

An Interpretation of the North Korean Regime

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Kim Il-sung in North Korea created a political regime unparalleled in world history in many respects. Though literature is affluent on this regime, past study has failed to construct a consistent theory explaining it. This paper applies a dictatorship model and presents a new insight into formation and sustainability and also the prospect of this regime.

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1. INTRODUCTION

On 8 July 1994, Kim Il-sung, the political leader in North Korea (Democratic People's Republic of Korea) since foundation of the nation, died. His eldest son, Kim Jong-il succeeded him as a real power-holder. Under his reign, the North Korean economy has deteriorated considerably and even food crisis occurred recently (Kim, Lee and Summer 1998). This caused a nationwide famine as reported widely.¹⁾ Despite this crisis, however, Kim's regime has survived to this day. Most observers failed to expect this phenomenon because Kim Jong-il was supposed to be much weaker than his father, lacking talent, experience and, most of all, charisma.

Why do the people continue to obey Kim Jong-il though he has failed to provide enough food for them? Why do they not rise against him? Otherwise why does a palace coup de'Etat to topple him and establish a better

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¹⁾ For example, see Pulgyo Undong-ponbu (1998).

government not occur? An unusually rigid internal security control may be an answer but this factor itself should be explained along with other major characteristics of the North Korean regime. For this, an orthodox socialism model is not useful, as acknowledged by many analysts. (Hereditary transference of authority presents a striking anomaly in this respect.) Some authors have proposed other models, like a dynasty model, a corporatism model, a totalitarianism model and a guerilla state model (Suzuki 1992; Cumings 1993; McCormack 1993; Wada 1998). Each of these models, however, is focused on a specific aspect of the North Korean regime, that is, Confucian tradition, state paternalism, state fascism and militarism, respectively.

Recently, to analyze formation of the state, economists have developed a dictatorship model, using such concepts as establishment of property rights, transfer of rent and trade-off between state monopolization of property rights and efficiency in production (North 1979; Olson 1993). This paper applies this model to the North Korean regime. Unlike other models, it offers a comprehensive explanation of this regime, from its establishment to the recent crisis.

2. NORTH KOREA UNDER THE RULE OF KIM IL-SUNG

Institutional changes and state policies pushed by Kim Il-sung since 1945 are described as follows.

2.1. Monopoly of Property Rights

After collapse of the Japanese Empire in 1945 the government represented by Kim Il-sung pushed state monopoly of properties in the nation. In 1946 land reform and nationalization of important industries were implemented and in the following years private commerce and industries were integrated into cooperatives and their management was strictly controlled by the state (Kimura 1998; Kimura forthcoming). After the Korean War (1950-53) agricultural collectivization became a chief target for state policy, and by

1960 most farmers became members of cooperative farms. At the same time nonagricultural workers were assigned to the workplaces designated by the government and they were banned leaving those workplaces without authorization of the state (Kimura, 1999a, p. 117).

In parallel, Kim Il-sung strengthened his power in the government. After the foundation of the state (DPRK) in 1948 he purged his rivals such as Pak Hon-yong and by 1960 consolidate his dictatorial power (Suh, 1992).

As a result, the dictator Kim Il-sung achieved a virtual monopoly of the property rights to domestic resources - land, natural resources, capital and technology.²⁾ Even labor became almost his private property because he gained power to mobilize workers for production of goods and services at his volition.

2.2. Monopoly of Rights to Trade and Channels of Information

After the 1950s, Kim Il-sung encouraged self-sufficiency regionally or, more strictly, in each farm and factory, in order to lessen needs of trading goods in economy (Kimura 1999a, chap. 6). Legally he banned free market trade. Except for a few kinds of agricultural by-products, all trade was conducted by the state organizations, at prices fixed by the state.

At the same time, Kim Il-sung extensively controlled circulation of information among people. First, all news media was nationalized. Second, people were banned access to information that would have political implications, especially information on politics and economy in foreign countries. Third, a communal police-reporting system was created across the nation. Thus Kim Il-sung gained a monopoly of information to secure his hold on power.

