

**13th Summer School
on Economic History, Philosophy, and History of Economic Thought**

Cooperation and Conflicts: lessons from history and economic theory

Acqui Terme

Wednesday 1st September – Wednesday 8th September 2010

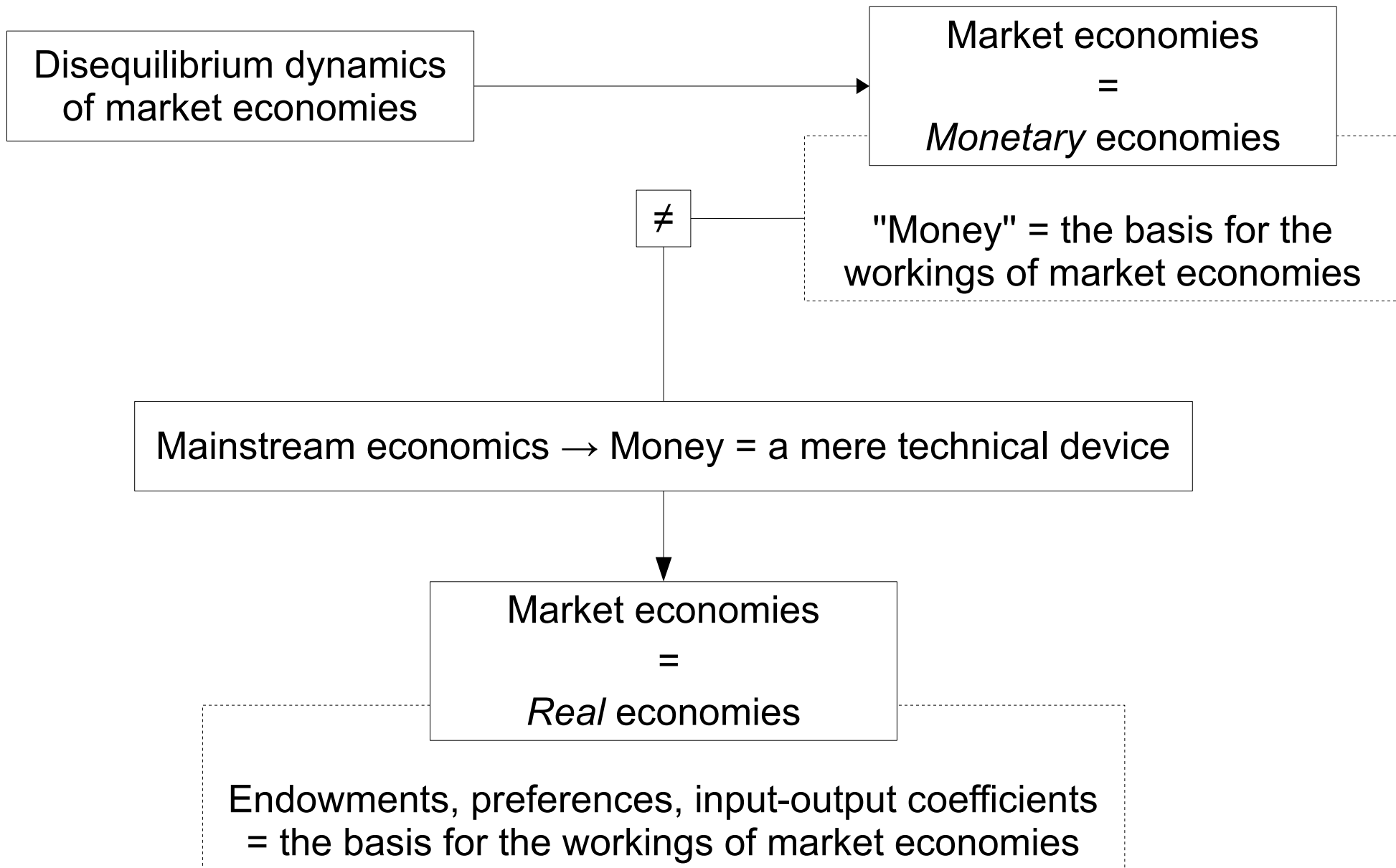
Money &

The disequilibrium dynamics of market economies

Rémi Stellan

University of Fribourg/Freiburg and University of Grenoble
PhD student with the financial support of the Distance University of Switzerland (FS-CH)





agents' decisions are *not* mutually compatible

Disequilibrium

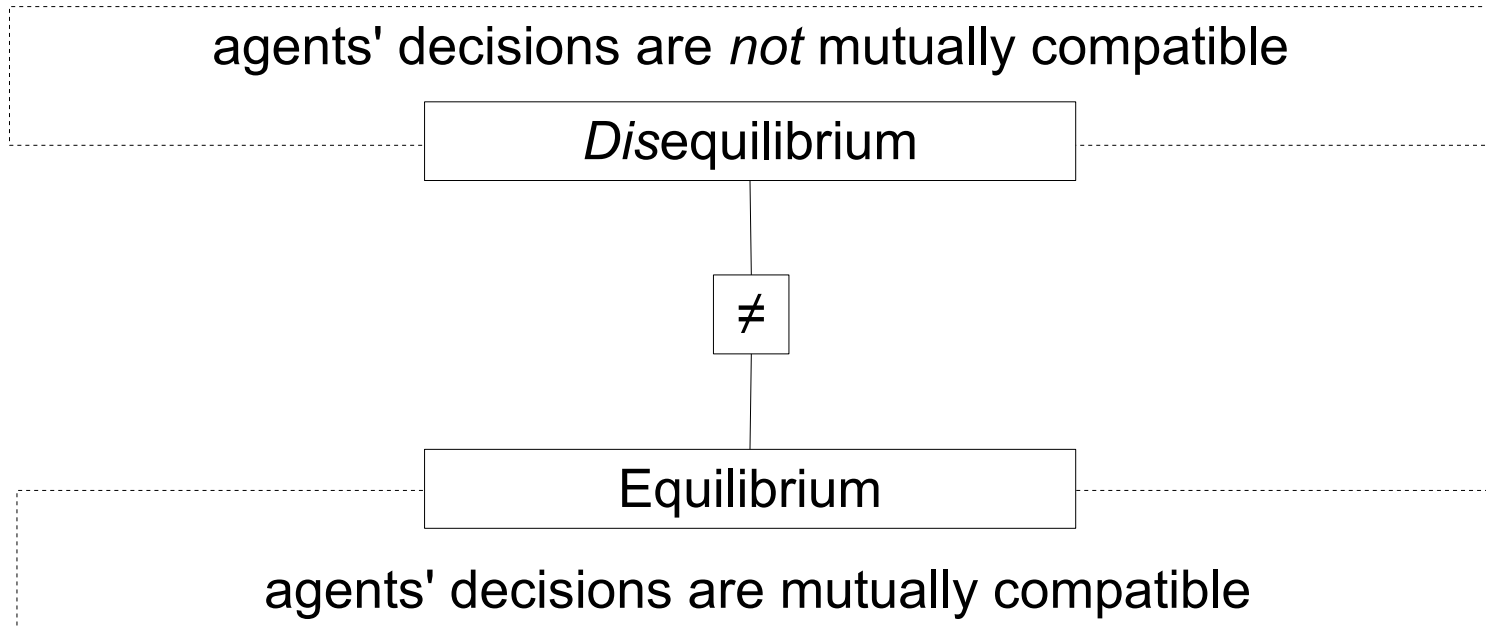
e.g.

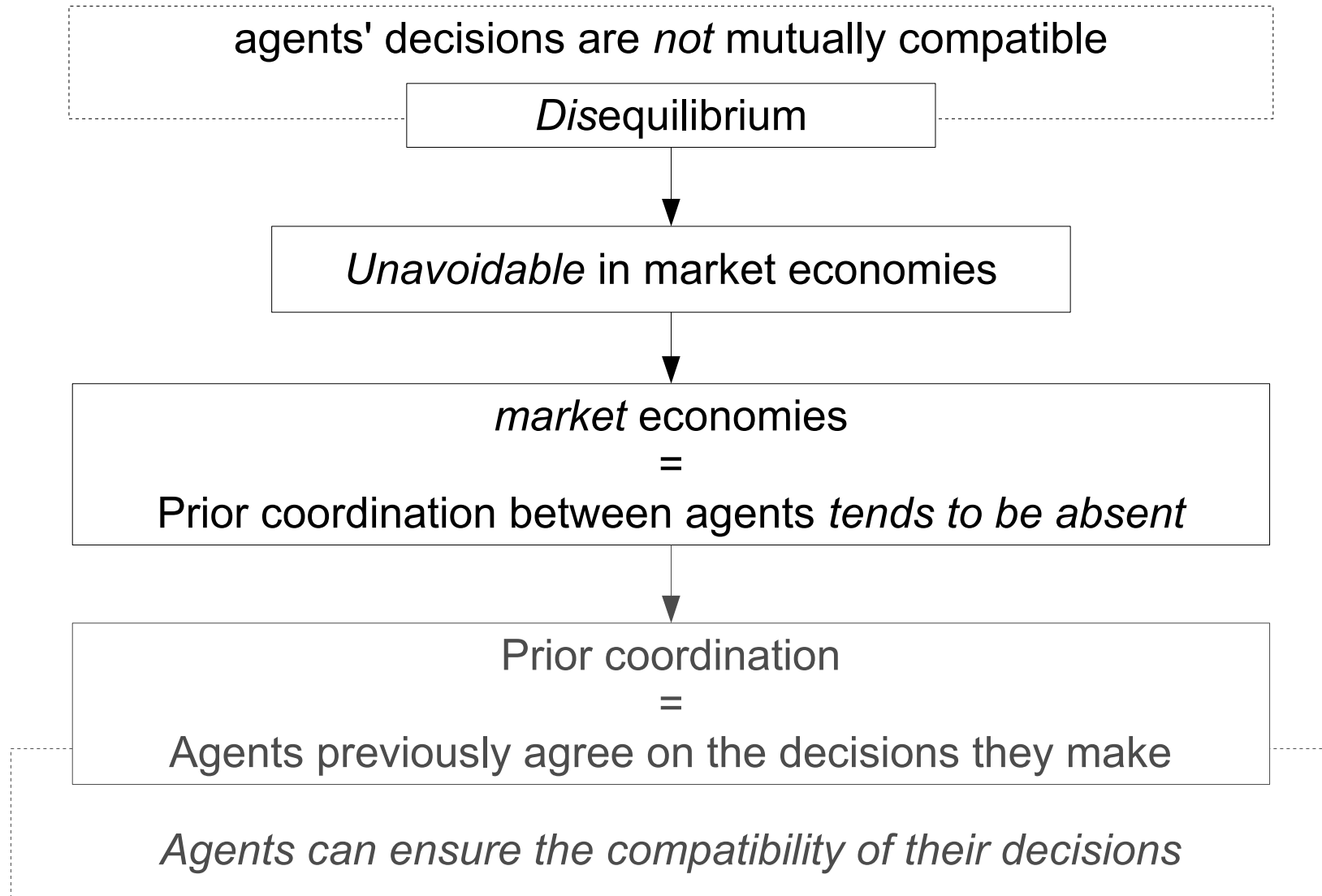
Unsold stocks of
consumption goods

Unemployment

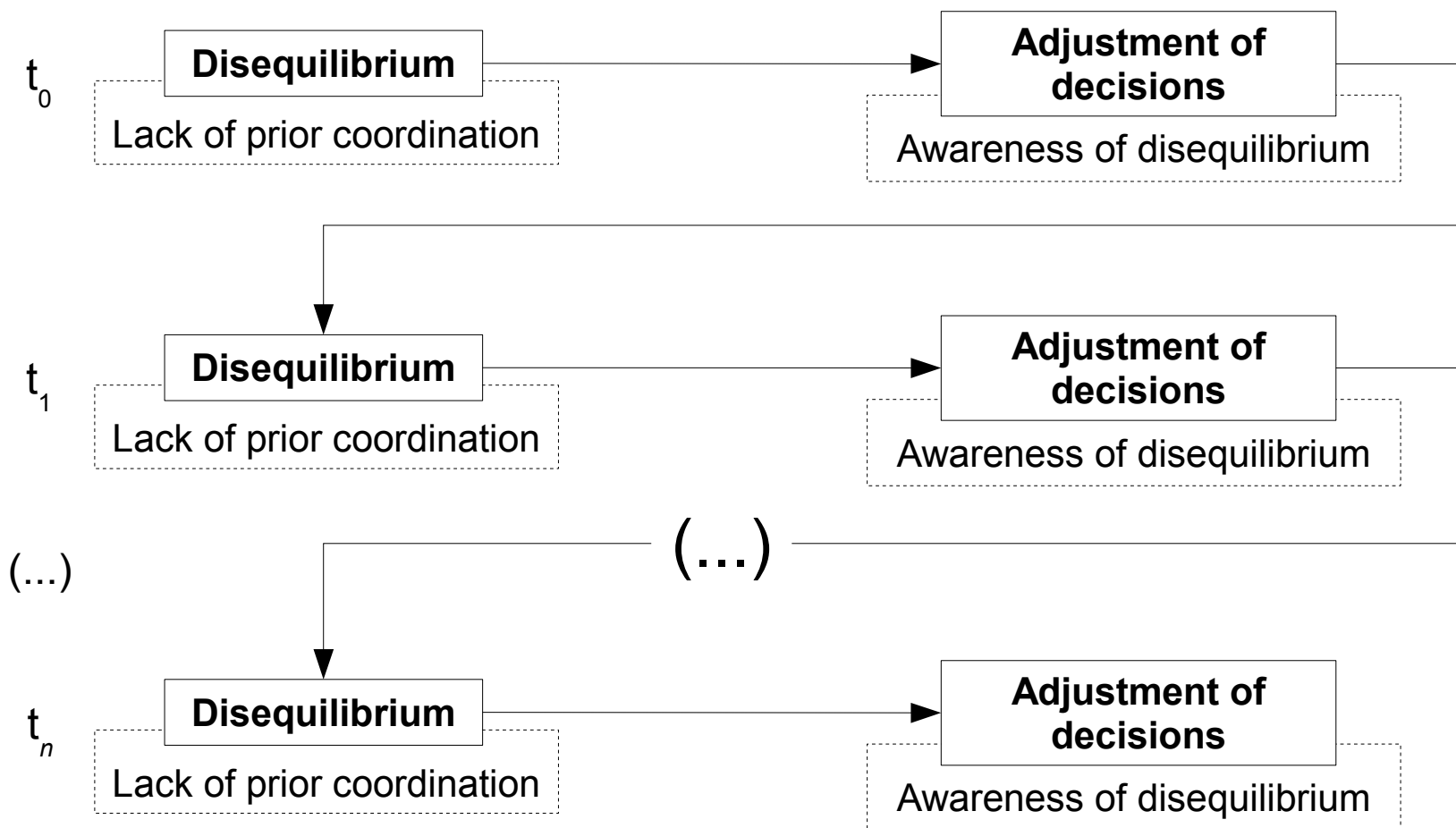
Decision to produce
= incompatible with
Decisions (by households) to consume

Number of jobs decided by firms
= incompatible with
Number of workers decided by
households

