



# Fighting Myths in Democracy Evaluation by Formal Concept Analysis Framework

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# Research Project

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- Participants: ***Maria Shabanova, Mikhail Klimushkin, Elena Shitova, Kristina Popova, Anastasia Novokreshchenova***

# Problems of Democracy Evaluation

- Conceptualization
- Operationalization
- Measurement
- Aggregation
- Visualization
- Interpretation

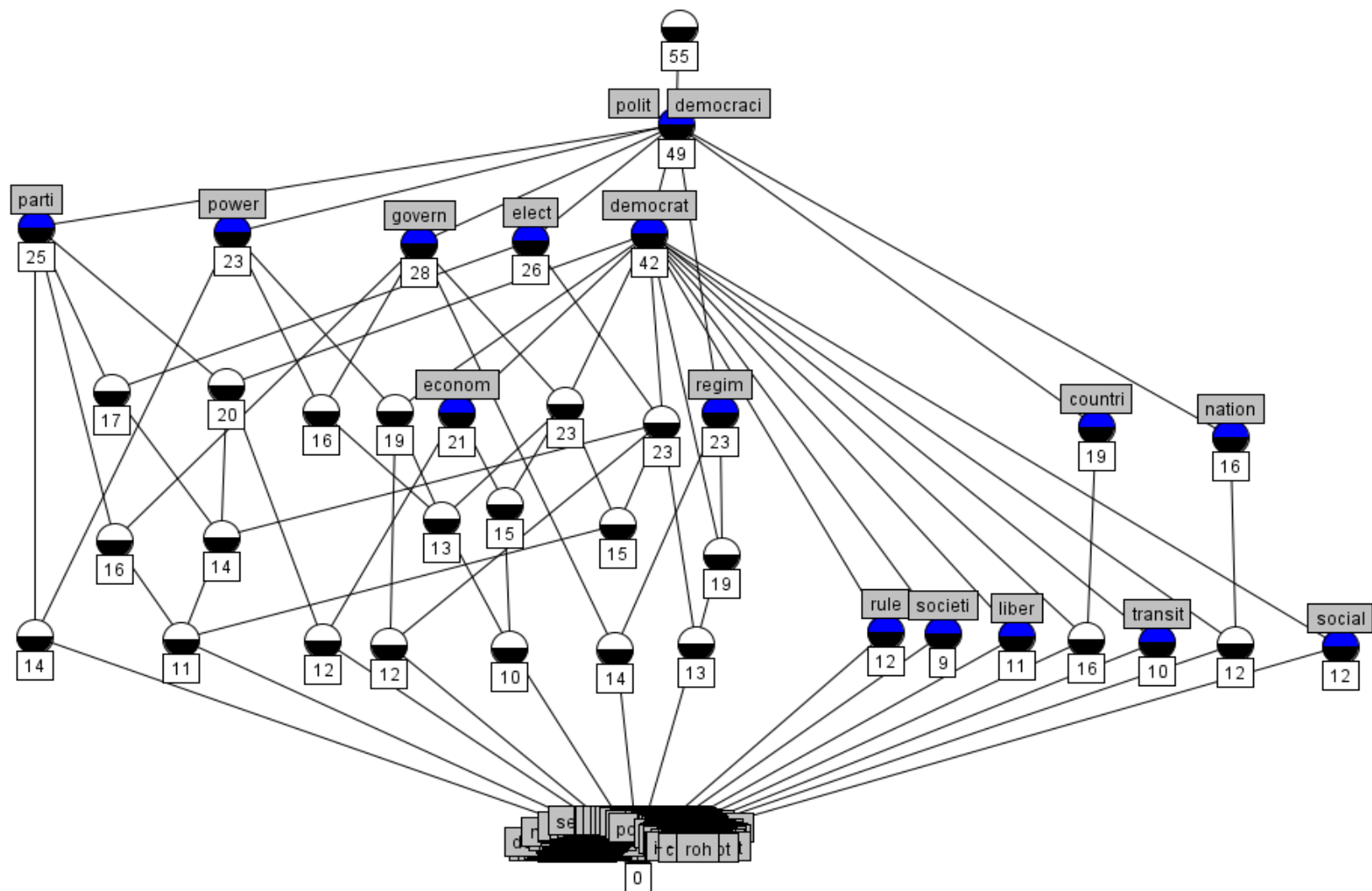
# Conceptualization (1)

- **Myth:** “Democracy is highly contested concept”
- **FCA:** Cognitive schemes

## Democracy Ratings Agencies and corresponding schemes of democracy conceptualization

Associated Meanings	Electoralist Definition	Procedural Minimum Definition	Expanded Procedural Minimum Definition	Prototypical Conception of Established Industrial Democracy	Maximalist Definition/ Conception
Reasonably competitive elections, devoid of massive fraud, with broad suffrage	Yes	Yes	Yes	Yes	Often not included
Basic civil liberties: Freedom of speech, assembly, and association		Yes	Yes	Yes	Often not included
Elected governments have effective power to govern			Yes	Yes	Often not included
Additional political, economic, and social features associated with industrial democracy				Yes	Often not included
Socioeconomic equality; and/ or high levels of popular participation in economic, social, and political institutions					Yes
© Collier D., Levitsky S., 1996  EXAMPLES OF INDEXES	Vanhanen's index of democracy	-	Polity IV Project - Fragility Index	BTI Democracy Index FH Freedom in the World FH Nations in Transit	BTI Status Index Economist Democracy Index <sup>5</sup>

