

Reconstructing Workers' Practical Capabilities during Conversion to Worker Cooperatives

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Abstract

Conversion to worker ownership can initiate a consequential change in authority while leaving substantial work to reconstruct the conditions of practical participation. This paper develops a conditional account of that reconstruction in worker cooperatives. It distinguishes ownership, organizational survival, workers' capabilities, operational authority and the distribution of burdens. A revised process profile records preparation, transition, receiving conditions, reconstruction and persistence through paired comparisons and partial orders. Verified capability, freedom and institutional-transition literature supplies philosophical antecedents, while selected studies of worker buyouts provide bounded empirical confrontation. A small formal model derives the reserve needed to sustain a dated reconstruction path and shows how equal final resources can coexist with different transition requirements. A scenario extension separates a plan selected before uncertainty resolves from a choice that presupposes later information. These accounting results concern one enabling condition and leave the normative assessment of authority and affected interests explicit. Constructed comparisons, objections and a prospective research design examine support, learning, membership, backsliding and viable alternatives to firm continuation. The paper proposes a revisable framework for discussing liberatory aspects of organizational change, with wider empirical validity and the adequacy of its normative premises remaining open.

Keywords: worker cooperatives; organizational conversion; practical capabilities; institutional reconstruction; transition resources; worker participation

Research Purpose and Scope

This note states the purpose of circulation, the status of the argument, and the role of research assistance. The paper presents current insights for criticism and wider discussion in public and scholarly settings. It makes no claim to conceptual priority. Similar concepts and arguments may already exist in other disciplines, languages, and intellectual traditions; further comparison may alter the terminology, scope, or contribution.

Definitions organize a bounded inquiry. Conditional formal results carry their stated assumptions, and illustrative cases support conceptual analysis. Empirical validation, wider applicability, and the adequacy of proposed normative premises remain open where the main text identifies those obligations. Relational analysis supplies a method of investigation while stronger ontological questions remain suspended.

AI assistance contributed to source discovery and pre-use verification, argumentative development, formal checking, organization, and drafting. The accompanying project records distinguish retained research insights, newly proposed analysis, and verified literature. The manuscript is prepared for the author's review; circulation and submission decisions remain with the author. Critical responses concerning antecedents, assumptions, counterexamples, and alternative formulations are welcome.

DRAFT

1 Introduction

This paper examines the reconstruction of workers' practical capabilities during conversion to worker cooperatives. The inquiry concerns the period in which ownership and governing arrangements change, the conditions that make the new arrangements usable, and the subsequent distribution of opportunities and burdens. It combines conceptual analysis, a bounded confrontation with verified literature, explicit normative premises and a small formal treatment of dated resource requirements. The aim is to clarify the conditions under which a transition can acquire a defensible liberatory significance.

A conversion can change who possesses an ownership interest or a vote. Workers may nevertheless need time, information, skills, relationships and material support to exercise the resulting authority. The organization must also maintain activities through the transition, and its strategies can affect people who never become members. These considerations make the event of transfer one moment within a longer inquiry. A successful legal or administrative event has a specific significance; the practical developments surrounding it require their own descriptions.

The focal object is a worker's practical capability to initiate, sustain, alter or discontinue a valued activity within a defined domain and horizon. In an organizational setting, such activities can include carrying out work competently, learning another task, participating in a consequential decision, challenging a proposal or pursuing an alternative livelihood. The selection of valued activities requires justification. The manuscript's use of capability therefore remains connected to identified people and purposes, rather than to an aggregate measure of organizational output.

1.1 The process question

The central question concerns the relation between a transfer of authority and the reconstruction of its enabling conditions. An organization can retain production while some workers lose meaningful options. It can encounter a temporary fall in output while workers develop more effective control over their work. A member group can gain authority while shifting risks onto nonmembers. These are different possible developments, and an adequate process account should preserve their differences.

The proposed analysis distinguishes preparation, transition, receiving configuration, reconstruction and persistence. These terms identify roles within an inquiry. Actual phases can overlap, recur or develop at different rates for different people. Preparatory learning may continue after a formal transfer; a financing relationship may be renegotiated repeatedly; new members may enter an arrangement that earlier members helped create. The sequence provides a way to ask more precise questions about change without prescribing a universal organizational history.

The paper also distinguishes the accessibility of a transition from the quality of its destination. Making a change possible can be valuable, while the resulting arrangement still requires material support and public justification. An account of liberation must therefore examine both the change in practical opportunity and the terms on which the new opportunity is maintained. The significance of a successful transition cannot be read from its occurrence alone.

1.2 Contribution and scope

The contribution has three components. First, a typed reconstruction profile separates objects that are often compressed into a general claim of success: capability, exit, persistence, revision, authority, distribution and new reliance. Second, a conditional normative argument identifies reasons for describing a specified aspect of change as liberatory. Third, a transparent resource model shows how the order of required support can matter even when final financial totals agree.

The formal construction has a deliberately limited role. Money is treated as an accounting quantity associated with dated payments and receipts. Workers' capabilities, freedom and worth remain distinct objects. A reserve sufficient for one modeled path establishes that path's cash feasibility under its assumptions; the adequacy of its governance, working conditions and consequences requires further judgment. This separation keeps the mathematics useful without allowing it to dominate the philosophical

argument.

The empirical contribution is a bounded reading of selected worker-buyout research. The manuscript reports no new fieldwork or general causal estimate of cooperative conversion. Its constructed enterprise and financing examples are explicitly hypothetical. A prospective research design specifies the evidence needed to apply the profile and evaluate its usefulness. Later historical or legal applications would need independently established cases, sources and institutional scope.

The argument proceeds from antecedents and domain distinctions to the reconstruction profile and its normative premises. The resource and uncertainty sections then develop the limited formal results. The remaining discussion examines learning, authority, persistence, objections and open research. Each component retains the assumptions through which it contributes to an assessment.

2 Capability, Freedom and Institutional-Transition Antecedents

This section establishes the philosophical comparisons that inform the reconstruction account. The discussion distinguishes capability from achievement, susceptibility to power from observed intervention, and institutional desirability from viability and practical realization. It then states how these antecedents constrain the present proposal. The comparisons remain selective and confer no claim of conceptual priority.

2.1 Capability and the informational basis of evaluation

Sen's 1985 lectures distinguish well-being and agency, examine the conversion of resources into functionings, and treat capability in terms of reachable functioning vectors. The inspected discussion also recognizes the usefulness of incomplete partial orderings[3]. These distinctions support an evaluation of practical opportunities that retains plurality and individual circumstances. The present temporal reconstruction profile is a proposed specialization developed for this inquiry.

The application to worker conversion begins with the difference between possessing a resource and being able to use it for a valued purpose. An ownership interest can be relevant, but its practical consequences depend on institutional and personal conditions. Access to a financial report can be useful, while the time and competence needed to interpret it may be unequally available. A vote can count equally under a rule while the ability to place an issue on the agenda remains uneven.

The distinction between capability and achievement also changes the interpretation of continuity. Two workers can perform the same task while having different opportunities to learn, revise the process or leave it. Conversely, a worker can choose a stable role from a wider repertoire. Evaluating opportunity requires evidence about feasible alternatives and the conditions of choice, rather than an inference from an observed change or its absence.