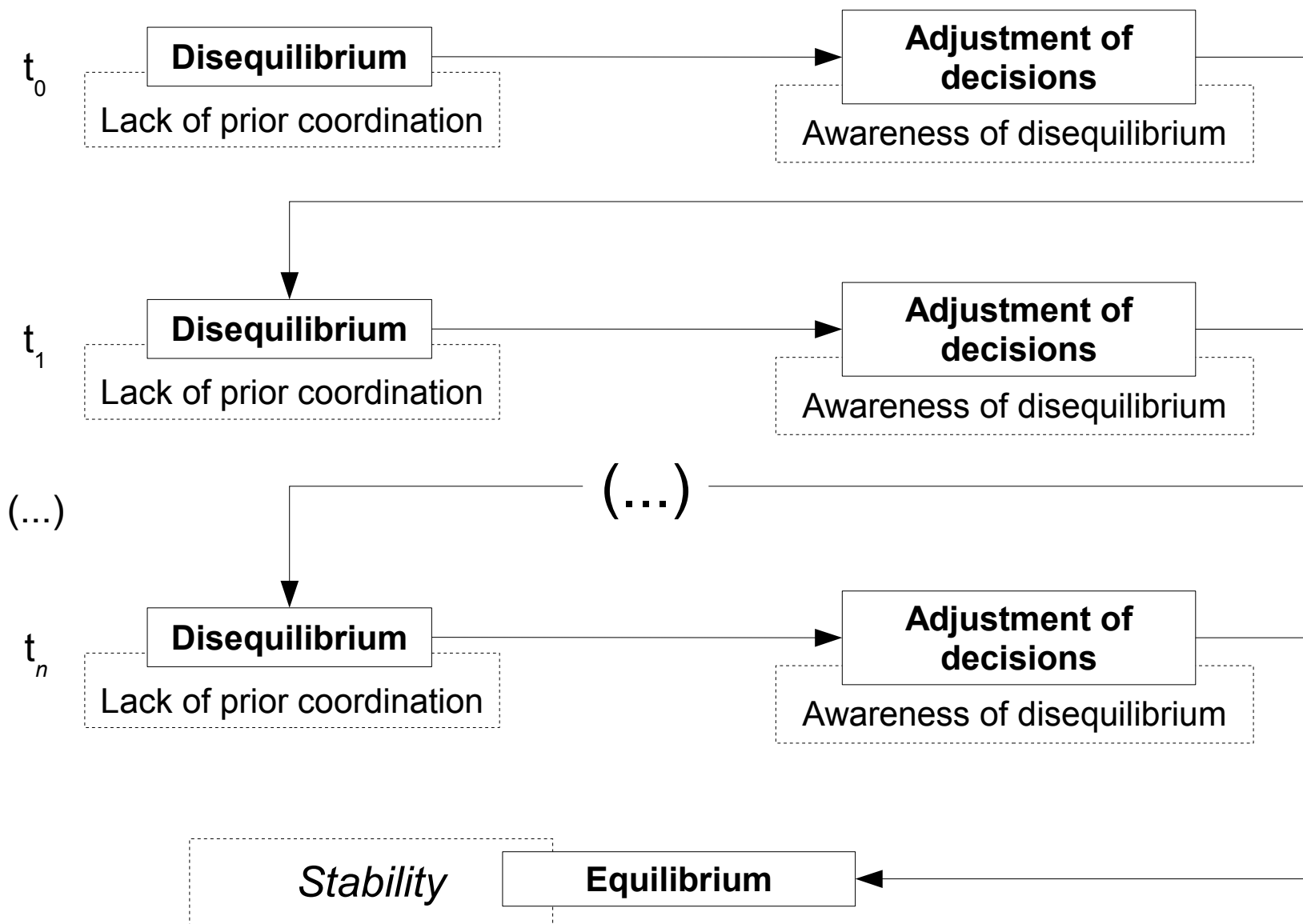


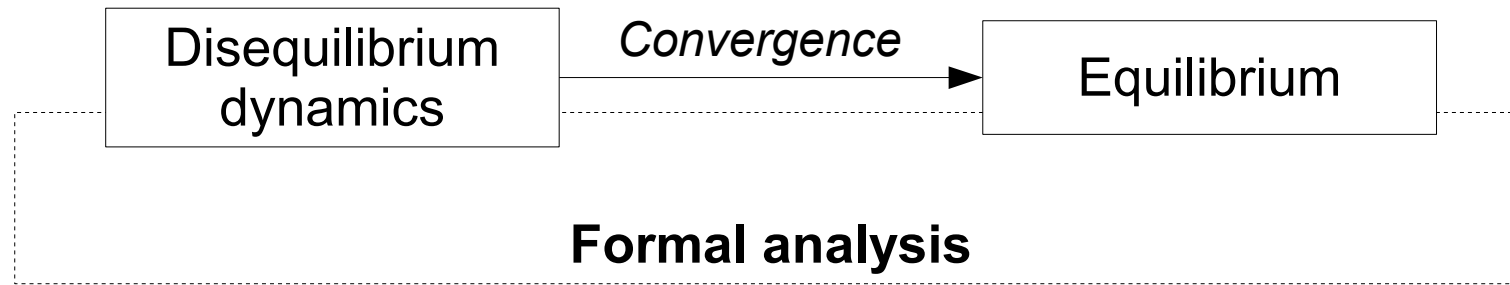


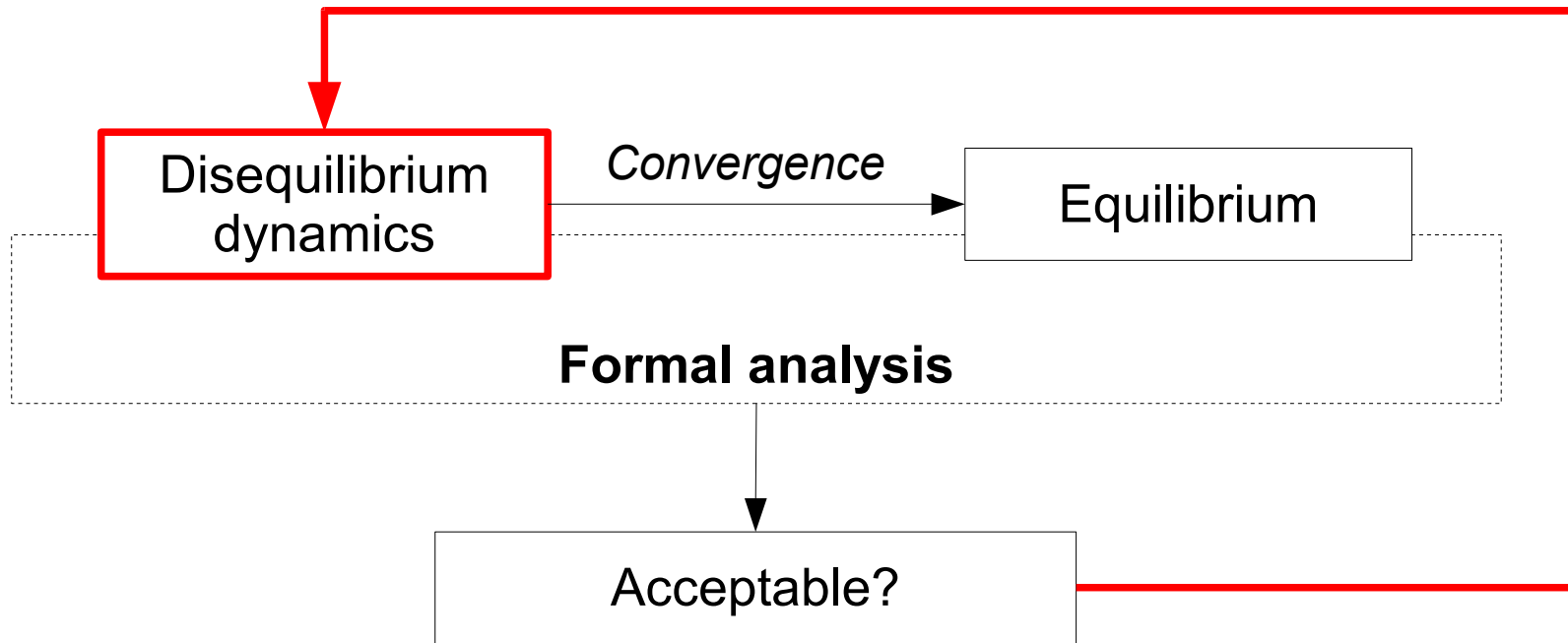
Disequilibrium dynamics



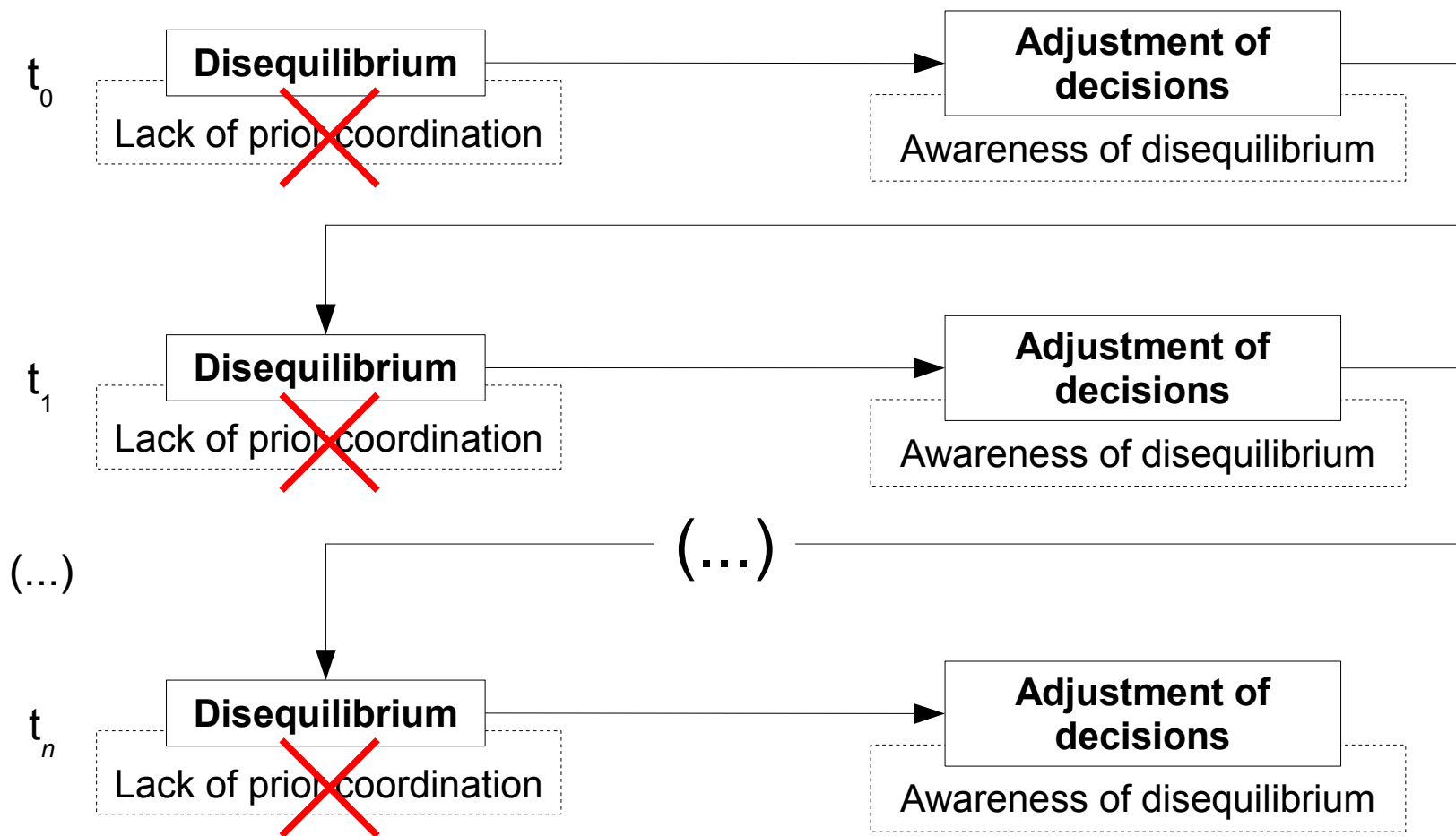
Disequilibrium dynamics and mainstream economics: the question of stability