# Conceptualization (2)



# Operationalization (1)

- **Myth:** “We can make one universal operational scheme for democracy evaluation”
- **FCA:** tool for the reduction of parameters



# Indices of Democracy: the challenges for operationalization (2).

## Example with “Rule of Law” parameters

- separation of powers,
- independent judiciary,
- prosecution of office abuse,
- civil rights

### BTI Democracy Index .

#### Sub-Categories: Civil Liberties

**D:** Freedom of Expression and Belief

**E:** Associational and Organizational Rights

**F:** Rule of Law

**G:** Personal Autonomy and Individual Rights

FH

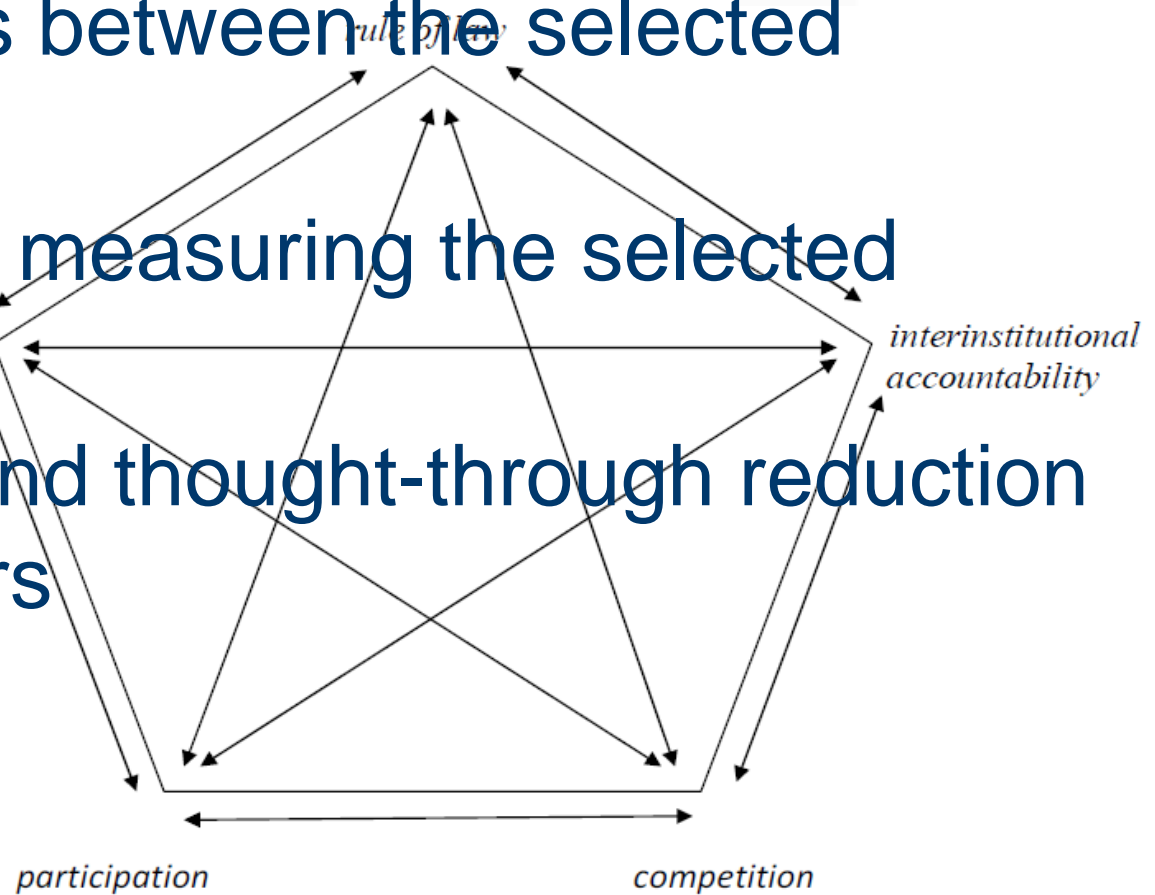
- independent judiciary,
- the rule of law prevails in civil and criminal matters,
- police under direct civilian control,
- protection from political terror,
- laws, policies, and practices guarantee equal treatment