Agency introduces a further consideration. Workers can value commitments that extend beyond their own immediate advantage, including obligations to colleagues or a community. A collective decision can therefore involve meaningful sacrifice. The present analysis asks that the relevant commitment and its conditions remain available for interpretation; it leaves room for disagreement about its weight and the distribution of its costs.

2.2 Susceptibility to power and operational authority

Pettit's opening discussion of freedom as antipower contrasts a focus on actual interference with concern about defenseless susceptibility to another's arbitrary power[2]. This supplies a narrow antecedent for examining the terms under which support or permission remains available. The manuscript's local conditions concerning review and worker authority are proposed here; they do not reproduce a complete republican theory.

In the cooperative setting, a financing or technical relationship can provide an enabling condition while also allocating decision power. The fact that the external actor rarely intervenes leaves the terms

of that power relevant. At the same time, an agreement can include legitimate, limited and reviewable conditions. The inquiry should identify the actual authority, its scope, the available checks and the consequences of disagreement before evaluating the relationship.

Operational authority concerns what a person or group can effectively do within an institution. It includes receiving intelligible information, initiating a proposal, questioning an account, participating in a decision and seeking revision. These functions can be distributed across roles. Their distribution need not make every worker responsible for every task, but it should remain compatible with the purposes through which the governing arrangement is justified.

2.3 Desirability, viability and practical realization

Wright distinguishes desirability, viability and achievability in his account of emancipatory social inquiry. The inspected pages treat viability as dependent on social conditions and recognize that understandings of possible change can enter the process of transformation[5]. This comparison supports the separation of a defended destination, its functioning under stated conditions and a route through which it can be reached.

The present framework applies that distinction to the reconstruction interval. A receiving arrangement can be attractive and potentially sustainable while the available path toward it lacks necessary support at an earlier stage. Another arrangement may be easy to establish and durable while offering workers little meaningful authority. Treating these cases separately helps identify which question a resource, institutional or normative proposal is intended to answer.

The separation also limits claims of inevitability. A desirable organizational form can fail under a particular financing arrangement. A viable form can become feasible through institutional support that was previously absent. Workers can revise their understanding of a destination through participation in creating it. The framework therefore treats possibility as historically conditioned and empirically investigable, while preserving the distinction between a credible proposal and an established outcome.

2.4 The proposed synthesis and its limits

The synthesis combines these antecedents without reducing them to one definition of liberation. Capability informs the relevant opportunity space. The power comparison directs attention to the terms of control and dependence. The transition distinction separates desirability, functioning and practical passage. The present argument then supplies additional premises about affected standing, protected interests and revisability.

Those premises remain open to criticism. A capability gain can coexist with an objectionable distribution of authority. A stable and participatory organization can impose burdens on people outside its membership. A defended institutional commitment can restrict a member's short-term choices. The analysis retains these tensions through a profile and conditional judgments rather than assigning a universal scalar value to generativity or freedom.

3 Worker-Cooperative Conversion and Evidence Scope

This section identifies the organizational domain and the empirical role of the selected literature. It separates ownership and control from practical participation, summarizes two bounded research contributions, and states the limits of the manuscript's constructed cases. The objective is to establish a concrete setting without presenting an illustrative model as a completed institutional study.

3.1 Conversion and its distinct objects

For the present inquiry, conversion concerns a transition through which workers acquire ownership and governing roles in an enterprise organized as a worker cooperative. The exact legal form, membership conditions and decision structure must be specified in any application. Financially distressed rescues

and conversions of continuing successful firms can present different initial conditions. The manuscript develops a conceptual comparison across that bounded class, while leaving jurisdiction-specific legal analysis open.

The relevant objects include the enterprise, its governing relations and the people whose work and lives it affects. Organizational continuity is important because it can maintain livelihoods and shared infrastructure. It remains one evaluative coordinate. A worker's opportunity to pursue a viable alternative can improve even if the enterprise later closes, and a surviving enterprise can leave some workers in a worse position. The profile must therefore identify its bearer before interpreting persistence.

Membership also changes the composition of the relevant groups. Some workers may become owners, others may decline membership, and later entrants may receive different terms. An assessment that follows only continuing members can miss burdens borne by people who leave or remain outside ownership. These possibilities motivate a longitudinal record that retains entry, exit and differences in role.

3.2 Support environments and conversion research

Vieta, Depedri and Carrano's 2017 report situates Italian worker buyouts within relationships involving workers, public institutions, cooperative finance and wider networks. Its organizational survey obtained 24 responses and is explicitly described as illustrative rather than fully representative[4]. The report provides a historically bounded context for examining enabling relationships. The present paper uses neither its descriptive patterns as universal causal results nor its legal discussion as current statutory guidance.

This context motivates a comparison between the amount of support and its institutional form. A resource can arrive too late, be tied to an unusable procedure or require authority conditions that change the destination. Alternatively, continuing external support can make meaningful worker control more secure. The relevant question concerns the configuration and terms of the relationship, including its timing, rather than an ideal of complete organizational self-sufficiency.

3.3 Member gains and nonmember burdens

Bretos, Ridley-Duff and Wren study two financially sound Mondragon conversions through 58 semi-structured interviews and archival material. They report later gains in owner-member autonomy and learning alongside exclusion and inferior conditions for nonmember temporary workers, interpreting the combination through an emancipation–exploitation tension[1]. The selected cases and partly retrospective accounts support a bounded confrontation with a member-centered success narrative; they establish no inevitable trajectory for all cooperatives.

The distinction between an author's empirical interpretation and the present framework matters here. The authors' classifications retain their stated evidential basis. Their research supplies a substantive challenge that the proposed profile should be able to retain: a gain for one group can depend on arrangements that burden another. An organization-wide declaration of liberation would require an argument addressing that distribution.

The cases also make time important. A formal transfer and a later practical change can occur at different points. Learning, recurring participation and institutional development can alter how authority is exercised. Studying only the transfer event can miss that development; studying only later continuing members can miss conflict, departure or exclusion during the interval. A process account needs both forms of evidence.

3.4 Constructed cases and prospective application

The later path comparisons use a fictional enterprise with specified financial flows and authority conditions. Their purpose is to isolate logical relationships under transparent assumptions. They supply no estimate of a typical conversion budget, no observed financing practice and no empirical claim about a named cooperative.

A prospective application would need dated support records, applicable institutional rules, accounts from differently situated workers and evidence concerning feasible alternatives. It would also need to distinguish the researcher's evaluative specification from participants' own interpretations. The present manuscript establishes the framework through which that material could be examined, while keeping the empirical completion of the study open.

4 A Typed Reconstruction Profile

This section defines the objects of reconstruction and a profile for comparing arrangements through time. Working definitions precede the comparison table. The discussion then addresses baselines, temporal evidence and the interpretation of return and dependence. The profile preserves distinct judgments without assuming a common numerical scale.

4.1 Capability and receiving conditions

The following definitions distinguish the worker's repertoire, its enabling configuration and the process of changing that configuration. Their terms identify a domain and comparison for subsequent evaluation.

Definition 4.1 (Practical generative capability). For an identified worker, domain and horizon, practical generative capability is a repertoire of viable trajectories through which that worker can initiate, sustain, revise, transmit or discontinue a valued practice under specified conditions.