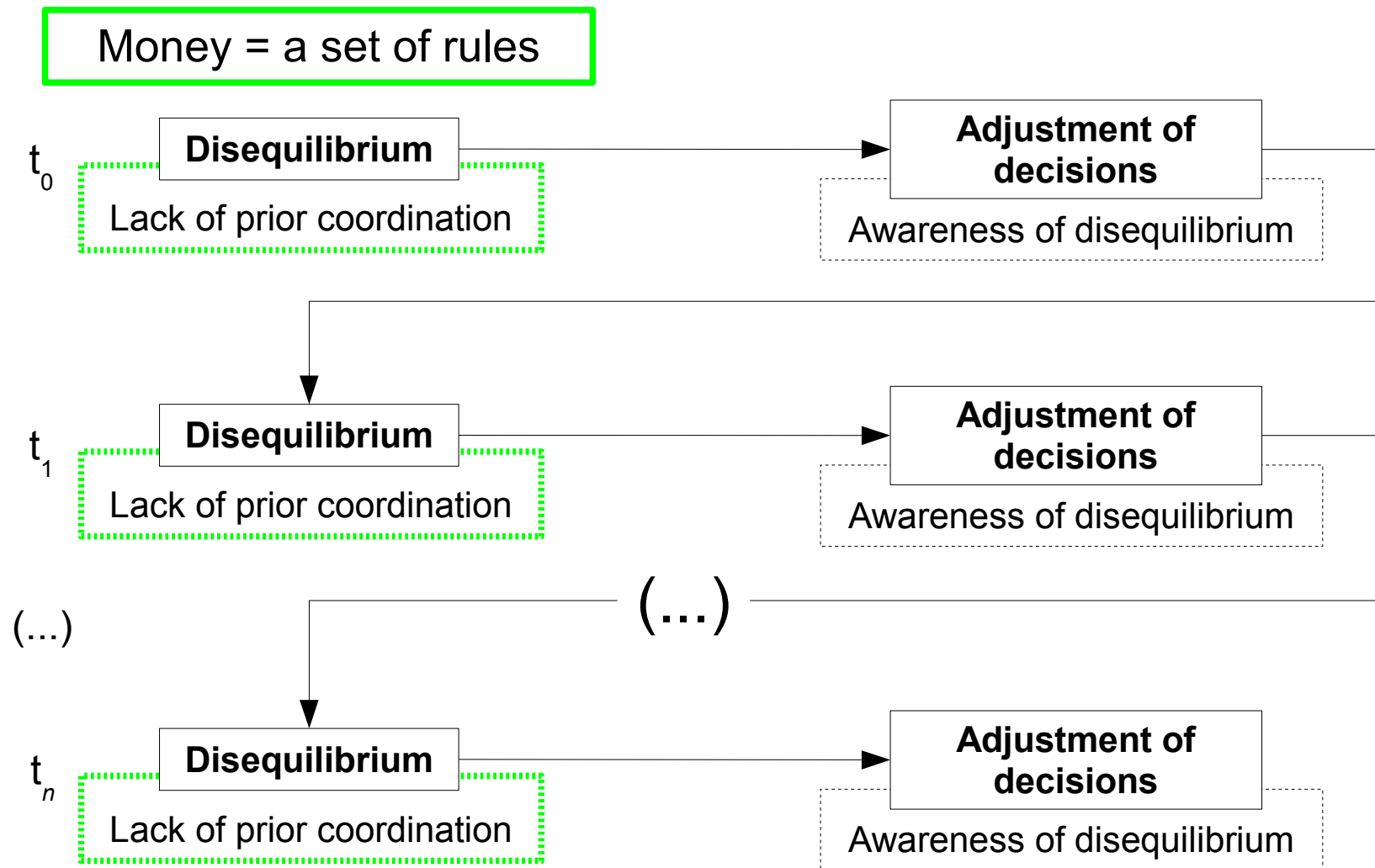


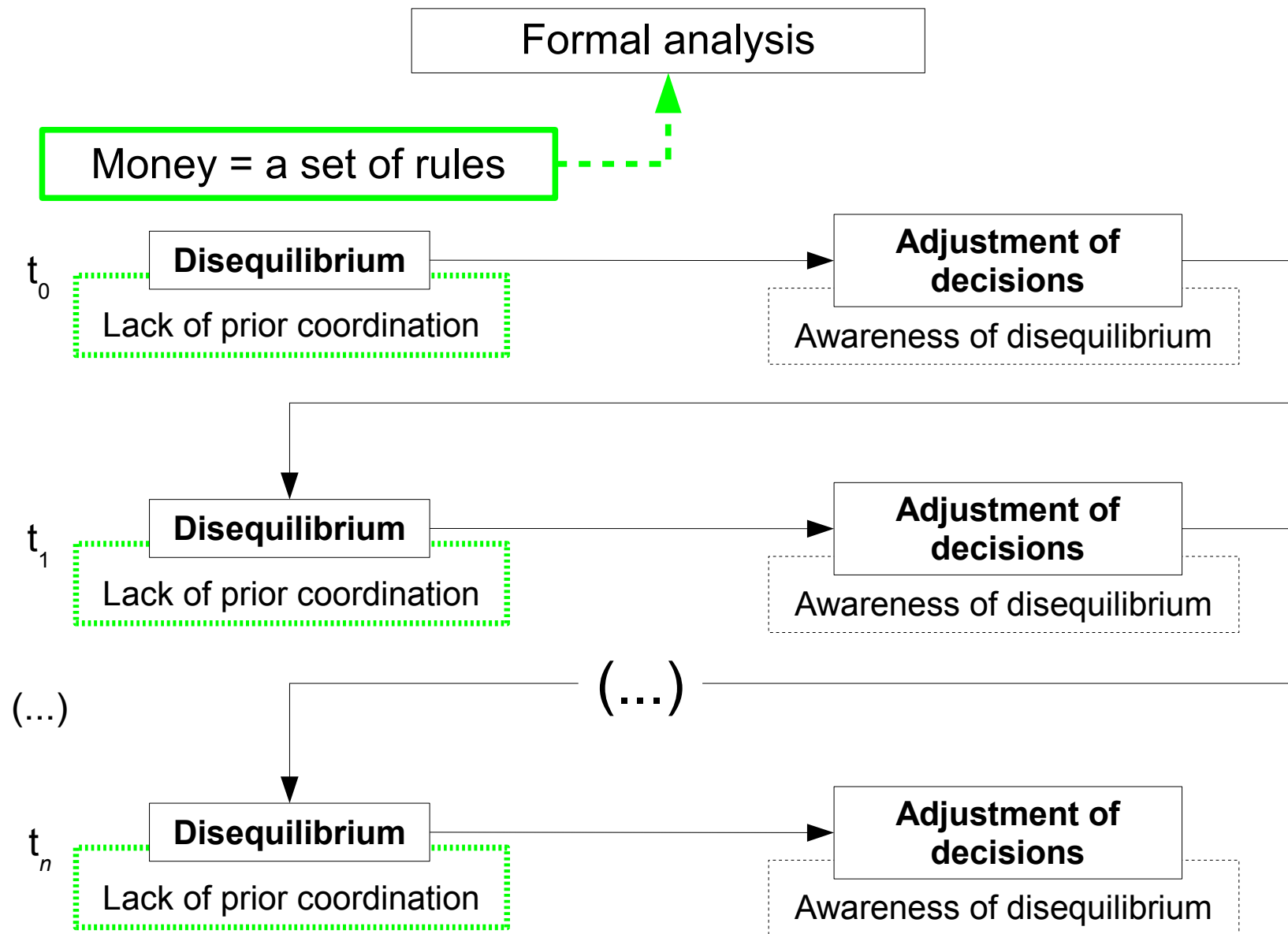




Formal analysis

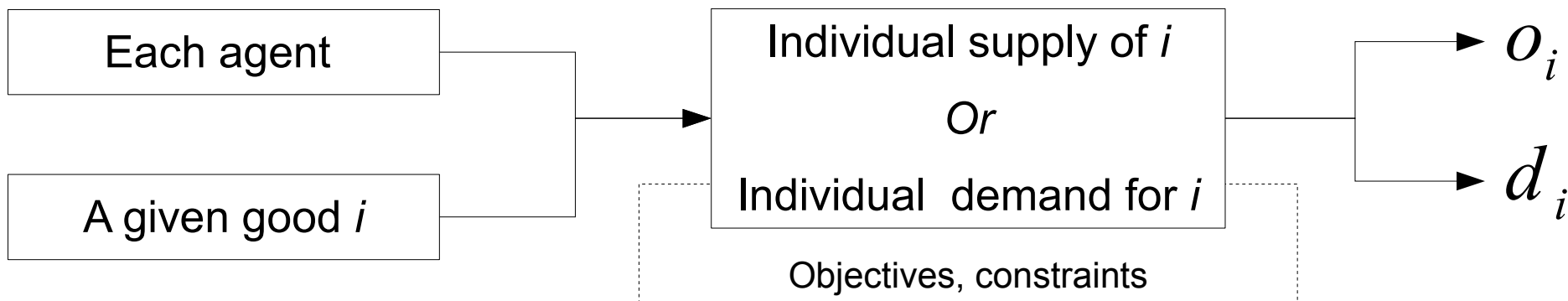




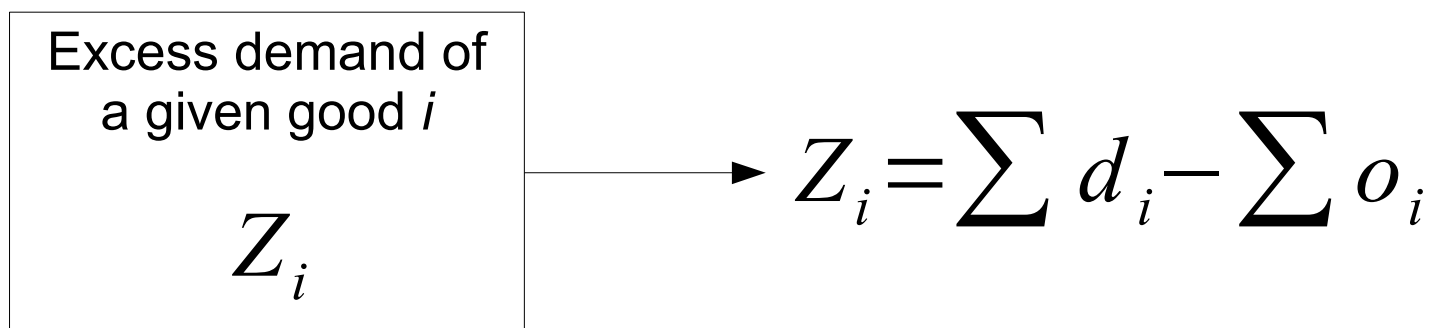


I. Disequilibrium dynamics and *tâtonnement*

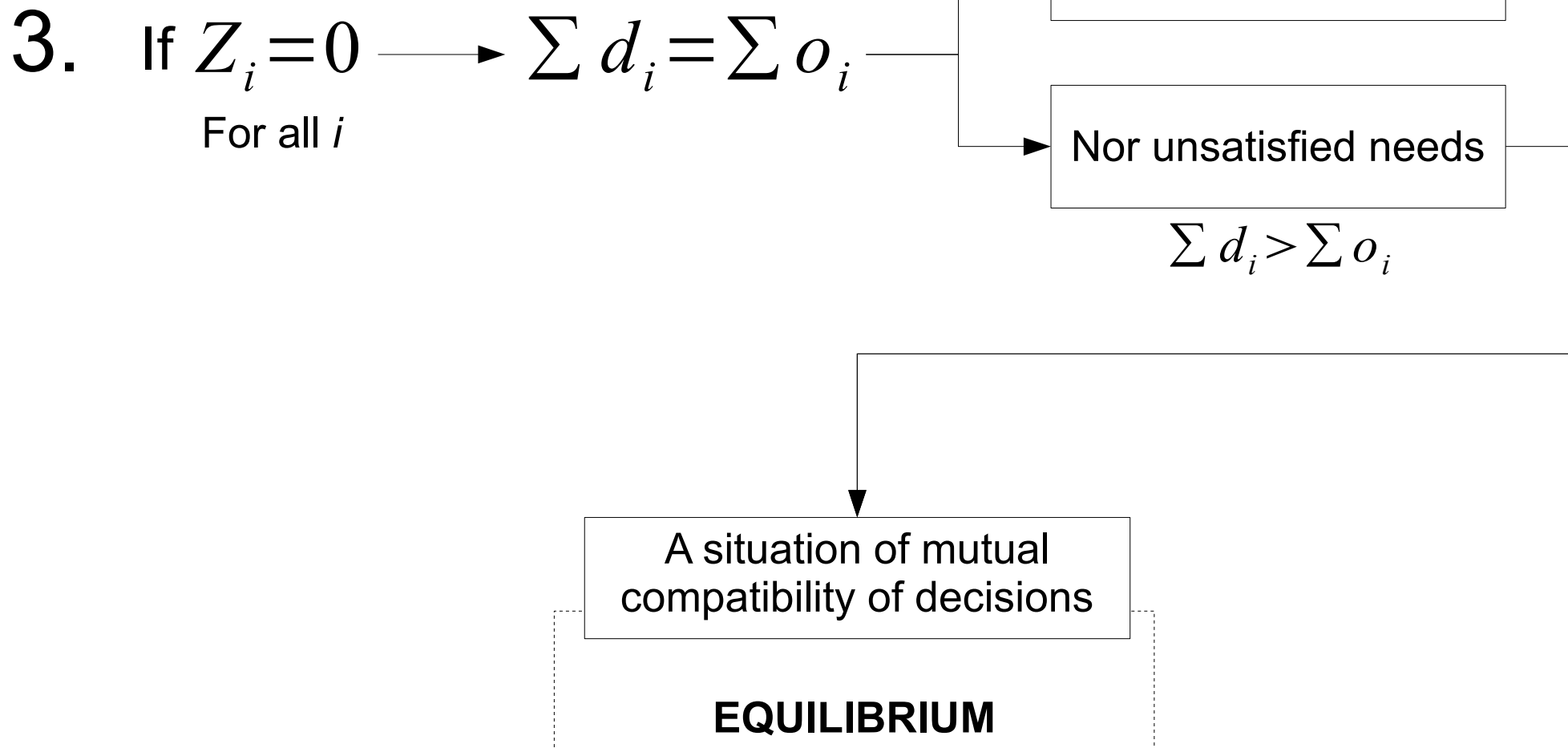
1.



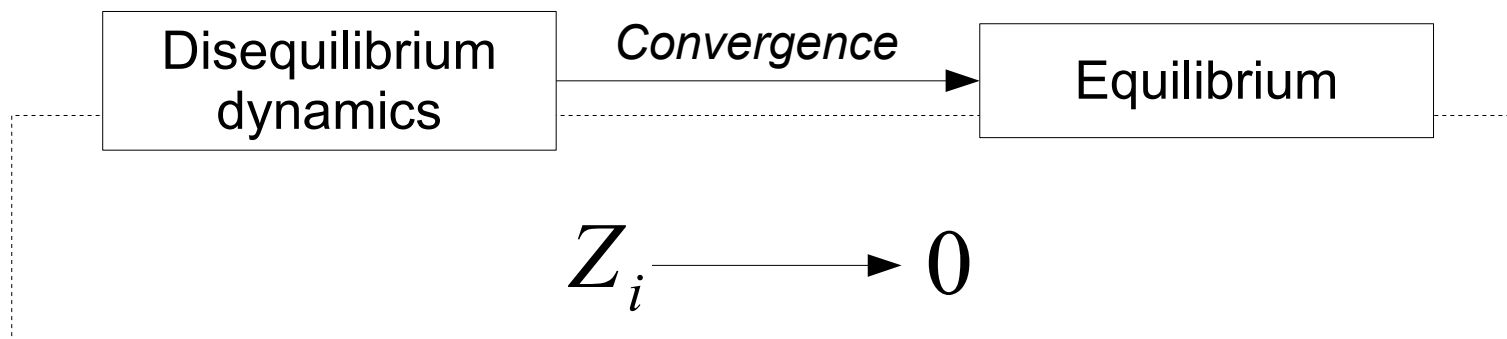
2.



I. Disequilibrium dynamics and *tâtonnement*



I. Disequilibrium dynamics and *tâtonnement*



I. Disequilibrium dynamics and *tâtonnement*

4.