2.3. Monopoly of Ideology

Kim Il-sung also rigidly controlled people's thought. During the 1960s he

²⁾ Kim Il-sung declared abolition of all kinds of direct taxes in North Korea in 1974 (Chosen Daigakko 1979). This indicated that construction of the system whereby for the state to preempt incomes from all properties was finalized.

created his own thought, *Chuche Sassang* (the Self-Reliance) (Suzuki, 1992). He designated it as the Only Thought and prohibited all other thoughts. This thought, having nothing in common with Marx-Leninism, aimed at establishing an ideology authorizing Kim's perpetual dictatorship.

2.4. Creation of the Privileged Classes

Kim Il-sung created a new class system (*songbun*) in North Korea.³⁾ Specifically he divided North Korean people into three major classes according to their parental backgrounds: (a) the core class (*haksim kyechung*), including descendants of peasants and workers and bereaved families of the Korean War, who are supposed to give unconditional support to Kim's regime (b) the unstable class (*tongyo kyechung*), including descendants of smaller-scale merchants and manufacturers, intellectuals and religious leaders, who may rebel against the regime when political situations change in their favor and (c) the antagonistic class (*choktae kyechung*), including descendants of landlords, capitalists and anti-revolutionary elements, who feel a strong antagonism toward the regime.⁴⁾ These classes were subdivided into many smaller classes. Kim Il-sung gave privileged status to the people in the core class; especially the people related to him occupied the highest ranks in the government, the Party and the military.⁵⁾

2.5. High Costs of Objection

Kim Il-sung heavily punished those who were opposed to him. This punishment included expulsion to the mountainous areas, forced labor, cruel treatment in the labor camp and capital punishment. Kim imposed these penalties even on family members of the dissidents.

³⁾ Though this class system has never been mentioned in official documents in North Korea, there is ample evidence of its existence. According to some authors, a thorough nationwide survey of *songbun* of each family was conducted in 1966-69 (Yi and Pak, 1982, p.2; Yi, 1990, p.8; Choson Ilbo, ed., 1991, p.82).

⁴⁾ Yi and Pak (1982, p.1) suggests that during the 1970s, the core class had roughly 25%, the unstable class 35% and the antagonistic class 40% of population.

⁵⁾ An important privilege given to the core class was the right to inhabit in the capital city, Pyongyang, which is specially designed for the people in this class.

3. THE DICTATORSHIP MODEL

3.1. Model⁶⁾

Basic assumptions of the dictatorship model are:

- (i) A single ruler, that is, a dictator rules the state.
- (ii) The dictator has rivals who would threaten his authority. These rivals may be individuals inside the nation or other states.
- (iii) The dictator collects taxes from the people while supplying public goods (for instance, protection of the people and provision of basic rules controlling competition and cooperation among people, such as police, national defense and judicial systems) for them.
- (iv) The dictator sets the system of property rights as a public good so as to maximize (a) total outputs produced in the nation and (b) rent that he obtains.
- (v) The dictator transfers his rent to his supporters, who serve him mostly as bureaucrats, to assure their loyalty to him.

These assumptions generate the following discussions.

- (i) Because there are economies of scale in provision of public goods, national products are greater in amount, other things being equal, when the state supplies public goods than when there is no state and public goods are supplied by individuals.
- (ii) Maximization of the two variables above, (a) and (b) cannot be achieved together in the long run. State monopoly of properties in society assures a maximized rent to the dictator. However, such monopoly decreases incentives of people to work, thus causing inefficiency in production. On the other hand, an efficient property right system, characterized by a decentralized system, increases costs to the dictator of collecting rent.
- (iii) Economic growth changes fundamental socio-economic conditions. Specifically, it changes relative prices of goods and factors of production,

⁶⁾ Formulation of the model here is based on North (1979). For more formal (mathematical) treatment of various aspects of an autocratic government, see Windrobe (1998).

thus changing opportunity costs of economic activities. As a result, some people find restructuring of the existing property right system advantageous to them. Typically, business-minded people challenge vested interests of a ruling class connected with the property right. This movement causes a threat to the power structure established by the dictator. On the other hand, if there occurs no economic growth the dictator cannot increase share of rent for his supporters. In this case, they stop supporting him and side with his rivals.

