Theoretical Implications of Labor Market Institutions: Skill Formation and New Institutional Economics

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Abstract

This study considers the role of institutions in the functioning of labor market, focusing systems of skill formation. Showing typology in new institutional economics and connecting it to the processes of worker's skill formation, we try to make seemingly underestimated function of institutions clear. And then we claim possible linkage and directions for future research.

Key words: Skill Formation, New Institutional Economics, Economic Stability, Economic Growth

JEL Classification: A 11, A 12, B 15, B 52, J 24, M 53, O 43

1. Introduction

Productivity is a key for both economic stability and growth. As is often stated, for instance, bailing out low-productivity sectors would raise public expenditure while revenue of those sectors, and consequently of the government through corporate and income taxes could not be expected to rise. Low-productivity is one of major sources for government budget deficit and thus impediment to policy implementation for proper timing, and so to economic stability and growth.

This kind of statement has of course large room for argument. This is partly because productivity itself, and how to foster it, are still not easy to comprehend. Nevertheless, economists generally tend to insist “deregulation” prescriptions, and behind these claims lies something like faith of economists, we would suppose. To be sure this “faith” has good reasons in the history of economic thought and theory, but practically we face many scenes where we cannot agree with that. Stories do not seem to be so simple.

We would here argue and pursue the possibilities of alternatives, in the scope of economic theory. With reference to Douglass North’s concepts and applying it to the process of skill formation, which is one of the vital areas of productivity, we will reexamine the implications of institutions in the labor market functioning and then insist the needs of institu-
tions to be further integrated into economic theory. This paper is organized as follows. In
Section 2, we explain a skill formation theory and relate it to the concepts of new institutional economics. In section 3 we try to apply it to the argument of economic stability and growth. Section 4 concludes.

2. Theories and Linkage

What enhances productivity, especially in a certain industry or economy as a whole? Some may say resource allocation, others investment. But how are resources and finances defined, and redefined through the course of economic change? How well is the trial-and-error or learning process considered and reflected? When one carefully observes some detail business processes e.g. work shop alignments, orthodox explanations as above do not seem enough to grasp these themes. Can contemporary “standard” economic theories, even if they wear stochastic armor, adequately explain them?

It may be agreeable that there is something between learning processes and productivity, and our focus here is about this. As is known from earlier times in labor economics (especially in Japan), Kazuo Koike pointed out the very importance of learning processes and incentive schemes to foster them (Koike [1990] [1994]). However his works are sometimes introduced as mere examples of (firm-specific) human capital (e.g. in Blair and Roe [1999]), then we insist broader implications what his theory and evidences have, with reference to Douglass North’s argument of the interaction between economic entities and their environments (North [1990] [2005]).

First, Koike’s theory of Intellectual Skill, based on hundreds of field studies, tells about the vital kind of skill, i.e. the ability to deal with problems and changes. For example, operators dealing with problems at least partly share the knowledge with engineers or technicians, detect the smallest problem, diagnose the sources of the problem, and rectify the process to eliminate the problem. This kind of ability is nurtured by the experiences in the clusters of related jobs, which he calls “career”. Deliberate timing and combination of on/off the job training, pay for job grade with merit rating compose other pillars of the system. Those essences of observations and implications are not changed when his investigations have come to offices from factories.

What we think important here is that it is this way of career advancement that include repeated, to a certain extent step-by-step experiences to detect, diagnose, and rectify. In each stage workers discover something in him/her (regardless of that to be socially appreciated or not; communications with seniors are important), and based on these experiences, workers are coping with uncertainty and seeking for solutions in the shops; and this process often makes novel tasks, which possibly have significant influence on division of labor (especially as workers become skilled). While this kind of inference is disputable and re-
quires deliberate arguments, we could at least say skills and division of labor have deeply rooted relations. Concerning this, and product markets and business environments ever changing through the time, we can further think peculiar type of skill dealing with changes that includes changes of products and product methods (as Koike insists), which needs to a certain extent systematic knowledge for and interests in production. Worker’s skill has “depth” and “width”, and they are changing beyond fixed division of labor.

