

The Nature and Direction of Economic Reform in North Korea

Sujian Guo

Gary A. Stradiotto

San Francisco State University

University of California at Davis

In this article we critically examine the nature and direction of economic reform in North Korea. While North Korea began to experiment with reforms and a partial open-door policy in the mid-1980s, the most substantial attempt at economic restructuring occurred in July 2002. In these latest reforms, the government attempted to change the planned economic system through the introduction of price reforms, market and commodity relations, profit motivation and material incentives. However, scholars disagree on the nature and direction of economic restructuring. In order to analyze the state of economic transformation, we develop a conceptual framework of market socialism with a set of empirical indicators against which we examine the trends, direction and limitations of reforms. Our study strongly suggests that North Korea is moving away from the command economy towards a model of market socialism as practiced in China and Vietnam.

While North Korea experimented with reforms and a partial open-door policy in the mid-1980s, the most substantial attempt at economic restructuring occurred in July 2002. In these latest reforms, the government attempted to change the planned economic system through the introduction of price reforms, market and commodity relations, profit motivation and material incentives. However, the central question is: what are the nature and direction of economic reform in North Korea? Scholars and policy-makers offer competing accounts of the state of economic restructuring due to the lack of a coherent conceptual framework.

Several studies propose that Kim Jong-il has placed himself firmly behind the reforms (Kwon and Ford, 2005), which suggests they are designed not as stop-gap measures but rather to introduce systemic changes to the economic system and are geared towards ‘the coexistence of a state-directed economy and a market economy’ (Frank, 2005a, p. 278). To the extent that reforms are market-oriented, this indicates a move toward some form of market socialist economy. Others dismiss the reforms as economic rationalization within the traditional socialist framework. They regard reforms not as meant to create a market economy, but rather to rationalize prices, decentralize economic management and foster a more incentive-based system to increase the regime’s control over the market and help it maintain a ‘Socialist Power Country’ (Hong, 2002; Lee, 2002). Finally, others contend it is too early to determine whether North Korea is moving toward a market economy or is simply attempting to reinvigorate its planned economy,



though they acknowledge the method of rebuilding is to introduce market mechanisms (Chul, 2004; Lim and Chul, 2004). Pyongyang's silence on the intention of reforms and the difficulty of obtaining authoritative information about the current economic situation complicates the issue. Yet, understanding the nature of reforms remains important, for it provides insight into the Kim regime and whether we may expect to see further market-oriented reforms in the future.

To determine the nature and direction of reforms we develop a conceptual model with five empirical indicators in order to articulate and advance the theoretical and substantive knowledge of market socialism. Our theoretical propositions are deduced from the general theory of market socialism and the utility of the model is tested and validated by examining key features of China's and Vietnam's market socialist reforms. If key features are seen as present in China's and Vietnam's reforms, this supports the utility of the model for classifying economic reforms in socialist states. We then apply the model to the analysis of North Korean reforms. We examine the content, direction, trends and limit of reforms in order to determine the state of economic transformation.

While authoritative information on North Korea's economy is difficult to obtain due to the lack of a comprehensive data-gathering structure, there is sufficient information available to assess the intent and direction of reform. As the evidence will show, North Korean reforms constitute a departure from the command economy towards a model of market socialism. The goal of economic restructuring is twofold: first, to embrace the role of the market and improve productivity and people's living standards while maintaining socialist principles; and second, as an opportunity for the state to reinforce and legitimate its control through a predominant position of public ownership in the economy. State control over the restructuring process does not preclude the possibility that reforms are market-oriented in nature, as both China and Vietnam exerted substantial control over their socialist market reforms in order to achieve a gradual marketization of the economy through a 'trial-by-error' approach.

Conceptualizing Market Socialism

'Market socialism' is a type of economic system that combines the basic socialist principle of public ownership with the basic principle of the market economy, with public ownership predominant in those areas deemed critical to the implementation of socialist principles and social policy (Guo, 2006, p. 172). It is described as 'a species of economic system which is, in a number of ways, a cross between capitalism and socialism' (Bardhan and Roemer, 1993, p. 3). Central to market socialism is the belief that the market is not a mechanism exclusive to capitalism, but is also compatible with public ownership and socialist principles.

