

Economic Property Rights Dilemma

The aim of this Chapter is to offer an intuitive insight into economic property rights phenomena using a simple example. Assuming a vague understanding of economic elements and statements, an intention is to provoke an economic interest on issues and problems of economic economic property rights, to become more clarified through exposition of the program by this volume. A reader who is already familiar with the issues on property rights in economics, and has interest only in the formal elements of EPRT proposed in this program may skip this Chapter and start with Chapter 2.

1.1 Example

1.1.1 Partnership Problem

Consider two students, Ann and Bob, each of them has a computer as her/his asset in a private property. Assume the hardware and software characteristics of the computers are the same. In addition, Ann's and Bob's knowledge of various programs, and computer skills in general, are also their private assets. For simplicity let those be also mutually equal, by assumption. Both of them are also aware of these circumstances. Although satisfied with the performances of the computes for solving some type of problems, Ann and Bob have realized that their assets can be easily expended. They would be able to run more sophisticated programs if they aggregate their assets and run computers as 'parallel one'. Ann and Bob have both interest for advanced programs, and have enough computer programming skills to formalize and apply them. They want to be sure that, if such an enterprise is established, each of them has equal access to computer services of these more sophisticated programs. At the same time each has also interest to 'ordinary' computer service, when each of them would use her/his own computer disconnected from the other one. In other words, Ann and Bob want to be sure that an extension of her/his assets and e.p.r.s over this partnership has been made in an appropriate way. This

meaning that each of e.p.r.s (including those to third parties, for example a warranty) may be appropriated separately and is not under a hazard due to established enterprise. The request seemed to be simple, since what they are asking for, is just to delineate extended performances obtained by appropriate links of their computers, i.e. an extended collection of e.p.r.s by a new assets (a ‘new computer’ and knowledge), in the way that those are equal, as their initial assets underlying by private property rights have been.

To get a better understanding of the problem, let us denote domain of e.p.r.s claims by \mathbf{h} . Then, the above story can be simply expressed in the following way,

- (A.1) \mathbf{h}_p^a denotes Ann’s (A) domain of e.p.r.s claims;
- (A.2) \mathbf{h}_p^b denotes Bob’s (B) domain of e.p.r.s claims;
- (A.3) $\mathbf{h}_p^a = \mathbf{h}_p^b$;
- (A.4) $\mathbf{h}_c = \mathbf{h} = \mathbf{h}_p^a \otimes \mathbf{h}_p^b$; aggregate e.p.r.s claims.

Problem: Find an appropriate arrangement or partnership that delineate each of partner’s e.p.r.s on \mathbf{h} , so that the following conditions are satisfied:

- (i) Ann and Bob have access to each of \mathbf{h}_p^a and \mathbf{h}_p^b respectively, *at the same time*, and all private Ann’s and Bob’s e.p.r.s are unchanged comparing to circumstances when assets were unlinked;
- (ii) Ann or Bob has access to \mathbf{h} , *at the time*, in an equal way, confirming appropriate distribution of collections of e.p.r.s over partnership on their aggregate ‘new’ assets, $\mathbf{h}_{a\&b}$.

It is worth noting that (A.1) implies \mathbf{h}_p^a incorporates Ann’s computer skills and her knowledge. Similar is valid for Bob by (A.2). Also, (A.3) implies: (a) an equal economic rationality in using each of the computers, for Ann and Bob, and (b) an equal valuations of each of their properties (including knowledge) and their partnership.

1.1.2 Solution

Ann’s and Bob’s aim is to make a schedule of accessibility of 24 hours of computer time (c/h), so that conditions (i) and (ii) are respected. An immediate suggestion is

<i>student</i>	<i>accessible c/h</i>
<i>A</i>	6
<i>A,B</i>	12,12
<i>B</i>	6

Table 1.1.