Price variations

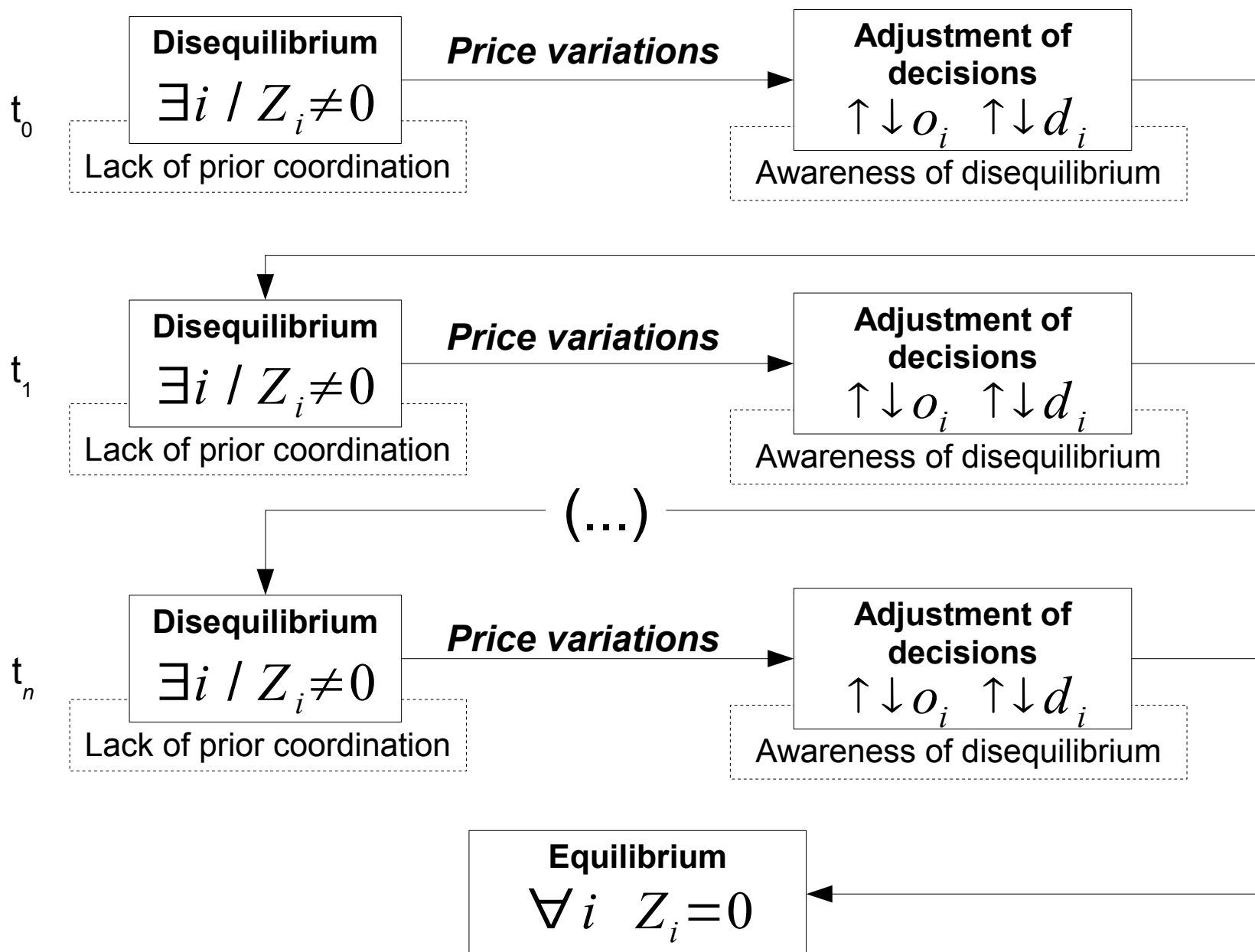
$$Z_i \longrightarrow 0$$

$$Z_i = \sum d_i - \sum o_i$$

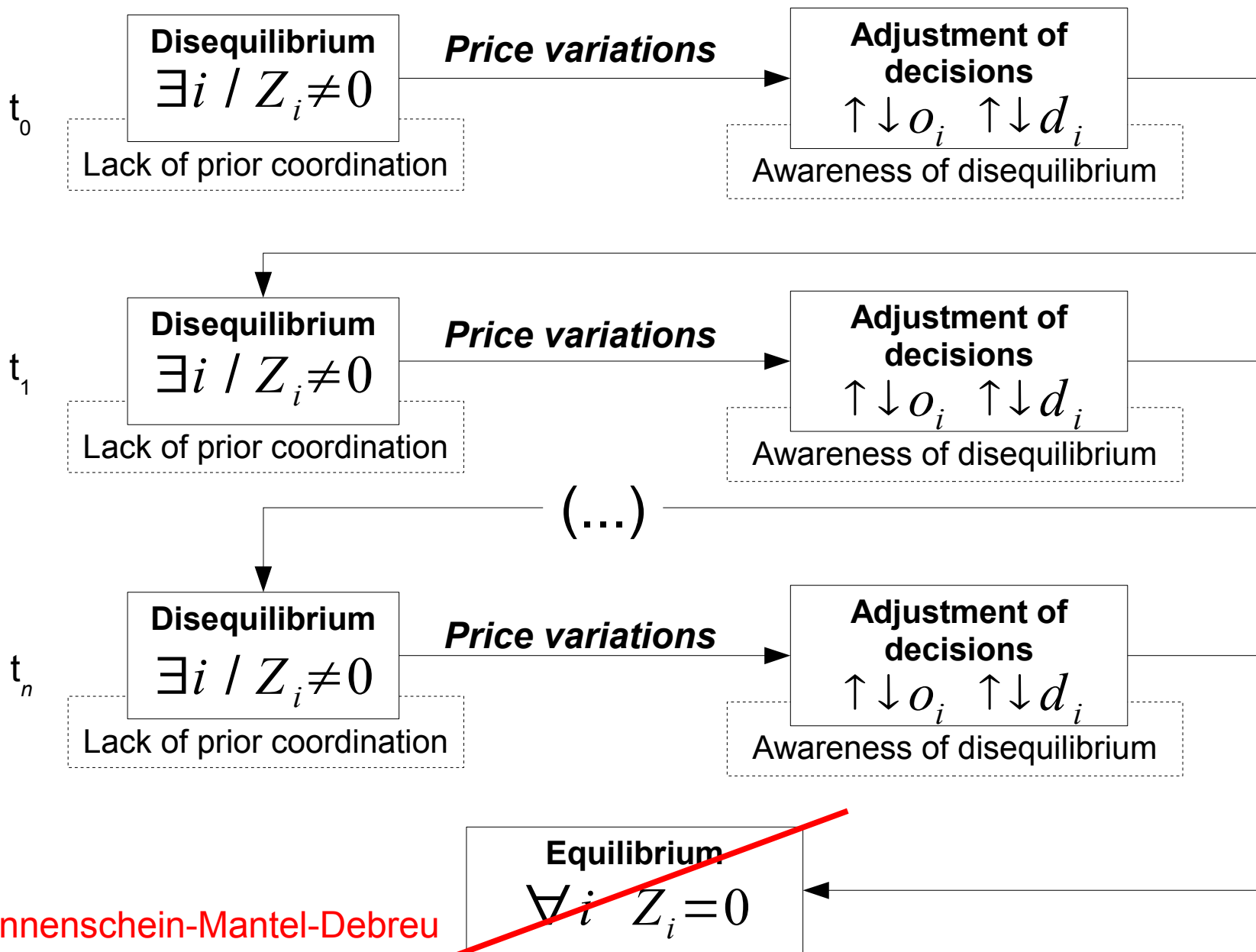
$$\uparrow p_i \longrightarrow \downarrow d_i$$