The definition identifies a temporal object. A trajectory includes the relevant sequence of actions and conditions, and its viability rule must be stated. Learning a task may require a period of supported participation. Exercising a governing role may require repeated access to intelligible information and an effective response route. The repertoire concerns feasible developments, while the value assigned to them depends on an evaluative specification.

Definition 4.2 (Receiving configuration). A receiving configuration is the set of material, relational and institutional conditions encountered or co-created when a transition changes a worker's position. It includes the conditions through which the new position can be exercised and revised.

The term receiving does not imply passivity. Workers can shape the configuration by creating practices of deliberation, acquiring skills, renegotiating support or developing connections. Other actors can also change its conditions. The relevant inquiry therefore examines interactions and authority alongside initial resources.

Definition 4.3 (Reconstruction). Reconstruction is a process that alters enabling conditions and practical relationships so that a specified repertoire or form of authority becomes available, maintainable or revisable relative to an identified comparison.

The definition permits both restoration of a lost opportunity and development of a new route. It leaves the moral status of the reconstruction open. A process can improve a member group's position while reducing another group's opportunities. Its description therefore needs a bearer, a comparison and a distributional account.

4.2 Profile components and their comparison

Table 1 records eight components of the proposed profile. Each row has its own type of evidence and comparison. The table supplies a proposed analytical organization whose measurement properties and completeness require further investigation.

The capability row retains two repertoires for comparison. A numerical difference between sets would require a specified operation and a reason for its evaluative meaning. Simple option counts can conceal differences in quality, timing or practical accessibility. A partial order can express improvement

Table 1: Proposed components of a worker-capability reconstruction profile

Profile component	Comparison object	Interpretive requirement
Viable capability	Baseline and candidate trajectory repertoires	Valued domain, horizon and viability rule
Effective exit	Practical routes to alternative work or life	Material support, timing and protected interests
Persistence	Observed duration or conditional continuation	Separate observation, probability and robustness
Return and revision	Participant-controlled routes for changing course	Distinguish voluntary revision from unwanted regression
Operational authority	Information, agenda, decision and challenge pathways	Formal role and usable influence examined separately
Distribution	Effects on different workers and other affected bearers	Membership, entry, departure and displaced burdens
Reversibility	Recoverable changes and irreversible losses	Defended purpose and legitimate limits
New reliance	Support relationships, vulnerability and control terms	Interdependence and uncontrolled power distinguished

on some dimensions, loss on others, incomparability or unresolved evidence without forcing a total ranking.

The same caution applies to authority. A voting rule, access to an agenda and a route for challenging a decision are related but distinct. An organization may improve one while leaving another constrained. The profile should identify the actual change and the people for whom it matters. An overall authority score would require a separate argument about how these functions combine.

4.3 Baselines and temporal evidence

A baseline is a specified comparison arrangement whose factual feasibility and normative relevance require justification. Relevant alternatives could include continuation under previous ownership, a different conversion design, supported closure or another feasible livelihood pathway. Each comparison has different factual and normative requirements. Selecting the alternative because it produces the desired verdict would make the analysis circular.

Temporal claims also require distinct warrants. An organization can be observed to survive for a stated period. A model can predict continuation under defined assumptions. A robustness argument can establish persistence over a declared family of disturbances. These statements should remain separate. A probability of persistence requires a probability model and evidence for its interpretation; a duration observed in one case supplies a different kind of information.

The profile can be updated when a new group enters or an important activity changes. Such an update should preserve the earlier object and explain the revision. Comparing different periods under silently changing criteria can make an apparent gain difficult to interpret. A transparent record states whether the practice changed, the evaluative target changed or both changed together.

4.4 Return, revision and interdependence

A route back can mean several things: returning to an earlier job, revising a cooperative commitment, recovering control after delegation or reverting to an unwanted governing arrangement. These meanings have different normative significance. Protecting workers' ability to change course supplies one possible objective; preserving a former structure of domination supplies no automatic objective.

Reversibility is similarly conditional. Some changes should remain revisable, while durable protections can deliberately constrain future abuses. The relevant question is which reversal matters to which bearer under which justified purpose. A profile that merely maximizes reversible choices would leave those distinctions unexplained.

New reliance can also be constructive. Workers may rely on cooperative finance, shared services, public infrastructure or each other's specialized knowledge. Such relationships can expand opportunity and distribute burdens fairly. Vulnerability to withdrawal and exposure to uncontrolled decision power require further description. Treating every relation of support as a loss of freedom would overlook the conditions through which practical freedom is exercised.

5 Normative Conditions of Liberatory Reconstruction

This section states the premises through which a reconstruction can receive a limited liberatory interpretation. The argument identifies valuable capability, authority and affected standing before drawing a conditional conclusion. It then distinguishes an aspect-specific judgment from an overall evaluation and addresses the role of participant endorsement.

5.1 Value, agency and protection

Three proposed normative premises identify the reasons that a reconstruction assessment must consider. Their discussion separates valuable opportunity, effective authority and the standing of other affected people.

Assumption 5.1 (Capability and agency relevance). A material improvement in a worker's opportunities to pursue a defensibly valued practice or exercise agency supplies a pro tanto reason in favor of that change, subject to the circumstances and competing interests.

This premise makes the evaluative step explicit. The mere production of more possibilities does not determine their value. A repertoire may include routes that impose serious burdens, undermine another person's rights or lack significance for the focal worker. The proposed reason concerns a defended domain and a material improvement within it.

Assumption 5.2 (Protection and effective revision). Protection against uncontrolled consequential power over one's practical activity, together with usable routes for questioning and revising governing arrangements, has independent normative significance within the workplace inquiry.

The premise leaves the institutional design open. It permits justified delegation, specialized roles and binding collective commitments. The relevant protections should address actual vulnerabilities without requiring each worker to control every decision personally. A procedure can distribute tasks while retaining intelligible authority, checks and a practical route for challenge.

Assumption 5.3 (Affected standing and proportionate burdens). Evaluation of a conversion must retain the relevant interests of affected people beyond the continuing owner-members, and transitions require justification for material burdens, risks and irreversible losses in light of feasible alternatives.

The premise brings nonmembers, departing workers and later entrants into the inquiry. Its application can also include families, communities and others when their interests are materially affected. Inclusion establishes a requirement for consideration and reasons; it supplies neither equal influence over every internal decision nor an automatic veto.

5.2 A conditional liberatory interpretation

The following claim combines the premises into an aspect-specific evaluation. Its explanation traces the inferential steps and identifies the further obligations of a responsibility judgment.

Claim 5.4 (A liberatory aspect of reconstruction). Relative to an independently justified feasible comparison, a reconstruction has a defeasible liberatory aspect for a specified worker and domain when it materially improves a defended capability or authority condition, preserves the relevant protected interests, and has an adequate justification for the burdens through which the improvement is achieved.

The claim is conditional on the preceding normative premises. Its derivation begins by identifying the worker, domain, horizon and comparison. Evidence then establishes a material improvement in the relevant opportunity or authority coordinate. The first or second premise gives that improvement normative significance. The third premise requires examination of affected interests, burdens and alternatives. When those conditions are satisfied, the change has a reason-supported liberatory aspect within the specified scope.