(iv) There is a free-rider problem in attempts to change the existing property right system because the dictator imposes great penalty on those who show objection to that system. This penalty increases private costs of attempts to change that system, beyond future private benefit, even though this change is socially desirable. Popular opposition to the dictator may be provoked by some kind of passion, for instance, religious beliefs but will not occur on the basis of reasonable calculation of private cost and benefit.

3.2. Application

The dictatorship model suggests the following interpretation of the characteristics of the North Korean regime.

(i) Employing a monopoly of property rights to all factors of production in the nation, Kim Il-sung tried to maximize his share in rent while minimizing costs of collection of that rent. He then used this rent to finance costs in production of public goods and also various expenses for maintaining his dictatorship.

(ii) Pushing full mobilization of each factor of production, Kim Il-sung tried to maximize the volume of domestic outputs produced in each period.

(iii) Kim Il-sung used the core class as a chief group supporting his regime. As rewards to its loyalty to him, he transferred part of his rent to this group.

(iv) Depressing markets, Kim Il-sung prevented changes in opportunity costs of economic activities of the public, thus stabilizing the existing system of property rights - Kim's power source.

(v) Eliminating his rivals (potential as well as real) at home, Kim Il-sung deprived the people in the core class of chances to turn to other leaders when

the sum of rent transferred to them is decreased. Moreover, monopolizing channels of information, he isolated the masses of people from the outside world, thus minimizing risk that they would transfer to the rival state, that is, South Korea.

(vi) Administering harsh punishment, Kim Il-sung maximized private costs to people of challenging his monopoly of property rights.

(vii) Monopolizing ideology, Kim Il-sung minimized risk that people would rebel against him out of ethical, religious or other ideological motives. He even minimized risk of opposition among people to hereditary transfer of his power by basing the only ideology on Confucianism emphasizing values of family lineage.

3.3. Extension: International Aspects

The dictatorship model above is a closed model; it does not consider international relations except for the presence of a rival state. Full analysis of the Kim Il-sung regime requires an open model because it was not a "closed" regime as considered by many, being instead affected greatly by changes in international relations. Specifically, Kim Il-sung continuously received support of the Soviet Union, China and other socialist countries and obtained a great amount of aid especially from the former two. After the mid-1950s when Soviet-China conflict began, he employed tactful diplomacy not to break a flow of aid from them (Chung 1983). On the other hand, he approached heads of the Third World states especially African and provided economic assistance to them, aiming to obtain their support in competition with South Korea for international recognition.⁷⁾ Further, he provoked strong hostility among the North Korean people against capitalist countries, specifically the United States and Japan, taking advantage of it to unite the people under his leadership.

Thus, an extended dictatorship model suggests:

(viii) Kim Il-sung acquired international rent from allies while transferring his rent to the Third World states in an attempt to strengthen his power base at

⁷⁾ Kim Il-sung stated that he had met leaders of most African nations (Kim, 1984, p.346).

home.

(ix) Kim Il-sung targeted some non-allied states, along with the rival state, as an enemy of the nation and took advantage of this tension to stabilize his regime. This policy increased military expenses of his government greatly, while decreasing funds for economic development.

3.4. Politics Overriding Economics

Kim Il-sung achieved a great success in maintaining his authority. He was always a winner in internal power struggles and died in honor and even continued his rule after his death through succession of power to his son.⁸⁾ However, his monopolization of property rights decreased efficiency in production and caused stagnation of economy. His monopolization of rights to trade of goods and channels of information aggravated this problem because it increased transaction costs in the economy.