$$\uparrow p_i \longrightarrow \uparrow o_i$$

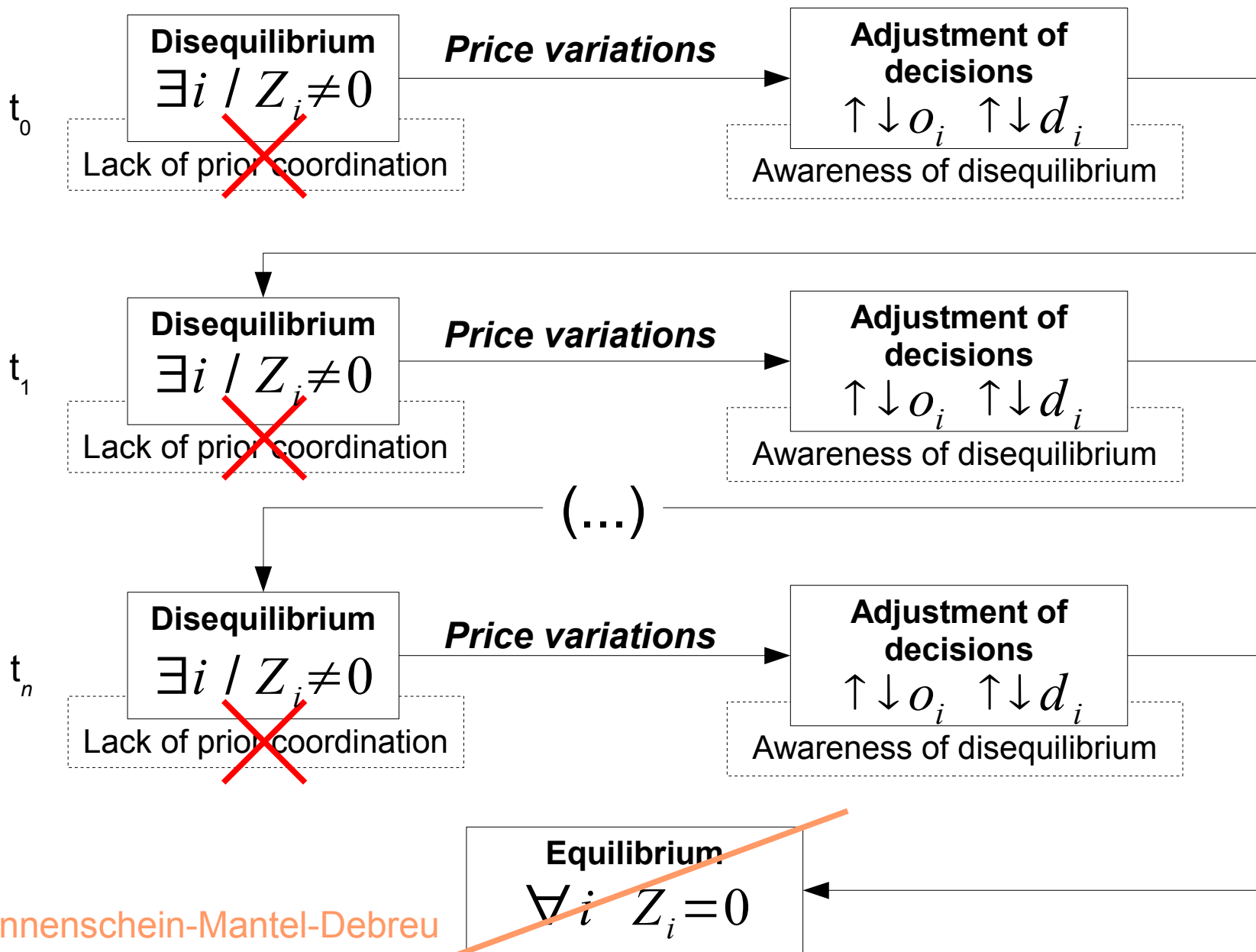
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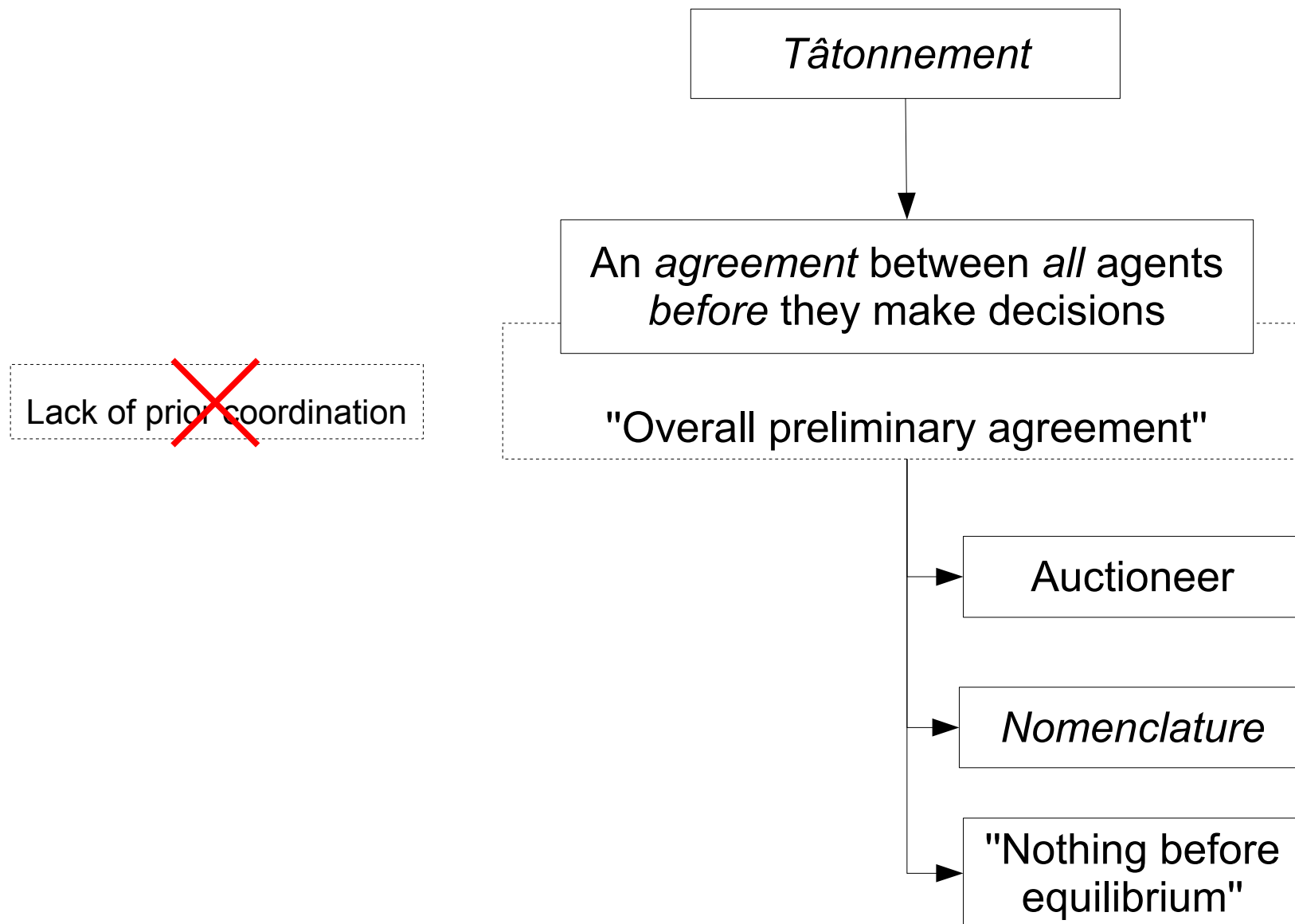
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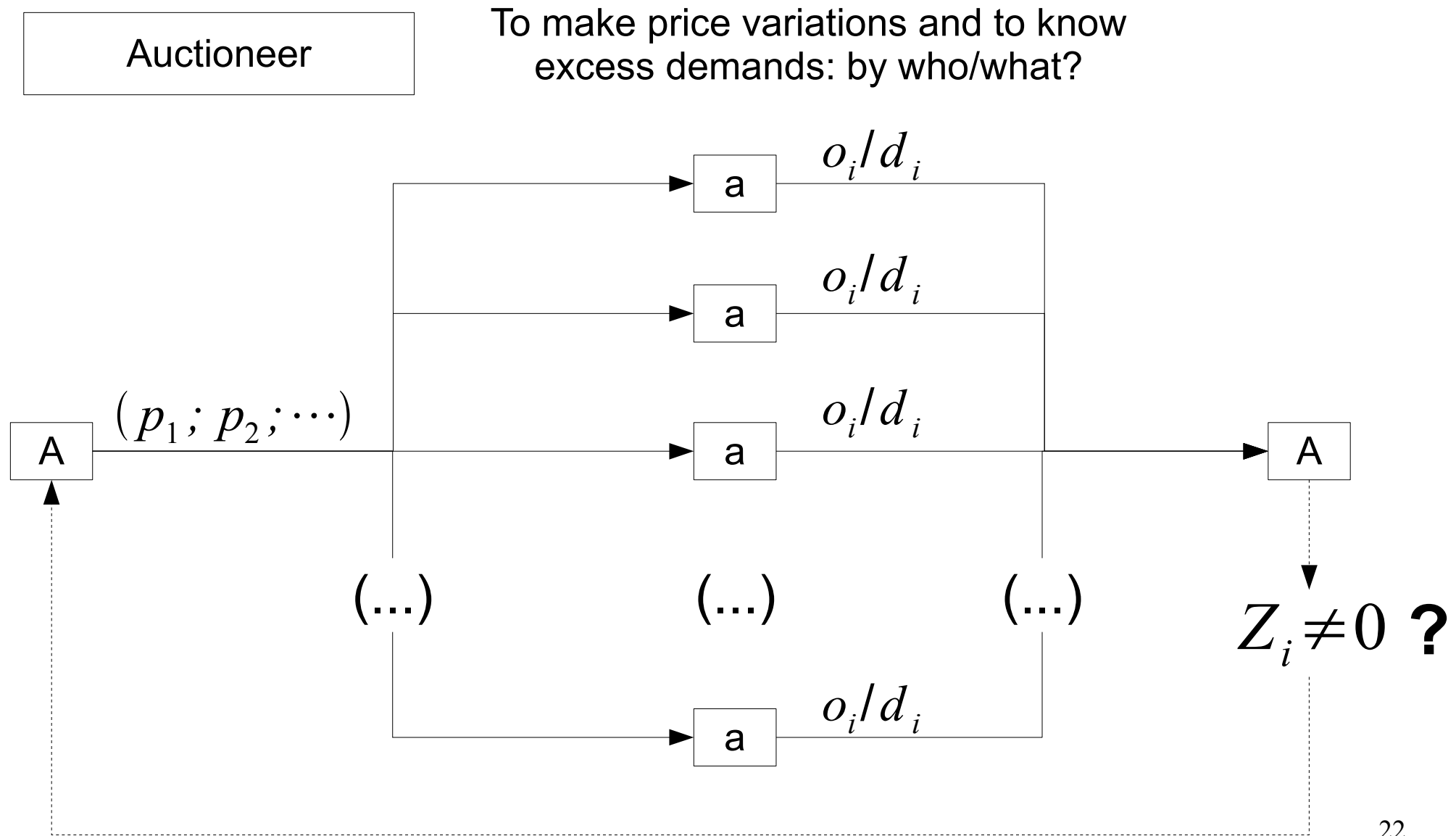
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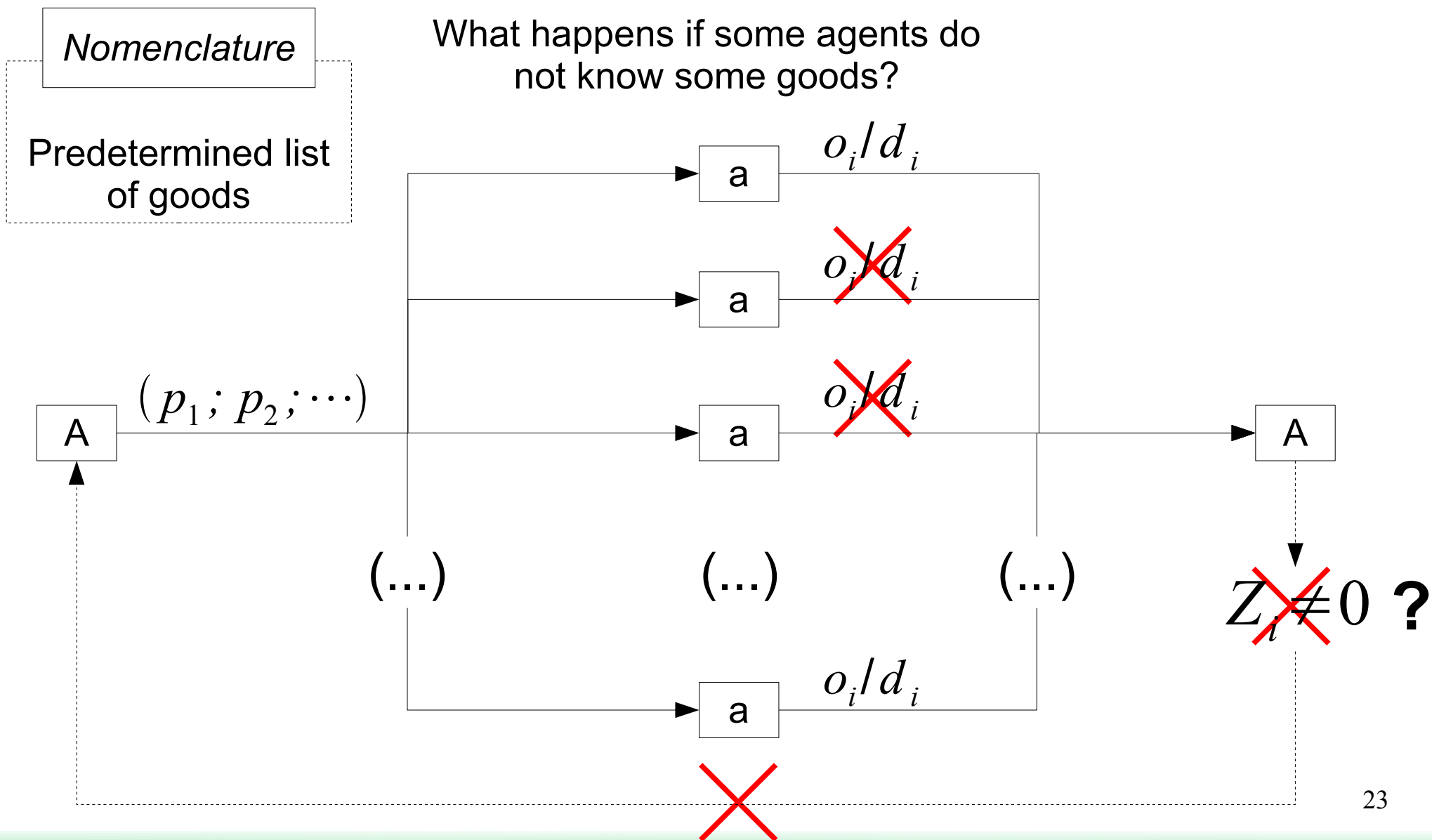
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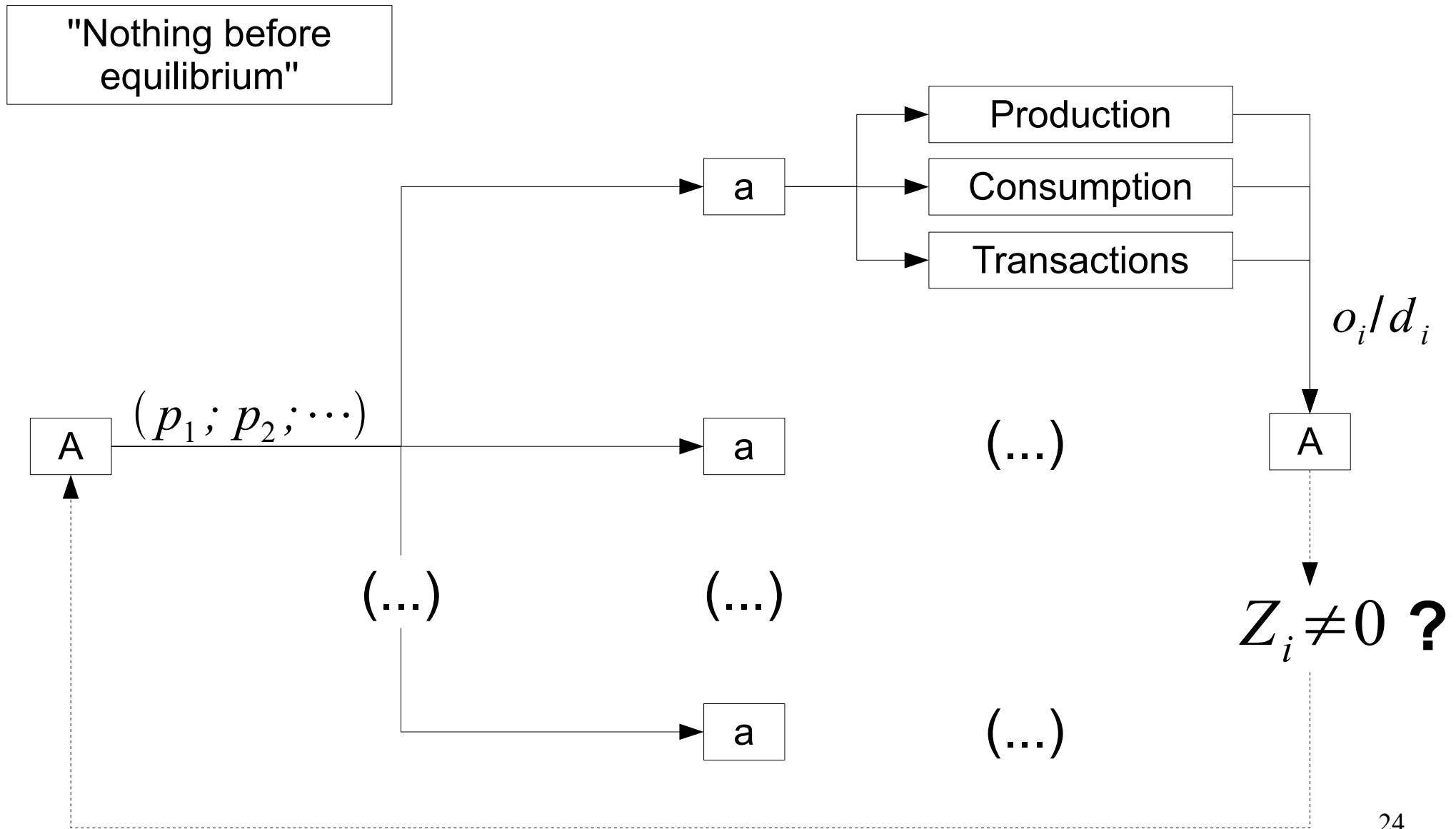
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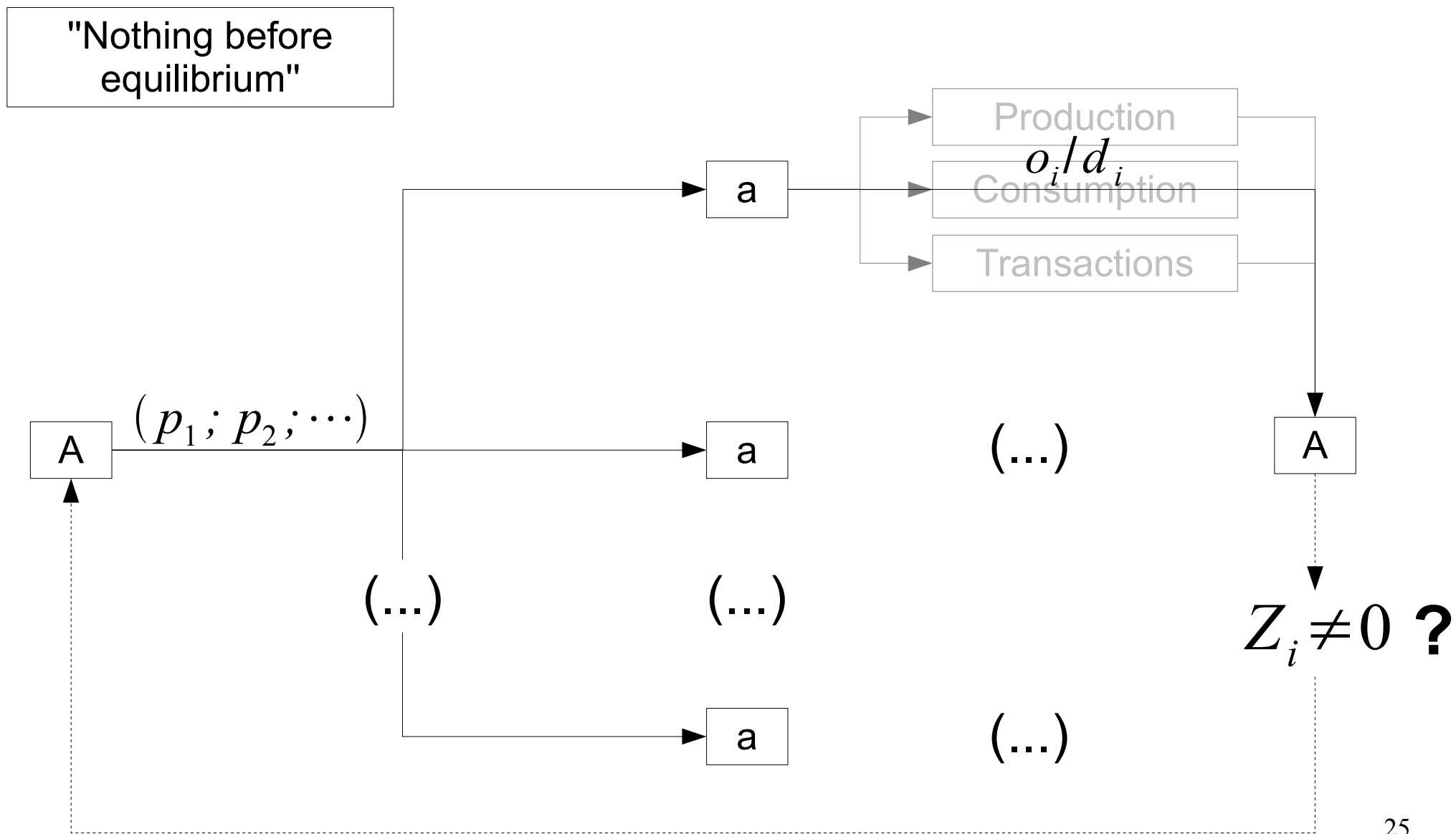
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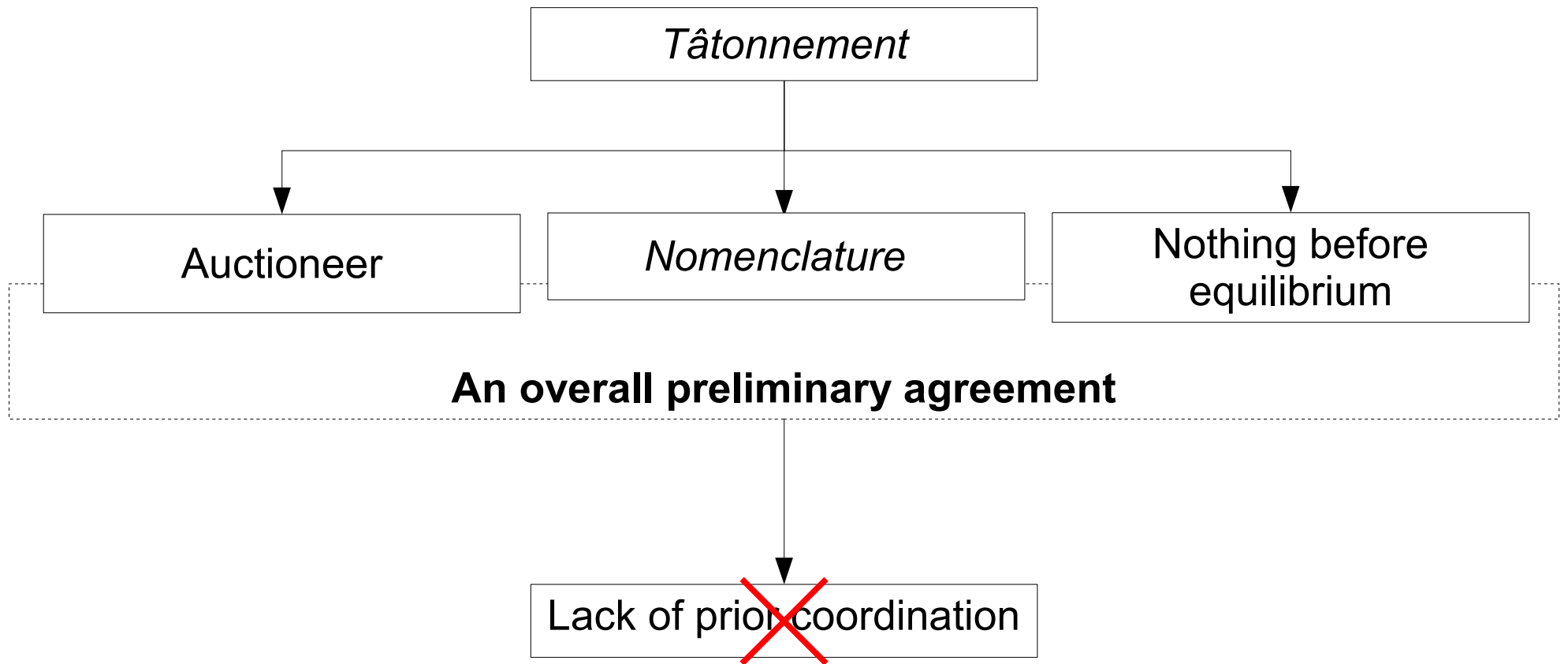
I. Disequilibrium dynamics and *tâtonnement*



