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# Federation, Centralization or Subordination? The role of the Economic Justification and the Interdependence Complexity for the Transformation of Agricultural Cooperatives.

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## Research objective

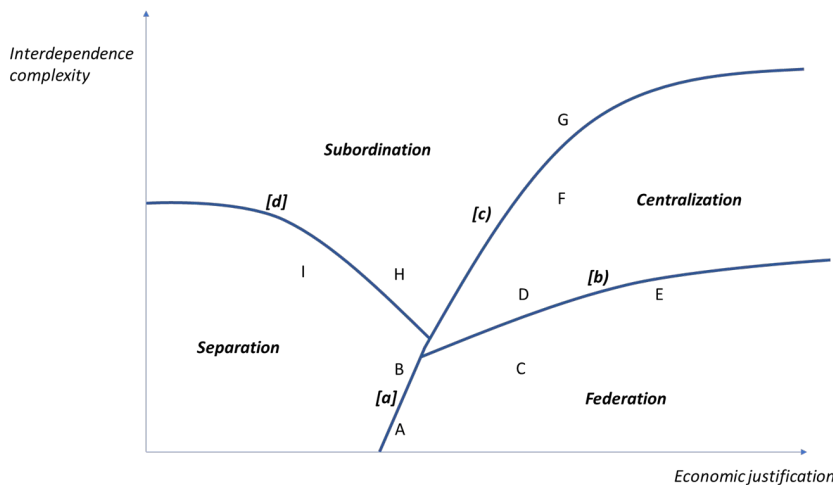
To provide an analytical framework to analyze the dynamic of centralization, mergers or dissolution of cooperative federations

## Theoretical framework

- The property rights perspective on cooperative governance (Cook, Hansmann): cooperative ownership costs increase with heterogeneity
- The transaction cost approach of cooperative governance (Menard): complexity implies more centralization and hierarchy when complexity increases
- The corporate finance approach of governance by large owners (Edmans): coalitions of large owners are the best performing governance structure

## Model

**Figure 1. Economic justification, interdependence complexity, and governance structure**



Federations are formed when the incentives related to a stronger economic justification (or threat of exit) are stronger than the disincentives related to interdependence complexity. This is captured by **segment a**.

Federation is an efficient structure (point C) until a certain degree of interdependence complexity where centralization becomes a better option (point D). This is captured by **ray b**.

A high level of interdependence complexity will ultimately require leadership of an external authority, i.e. subordination (point G). This is captured by **ray c**.

At last, **segment d** captures the idea that local cooperatives can see subordination as a way to internalize the benefits of coalition by an external authority able to manage the horizontal coordination when interdependence complexity is high.

## Result

Table 1. A framework to analyze governance changes of cooperative federations

Step 1: Initiation	Step 2: Setting	Step 3: Interdependence Complexity Dynamics	Step 4: Economic Justification Dynamic	Step 5: Governance change	Step 6: Final outcomes
Identify the primary reason for the coalition. Why do cooperatives form an alliance?	Interdependence complexity starting point: Describe the interdependence complexities related to the first investment decisions.	i. Asset-related complexities: Identify the investment decisions that have increased heterogeneity among members. ii. Organizational responses: Identify the strategies or behaviors regarding the shared assets and/or interdependences	i. External forces: How the environment fosters or weakens the need for the coalition? ii. Internal forces: Identify the decisions taken to reduce or foster the need for a coalition, by members or managers	Identify the trajectory and the expected outcome (use figure 1). Appraise the tension between the actual and the expected outcome.	Analyze the successes and failures of the actual outcomes. How does the story inform the theory?

## Application and conclusion

The application on 5 in-depth case studies and cases illustrative of the dynamic of cooperative structures in the last fifty years show how the mapping of internal and external forces reinforcing or weakening (intentionally or not) the economic justification for federations and the interdependence complexity among the cooperatives of the federations enables to predict the becoming of cooperative federation. The model can be used by cooperative leaders to think of the degree of centralization or decentralization required to optimize decision-making for their different activities. The analytical framework can be used by researchers on cooperative governance to identify the mechanisms that may shape the governance of cooperative structures.