How can we achieve consistent explanation between those phenomenon and (standard) economic theory? In economics, markets are defined by the products/services, so does labor market. This means we must describe the definition of labor services. Here, if division of labor were fixed, units of labor transaction standardized, but nevertheless nonproblematic in terms of productivity, we could more easily assume different markets of labor transaction and worker’s transition between markets theoretically. We could assume labor services as “finished products,” regarding qualitative differences among workers as levels of competency. However, above story does not allow such supposition. We should be conscious of institutional foundations of markets, and need to explain boundaries between markets and institutions, their interactions, and human learning in that processes.

Studies of North, one of the leading scholars of new institutional economics, reinforce theoretically the argument above, so we will mention it secondly. He placed institutions at the center of understanding economies because they are the incentive structure of economies. He has developed theories of institutions, in which markets and institutions are placed as having complementarities each other, allocative efficiency and adaptive efficiency as well. “Adaptive efficiency” is a society’s effectiveness to continue to modify or create new institutions as problems evolve. The essence is the learning process of humans, into which he delves in more recent work.

There he conceptualize new framework with reference to cognitive science, to make economics (as theory of choice) further extension in order to comprehend where choices are made. According to him, choices are made in the light of perceptions, which come from beliefs of the players. And both of them are not only acquired by personal experiences, but are socially accumulated. Humans make actions and impose constraints to reduce uncertainty, based on perceived reality; however, those constraints themselves impose uncertain outcomes, because of imperfectness of our perception and “non-rational” part of belief. Therefore the generations of ceaseless struggles against the wide gap between intentions and outcomes continue. Just as importantly, from the knowledge of evolutilonal psychology we could assume adaptability of individuals has certain limitation. This has impact on the limitation of institutions in the interaction of economic entities and environments, making societies flourish and decay historically.

About the labor market, he insists specialization and division of labor is specialization of knowledge, and price mechanism does not by itself solve the problem of integrating dis-
persed knowledge with low transaction cost. Furthermore, automatic structural adjustment towards efficient markets that provide proper incentives for players cannot be postulated, in the world of technological change and such. These points are, he says, implicit in Adam Smith’s Wealth of Nations, but ignored in neo-classical theory because they need explicit institutional analysis.

Our main concern here is to explain that technology, skill and productivity could be considered in the process of humans posing constraints with imperfect perceptions, and the theory of skill formation be integrated in this context. North’s argument of interaction between individuals and environments, the process where individuals make institutions that have influences to individuals, could be applied to the processes between workers (skills) and jobs. In this line Koike’s pay theory is interpreted as incentive scheme for institutional change. From the foregoing argument we could assume in institutions skill formation mechanisms are “embedded”, in which the sources of institutional change exist. Formation and evolution of labor markets possibly occur under such conditions.

The arguments so far are related to the theories of “bounded rationality,” though there is no space enough to discuss them. We just note here that there have been numerous studies pioneered by Simon [1951]. Milgrom and Roberts [1992] summed up those studies with the development from functional to divisional organization of firms in business history. Marsden [1999] was also inspired by those accomplishments, but main interest is in the development from trade to industrial (and enterprise) unionism in the history of industrial relations. The main question of former two is about the relationship between firm and market. That of last one is about the institutional foundations of labor market. Our view is near to the last one, but we also try to bridge them to standard theory, by adding learning processes. What we share with all of them is the view that there are more than one axis of thought and when we focus certain “liquidity” or “flexibility” in one axis, we postulate certain “fixity” in other axes (if we are aware of that or not). We would insist both of them should be considered explicitly, when we think time dimension, or proper timing of policies.