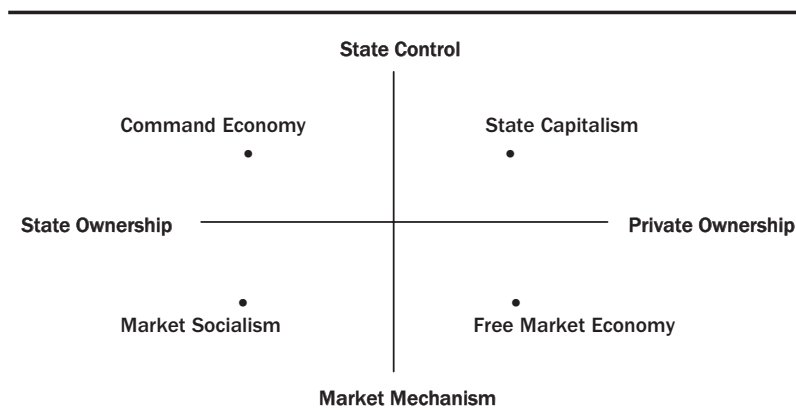
The general literature on market socialism suggests a number of proposals for a hybrid form of political economy, one that operates within and adheres to

socialist principles while allowing market forces a substantial role. Despite variations in measurement schemes, these studies agree upon a basic definition of market socialism as a type of economic system that combines the socialist principle of public ownership with the principle of the market economy, with predominant public ownership in those areas deemed critical to the implementation of socialist principles and social policy. It resides in the middle of the spectrum, bounded by a pure market economy at one end and a pure command economy at the other. Market socialism is a prime example of a mixed economy with allocation decisions undertaken by both governments and markets. Therefore, market socialism incorporates some methods kindred to capitalism.

While Adam Smith and Karl Marx presented two *ideal* economic types: the 'free market economy' of capitalism and the 'planned command economy' of communism, in between exist mixed systems since states and markets play varying roles in different countries. Even within the same type of political economic system, such as capitalism, variations exist such as those between the United States, Great Britain, Japan and Germany. They do not all exhibit the key characteristics of market capitalism to the same degree due to differing traditions and political contexts; however, sufficiently similar characteristics allow them to be placed in a common classification. Likewise, the same situation may occur in other economic systems. 'State capitalism' and 'market socialism' are the two most important hybrid types between the two extremes: the 'market economy' and the 'command economy'. Although the models may not be a perfect reflection of the real world, these four categories are useful for simplifying and generalizing the diversity of modern economic systems. Figure 1 illustrates the differences and similarities between the four ideal-types.

The model locates ownership and control at points between the two extremes. Ownership and control are the two most important indicators that distinguish

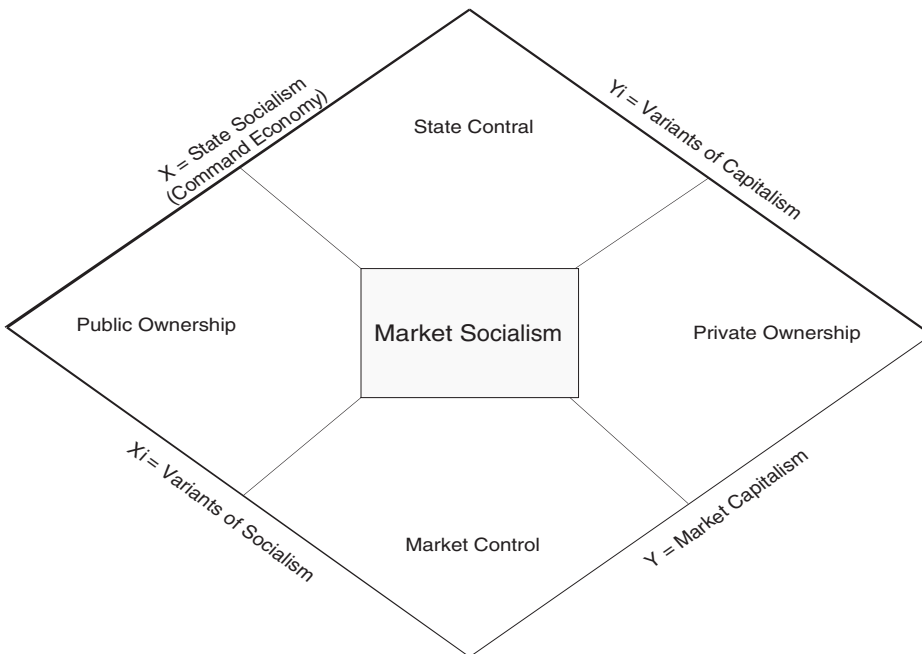
Figure 1: Four Types of Political Economy on a Two-dimensional Spectrum



one type of political economy from another and constitute a feasible analytical framework against which to examine and evaluate the ‘transition’ from communism. In this spectrum, the horizontal axis indicates the ownership dimension between the state and private sectors. The vertical axis measures the relative role of the state and the market in the economy. It provides a general picture of mixed political economies between two ideal-types as a result of varying combinations of ownership and control between state and market. However, the model is not meant to suggest that all change is linear. For example, a command economy may not necessarily make a transition toward a market economy in the linear form, but could end in a mixed political economy, such as market socialism or state capitalism, without moving further toward the market economy of capitalism.