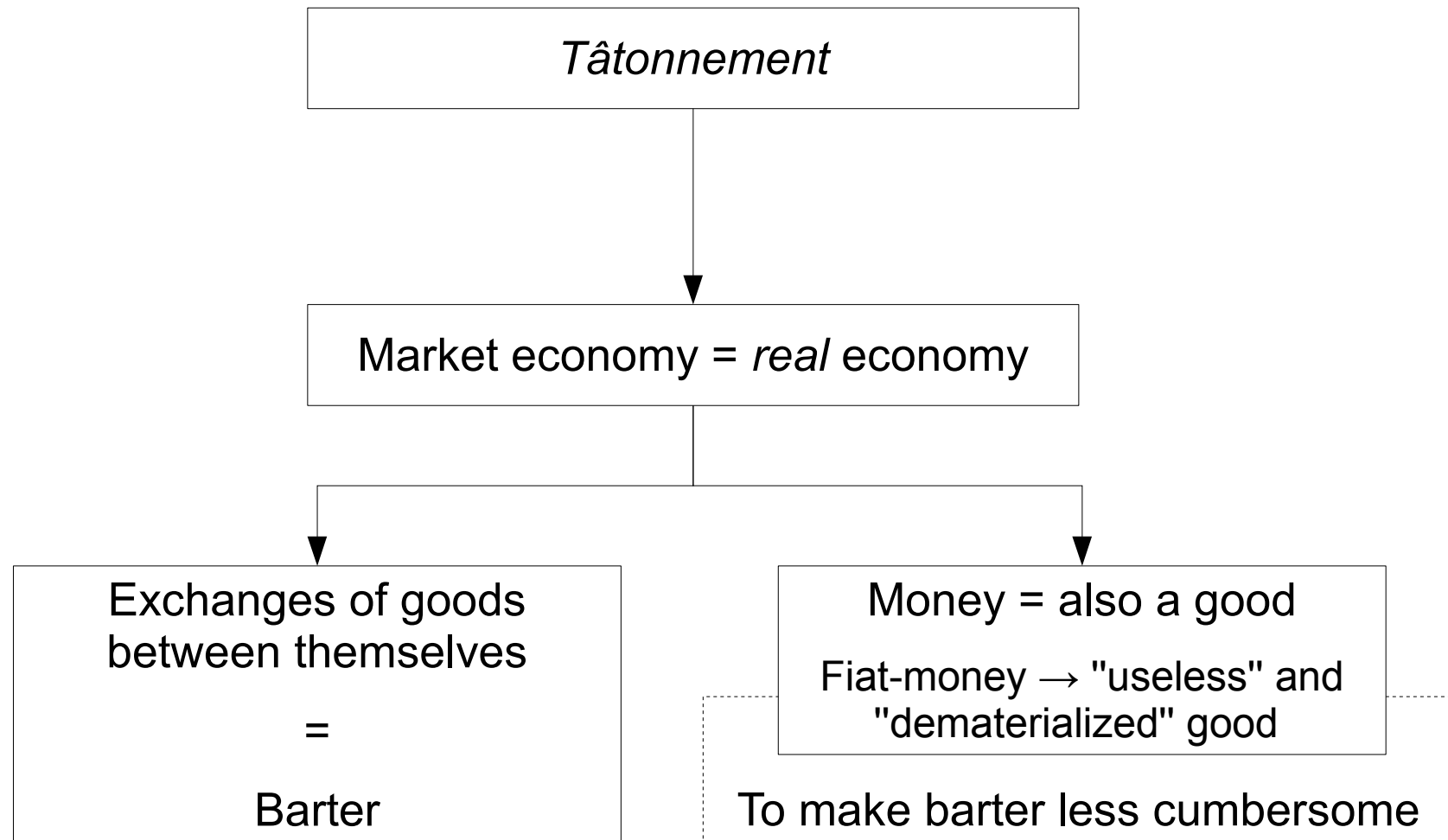
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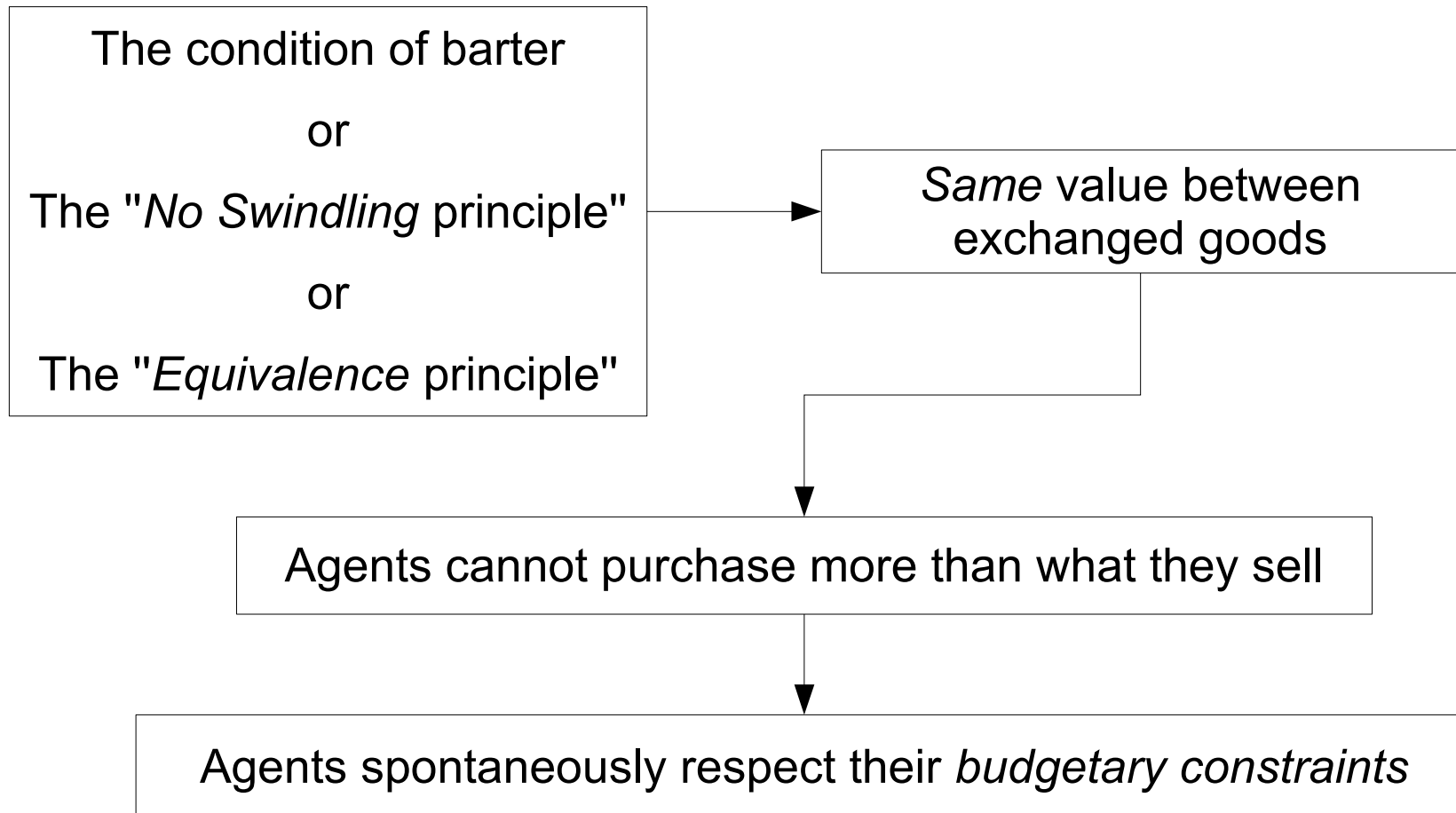
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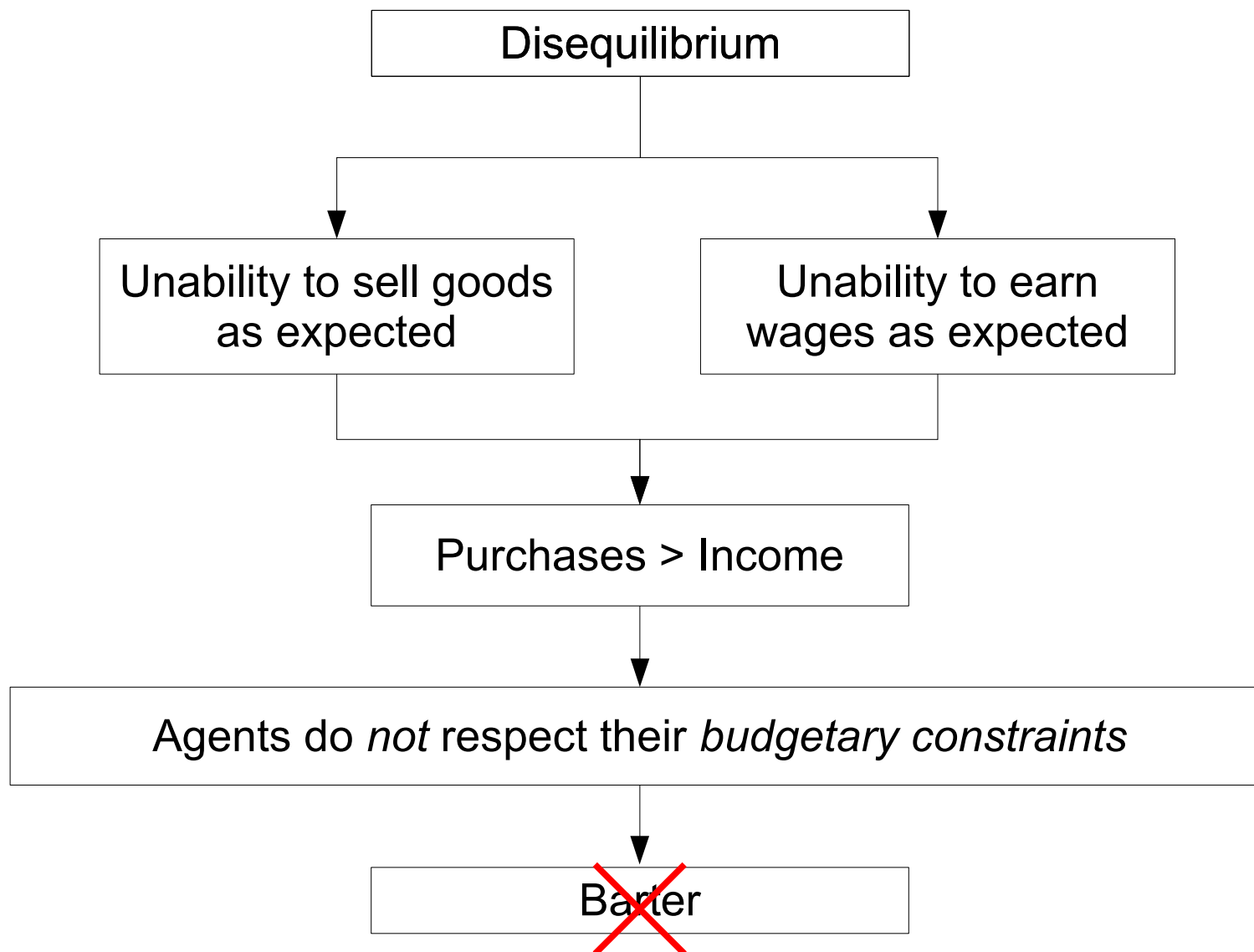
II. Disequilibrium dynamics and money



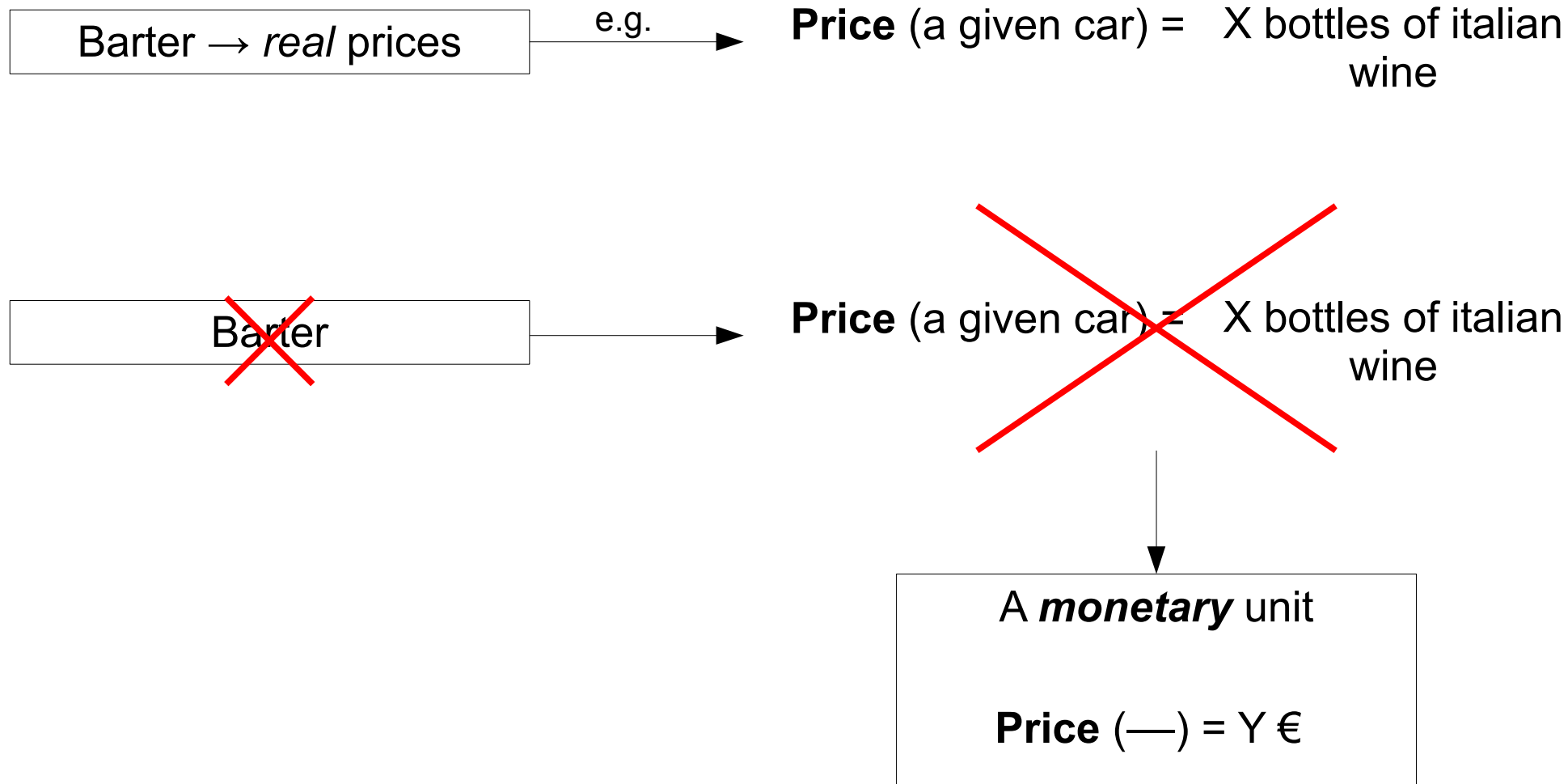
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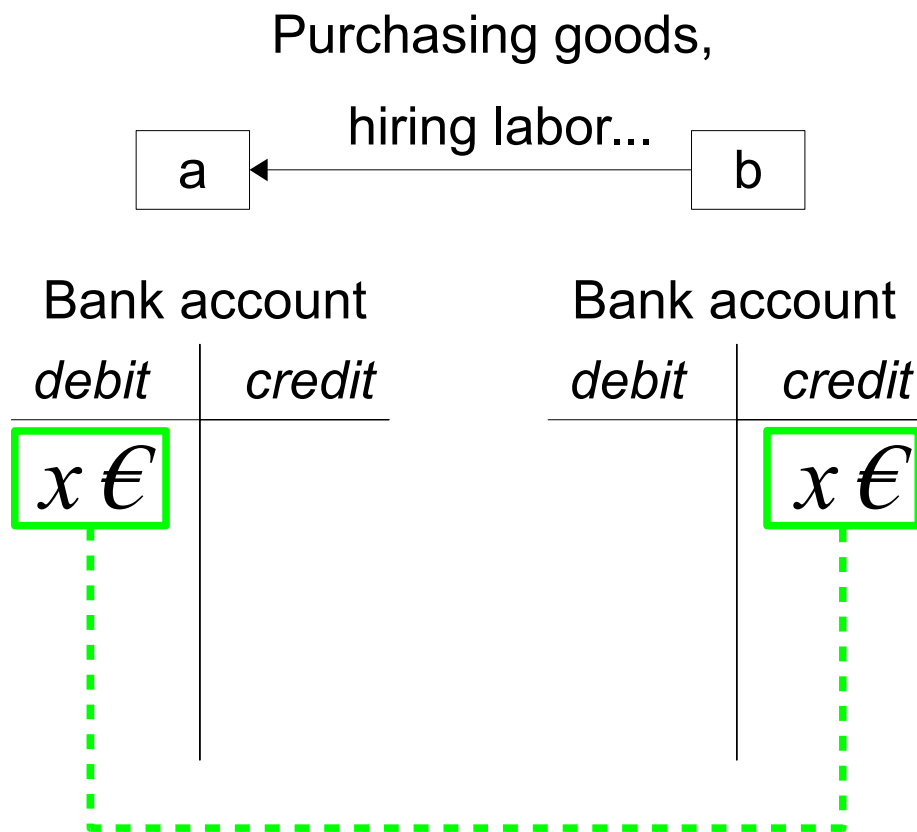
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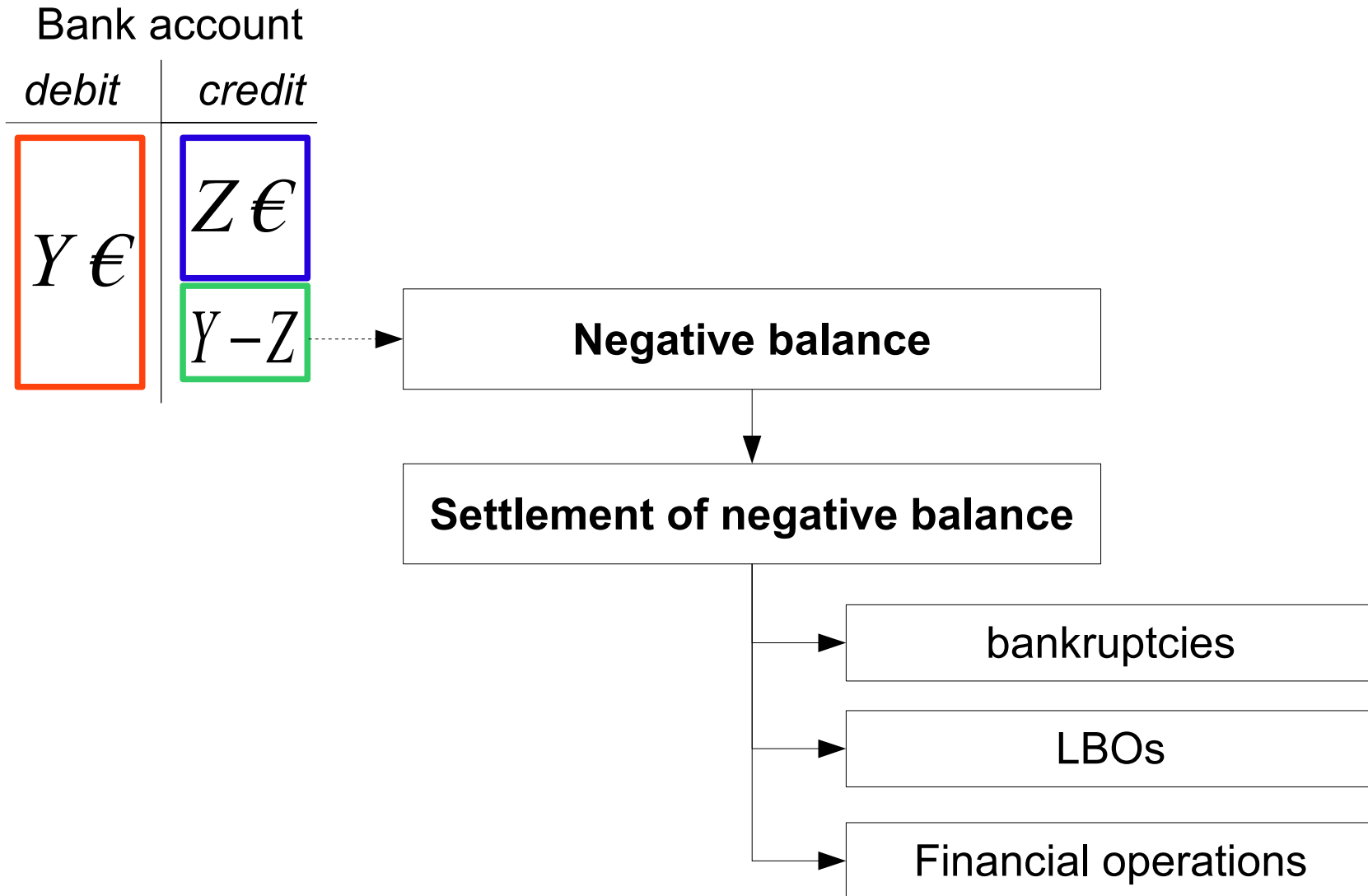