The conclusion remains defeasible because the inquiry can omit a relevant interest or misidentify a feasible alternative. Further evidence may also change the account of practical authority. The form of the claim allows these challenges to attach to explicit premises. It avoids assigning an unqualified status to the enterprise merely because a transfer occurred or one group reports improvement.

The claim supplies no automatic duty to choose a particular reconstruction path or to finance it. A responsibility judgment needs an account of who can act, who has relevant obligations, what costs are proportionate and which alternatives are available. Those questions can be informed by the profile while retaining their own normative argument.

5.3 Plural gains and an overall assessment

A change can have a liberatory aspect for one worker while leaving another worker worse off. An owner-member may acquire meaningful influence while a temporary employee absorbs greater insecurity. A collective decision may sustain a shared activity while reducing an individual's opportunity to leave. These conflicts call for an explicit comparison of interests and reasons.

An overall judgment of liberation would therefore require more than combining favorable rows. It would need a defended treatment of cross-bearer conflicts, protected interests and competing values. The present framework usually stops with an aspect-specific profile and a record of unresolved tensions. This stopping point preserves information that a single organizational success label could hide.

The distinction also permits legitimate restraints. A cooperative can adopt safety requirements, collective schedules or financial commitments that narrow some immediate choices while supporting valuable opportunities over time. Evaluating the restraint requires attention to its purpose, authorization, burden and revisability. Counting the reduced choices alone would supply an incomplete assessment.

5.4 Endorsement, dissent and historical formation

Participant endorsement is relevant evidence about a change's meaning and its relationship to agency. Its interpretation should retain differences among participants and the conditions under which they formed and expressed their views. A majority decision can be important without erasing minority interests. A worker can reasonably decline membership while continuing to value the enterprise and colleagues.

Preferences can develop through learning and participation. A later endorsement may express a newly understood possibility. It can also be shaped by constrained alternatives or pressure. Distinguishing these histories requires evidence and an opportunity for participants to explain their reasons. The framework supplies no general license for an analyst to replace workers' accounts with an alleged deeper interest.

Effective revisability matters in part because interpretation can change. A decision made under one understanding should have an appropriate route for reconsideration when its consequences become clearer. Such a route can coexist with stable commitments and duties to others. The normative problem concerns the terms of that coexistence, which the profile helps to make explicit.

6 Dated Resources and Reconstruction Paths

This section isolates one material condition of reconstruction: maintaining required cash availability along a dated sequence. Symbols and assumptions precede an elementary reserve derivation. The result then extends to a finite menu of eligible paths. Its limited purpose is to distinguish transition feasibility from a final financial total, while preserving the separate institutional and normative conditions of the path.

6.1 Paths, timing and accounting scope

Let Γ be a finite, nonempty set of candidate reconstruction paths. Each path p has H dated events, where H is a positive integer. The signed amount $g_j(p)$ is the net cash flow at event j : receipts have positive sign and payments have negative sign. Let $b \geq 0$ be an initial freely available reserve. Define the cumulative net flow through event k as $G_k(p) = \sum_{j=1}^k g_j(p)$, with $G_0(p) = 0$.

The cash balance after event k is $c_k = b + G_k(p)$. This identity assumes that the stated flows include every relevant receipt and payment within the modeled boundary. Money committed to another protected purpose is excluded from the freely available reserve unless the arrangement permits its use. Borrowing counts through its actual availability and terms, with relevant repayments included in the dated path.

Assumption 6.1 (Adequate event resolution). Each event has a timing resolution adequate for the cash constraint. If a required payment precedes an available receipt within a coarse reporting period, the path represents them as separate events whenever their order can affect feasibility.

The assumption prevents period netting from concealing an earlier inability to pay. A positive monthly total can coexist with a missed payment early in the month. The appropriate time resolution depends on the actual obligations and access to bridging resources. The model supplies an accounting comparison once that resolution has been established.

Definition 6.2 (Cash-feasible path). A specified path is cash-feasible from reserve b when $c_k \geq 0$ at every event, including the initial point. Other material, governance and normative requirements are evaluated separately.

This definition concerns one resource constraint. A nonnegative cash balance does not establish adequate equipment, workable schedules, meaningful authority or acceptable working conditions. Such requirements belong in the path's other feasibility conditions. They cannot be inferred from the monetary coordinate.

6.2 Path reserve and cumulative deficits

The reserve proposition identifies the largest temporary financing need along a stated path. Its proof establishes necessity and sufficiency directly from the balance identity.

Proposition 6.3 (Prefix-deficit reserve). *For a fixed dated path, define its required reserve by*

$$B(p) = \max_{0 \leq k \leq H} \{-G_k(p)\}. \quad (6.1)$$

The path is cash-feasible from b if and only if $b \geq B(p)$.

Equation 6.1 includes $k = 0$, whose contribution is zero, so the maximum is nonnegative. The finite horizon ensures that the maximum exists. A negative cumulative flow at an intermediate event contributes the reserve needed to cover that deficit. A positive final total can therefore coexist with a positive required reserve.

The proof proceeds directly from the balance identity. If the path is cash-feasible, then $b + G_k(p) \geq 0$ for every k . Rearranging each inequality gives $b \geq -G_k(p)$. Since b is at least every member of this finite collection, it is at least their maximum. This proves necessity.

Conversely, suppose $b \geq B(p)$. By definition of the maximum, $B(p) \geq -G_k(p)$ for every k . Combining the inequalities yields $b + G_k(p) \geq 0$ at every event. The path is therefore cash-feasible. If $b < B(p)$, an event attaining the maximum has a negative balance, providing an explicit failure witness.

The result is an elementary consequence of the declared accounting model. Its mathematical scope is elementary and conditional; its interpretation concerns cash availability along a specified path. Its conceptual use is to identify an enabling requirement whose timing can be obscured by a final net total.

6.3 Eligible paths and minimum support

Let $\Gamma_N \subseteq \Gamma$ contain paths satisfying separately stated non-cash conditions. These can concern physical feasibility, worker protections, governing authority and a specified terminal continuation target. The subscript identifies a selected eligibility specification; it supplies no claim that the specification is complete or uniquely justified.

If Γ_N is nonempty, define $B_N = \min_{p \in \Gamma_N} B(p)$. Finiteness ensures that some eligible path attains this minimum. An eligible cash-feasible path exists from reserve b exactly when $b \geq B_N$. For necessity, any eligible feasible path has $b \geq B(p) \geq B_N$. For sufficiency, choose an eligible path attaining B_N and apply the preceding proposition. An empty eligible family is recorded as infeasible; an arbitrary monetary amount cannot repair the absence of a permitted path within that family.

Restricting a nonempty path family weakly raises its minimum reserve, because the new minimum is taken over fewer candidates. This is a statement about a selected constraint. The constraint's moral adequacy and any obligation to provide the larger amount require separate arguments. A review should examine both the eligibility reasons and the feasible alternatives.

For fixed paths, flows and eligibility, increasing the freely available initial reserve weakly expands the cash-feasible family. Every path feasible from the smaller reserve remains nonnegative after adding the same positive amount to each balance. If obtaining additional finance changes authority terms, repayment duties or another condition, the path itself changes. The monotonicity argument then requires a newly specified comparison.

