

Economic transition

Can theory help?

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1. Introduction

Fully one third of the world's population currently seems to be moving away from centrally planned socialism towards some form of a 'market economy'. I have been asked to speak about the role of economic theory in helping us to understand better this monumental change. It is a big challenge. At first I was not sure how to approach such a large task. Now I think I have hit upon a good example that illustrates nicely the interplay between theory and reality in a very important aspect of 'transition economics'.

Let me begin by describing, at a high level of abstraction, the basic issue to be addressed. Suppose we refer to the broad process of making a transition from some form of socialism to some form of capitalism as a process of 'transformation'. It sometimes appears as if there are two different 'models' of transformation out there in the world.

The more 'revolutionary' model is what might be called the 'East European model'. Although I will presently describe this model in some more detail, I think we all know what it is about in broad terms. Basically, the East European model involves making a transition to the 'West European model' as quickly as is feasibly possible, with the essential core of the transition being centered on the aggressive establishment of well-defined private property rights. This model is more or less familiar to us not only for reasons of geographical proximity between Eastern and Western Europe. It is familiar to us because the existence of well-defined private property rights seems an absolutely essential precondition to the proper functioning of a capitalist market economy. This basic truth comes at us from theory and from practice. To a western-trained economist, the centrality and immediacy to any transformation process of establishing well-defined private property

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seems so self-evident as to hardly merit discussion. It is little wonder that, leaving aside the sometimes more immediate issues of macroeconomic stabilization, the officially sanctioned position of Western governments and international lending organizations places the highest priority on the aggressive and rapid establishment of well-defined property rights.

The second, more 'evolutionary' model of transformation is perhaps somewhat less familiar. It might be called the 'Chinese model', because China is the prime example. Essentially, this model calls for a more gradualist strategy of allowing market oriented competitive enterprises to develop from within. The state enterprises are pretty much left alone. State enterprises are replaced not dramatically by privatization in the short run, but eventually by being outcompeted and outgrown in the long run. While it will be important to present the Chinese model in some more detail, because certain key aspects are not widely understood, for present purposes it suffices to note one essential feature. The driving force in the Chinese model is the so-called TVE (township-village enterprise). The TVE is essentially what might be called a 'vaguely defined cooperative'. A TVE is basically a communal organization about as far removed from having a well-defined ownership structure as can be imagined. The typical TVE seems like the exact opposite of the type of private organization at the center of the East European model, as it goes completely against the grain of standard property rights theory.

Yet the Chinese model is in fact enormously successful, much more successful so far than any actual applications of the East European model. So we have on our hands an enormous paradox. Why does a model based on vaguely-defined cooperatives seem to be significantly outperforming a model based on well-defined private property? Can a transforming country actually choose between these two models? It will be our contention that these and other important questions cannot be meaningfully addressed within the standard framework. The capitalism vs. socialism dimension is too simplistic to capture the phenomenon we are after. Another dimension is needed, which corresponds to the degree of individualism vs. cooperation that exists in a society.

2. The East European model

In describing the East European model of transformation, I think I can be very brief because the basic features are familiar. Remember that we are operating at a high level of abstraction, glossing over possible differences among many different countries. The essential idea is to make a transition to Western-style capitalism as rapidly as is feasibly possible. A common strand of the East European model is the central role of private property within an appropriate monetary and fiscal structure. Transition strategy is centered on developing the basic institutions of capitalism. These include well-defined

ownership rights, with a corresponding legal system, commercial code, contract and bankruptcy laws, and so forth.

A reward system that makes the owner the true residual claimant is viewed as critical to prevent shirking throughout the system. The 'wedge' of true private property blocks the infinite regress of inefficiency and shirking that characterized the old socialist regime, because the true property owners have the power, and incentives, to stop losses and encourage profitability at the point where they are wedged into the hierarchy.

The East European model focuses sharply on privatizing formerly socialist enterprises. There are, as we know, various strategies of privatization, but the underlying goal is always to introduce well-defined property rights in a context of market competition. Any compromising with tainted institutions like producer cooperatives, worker management, state-private partnerships, semi-private or semi-cooperative firms, and so forth is viewed with hostility. The weak property rights and loose reward structures associated with such ill-defined institutions are deemed likely to result in the same poor performance (for many of the same reasons) from which the formerly socialist economies are trying to escape.