Full mobilization of workers in farms and factories increased outputs only for a short period. In the long run, it was detrimental to growth of economy because workers became exhausted and their productivity decreased. Kim Il-sung continued it because it was instrumental in reinforcing his power to control people; he organized workers in small groups and had them keep a close watch one another. He was also aware that losing energy and spirit, workers became more obedient to his command.⁹⁾

All these demonstrate that Kim Il-sung pursued maximization of his political power first and foremost and that of the growth rate of outputs second. In fact, efficiency in production was sacrificed greatly for the political purpose. The recent collapse of the North Korean economy was a necessary outcome of this policy.

⁸⁾ Some analysts insist that Kim Il-sung suffered death by a plot but there is no evidence for it. Kim and Son (1998) presents an unconfirmed story about circumstances of the death of Kim Il-sung.

⁹⁾ There has been very little privately motivated production in North Korea; "forced production," a more general term characterizing socialist economy than "forced growth" used by Kornai (1992), has been the norm.

4. CONCLUSION

Kim Il-sung was a political genius. He used every means to secure his dictatorial power. He learned much from other dictators in this century including Stalin, Hitler and Mao Zedong and also from Japanese militarists, and did better than each of them in ruling the nation.¹⁰⁾ The tight security control was but one device he employed in maintaining his authority. State monopolization of rights to trade of grain products and daily necessities meant that Kim extended his control to the most basic aspects of people's life. Further he fabricated a story on his birth and career as a guerilla leader during the colonial period and used it to maximize legitimacy of his authority (Im 1982). Note that he destroyed all property rights prevailing in the colonial period and established a new system of property rights in the name of people's ownership. This increased his legitimacy in ruling the nation vis-a-vis his rivals in South Korea. Finally he made elaborate preparations for transferring his authority to his son, including creation of *Chuche Sassang* on the basis of Confucianism, a state ideology in Korea for centuries. The North Korean people thus have lost almost all means to oppose the regime of Kims, practically and ideologically.¹¹⁾

After 1990, the regime of Kims faced an ever-greater challenge. On the one hand inefficiency in domestic production mounted so high its economy lost almost all potential of growth. On the other hand receipts of international rent from the Soviet Union and other allies decreased substantially. As a result, the rent transferred to the privileged class decreased. Members in this class may stop supporting the regime and, further, upset Kim's monopoly of property rights.¹²⁾ This risk, however,

¹⁰⁾ For influence of Japanese militarism on the Kim Il-sung regime, specifically continuity of economic policies between the pre- and post-colonial periods, see Kimura (1999b).

¹¹⁾ How much Kim Il-sung succeeded, preaching *Chuche Sassang* publicly, in having the people adore him as a deified ruler of the nation has been a matter of debate. But this question has little relevance to the analysis of his power base because the primary objective of preaching this thought was to eradicate other thoughts that might have driven anti-Kim movement. This objective was well achieved because state control of thoughts had been an established tradition in North Korea.

¹²⁾ Recently it is reported that an individual production responsibility system, like that adopted in China, has been introduced in some collective farms in North Korea. However, this movement does not yet gain momentum. It seems that the privileged class still considers the present system of property rights beneficial to its interests.

would be decreased if the present regime could obtain international rent from other sources. This is what it is trying to do at present, using tactful diplomacy (including military threats), which is an important asset inherited from Kim Il-sung, toward the capitalist countries, especially the United States, Japan and also South Korea.¹³⁾ Thus, the so-called sunshine policy pushed by the Kim Dae-jung government of South Korea assures survival of the present North Korean regime. However, Chinese support is more critical for survival of this regime. The Chinese government is in a position exerting a predominant influence over the North Korean regime because of the past dynastic dominance on the one hand and its military intervention saving that regime during the Korean War on the other. This government, sticking to the communist ideology, gives full political support to the North Korean regime. This environment represents a marked difference from that prevailed in Eastern Europe where the communist regimes could not sustain themselves as they were losing the backing of the Soviet Union in the late 1980s. In sum this regime is unparalleled in the modern world in that, giving up attempts to develop its own economy, it has chosen to live on international rent coming largely from the hostile camp, while taking advantage of a regional cold-war structure continuing to exist in East Asia.¹⁴⁾

¹³⁾ Downs (1999) details cases of threats and compromises carefully calculated by the North Korean diplomats in dealing with the United States and South Korea.