We must also note the study of productivity itself already has body of research. Therefore this article has meanings just to indicate the possible choice from labor study. We knew that the studies of productivity include labor market functioning, such as (external) labor market allocation, investment in human capital. In addition, novel concepts as “organization capital” have devised (Prescott and Visscher [1980]); but scholars in management majors would know more about the difficulties of quantification and generalization for the time. Growth of productivity still seems to be treated as “something” other than basic economic variables. We would love to have any word, added to the well known phrase of “competition enables economy to be productive”.

The concept of adaptive efficiency also has same difficulties. But we could say it has
been devised in the inquiry of economics and economic history, so might have possibilities for economic policy. North carefully criticizes the views that take technological change for panacea, from the economist’s expertise. Our opinion is that dealing with problems and changes are more adequately executed with dynamic, systematic speculation in production, including how to effectively utilize new technologies. And in that sense skill formation is dynamic, endless process, thus no “finished product” exists in the transaction of labor services. We believe it is valuable challenge to integrate those processes in the theory of economic change.

North’s theory is, standing with comparative-historical perspectives, pluralistic. As he insists, the criterion of progress is sometimes confined to growth in the stock of knowledge, thus seemingly “non-rational” institutions at the moment might have potentialities. For each individual, his assertion seems to have affinities to the process of various paths of growth. The processes of acquiring perceptions and making choices based on that is one of major elements of what “career” means. It is important both personally and socially, and might be one of foundations of economic stability and growth. Of course we need to avoid excessive relativism, so in that sense adding psychological axis is an interesting attempt. However, inquiry of evolution and changes of those variables from another discipline is still at infant stage. Further deliberate description is required, before simplification and extended analysis.

However, such a task needs another study, so in next section we describe basic economic issues, assuming institutions matter as we have learned, and try to make tentative evaluation.

3. Institutions, Economic Stability and Growth

In this section we make a short assessment of macroeconomic implications of labor market institutions in view of adaptive efficiency. The reason why we pick them up is that when we focus on these themes, what we have argued above is treated as one of “something” that consist microstructures, namely had been out of main interests. We fear those directions could harm economic well-being. Instead, here we will consider the perceptions and choices of economic entities, focusing on actual institutional settings. From the foregoing argument we could now assume both (allocative and adaptive) efficiency have limitations, thus our task is with that assumption evaluating the functioning of markets and institutions together for economic stability and growth.

Consideration for microstructure of economic stability could lead to now established concept of “flexibility”, represented in Atkinson’s study in the 1980s (Atkinson[1985]), when most developed nations had long been seeking for measures to cope with economic fluctuation after the end of decades of high economic growth. Though making consensuses between social partners are still not easy, this concept has been accepted later, as we see
ILO conducted international surveys in 1990s and 2000s (Ozaki[1999], Auer and Cazes [2003]). According to them, flexibility has usually four aspects. That is, “external numerical flexibility”, “internal numerical flexibility”, “wage flexibility” and “functional flexibility”, each corresponds to contracts of employment, working time, pay systems and work organization. And if certain types of flexibility are compatible with worker’s security (namely if “flexicurity” is realized), they would be conducive to aggregate demand (International Labour Organization [2005]).

The concept of flexibility has implication also for economic growth. The point is both labor mobility and employment stability could lead to required productivity growth. Labor mobility (resource allocation) enables structural transformation from lower to higher valued-added sectors, whereas employment stability enables on the job training (mutual investment) and creates a virtuous cycle with competitiveness of firms. Above report recognizes the importance of both aspects. It cautions mobility and stability are the concepts of different dimensions. However, because capacity of each firm has certain limitations, recommended direction would be “protected mobility”, with micro-level flexibility and macro-revel stability (ibid.). Namely, social protection is more preferable than employment protection. For instance, even if external numerical flexibility were chosen, a volume of unemployment insurance with training package would cause their perception of security.