The East European model follows well the precepts of contemporary economic theory, most especially the tenets of the property rights school.

3. The Chinese model

The driving force in the Chinese model is the TVE. TVEs have grown at over 25% per year since the reform of 1978. They are now the second largest sector of the national economy (after the state sector), constituting over 40% of total industrial output. Total factor productivity of the TVE sector may have grown as much as ten times faster than the state sector.

If TVEs must be forced into a traditional classification, then they are more like cooperatives than anything else. But by traditional Western standards, the TVEs are especially vaguely-defined cooperatives. Legally, the TVE is collectively owned by all the people in the community where it is located. There is no stipulation of any individual owners nor does anyone have rights to appropriate assets of the firm. There are no shares at all, formally speaking. It is meaningless to talk about selling or transferring TVE shares, since they do not exist. Reward structures are extremely vague and informal. The community government determines the amount and form of the benefits which the collective owners, who coincide with the members of the community, may receive.

Rights of control are shared by the community government and the manager of the TVE. Managers make daily operation decisions, while long-term investment, recruitment, and profit allocation decisions are jointly determined by community government and managers. The appointment of

managers is determined jointly by the community government and the employees of the firm. Managers can fire workers, but in their turn can be fired by workers collectively or by community government.

As wages are kept relatively low by law, a successful TVE yields relatively large after-tax profits. These are divided into three parts as determined by the community government: individual bonus, collective welfare funding, and reinvestment, with the latter tending to dominate in practice.

What has been presented is only the barest sketch of a TVE. Unfortunately, there is insufficient space here to give a fuller description, which would be appropriate to a longer and more complete version of this paper.

The Chinese model emphasizes competition over privatization. The Chinese model essentially allows or encourages TVEs to compete with and outgrow the state sector, while not directly attempting to privatize the latter. Although the performance of state owned firms typically improves under competitive pressure, it is probably not enough to save them in the long run. Extrapolating to a not-too-distant future, the TVE sector will simply overtake the state sector. At that point the TVEs and the competitively pressured state sector may or may not evolve toward something else. In any case, a significant evolution towards a market economy will have occurred.

4. The central paradox and a resolution

According to almost any version of standard mainstream property rights theory, what has been described as the 'East European model' basically represents the correct approach to transformation, while what we are calling the 'Chinese model' should represent a far-out recipe for economic disaster. A transformation strategy centered on 'ill-defined cooperatives' would seem like the farthest thing imaginable from conventional wisdom in this area.

The central paradox is the enormous success of the Chinese model in practice, contrasted with the sputtering, tentative, comparatively unsuccessful experience with the East European model. Why do theory and practice seem so diametrically opposed in this important area?

In keeping with the necessarily compressed nature of this paper, there is hardly space to explore fully all the possible explanations. Several factors may be playing a role. We would like to emphasize in this paper one line of thought that seems particularly appropriate. The conventional theory may be inadequate here because it is missing a critical dimension.

The key missing element is the ability of a group to solve potential conflicts internally, without explicit rules, laws, rights, procedures and so forth. To make this idea more operational, consider the following framework.

Most people here will be aware of the prisoner's dilemma non-cooperative game. The only solution to the one-shot game is the selfish Nash equilibrium, which is Pareto inferior to the cooperative solution. However, when

the prisoner's dilemma game is played repeatedly, a much richer set of results is possible. Actually, a continuum of solutions is possible, which can often be Pareto ranked, corresponding to a greater or lesser degree of 'as if' cooperation. Thus, there is a sense in which non-cooperative repeated games can yield the kinds of outcomes typically associated with cooperation, collusion, or binding agreements. This family of results is so important, and it has been known for so long, that it is given a name: the so-called 'Folk Theorem' of game theory.

The Folk Theorem states that the outcome of a repeated non-cooperative game may look as if it is the outcome of some cooperative process, or some legalistic binding agreement to play cooperatively. Or, it may not. It all depends. Depends upon what? In a word it depends upon an intangible expectational factor that might legitimately be identified with the history or culture of the group of players.