¹⁴⁾ As of 1999, foreign powers, including South Korea, have common interests in preventing abrupt collapse of the present North Korean regime.

APPENDIX

In this appendix, we construct a model of the Kim Il-sung regime in North Korea to analyze the fall of its economy.

Because of the importance of agriculture in the North Korean economy, we formulate a one-sector model in which only one type of agricultural product, that is, grain is produced. We assume two factors of production – capital and labor. Labor is measured in terms of efficiency units. The efficiency depends on the amount of food (grain) available to workers. For simplicity, the number of workers is assumed to be constant (normalized to unity) throughout the entire period. We define the production efficiency function, G , as follows:

$$G(a) = \begin{cases} 0 & \text{if } a \leq a_0 \\ (a - a_0)^r & a > a_0 \end{cases} \quad (1)$$

where a and a_0 indicate, respectively, per capita amounts of grain provided to workers and its threshold amounts, that is, a minimum requirement of food for workers (efficiency of labor falls to nil of workers cannot obtain at least this amount). g is a positive parameter.

The production function of grain is given by

$$\begin{aligned} F[k, G(a)] &= k^b [G(a)]^{1-b} \\ &= k^b (a - a_0)^q \end{aligned} \quad (2)$$

where k represents the amount of capital and $q = (1 - b)g$, $0 < q < 1$.

The dictator, Kim Il-sung controls distribution of produced grain between himself and workers. Thus he determines a dynamic path of his consumption of grain c , and workers' consumption of grain, a , to maximize the present value of his utility from consumption, subject to capital accumulation constraint. Formally, he solves the following maximization problem:

$$\begin{aligned} & \max \int_0^{\infty} e^{-rt} u(c) dt \\ & s.t. \\ & \dot{k} = F[k, G(a)] - a - c - dk = k^b (a - a_0)^q - a - c - dk \end{aligned} \quad (3)$$

where $u(c)$, r and d (> 0) are Kim's instantaneous utility function characterized by $u'(c) > 0$ and $u''(c) < 0$, Kim's discount rate and the rate of depreciation of capital, respectively. In this equations, a and c becomes control variables while k becomes a state variable. To solve this, we define a current value Hamiltonian function, H , as follows:

$$H = u(c) + \mathbf{I}[k^b (a - a_0)^q - a - c - dk] \quad (4)$$

where \mathbf{I} is an associated Lagrangian. The first order necessary conditions are:

$$c: \quad u'(c) - \mathbf{I} = 0 \quad (5)$$

$$a: \quad \mathbf{I}[qk^b (a - a_0)^{q-1} - 1] = 0 \quad (6)$$

$$k: \quad \dot{\mathbf{I}} = \mathbf{I}[(r + d) - bk^{b-1} (a - a_0)^q] \quad (7)$$

Since $u'(c)$ is positive, \mathbf{I} must be also positive from (5). Thus, from (6), we can solve a as a function of k :

$$a = h(k) = a_0 + q^{\frac{1}{1-q}} k^{\frac{b}{1-q}} \quad (8)$$

Since $h'(k) > 0$, this equation demonstrates that if the amount of capital increases (decreases), the amount of grain provided to workers also increases (decreases). Substituting (8) into (3), we have

$$\dot{k} = Nk \frac{b}{1-q} - dk - a_0 - c, \quad N = (1-q) \cdot q \frac{q}{1-q} \quad (9)$$

where $N = (1 - \mathbf{q}) \cdot \mathbf{q}^{\frac{q}{1-q}} > 0$.