7 Comparisons among Reconstruction Paths

This section applies the reserve result to three fictional conversion paths. It first isolates timing from the final financial position. It then introduces an independently stated authority condition and considers the interpretation of additional finance. The example tests distinctions in the argument; its numbers describe an invented accounting exercise.

7.1 Equal final receipts and different transition requirements

Consider three paths with three dated events. Every amount uses the same arbitrary monetary unit. All paths have a final cumulative net receipt of two units. Table 2 records their flows, cumulative positions and required reserves. Equation 6.1 supplies the calculation in its final column.

For path A , the largest cumulative deficit is four units at the first event. Later receipts cover that deficit in the final total, while the earlier payment still requires financing when it falls due. For path B , the first receipt contributes one unit before a payment of four. The largest cumulative deficit is therefore three. Path C has a nonnegative cumulative position throughout and requires zero initial reserve in this accounting model.

Set the initial freely available reserve to three. The successive balances on A are -1 , 5 and 5 . The first balance violates cash feasibility. The corresponding balances on B are 4 , 0 and 5 , satisfying the requirement at every event. Path C produces balances of 3 , 4 and 5 . A final balance of five therefore accompanies both an infeasible sequence and two cash-feasible sequences. A final net total alone leaves the transition requirement unidentified.

Table 2: Fictional reconstruction paths with equal final net receipts and different reserve requirements. Authority eligibility is a separate stipulated condition.

Path	Dated net flows	Cumulative net flows	Authority eligibility	Required reserve
<i>A</i>	(−4, 6, 0)	(−4, 2, 2)	Eligible	4
<i>B</i>	(1, −4, 5)	(1, −3, 2)	Eligible	3
<i>C</i>	(0, 1, 1)	(0, 1, 2)	Ineligible	0

The example concerns payment order. It can represent equipment arriving before earnings, a member contribution becoming available after a purchase, or the interval between a contract and payment. These are possible interpretations of invented flows. An actual case requires evidence of the dates, enforceability and availability of each amount. A promised grant, a receivable and usable cash occupy different positions in such a record.

7.2 Authority conditions and financial eligibility

Suppose the participants have separately defended a condition requiring review of consequential external control over a specified workplace decision. For the example, paths *A* and *B* satisfy that condition. Path *C* gives a financier unreviewable discretion over the decision and fails it. All other relevant conditions are held adequate by stipulation. This construction isolates one source of divergence between low financial requirements and an acceptable reconstruction path.

The eligible family is then $\Gamma_N = \{A, B\}$. Its minimum reserve is three, attained by *B*. Including *C* in a purely cash-based search would reduce the minimum to zero. The numerical difference records the cost of this particular restriction within this particular candidate family. It supplies neither a price of freedom nor a general exchange rate between authority and resources. The justification for excluding *C* must stand independently of its convenient position in the example.

Several changes would alter the comparison. A financier might accept an appeal process, narrow its reserved power, or limit a condition to a specific repayment risk. Workers might reject the proposed authority condition after informed deliberation. Another feasible path might offer both the lower reserve and a more acceptable allocation of control. Each change calls for a revised path specification. The original ranking remains conditional on the described alternatives and terms.

Financing can also strengthen workers' capabilities. A long-term cooperative loan with intelligible terms and usable review may permit learning, preparation and continuity. Its repayment obligation alone establishes a dependence relation, while the quality of authority depends on further features. The analysis should identify the scope of the lender's power, the reasons for its conditions, the means of challenge and the consequences of default. The general label "external finance" cannot settle those questions.

7.3 Terminal conditions and the support horizon

A positive terminal cash position closes the stated accounting horizon. Continued operation requires an additional account of later revenues, maintenance, work, demand and obligations. In the example, a recurring support arrangement could be part of the terminal condition. A plan for supported closure could also qualify, if closure serves the defended purposes of the reconstruction. Neither enterprise survival nor financial independence has been made a universal terminal requirement.

Changing the horizon can reveal a deferred payment or a burden transferred to workers' households. The review should therefore explain its terminal boundary and identify obligations that cross it. Conversely, extending a finite model indefinitely without reliable information can create a misleading impression of precision. A defensible analysis states the period within which its records support conclusions and the conditions under which continuation remains plausible.

The path family itself requires scrutiny. A proposal that excludes collective support, alternative employment or a different ownership arrangement may make the selected conversion appear uniquely

necessary. Constructing an independent comparison set is consequently part of the research method. The reserve calculation organizes one part of that comparison after the alternatives and their meaning have been specified.

8 Uncertainty and the Timing of Path Selection

This section extends the cash model to uncertain support and receipts. It defines a finite scenario comparison, derives the reserve required by a fixed path, and distinguishes a decision made before information arrives from one made after it arrives. The extension clarifies a common ambiguity in claims that a viable route will become available.

8.1 Scenario-dependent requirements

Let Ω be a finite, nonempty set of scenarios. For each eligible path p and scenario ω , stipulate the dated flows $g_j(p, \omega)$ and calculate $B(p, \omega)$ by the same prefix-deficit rule. The eligible family Γ_N is finite and nonempty. For the present comparison, its non-cash eligibility holds across the scenarios under consideration. Where a scenario changes that eligibility, it must be added to the specification before applying the result.

A fixed path is selected before the scenario is known. Its reserve must cover every cumulative deficit in every included scenario if robust cash feasibility is required. Equation 8.1 defines the corresponding path requirement and the least requirement across eligible fixed paths.

$$B^{\text{rob}}(p) = \max_{\omega \in \Omega} B(p, \omega), \quad R = \min_{p \in \Gamma_N} B^{\text{rob}}(p). \quad (8.1)$$

To establish the first expression's operational meaning, suppose reserve b supports path p in every scenario. The preceding reserve proposition gives $b \geq B(p, \omega)$ for each ω , and hence $b \geq B^{\text{rob}}(p)$. Conversely, if b is at least this maximum, it is at least each scenario's requirement. Applying the proposition separately in each scenario yields nonnegative balances at every event. Minimizing over the finite eligible family then establishes that some fixed path has robust cash feasibility exactly when $b \geq R$.

The scenarios can encode late receipts, reduced demand or a support commitment arriving at a different event. Their inclusion requires a reason. Robustness refers to the specified set and horizon. It leaves unrepresented conditions open, including threats to physical feasibility, consent or worker authority that the cash flows cannot express.

8.2 Information order and a conditional lower bound

Suppose a decision maker could first learn the scenario and then select a path. The least required reserve in scenario ω would be $\min_{p \in \Gamma_N} B(p, \omega)$. To cover every possible revealed scenario under this information order, the reserve would need to reach the maximum of those minima. Denote that amount by L . Equation 8.2 relates the two information orders.

$$L = \max_{\omega \in \Omega} \min_{p \in \Gamma_N} B(p, \omega) \leq \min_{p \in \Gamma_N} \max_{\omega \in \Omega} B(p, \omega) = R. \quad (8.2)$$

For a stepwise proof, fix any eligible path q . In each scenario, the minimum across paths is at most $B(q, \omega)$. Taking the maximum over scenarios preserves this inequality, so $L \leq \max_{\omega} B(q, \omega)$. This statement holds for every eligible q . It therefore holds for a path attaining the minimum of the right-hand expression, which is R . Finiteness and nonemptiness ensure that the extrema used in these steps exist.

