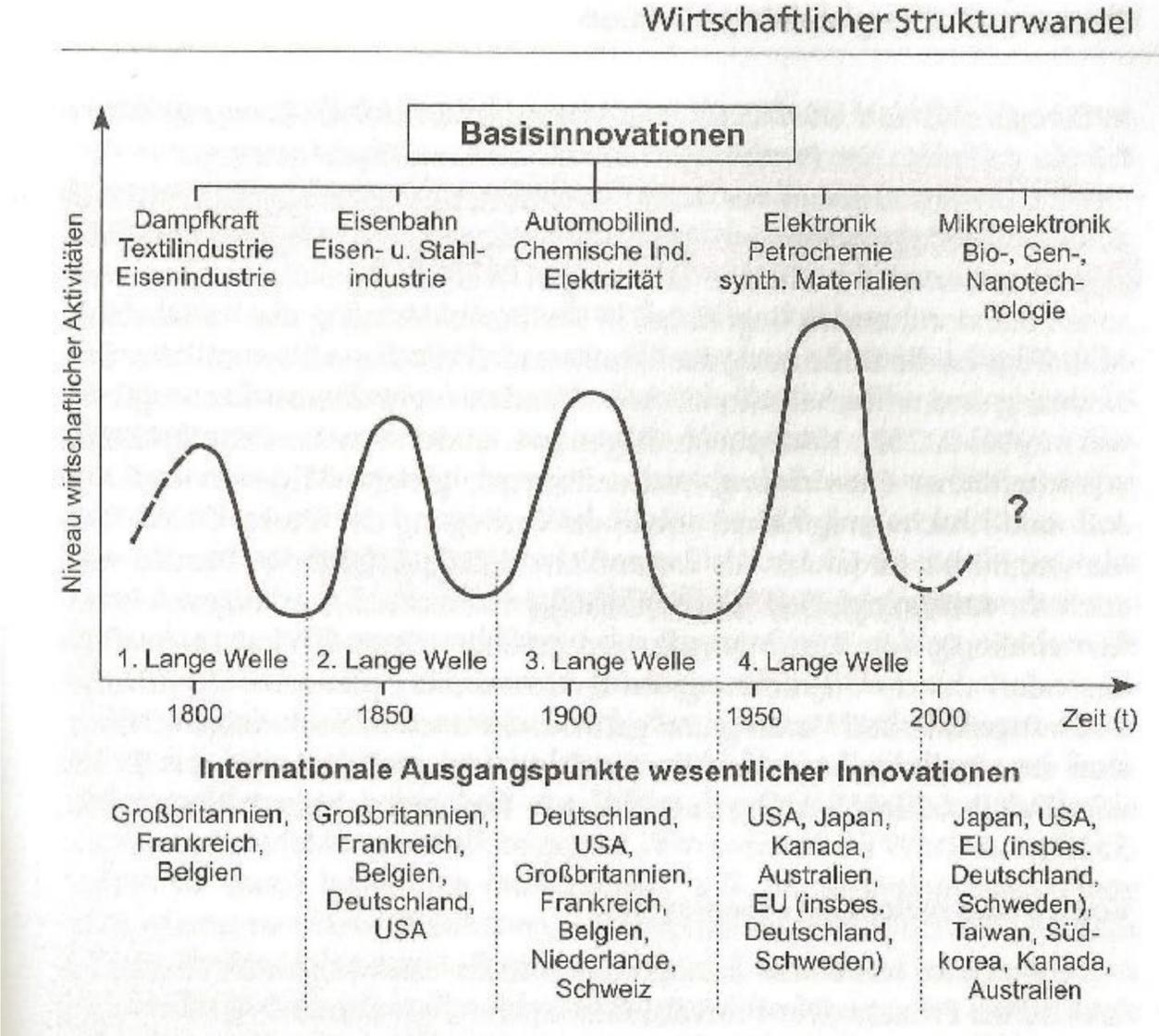
# An example of technological inertia: the QWERTY keyboard layout



# Industry / technology life-cycles

- **Industries / technology** go through phases of development, i.e. in biological terms have a **life cycle**
  - nascent / mature / declining Industry or technology
    - example: print journalism
- Technology development subject to **dynamic increasing returns (technology becomes more attractive the more it is employed)**: c.f. smartphone platforms)
- Industries and associated technologies co-evolve with institutions like
  - law (regulation intellectual property & regulation of technology)
  - education
  - labor market

# Kondratieff cycles (1926)



source: Hans-Dieter Haas, Simon-Martin Neumair. Wirtschaftsgeographie 2008

# Takeaway 3/14

- Read books ‘beyond’ contents by looking at the author’s background, intellectual / political pedigree and differentiate contemporary vs. current reception
- Evolutionary theories posit that technological or social change happen through variations and a selection environment. Change is therefore necessarily path-dependent and usually slow because of inertia.
- Institutions are rules (formal & informal) / codes of conduct that have enabled humans to trust each other and thus allow for a sophisticated division of labor. Institutions also evolve slowly and in path-dependent fashion.

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