To derive an optimal consumption path, we differentiate (5) with respect to time. Using (7), we obtain

$$\dot{c} = \frac{u'}{u''} \left[(\mathbf{r} + \mathbf{d}) - \mathbf{b}k^{b-1}(a - a_0)^q \right] \quad (10)$$

Replacing $(a - a_0)$ in equation (10) by k , we have the optimal path c as follows:

$$\dot{c} = \frac{u'}{u''} \left[(\mathbf{r} + \mathbf{d}) - \mathbf{b}\mathbf{q} \frac{\mathbf{q}}{1 - \mathbf{q}} k \frac{\mathbf{q} - (1 - \mathbf{b})}{1 - \mathbf{q}} \right] \quad (11)$$

The dynamics of the Optimal path of k and c is obtained by combining (9) and (11). As seen in Figure 1, two saddle path converge to the state values (a^*, c^*) which correspond to $\dot{k} = \dot{c} = 0$.

Depending on the size of initial stock of capital, k_0 , two case emerge.

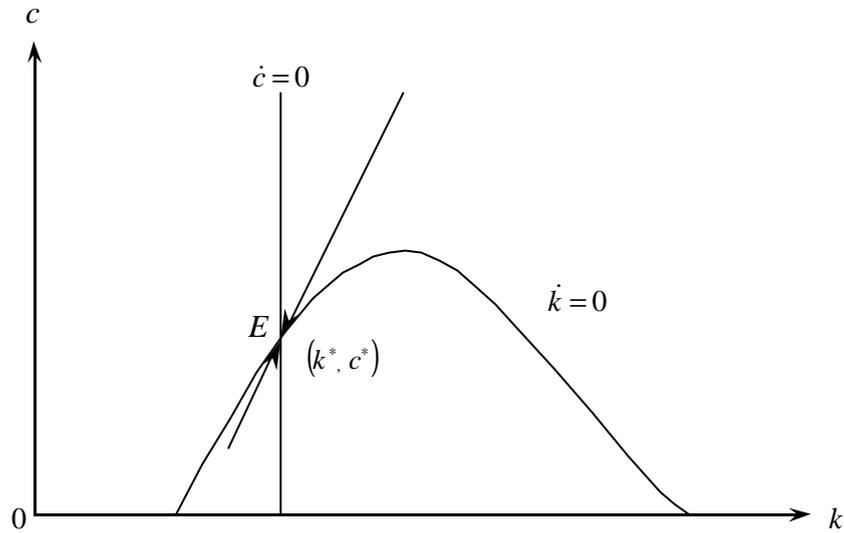
Case 1: $k_0 < k_0^*$. The amounts of capital, Kim's consumption and workers' consumption (of grain) increasingly converge to the steady state values.

Case 2: $k_0 > k_0^*$. The same three variables decreasingly converge to steady state values.

After the Korean War, a great amount of capital was provided to North Korea by socialist countries such as the Soviet Union and China to support reconstruction of the economy. Starting from this period, our model suggests that the three variables above actually decreasingly converged to the steady state values in North Korea as Case 2.

To examine the effect of changes in the parameters, a , \mathbf{d} and \mathbf{r} , we differentiate the equation (9) and (11) at the saddle point (k^*, c^*) with respect to these parameters. Then we obtain the following equation for a comparative-statics analysis:

Figure 1



$$\begin{bmatrix} s_{11} & s_{12} \\ s_{21} & s_{22} \end{bmatrix} \begin{bmatrix} dk^* \\ dk^* \end{bmatrix} = \begin{bmatrix} 1 \\ 0 \end{bmatrix} da_0 + \begin{bmatrix} 0 \\ -1 \end{bmatrix} d\mathbf{r} + \begin{bmatrix} k^* \\ -1 \end{bmatrix} d\mathbf{d} \quad (12)$$

$$s_{11} = \mathbf{b}\mathbf{q}^{\frac{q}{1-q}} k^{\frac{b}{1-q}-1} - \mathbf{d} > 0,$$

$$s_{12} = -1,$$

$$s_{21} = \frac{\mathbf{b}(1-\mathbf{b})(1-\mathbf{g})}{1-\mathbf{q}} \mathbf{q}^{\frac{q}{1-q}} k^{\frac{(1-\mathbf{b})(\mathbf{g}-1)-1}{1-q}} > 0,$$