### Freedom House Index

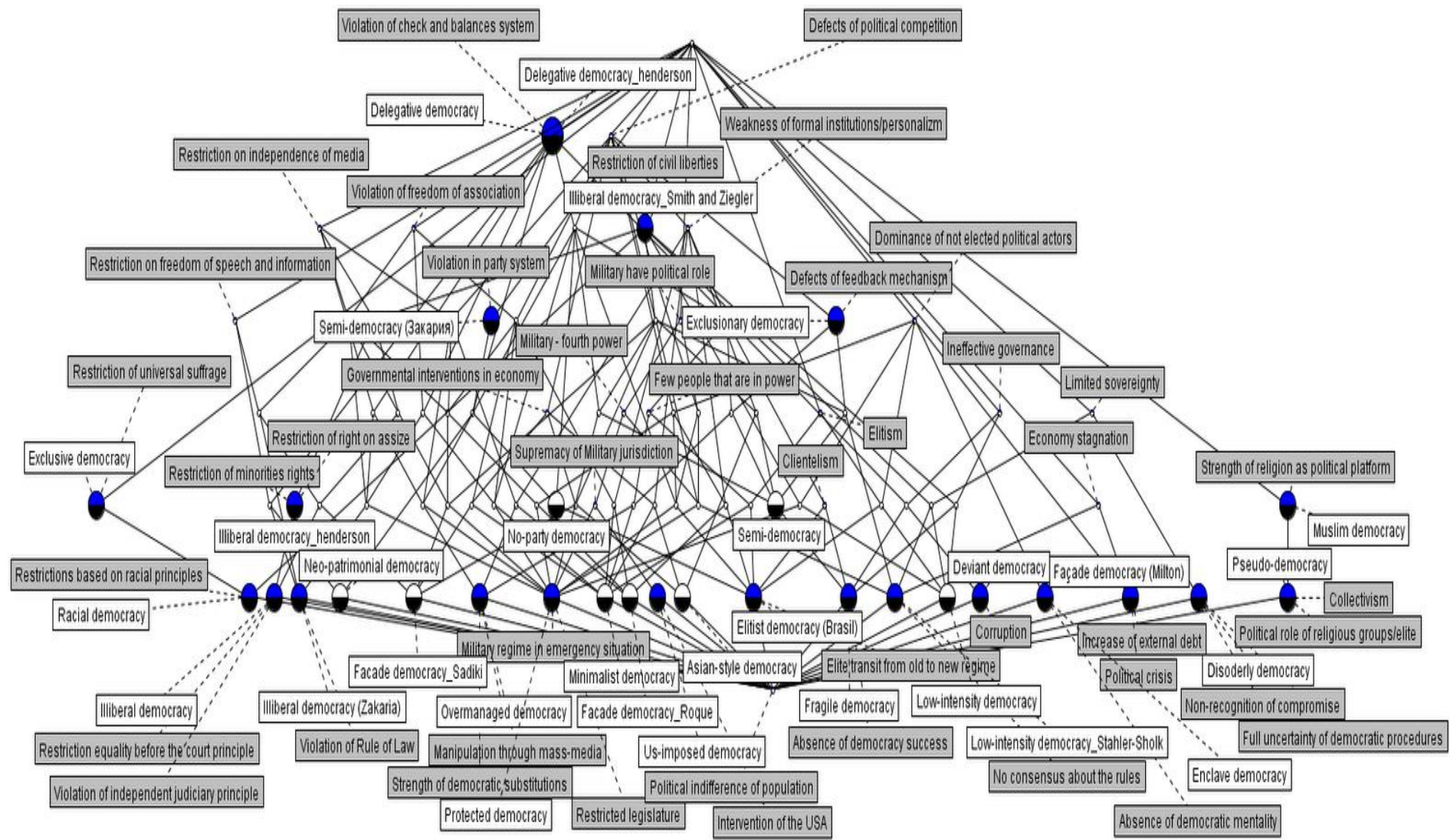


# Indices of Democracy: the challenges for operationalization (3)

- interrelations between the selected parameters
- difficulties of measuring the selected parameters
- competent and thought-through reduction of parameters



© Morlino L., 2011



# Operationalization (5)

We will count indicators as ‘core’ if they satisfy the following conditions:

- they are related to a large number of objects (concepts of ‘democracies with adjectives’), i.e. are characteristic of at least half of the concepts;
- they are premises rather than conclusions within implications and association rules

# Operationalization (6)

reduce 45 parameters of democratic development to 7:

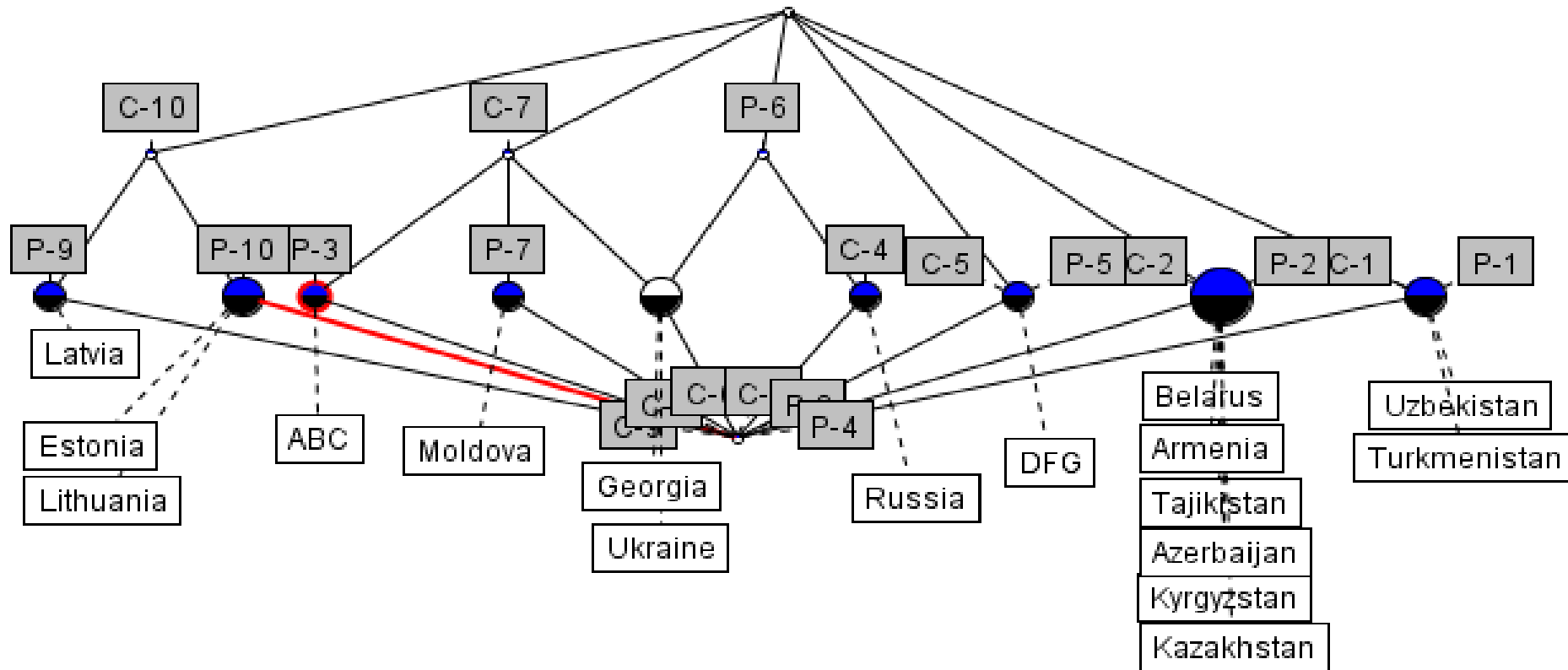
- Weakness of formal institutions / personalism
- Violation of freedom of association
- Violation of check and balances system
- Restriction of civil liberties
- Defects of feedback mechanism
- Governmental interventions in economy
- Military - fourth power