Though rather eclectic, these explanations exactly mean market as well as institution has limitation, thus we might have no choice but to muddle through by utilizing both instruments. If it were the case, we could regard above strategy be at least better for both economic stability and growth. But quite often such large blueprints lack some focal points. From our view, it is problematic that technology and training seem to be treated exogenously. As mentioned, skill formation would be dynamic, endless process and dealing with problems and changes be more adequately executed with dynamic, systematic speculation in production. What we emphasize is implementation in the business process is the bottom line. Nonetheless, the recommendation that training should be demand-driven would be appropriate in that sense (op. cit.). And if each firm cannot afford sufficient training for workers, proposals of certain societal mechanisms are sound. It would be more desirable if we could prepare options for the choices of economic entities, regarding the imperfectness of our perception.

This doesn’t necessarily mean government should undertake all. Such mechanism could be realized, for instance, by supporting networks of firms. And inter-industry transfer of workers could occur also through such an organizational mechanism (not only through market mechanism). When we think the process of (groups of) firms using economies of scope, or taking novel ways of utilization of their existing resources (technology, sales network and such) and entering into new business or coming back to original, we can imagine that. In this context we could think change in depth and width of worker’s skill, or adaptability
of workers ("human resources"). Since each individual experiences trial-and-error in the real world, the clue must be concrete. The options to be prepared should reflect human perception of similarities and differences between environments. In this sense, coordination of industrial and labor policy might be required.

Such relatively decentralized approach also has limitation. Even if it may have consistency in each production site, its diversity makes grand design of societal mechanism more difficult; and possibly we enjoy less advantage of scale. Which plan is then more effective? What kind of institutions fosters productivity and economic growth? Our answer is, though tentative, it depends on the extent of human perception and adaptability, and how they are effectively utilized. With certain limitation, we could enforce market mechanism with institutional support. However, if any model, either social protection or employment protection, lacked the view of skill formation through experiences and related institutional change, it would not contribute to growth. Of course more robust account is required to identify that and to answer to the criticism for being ad hoc. We need further research both theoretically and empirically.

4. Concluding Remarks

In this article we considered the relationship between theories of skill formation and institutions, and then reviewed international discussion with that perspective. We stand with the view that markets need to be supported by institutions. At the same time, we insist mechanisms that incorporate institutional change are vital, if we take changing market and technological contexts into account. From the former point of view, above recommendation would be conducive to economic stability and growth. But from the latter point, we have some reservations.

However, our conclusion must be tentative. Further demonstration and empirical studies (qualitative as well as quantitative) would be required. Especially for macroeconomic implications, the presented argument lacks monetary factors, thus with no doubt our theory is inadequate. But we would at least insist inquiry of existing institutions and functioning of them could become micro foundation of the relationship between monetary and real sides of economy. When we remember John Richard Hicks had pointed out the relationship between apprenticeship system and imperfect capital market in his A Theory of Economic History, the need to delve into the interactions between learning processes and governance structures would become clear.

Casting one’s ideas into shape, realizing social values and business outcomes, needs certain length of time and procedures with strategy. Accumulation and succession of all of them among people are also vital. It is one of everyday matters for practitioners, regardless of his/her position in organizations. Indeed we knew there have been economic theories of
labor adjustment, hoarding and productivity (Hamermesh [1993]), but another way of elaboration seems to be required (the concept of organization capital can be regarded as such). Just with repeating to reshuffle the playing cards, things cannot go headway. Too much emphasis on market clearing would deprive us of “something” important (though we knew market mechanism fosters innovations). Namely, just abolishing certain firms or sectors as a result of “micro adjustment” should not be a prescription. Adjustments do not only mean transformation between firms or sectors, but endogenous productivity growth in each (and assuring possibilities of bi-directional transition) is also vital (op. cit.).

Keynes’ emphasis of the gradual encroachment of ideas might be one side of truth. But things have another side. Thinkers and theorists must be influenced by the everyday matters of each era, and that different from practitioners. The importance of inductive approach must not be eroded. As mentioned above, worker’s learning and thus adaptive efficiency has limitation (we do not insist employment protection is panacea). But we believe they should be added as one of axes of our logic. It sometimes required difficult tasks, like bringing theoretical fragments together and reassembling structures. We would continue to face such challenges.

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