The inequality can be strict. Consider two eligible paths and two scenarios with a single cash event. Path A has net flows zero in scenario one and minus five in scenario two. Path B has net flows minus five in scenario one and zero in scenario two. Their reserve requirements are respectively $(0, 5)$ and $(5, 0)$. After learning the scenario, the decision maker can choose its zero-requirement path, giving $L = 0$. Before learning the scenario, either fixed choice requires five to cover both possibilities, giving $R = 5$.

This difference is created by information order. A plan that cites a favorable path for every possible scenario may still lack a single path that can be selected with the information available at the time of commitment. An assurance of future support should therefore identify both the available alternatives and the date at which the information needed to choose among them becomes available.

8.3 Adaptive reconstruction and evaluative limits

An adaptive plan can make later decisions in response to observed history. Such a plan lies between the two simplified information orders when some useful information arrives after initial commitments and before later choices. A sound extension would define histories, available actions, observation times and binding commitments. Choices at indistinguishable histories would need to agree. A scenario-indexed list of complete paths by itself leaves that consistency requirement unresolved.

The formal comparison also leaves a normative decision open. Requiring protection against every included scenario can demand considerable resources and exclude a path that participants reasonably value. An expected-loss criterion introduces probabilities and a way of comparing losses. A reserve floor protects against one kind of failure while allowing others. Selecting among these approaches requires evidence, a description of who bears the consequences, and justified attitudes toward uncertainty.

Workers may reasonably disagree about those attitudes. An owner-member with savings and a temporary worker with immediate household obligations can face different consequences from the same delayed payment. Treating the firm's cash trajectory as the complete risk object would erase that distinction. The scenario model should therefore remain one component of a broader assessment of individual and shared exposure.

9 Usable Authority and Collective Learning

This section examines the practical exercise of authority after conversion. It distinguishes formal participation from the conditions that make participation usable, considers learning and disagreement, and addresses expertise and external support. The discussion supplies interpretive conditions for the authority coordinate in the reconstruction profile.

9.1 Participation conditions and decision scope

A worker's vote identifies one authorized action within a governing procedure. Its practical significance also depends on the matters open to decision, the information supplied, the time available and the consequences of dissent. A meeting scheduled during an inaccessible shift and a technical report delivered after a binding commitment can preserve formal procedures while limiting opportunities to influence the relevant decision.

These examples describe possible mismatches to investigate. They establish no general conclusion about worker cooperatives. A cooperative may devote paid time to deliberation, explain alternatives in usable forms and delegate specialized tasks under accountable terms. The assessment should examine the arrangement that exists, including its successful supports and its constraints.

Definition 9.1 (Usable revisional authority). For a specified decision, usable revisional authority is an effective, sufficiently accessible route through which an affected participant can question the governing reasons, initiate consideration of a change, and obtain a response from an actor competent to alter the decision or its conditions.

This working definition identifies a route with a possible practical consequence. It permits rejection of a proposal with adequate reasons. It also permits differentiated decision roles. The relevant questions concern access, competence, response and the distribution of burdens involved in using the route. A nominal right to raise an issue can be costly enough that its exercise remains exceptional.

The scope of authority deserves equal attention. Workers may control internal scheduling while a concentrated customer determines deadlines, or may vote on budgets within binding credit conditions.

Those connections locate the cooperative within a wider field of power. Their significance depends on the alternatives, the legitimacy and revisability of the conditions, and the effects on workers' practical opportunities.

9.2 Learning, endorsement and disagreement

Conversion can make unfamiliar activities possible: reading accounts, setting priorities, evaluating a contract or learning to coordinate with colleagues. Initial difficulty does not settle the later value of those opportunities. An assessment should record the provision of time, explanation and support, together with the costs of undertaking new responsibilities.

Learning can change participants' aims. A worker may come to value collective decision making, or may discover that membership brings obligations they reasonably prefer to avoid. Both trajectories are intelligible within the proposed framework. A change in preference alone supplies insufficient grounds for classifying the process as emancipatory or manipulative. Relevant evidence includes the conditions of learning, available alternatives, treatment of criticism and opportunities for subsequent revision.

Participant endorsement is therefore important evidence with a history. The record should distinguish enthusiasm at a crisis meeting, consent after comparing alternatives, continued endorsement during implementation and later reconsideration. It should also retain disagreement within the same period. A majority decision can be institutionally valid while leaving a minority's burden deserving of explanation or accommodation.

An inquiry organized only through leadership risks overlooking workers who left, declined membership or occupy insecure positions. Their accounts can illuminate aspects of reconstruction that an owner-member narrative leaves unresolved. Independent recruitment and careful protection of participants would be necessary in empirical work, especially when criticism could affect employment or access to cooperative networks.

9.3 Expertise and distributed support

Specialized knowledge can make collective authority effective. Accounting, legal interpretation and production planning often require learning and division of labor. A demand that every worker personally perform every task would impose a different and potentially disabling model of participation. The proposed criterion concerns the usability of explanation, challenge and revision within a differentiated organization.

Expertise becomes a site for scrutiny when information access, agenda setting and practical control accumulate in ways that leave affected workers unable to contest consequential decisions. Evidence of specialization alone establishes a weaker claim. The assessment should trace the actual relation between expert advice, delegated authority and the body's capacity to revise its arrangements.

Support can be distributed across cooperative associations, educational institutions, families, public programmes and other enterprises. Such relations can expand available paths and reduce vulnerability. They also create continuing conditions whose terms deserve examination. An adequate reconstruction record names those contributions and their burdens, including unpaid work that an enterprise account may omit.

The aim is to identify the conditions under which workers can sustain and revise meaningful practices together. Organizational independence, expert involvement and external assistance each admit several forms. Their contribution to practical freedom depends on those forms and on the people whose opportunities they organize.

10 Persistence, Revision and Renewed Vulnerability

This section specifies the temporal objects that a reconstruction assessment can follow. It distinguishes enterprise continuity, sustained capabilities and authority arrangements; it then considers voluntary

change, unwanted reversal and new dependencies. The purpose is to make a persistence judgment intelligible without treating permanence as an overriding value.

10.1 Persistence targets and evidence

An enterprise can survive while workers lose influence over consequential decisions. Workers can also retain skills, relationships and viable employment routes after an enterprise closes. These possibilities show why the target of a persistence claim must be specified. An assessment of worker capability should identify the practices and alternatives sustained, their bearers and the conditions on which they depend.

Observed duration is one kind of evidence. A statement that an arrangement has operated for five years reports a history if supported by records. A probability of surviving another five years requires a statistical or other justified uncertainty model. Robustness against a specified set of disruptions is a conditional property of an arrangement or model. These descriptions answer different questions, even when a long observed history contributes to confidence in future performance.

The temporal record should include the period through which enabling support operates. A capability available during a funded learning phase may become difficult to exercise after that support ends. Alternatively, the learning phase may create durable skills and procedures that permit continuation with a different resource structure. Identifying that transition requires evidence of the mechanisms and conditions involved.