# Measurement

- **Myth:** “Averaging is only tool for data coding / calibration”
- **FCA:** tool for coding / calibration

# Coding / Calibration

**Figure 3. Lattice on Formal institutions / personalizm (BTI index)\***



\*P – Performance of democratic institutions, C - Commitment to democratic institutions

# Aggregation (1)

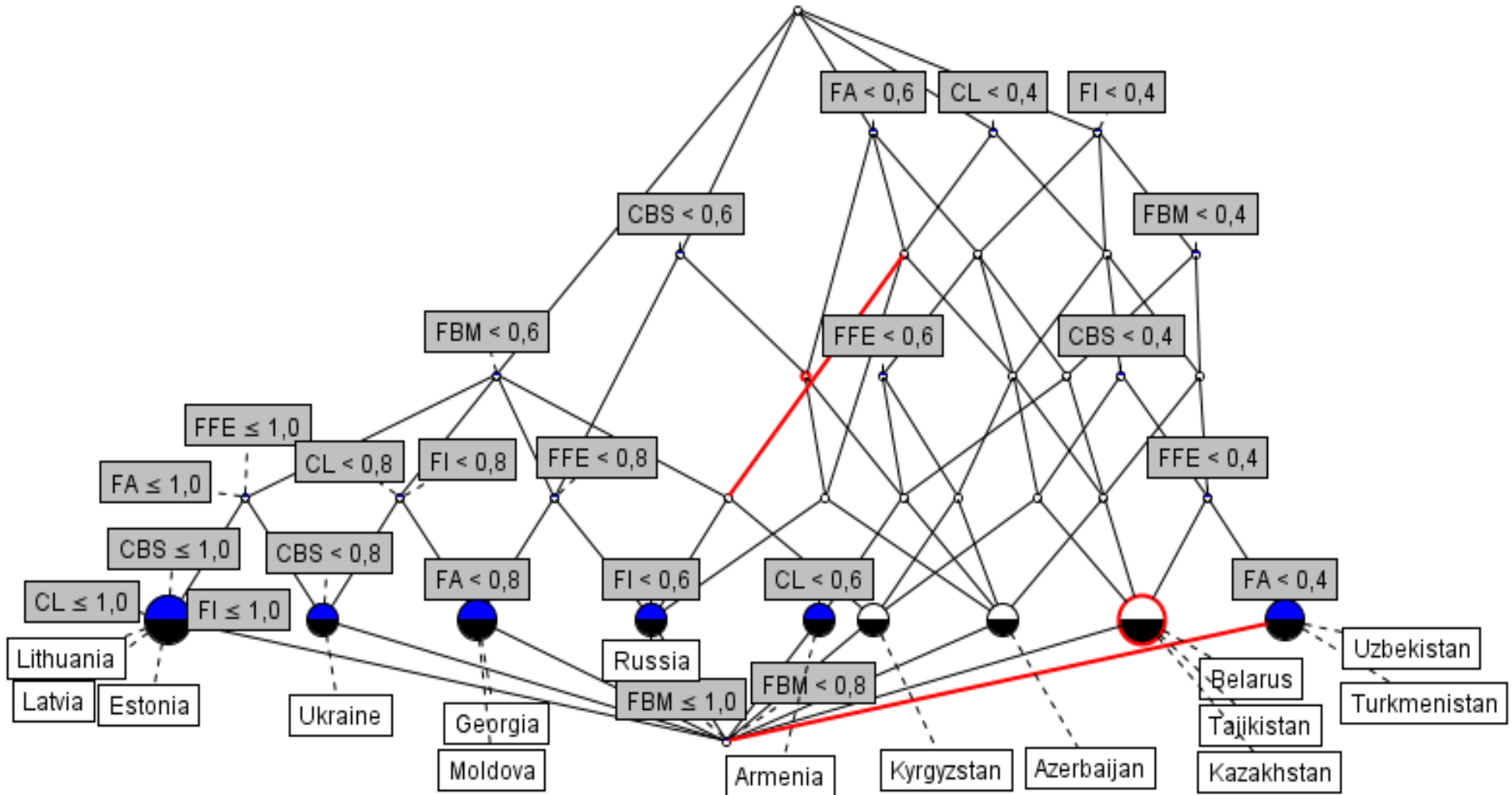
- **Myth:** “Averaging and Nomination of country groups make typology of regimes”
- **FCA:** Multilevel typologies