If each member of the group expects that every other member of the group will play cooperatively and that there will be a relatively severe penalty for not playing cooperatively, then the cooperative solution may become a self-sustaining equilibrium. On the other hand, if members of the group expect that other members will not play cooperatively and the penalties for such behavior are relatively light, then a non-cooperative solution will emerge as a self-sustaining equilibrium. In general, there will be a continuum of infinitely many such solutions, ranging from more 'as if' cooperative to less 'as if' cooperative.

Let the outcome to a repeated non-cooperative prisoner's dilemma game be quantified by the parameter λ . A high value of λ near one means a non-cooperative solution that comes close to satisfying the Folk Theorem and looks as if it were the outcome of cooperative collusion. A low value of λ near zero means a non-cooperative solution that is far from the cooperative solution, thus yielding low individual payoffs.

The parameter λ stands for the ability of a group of people to resolve prisoner's dilemma type free riding problems internally, without the imposition of explicit legalistic rules of behavior. The relevant theory appears to justify taking λ as a more or less given function of 'culture'. Of course a more serious inquiry would want to probe further, but suppose for the sake of argument we temporarily treat λ as a quasi-fixed reduced form parameter. A lot of evidence could be cited to justify the general proposition that East Asia is a high- λ society relative to Europe, which by comparison is more of a low- λ society.

It seems fair to say that the property rights literature is often presented as if it were culture-free, of universal applicability. Ownership gives a residual right to control an asset in the case of a missing contractual provision, thereby re-solving potential conflicts and preventing shirking. More generally, it is important to have well-defined property rights and clear reward

systems of the right sort because otherwise there is an incentive for opportunistic and shirking behavior that can seriously undermine economic performance.

But if the way of looking at things presented here has any validity, the significance of ownership interacts in a critical way with the ability to solve efficiently internal organizational problems without formal rules, which may be treated as more or less culturally given in many relevant cases. The orthodox version of property rights theory is not universal – it is really applicable to a low- λ culture. With low values of λ , it becomes critically important to specify in legalistic detail the rules of ownership, rewards, and so forth, because without legally binding rules the low- λ organization will not achieve efficient results. On the other hand, formal property rights and binding legal rules become less important for a high- λ society relative to other issues like competition among organizations and hard budget constraints.

5. Implications for economic transition

If this story is believable, we may have more or less answered the central paradox. Against the strong predictions of property rights theory, the Chinese model succeeds better in practice than the East European model because traditional property rights theory omits a critical variable and tends to treat only the low- λ case. In a high- λ society, the evolutionary Chinese model is probably a better transition strategy because it is less disruptive overall and concentrates more directly on the main task of building market-oriented organizations. That these market-oriented organizations are vaguely-defined cooperatives is not critically important. In a high- λ society the ownership structure can be sorted out later, if it even needs to be then. China is probably headed more towards a high- λ Japanese-style capitalism than towards a low- λ European-style capitalism in any event.

As for the idea that a transforming country has the option of choosing between the Chinese and East European model, the framework of this paper would suggest that actually such choice may be largely illusory. If the ideas being put forth here are sound, the value of λ is essentially the product of a path-dependent historical heritage. The costs of changing culture are presumably very high, if culture is changeable at all. So it simply may not be a realistic option for Eastern Europe to be thinking in terms of the Chinese model. By the same token, it is probably not fruitful for China or Vietnam or North Korea to be thinking in terms of the East European model. In a high- λ society, the time and effort needed to formalize property rights, contracts, and so forth is probably better spent on developing new products or on penetrating new markets or on increasing productivity or on other more directly productive activities.

Of course, one must not be too categorical here. The world is a complicated place and there may be many other contributing factors that explain the 'Chinese miracle'. To the extent that these other factors are significant, the Chinese experience may have greater relevance to the Eastern European debates about the role of privatization and the speed of transformation. At the very minimum, the Chinese experience offers a strong counter-example to the sweeping claims, sometimes made in support of 'big bang' approaches, that gradual reform must fail.

The main purpose of this paper is to draw attention to the seemingly contradictory nature of the Chinese and East European models and to focus on a readily apparent explanation in terms of the λ -value of a society. Even if this explanation is largely true, there is still some scope in how it might be applied. And there is no reason why all the countries of Eastern Europe should have the same λ -value. For example, it might be argued that Russia is more of an intermediate- λ society than most of the others. If so, there might be somewhat different policy implications about privatization for Russia than for the rest.