The same attention applies to an apparently stable authority distribution. Informal expertise can become concentrated gradually. A temporary emergency arrangement can acquire an indefinite role. A cooperative can also develop stronger review practices through experience. A sequence of dated descriptions is therefore preferable to assigning one permanent governance label to the organization.

10.2 Voluntary change and unwanted reversal

Definition 10.1 (Backsliding relative to a defended capability). Backsliding is a deterioration, over a specified interval and relative to an explicit comparison, in a previously defended practical capability or authority condition. Its assessment records the affected bearer, the grounds for valuing the condition, and whether the change reflects a sufficiently informed and revisable choice.

The definition makes the evaluative reference explicit. A change in organizational form alone leaves the judgment open. A worker can reasonably choose a different role, reduce a collective obligation or leave the enterprise. A collective can decide that supported closure serves its members and other affected people better than continuing under deteriorating conditions. The appraisal should examine both the available alternatives and the way the decision was made.

A route back can consequently support freedom when it permits recovery from a damaging experiment. Preserving such a route may involve transferable skills, savings, professional connections or a right to reconsider membership. Its value depends on its destination and use. An involuntary return to an oppressive arrangement has a different status from an option that participants can knowingly exercise.

Reversibility also has costs and limits. Equipment purchases, shared commitments and accumulated trust can make complete restoration of an earlier state impossible. The relevant objective may be a viable revision route that preserves important interests, rather than literal return. Specifying that objective prevents the language of reversibility from promising an exact historical restoration.

10.3 New members, nonmembers and continuing interdependence

A conversion can improve opportunities for its founding owner-members while later entrants face a different arrangement. Membership conditions, probation, temporary labor and access to learning can distribute the benefits of the new institution unevenly. The time of observation and the membership boundary therefore shape the apparent result.

The assessment should retain separate descriptions for owner-members, nonmember workers, people who departed and prospective entrants whose treatment is governed by current rules. This separation

allows a claim about one group to remain visible while its implications for others are examined. It also permits justified differences in role or obligation to be distinguished from exclusion requiring criticism.

Continuing interdependence can be an achievement of reconstruction. Reliable partners, reciprocal support and public infrastructure may make a practice sustainable. The evaluative issue concerns the terms and distribution of this dependence, including exposure to decisions that affected workers cannot effectively question. Financial independence is only one possible arrangement and can itself be purchased through burdens that deserve scrutiny.

Market pressure complicates the analysis without settling it. A difficult contract can narrow the feasible set; leadership still makes decisions about who bears the resulting burdens and how those decisions can be challenged. Conversely, attributing every constraint to a local governing body would ignore the wider conditions of choice. An adequate explanation locates both the external restriction and the remaining internal discretion.

11 Objections and Alternative Evaluations

This section tests the scope and contribution of the proposed account. The objections concern its relation to existing work, the limited cash model, disagreement about authority, the treatment of outsiders and the selection of alternatives. Each response identifies a condition under which the argument should be revised or its conclusion narrowed.

11.1 Antecedent coverage and conceptual contribution

Research on capabilities, power and democratic organization already distinguishes formal entitlements from their practical exercise. The verified sources discussed earlier give the present inquiry substantial antecedents. A claim that worker ownership necessarily brings complete emancipation would therefore be an inadequate representation of the literature against which to announce a contribution.

The paper's proposed contribution is a specific organization of the reconstruction problem. It joins a typed comparison profile to a phase-sensitive account of conversion and a modest model of dated enabling requirements. The value of that organization depends on whether it exposes questions or errors that a competent existing analysis would otherwise handle less clearly. Further comparison may show that its terminology duplicates established distinctions and should be replaced by more familiar language.

11.2 Financial simplification and practical relevance

Cash is only one condition of reconstruction. A path can have sufficient funds while lacking skills, trust, suitable equipment, consent or a workable production process. The reserve theorem consequently establishes a conditional accounting result. Its use in a broader argument depends on preserving the independent eligibility conditions and the multidimensional profile.

This limitation also directs empirical scrutiny. If actual payment schedules are routinely managed through flexible credit, the initial reserve may be a less informative variable than the availability and terms of that credit. The model should then represent those terms or give way to a better description. Its purpose is to reveal the importance of sequence, not to impose one financial instrument on diverse conversions.

Even a correct cash calculation can create false confidence when its inputs are unreliable. Expected receipts differ from secured receipts, and workers' unpaid time can conceal a household deficit. A useful application should record evidential status and omitted burdens alongside each flow. More elaborate notation would provide little improvement if those basic distinctions remained unclear.

11.3 Authority values and institutional alternatives

Some workers may prefer a stable conventional employer to the responsibilities of ownership. Others may value participation sufficiently to accept lower income or greater uncertainty. These differences

challenge any uniform claim that cooperative conversion is the preferred destination. The proposed framework permits comparison across organizational forms and requires a defended account of the opportunities and burdens at issue.

The authority premise is also contestable. A person may accept a restrictive condition to secure another valued capability. Whether that acceptance adequately justifies the condition depends on the available alternatives, protected interests, bargaining circumstances and the reach of the decision's effects. The paper offers a defeasible evaluation that retains those considerations; a categorical judgment requires further argument.

Collective commitments can restrict individual discretion in ways participants reasonably endorse. A schedule, safety rule or repayment agreement can sustain a shared practice. Treating every binding condition as domination would erase the distinction between coordinated action and uncontrolled power. The relevant inquiry examines justification, scope, challenge and the practical consequences of the condition.

11.4 Membership boundaries and external burdens

An owner-member account can make internal gains appear more comprehensive than they are. Non-member workers may perform essential tasks while remaining outside the governing body. Families may absorb income fluctuations. Public support may draw on resources with other plausible uses. A judgment about liberation should state how these burdens enter the comparison.

Affected standing does not require identical decision rights for every connected person. The appropriate forms can include information, consultation, representation, protection, appeal or compensation, depending on the relation and stakes. The proposed premises call for a justification of that arrangement. They leave the detailed institutional allocation open to further normative and practical analysis.

11.5 Alternative paths and support obligations

The path minimum is sensitive to the candidate family. A narrow family can exaggerate the apparent reserve requirement, while an unrealistic family can understate it. Feasible alternatives should be developed independently of the desired verdict and should include meaningful disagreement about the purpose of the reconstruction.

Showing that an additional reserve enables a preferred path also leaves the duty to supply it unresolved. A public body, cooperative association or former owner may have a continuing obligation on grounds that require separate argument. Scarcity and competing claims may qualify that obligation. The mathematical result identifies a condition of a stipulated possibility; responsibility for securing it belongs to a further normative inquiry.

12 Open Questions and a Prospective Research Design

This section translates the conceptual account into research obligations. It proposes a sequence for investigating conversions, states the evidential limits of comparison, and identifies open problems concerning membership, uncertainty and responsibility. The design is prospective; the paper reports no new interviews or field observations.

12.1 Case boundaries and longitudinal records

A study should begin by recording the organizational boundary, the reason conversion is considered, and the alternatives regarded as feasible at that time. Crisis buyouts and planned succession can involve different starting conditions. Recruiting cases only after an enterprise has survived would obscure failed, abandoned or redirected attempts. The sampling rationale should therefore be stated before using survival to characterize the process.