# Aggregation (2)

- **FH**: free, partly free, not free
- **Economist**: full democracies, flawed democracies, hybrid regimes, authoritarian regimes
- **Autocracies** (7 - Kyrgyzstan, Azerbaijan, Kazakhstan, Tajikistan, Belarus, Uzbekistan, Turkmenistan)
  - Soft autocracies** (2 - Russia, Armenia)
  - Defective democracies** (3 - Ukraine, Moldova, Georgia)
  - Full democracies** (3 - Lithuania, Estonia, Latvia)



# Aggregation (3)



\**FFE - Free and Fair Elections, FI - Formal Institutions/personalizm, FA - Freedom of Association, CBS - Checks and Balances System, CL - Civil Liberties, FBM – Feed Back Mechanism*

# Visualization

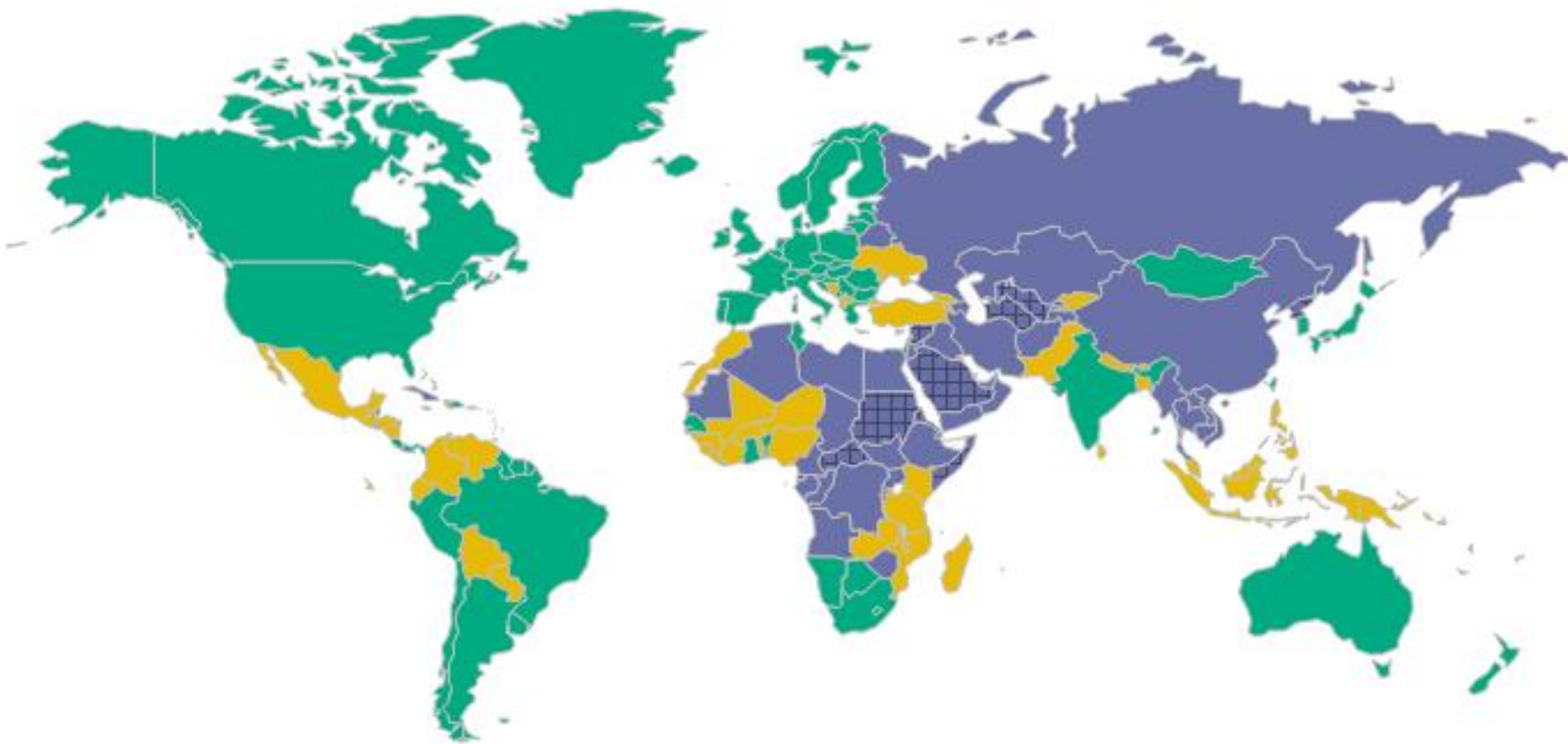
- Traditional ways of visualizing ratings of democratic development are
- (1) the tables with integral (average) scores where countries are indexed according to this score (the rating per se);
- (2) maps with color table for certain scores or groups of scores which are based on an interval scale;
- (3) diagrams, typically for demonstration of rating dynamics;
- (4) leaf diagrams which show profiles of the index for different countries