$$s_{22} = 0,$$

$$\Delta = S_{11}S_{22} - S_{12}S_{21}$$

$$= S_{21} > 0.$$

From this, we have the following results:

$$dk^*/da_0 = 0, \quad dc^*/da_0 = -1. \quad (13)$$

$$dk^*/d\mathbf{r} = -\frac{1}{\Delta} < 0, \quad dc^*/d\mathbf{r} = -\frac{S_{11}}{\Delta} < 0. \quad (14)$$

$$dk^*/d\mathbf{d} = -\frac{1}{\Delta} < 0, \quad dc^*/d\mathbf{r} = -\frac{1}{\Delta}(S_{11} + k^*S_{21}) < 0. \quad (15)$$

First, changes in a_0 do not affect the amount of capital in the steady state. On the other hand they adversely affect Kim's consumption: rise of a decrease Kim's consumption by exactly the same magnitude of that rise.

Second, changes in \mathbf{r} adversely affect both the amount of capital and Kim's consumption. From (8), they also adversely affect efficiency of labor and output.

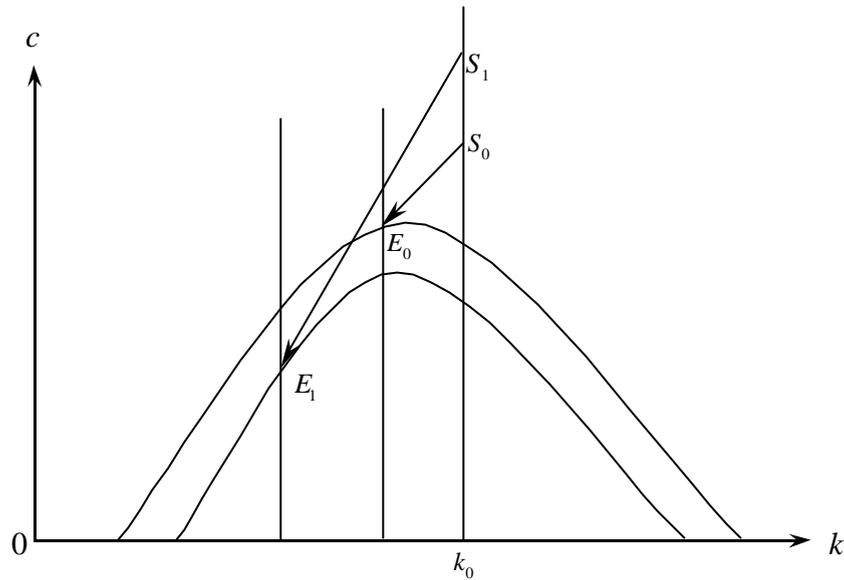
Third, changes in \mathbf{s} also adversely affect efficiency of labor, the amount of capital and Kim's consumption.

Hence, greater values of the rate of discount in Kim's time preference and faster rates of depreciation of capital more likely cause 2 to happen, given the amount of capital in the initial period.

Finally, we introduce in to a parameter indicating inefficiency in production, A , which is associated with monopolization of property rights. The production function now becomes

$$F[k, G(a)] = Ak^b(a - a_0)^q. \quad (16)$$

A greater degree of monopolization of property rights is associated with a smaller value A . Using this formulation, we can show dynamic paths converging to different steady states. In figure 2, the economy starts from S_1 or S_0 . Initially, Kim's consumption level c , is higher at S_1 than at S_0 , the former being associated with greater inefficiency in production than the latter. However, in the long run, the dynamic path starting from this higher consumption level leads to an equilibrium that allows smaller consumption than that led by the other path because of the greater

Figure 2

inefficiency involved.

The model above has thus derived a path to collapse of the North Korean economy without assuming irrationally in Kim's behavior (a kind of insanity in his mind) or inefficiency in dynamic resource allocation. Further, this model does not assume any uncertainty; Kim exactly knows what would happen to the North Korean economy in the long run. He knows that the North Korean economy goes down a path to collapse but this path is optimal for him in this model.

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