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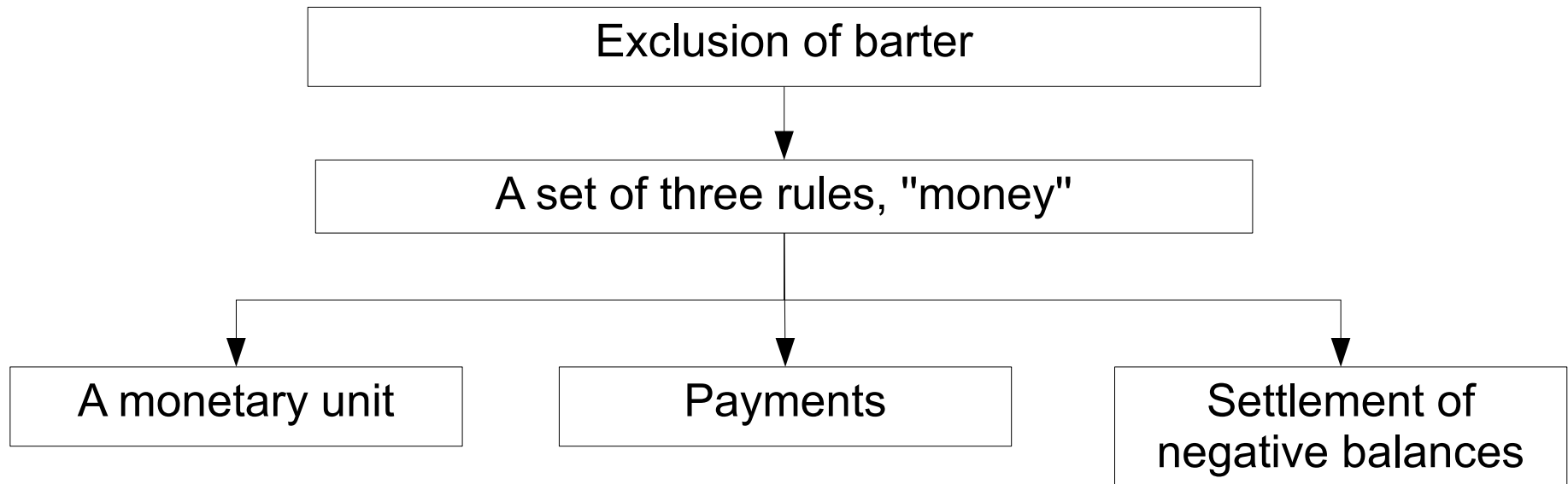


+x€ (credit) / -x€ (debit) = "payment"