Table 2

## Democracy Index 2014

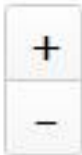
	Rank	Overall score	Electoral process and pluralism	Functioning of government	Political participation	Political culture	Civil liberties
<b>Full democracies</b>							
Norway	1	9.93	10.00	9.64	10.00	10.00	10.00
Sweden	2	9.73	9.58	9.64	9.44	10.00	10.00
Iceland	3	9.58	10.00	9.29	8.89	10.00	9.71
New Zealand	4	9.26	10.00	9.29	8.89	8.13	10.00
Denmark	5	9.11	9.17	9.29	8.33	9.38	9.41

# Freedom in the World 2015



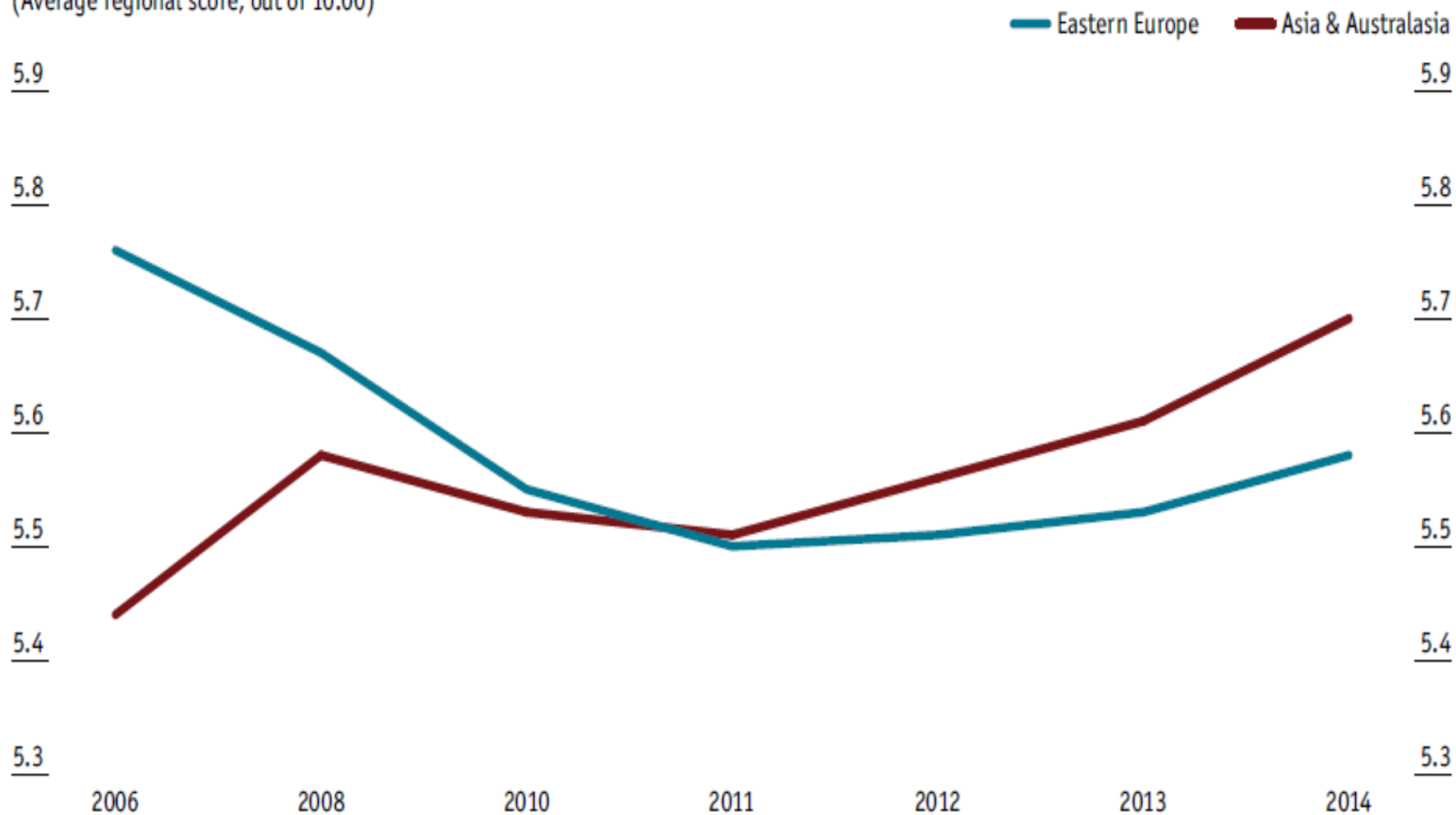
## Freedom in the World

Free    Partly Free    Not Free    Worst of the Worst

