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Reconstruction Theory

In Chapter 4 the abstract properties of the representations of an entrepreneurial agreement, an enterprise, an open enterprise and an e.p.r.s institution in general, have been formulated and discussed extensively. It is clear now that the representations have an aggregate principle, described by the appropriate expansion of e.p.r.s, duals and in the case of openness transfers. In this Chapter in focus are the converse issues. Namely, the idea is to investigate could a collection of elements of an economic club, which can be strictly identified with simple economic institutions in a certain clear sense, be equivalent to the representations of some enterprise which is to be reconstructed. In addition, within an economic setting where one would allow the identification to be somewhat weaker regarding associatively of aggregate principle, one could hope for reconstruction of a quasienterprise instead. In particular, ones economic principles concerning the procedures of reconstruction are identified, one would like to suggest other weaker concepts of enterprise formation. These can be tailored to have particular properties for their club of representations. In this Chapter, the diagrammatic technique is used, where the elements in our collection need not be identified with the simple economic institutions at all, and where the reconstructed enterprise is an enterprise that allows transfers or is a transferred enterprise. Theorems that concern economic constructions are grouped on those for simple cases, discussed in next Section while more complex cases are studied later on.

5.1 Reconstruction in Simple Institutions

To get economic intuition about the issues first an informal view of the procedures is sketched in Subsection 5.1.1, to be followed by more precise consideration of the procedures for reconstruction an economic institution on collection of simple ones or their clubs.

5.1.1 Basic Forms

The basic idea of an economic reconstruction theorems for simple cases is to build some kind of enterprise of economic functions on collection of enterprises or club of enterprises. So, let us address already known institutions from the point of view of reconstruction.

Club

Let $\mathcal{C}$ be a club, and let $F : \mathcal{C} \to Vec$ be an appropriation policy to the club of simple enterprises described by vector spaces. In this case, it was already indicated by Example 4.7 in Chapter 4 that there is the procedure to regard $Eprnat(F, F)$ as an 'agreement of flat appropriation sections', or 'an agreement of covariantly constant economic functions' on the club. Thus, $h \in Eprnat(F, F)$ means a family of maps $\{h_X \in Lin(F(X), F(X)) \mid X \in \mathcal{C}\}$ which are carrying appropriation under any economic transaction $\phi : X \to Y$ within the club or among the members. This is expressed by the condition that $h_Y \circ F(\phi) = F(\phi) \circ h_X$. So, given two such 'economic functions', h and g one can define

$$(hg)_X = h_X \circ g_X. \tag{5.1}$$

The family of economic maps $\{(hg)_X\}$ is also appropriational, since its elements h, g are. Thus, one get an associative agreement. One also have an identity element η, given by $\eta_X = id$. So obtained agreement is an argument, on each simple economic institution X, in the way that $F(X) \ni v$ by $h \overset{a}{>} v = h_X(v)$.

Leading club

Now let consider the case where $\mathcal{C}$ is a leading club and denote it by Ld, as before. Then one has precisely defined extension of e.p.r.s due to leading aggregation, over the procedure $\otimes_{ld}$, and the fact that $F \equiv F_{ld}$ is leading appropriation. It is leading in the sense that it maps the associatively of aggregate procedure $\times_{ld}$ in $\mathcal{C} \equiv Ld$ over to the usual simple cases of aggregation. Formally it is described by vector space associatively. One may recall the precise definition of a leading appropriation, given in Section 4.1.3. Namely, there were discussed properties of isoappropriations $c_{X,Y} : F(X) \otimes F(Y) \cong F(X \otimes Y)$ obeying the condition in Figure 4.3. (Note that to avoid cumbersome notations, index showing that we are dealing with elements of a leading club, Ld are not written down as there is no danger of confusion). In this case it can be shown that an e.p.r.s policy $Eprnat(F, F)$ implies a coexpansion and coagency,

$$(\Delta h)_{X,Y} = c^{-1}_{X,Y} \circ h_{X \otimes Y} \circ c_{X,Y}, \qquad \varepsilon(h) = h_{1_{ld}}, \tag{5.2}$$

providing an appropriation policy $Eprnat$ into a 'biagreement of covariantly constant functions'. One have a biagreement over a domain of e.p.r.s $\mathbf{h}$ if