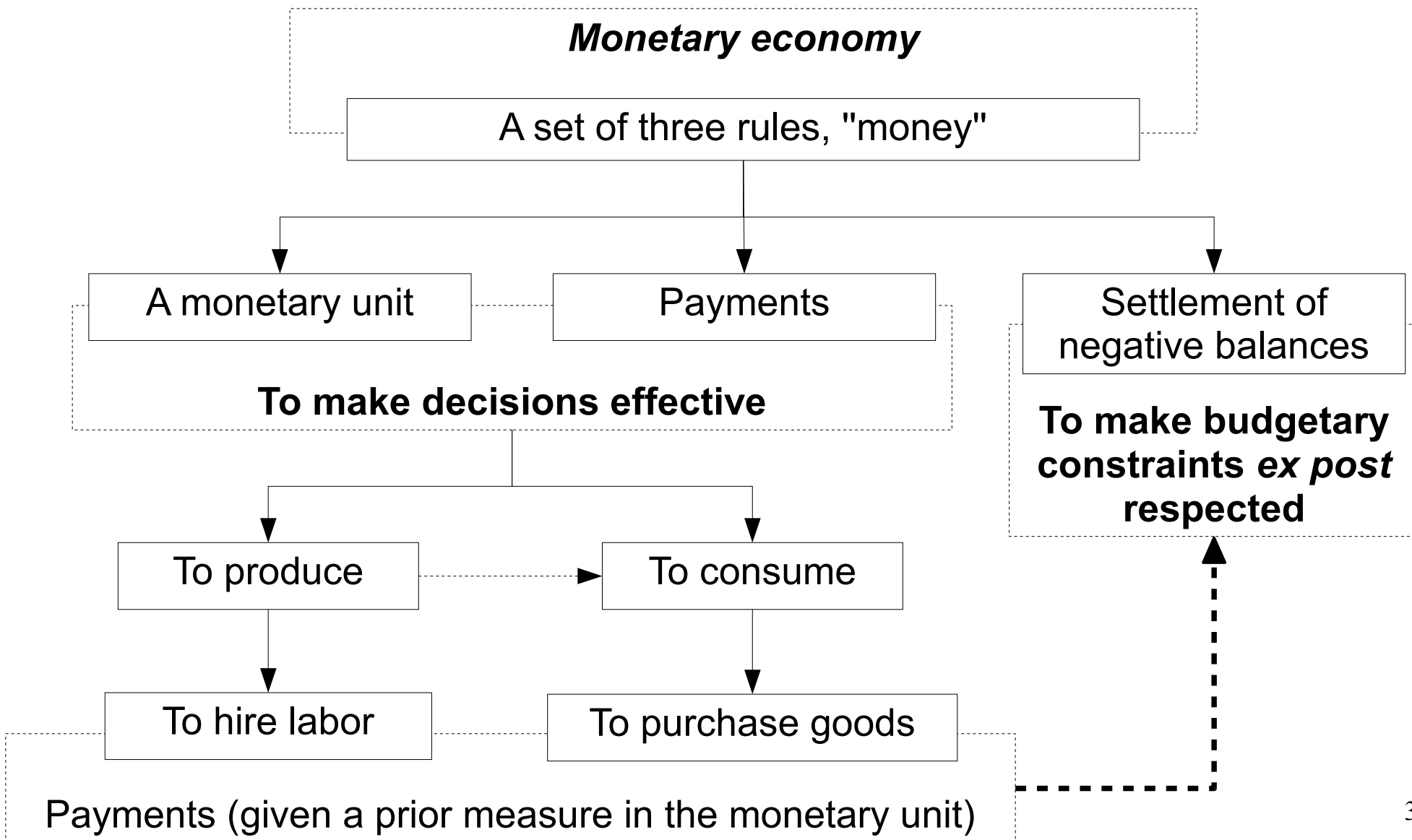
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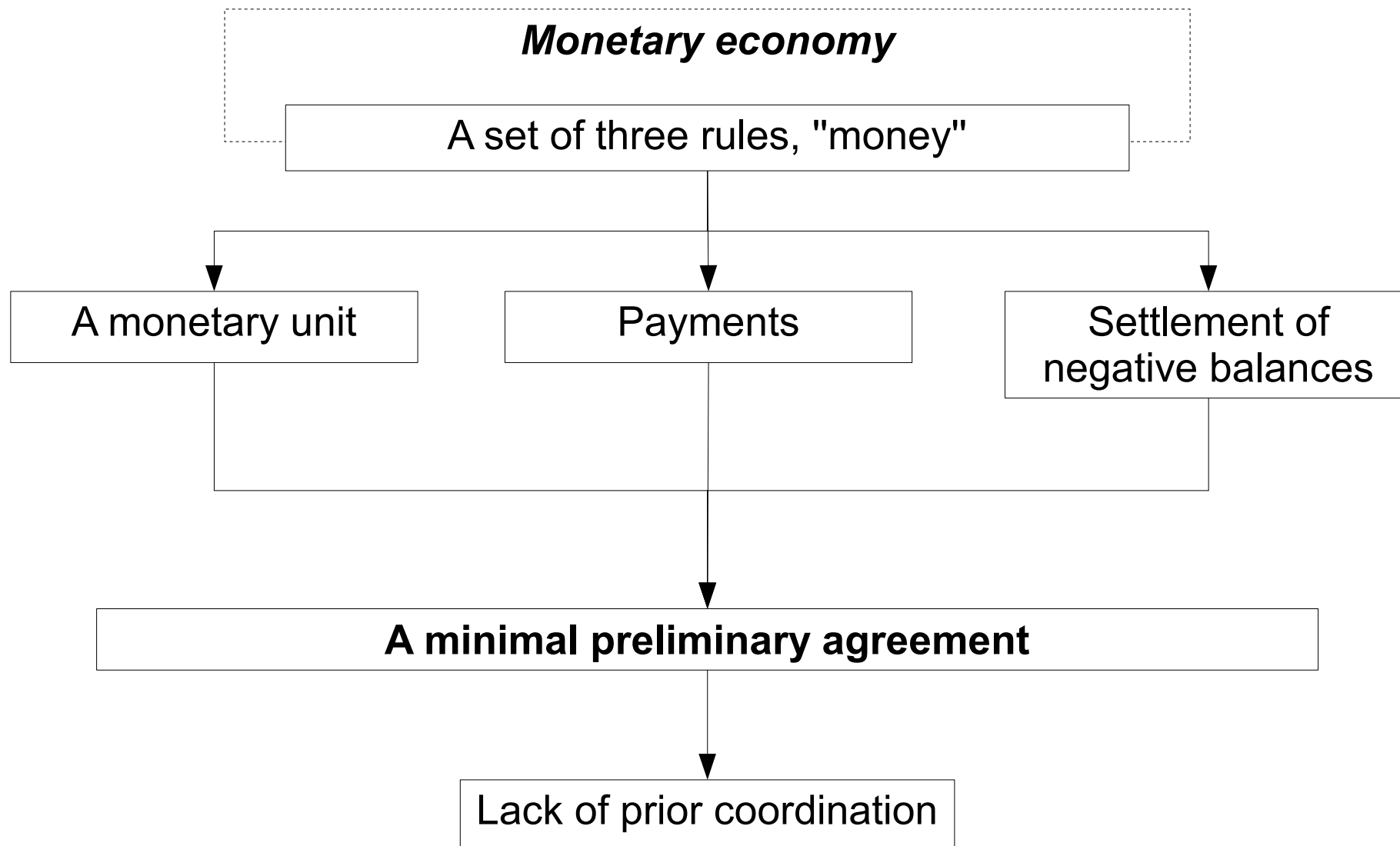
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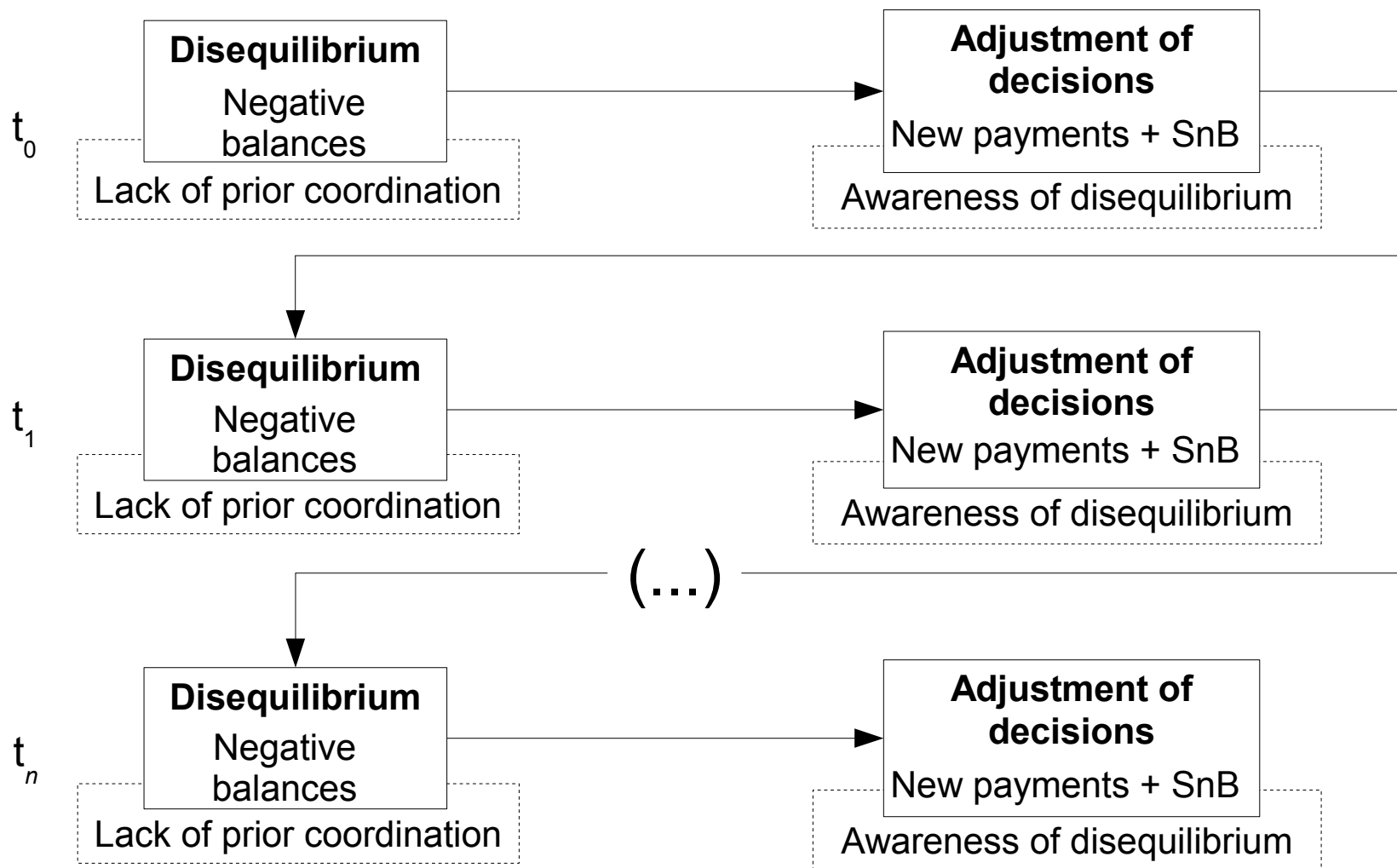
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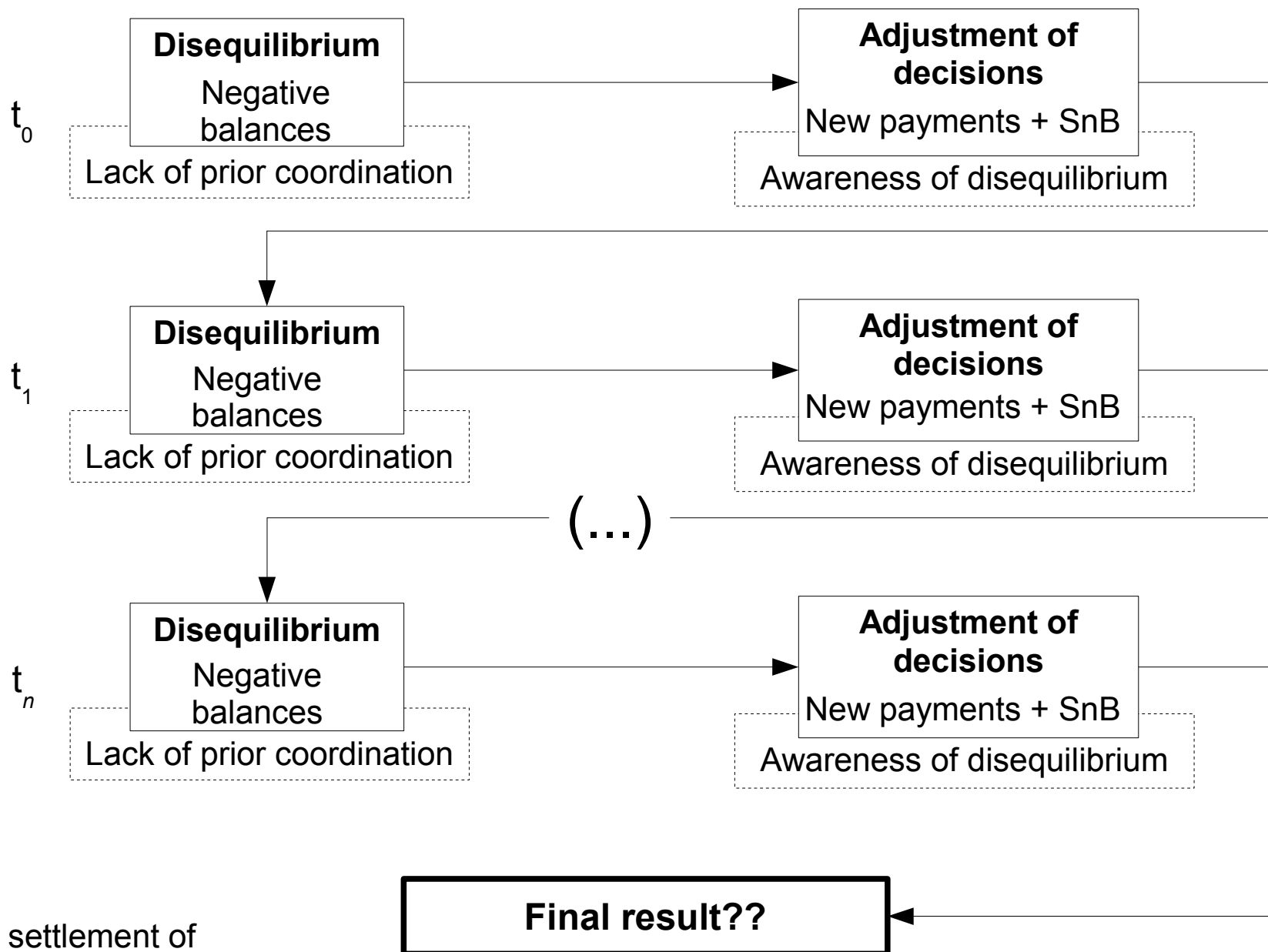
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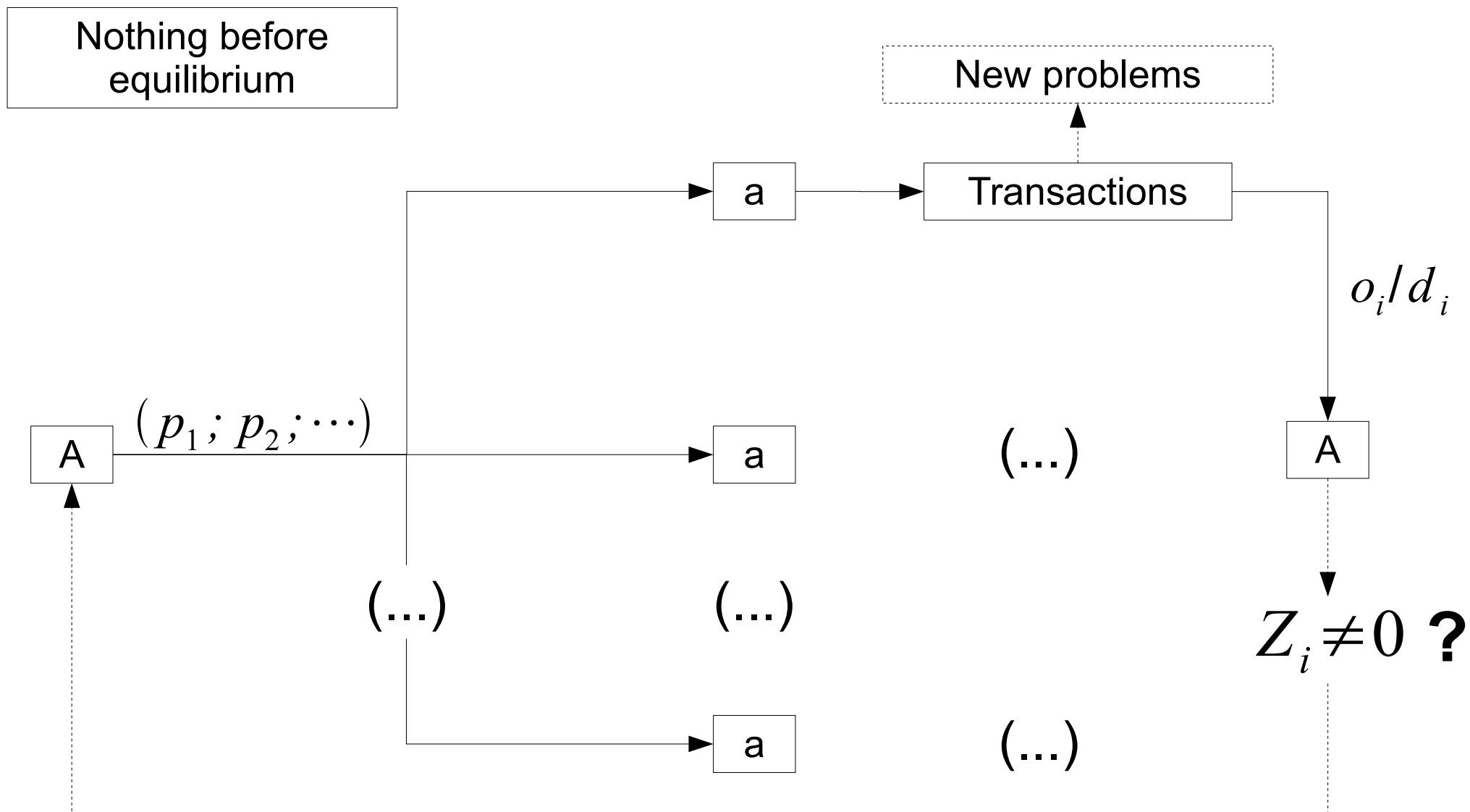
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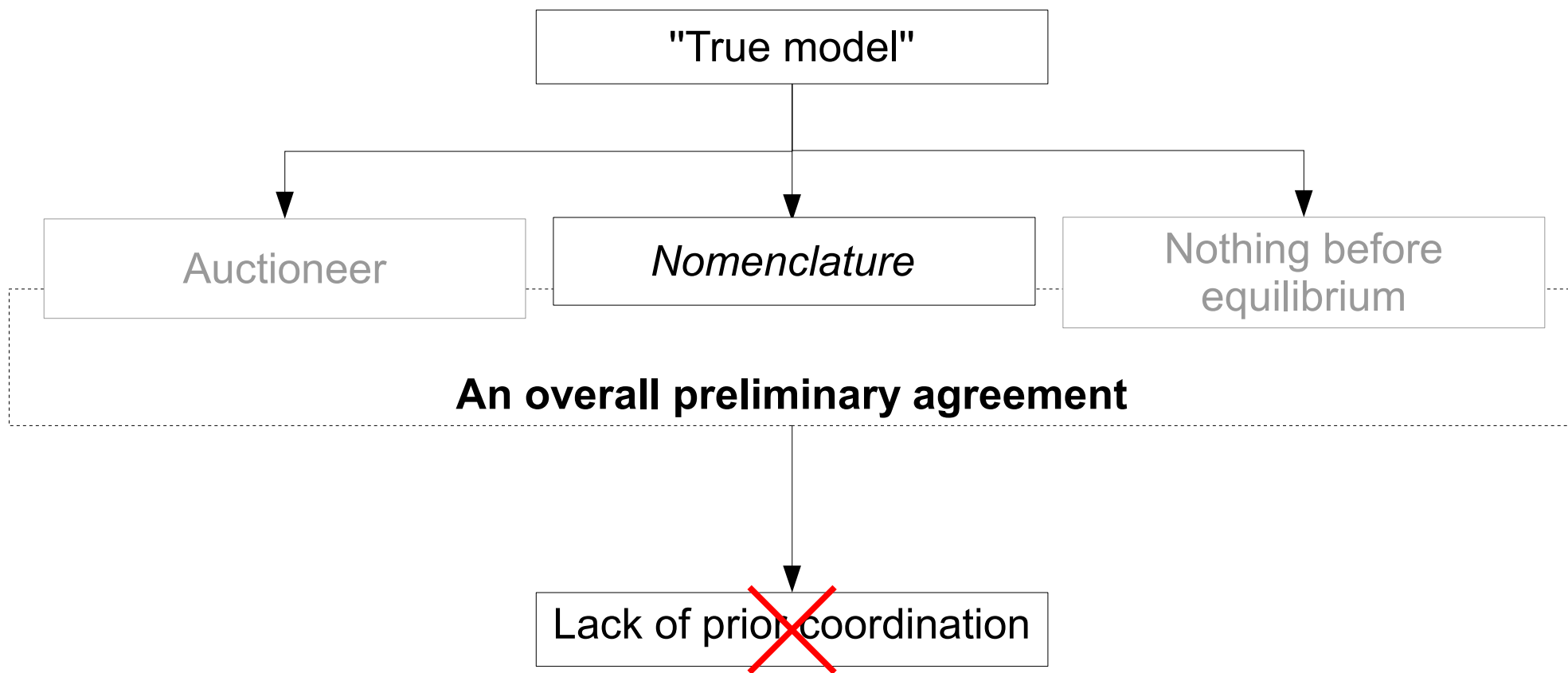
SnB = settlement of negative balance

THE END

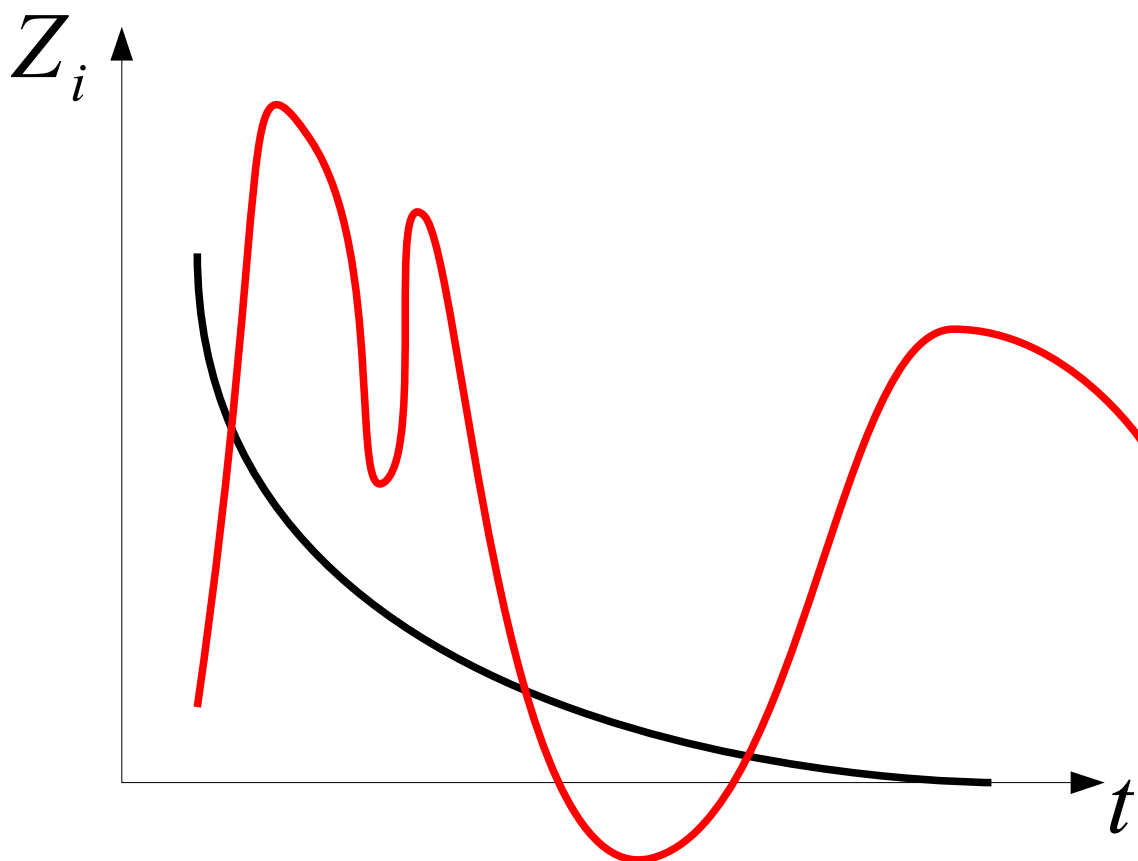
Disequilibrium dynamics, the Edgeworth Process and the Hahn Process (Just a few words)



Disequilibrium dynamics and the "true model" à la Fisher (Just a few words)



The Sonnenschein-Mantel-Debreu Theorem (Just a few words)



$$\frac{\partial p}{\partial t} = H_i[Z_i]$$

$$p = (p_1; p_2; \dots; p_n)$$

H_i Sign preserving

("Continuous" case)