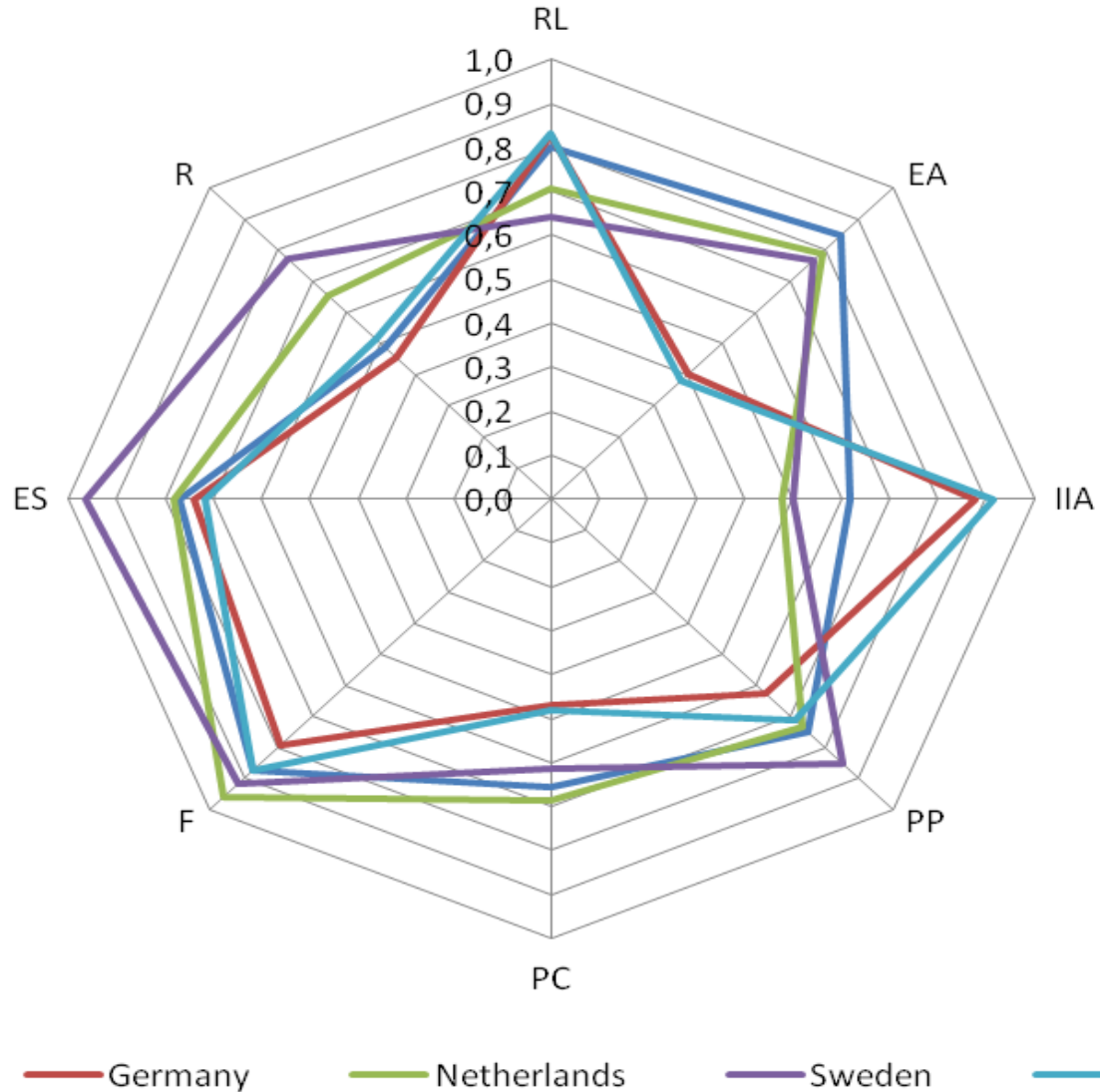


## A tale of two regions, 2006-14

(Average regional score, out of 10.00)



Source: The Economist Intelligence Unit.



**Legend:** RL = Rule of Law; I-IA = Inter-Institutional Accountability; EA = Electoral Accountability; PP= Political Participation; PC = Political Competition; F = Freedom; ES = Equality/Solidarity; R = Responsiveness.

**Source:** Morlino and Quaranta, *TODEM Data set (2010)*.

# Interpretation (1)

- **Myth:** “which countries are democratic, and which are not”
- **FCA:** Road maps