The initial record would describe ownership and decision rights, practical work conditions, worker aspirations, existing support and the material commitments already in place. Later records would identify

preparation, binding transition events, changes in the receiving configuration and subsequent revisions. These phases can overlap. Their labels should follow documented changes in activity and authority rather than impose a universal calendar.

Sources could include dated agreements, meeting records, payment schedules, training arrangements, role descriptions and participant accounts. Each type supplies a different form of evidence. A rule describes an authorized procedure; accounts of its use help examine accessibility and practical effect. A payment record establishes a transaction more directly than a recollection, while the recollection may identify the burden or uncertainty surrounding it.

The inquiry should distinguish the firm's record from workers' separate circumstances. Voluntary interviews with members, nonmembers, departing workers and relevant support actors could investigate the distribution of opportunities and costs. Independent recruitment, informed consent, careful handling of employment risks and proportionate data collection would be necessary. A person's refusal to participate should remain compatible with full standing in the analysis.

12.2 Comparative inference and missing evidence

Before interpreting improvement, the study should specify its baseline and comparison. A threatened closure, continued investor ownership, conversion under different terms and another employment route can produce different judgments. The relevant alternatives depend on actual conditions. A researcher should identify whether a comparison is documented, reasonably reconstructed, hypothetical or unavailable.

Within-case sequences can support an account of how a change occurred when records connect the relevant decisions, conditions and consequences. They do not automatically isolate the causal contribution of ownership conversion from changing demand, public support or workforce composition. Comparative causal claims require an additional design and explicit treatment of those rival explanations.

Missing voices require particular care. Departure can remove a person from the institution's records precisely when their experience challenges a success narrative. Remaining workers may face different incentives to speak. An account should report the extent and likely direction of these gaps where evidence permits, while preserving uncertainty about unavailable experiences.

Open Problem 12.1 (Comparison across changing membership). Specify a defensible method for comparing practical capabilities when conversion changes the workforce and the distinction between members and nonmembers. The method should preserve individual histories and affected standing while making aggregate statements whose population is explicit.

The difficulty involves both description and evaluation. A comparison of average conditions can change because different people are present. An assessment limited to continuing workers can omit burdens borne by those who left. Neither problem can be resolved by a single unlabeled before-and-after score.

12.3 Formal extensions and evidence gates

An initial application of the cash model should test event resolution. Researchers would reconstruct dates of required payments, available receipts and actual borrowing permissions, then check whether aggregation into longer periods hides a temporary deficit. Uncertain entries should carry scenario descriptions or other justified representations of uncertainty.

The eligibility conditions should be stated before searching for a minimal reserve. The record should explain who proposed each condition, its normative or practical basis, and the evidence supporting a path's compliance. A sensitivity analysis could then show how disputed conditions alter the eligible family, while retaining the reasons for disagreement alongside the numerical result.

Open Problem 12.2 (Adaptive support with limited information). Develop a history-dependent model of reconstruction in which support decisions use only information available at their decision dates. Establish the reserve and authority conditions under which an admissible adaptive policy can preserve specified worker protections across a justified scenario set.

Such a model would require explicit observation histories and commitments. A policy's formal feasibility would still leave the legitimacy of its authority terms and burden allocation open. The extension should be pursued when those decisions perform conceptual or practical work beyond the simpler path comparison.

12.4 Learning, responsibility and wider application

Open Problem 12.3 (Evaluation during preference development). Identify conditions under which changing participant endorsements provide credible evidence of practical learning, while retaining the possibility of constrained adaptation, strategic expression and reasonable dissent. An adequate account should explain the role of alternatives, reflection and revisional authority.

This question calls for careful temporal evidence. A researcher should avoid fixing workers' initial preferences as their permanent standard or treating their later preferences as automatically authoritative. The relation between endorsement and enabling conditions remains a substantive part of the inquiry.

Open Problem 12.4 (Continuing support and institutional responsibility). Determine which actors, if any, bear continuing duties to sustain or revise enabling conditions after a conversion. The argument should connect their causal position, control, commitments and feasible capacity to explicit normative premises, while accounting for competing claims and changing circumstances.

The present paper prepares that inquiry by locating support requirements and authority relations. Historical transformations at a larger scale require additional work. Applying reconstruction language to decolonization, for example, would demand bounded cases, verified historiography and attention to differences between enterprise membership and political peoplehood. A shared vocabulary supplies a research connection; its explanatory adequacy remains to be established in each domain.

13 Conclusion

This section states the paper's limited conclusions and the principal obligations for further work. The discussion has examined conversion to worker cooperatives through the reconstruction of practical capabilities, the exercise of authority and the dated conditions of continuation.

A transfer of ownership changes an institutional relation whose practical effects depend on further arrangements. The proposed profile retains opportunities, usable authority, support, vulnerability, distribution and temporal change as distinguishable objects of assessment. It treats the receiving configuration as something workers and other actors continue to shape. A liberatory judgment requires explicit evaluative premises and an account of whose opportunities improve, whose burdens change and which alternatives remain available.

The formal model contributes a bounded result. Under the stated accounting assumptions, a path's largest cumulative deficit determines its minimum initial reserve. Equal final net receipts can therefore accompany different transition requirements. Separately justified eligibility conditions can change the least reserve among acceptable paths. Under uncertainty, selecting a path before the scenario is known can require more support than selecting one after relevant information arrives. These results clarify enabling conditions while leaving capability value, authority legitimacy and support obligations to their appropriate arguments.

Persistence has similarly plural targets. Enterprise continuity, maintained worker capability and a defensible distribution of authority can diverge. Voluntary revision or supported closure may serve a reconstruction project, while apparently stable operation may conceal new vulnerabilities. Continuing interdependence can sustain practical freedom when its terms support affected participants' opportunities to understand, question and revise consequential arrangements.

The proposed account remains open to conceptual and empirical correction. Its next tests concern actual decision scope, payment and learning sequences, changing membership, missing voices and feasible alternatives. Existing research provides substantial antecedents for these questions. The purpose of

the present organization is to make a bounded set of insights and derivations available for criticism, and to support more discriminating discussion of the conditions through which institutional change becomes practically meaningful.

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References

- [1] Ignacio Bretos, Rory Ridley-Duff, and David Wren. Crafting alternative work organisations: Paradoxes of workplace democracy and emancipation in worker-buyout cooperatives. *Economic and Industrial Democracy*, 46(4):1002–1030, 2025. First published online 4 September 2024.
- [2] Philip Pettit. Freedom as antipower. *Ethics*, 106(3):576–604, 1996.
- [3] Amartya Sen. Well-being, agency and freedom: The Dewey lectures 1984. *The Journal of Philosophy*, 82(4):169–221, 1985.
- [4] Marcelo Vieta, Sara Depedri, and Antonella Carrano. The Italian road to recuperating enterprises and the Legge Marcora framework: Italy’s worker buyouts in times of crisis. Technical Report 015|17, European Research Institute on Cooperative and Social Enterprises, 2017.
https://euricse.eu/wp-content/uploads/2017/03/15_17-Rapporto-Vieta-Depedri-Carrano-1.pdf.
- [5] Erik Olin Wright. *Envisioning Real Utopias*. Verso, 2010. Chapter 2, pp.20–23 consulted.