# Interpretation (2)

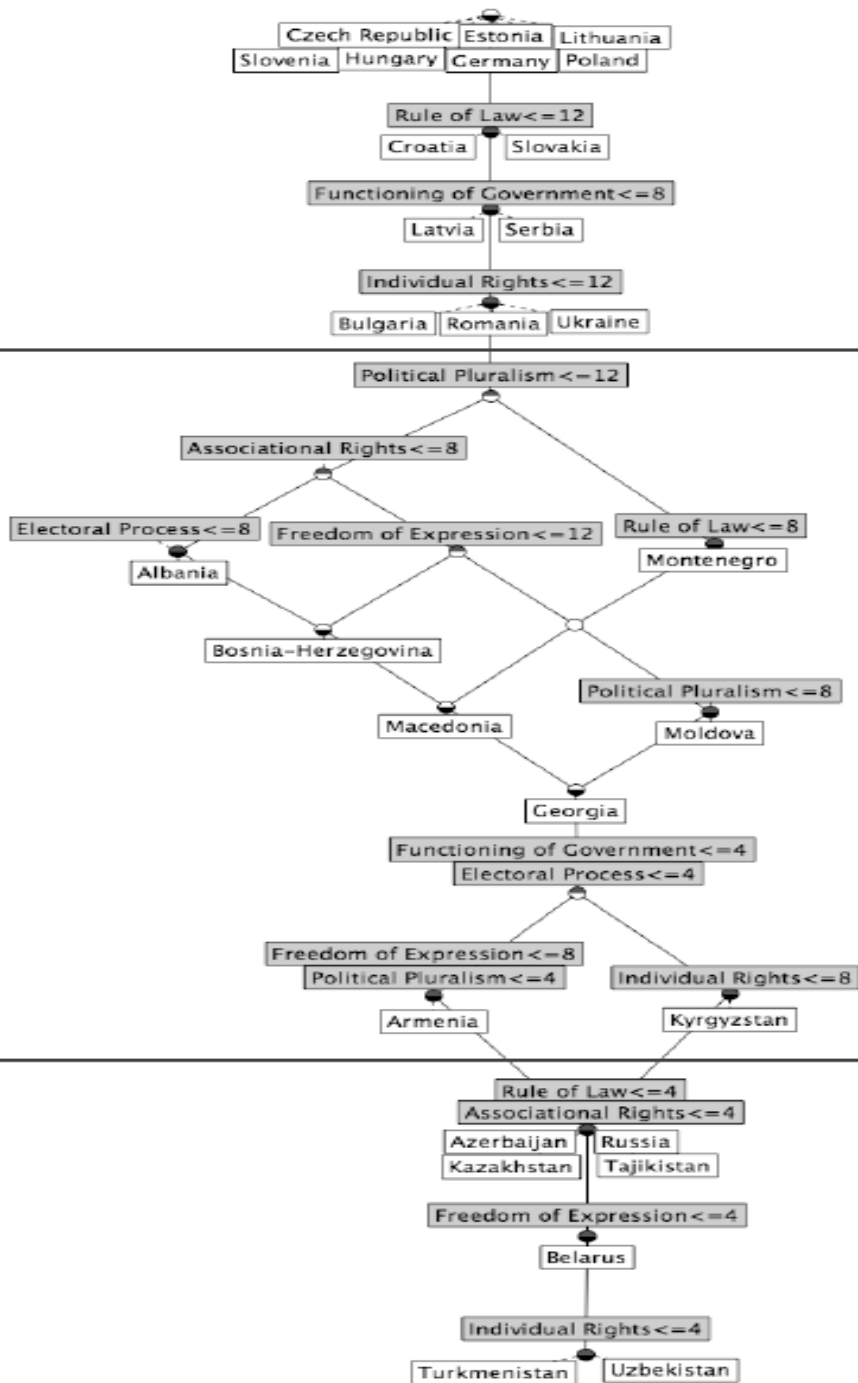


Figure 6. The line diagram of the concept lattice of the 2009 “Freedom in the World” rating divided into three parts corresponding to the Free (top), Partly Free (middle), and Not Free (bottom) categories

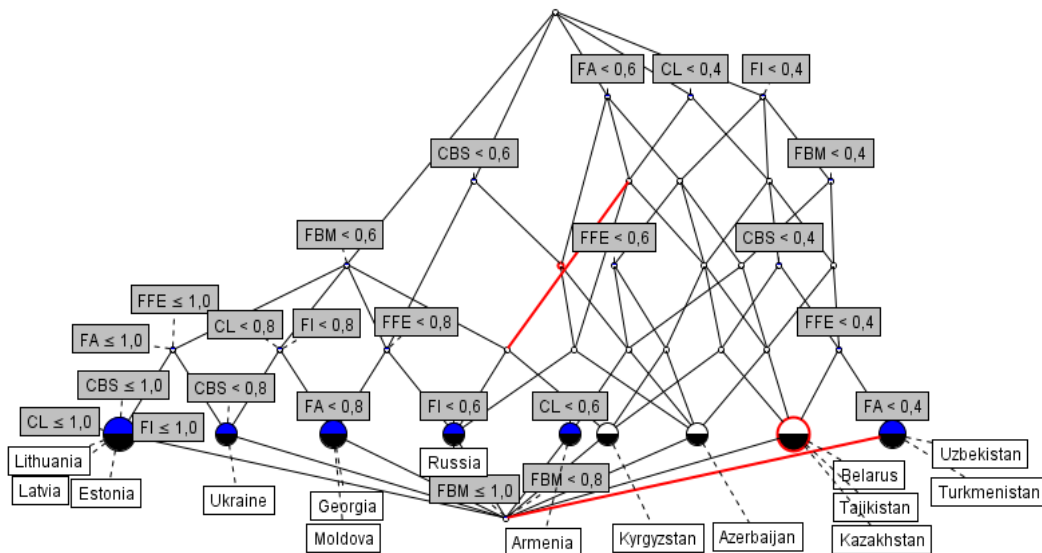


# Interpretation (3)

Figure 6 suggest a particular order in which parameters disintegrate with the decline of democracy

1. Decline Functioning of Government and Electoral Process
2. Regress in Associational and Organizational Rights, Political Pluralism and Participation, and Rule of Law
3. The last to be restricted are Personal Autonomy and Individual Rights and Freedom of Expression and Beliefs.

# Interpretation (4)



**FFE < 0,4 →**  
**FI < 0,4**  
**CBS < 0,4**  
**CL < 0,4**  
**FBM < 0,4.**

*That is, if the principle of free and fair elections is violated, almost all other parameters of democracy are diminished (except the freedom of association which, as we saw on the lattice, is the last to be discarded).*

# Conclusion

## **TO sum up FCA's knowledge discovery potential:**

1. it allows to create 'fuzzy' typologies of objects and properties
2. it allows to see implications (relations between the indicators); to verify hypotheses about dependent variables, including complex interrelations which involve several factors and addition of new ones
3. it allows to define "core" attributes which are not very general and not very unique parameters, which can differentiate objects into several groups/types
4. it provides opportunity for defining the paths of socio-political changes, within the paradigm of multi-path political development (alternative to the theory of path dependency)
5. It helps to formulate theoretical hypotheses, thus, supporting the process of scientific discovery
6. to compare ratings coming from different sources (such as Freedom House or Economist Intelligence Unit etc.)



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Thank you  
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