Figure 2 highlights the multidimensionality of market socialism. Public ownership with state control represents the planned command economy (USSR and Mao’s China), while public ownership without state control represents market socialism (Yugoslavia, Hungary, post-Mao China and Vietnam). Alternatively, private ownership with state control represents state capitalism (Japan, Germany, Taiwan and South Korea), while private ownership without state control represents a *laissez-faire* market economy (UK in the nineteenth century and US prior to the New Deal). Conceptually, market socialism embraces public and private

Figure 2: Multidimensionality of Market Socialism



ownership as well as state and market control. With this model as the premise we deduce a set of primary empirical indicators for examining real-world market socialism: (1) public vs. private ownership; (2) state control vs. market mechanisms; (3) central planning vs. decentralization; (4) national goal vs. profit motivation; and (5) self-sufficiency vs. open economy. These features are closely related to one another, with several of them derivable from the fact that a market socialist state allows substantial freedom of markets.

Public vs. Private Ownership

The first primary feature of a market socialist economy is the retention of substantial public ownership of the means of production. Alex Nove (1991) argues this ownership as possibly including the presence of centralized state corporations. However, due to the economic difficulties that traditional state control historically engenders, most market socialists tend to approve of decentralized rather than centralized control. Although firms in a market socialist economy may be denationalized and no longer controlled by the Central Planning Bureau (CPB), this does not imply privatization; rather, public property rights are held in unison by one community or another (Roemer, 1994). Two such forms of ownership are public market socialism and self-managed market socialism. In the former, citizen communities control income rights in enterprises, with equal distribution of enterprise income to all citizens; in the latter, enterprise workers have both control and income rights (Weisskopf, 1993, p. 122). In the history of communist practice, the real-world cases are the Yugoslavian model of workers' self-management and the cooperative farm (*kolkhoz*) under Soviet communism (Yunker, 2001, p. 16). However, no success is found in these forms of market socialism. Alternatively, recent market reform and market socialist practice in China and Vietnam resulted in strong economic growth, while the public sectors retain a significant position in the economy. Whatever specific form it takes, a market socialist system requires a dominant position of public ownership in the economy.

Therefore, market socialism allows private ownership to develop, in certain areas, its rights to utilize and enjoy the fruits of an asset, business or unit of property, and in some cases to transfer those rights from one agent to another. However, such rights may be limited by the state in various ways. (Putterman, 1996). Given the focus on increasing efficiency and productivity by allowing substantial free operation of markets, it is natural for market socialist governments to tolerate a certain amount of private control of the means of production. Although private ownership is not part of János Kornai's (1993) blueprint for market socialism, he sees it as one of the most important parts of the historical realization of market socialist states, holding that although privately owned production may be relatively small, it still plays an important role in improving the supply of goods and strengthening the operations of markets (Kornai, 1993, p. 52).

In regard to land, some degree of reform is typical in the change from a command to a market socialist economy. Recognizing that communal control of land and collective farming in pursuit of centrally determined quotas does not foster maximum productivity, socialist governments have implemented land reforms that reinstate something more like traditional individual and family ownership. Such 'ownership' need not entail land being deeded to the agent. Rather, the individual or family may be given use rights and substantial control of the land, perhaps through long-term leases, including significant control of what is produced, freedom to sell a substantial portion of that produce in free markets, permission to retain substantial profits from such sales and possibly the right to transfer control of the property. Land reform in this sense may be substantial in a market socialist economy, even when the government or communes expressly remain the 'true' landowners.

State Control vs. Market Mechanisms

The second primary feature of market socialism is that markets must be allowed to operate with considerable freedom while the state continues to maintain effective macro control over the economy. Prices and production are no longer dictated by central planning, but largely determined by supply and demand. Key elements of the transition process include price and market reforms (aimed at allowing the market mechanism to determine relative prices in accordance with the relative scarcity of different inputs and outputs), enterprise restructuring and privatization (aimed at subjecting enterprises increasingly to market forces and transferring the ownership and control of the means of production from the public to the private sector) and redefining the role of the state (from being the main direct participant in the production of goods and services to establishing and safeguarding the institutional infrastructure which allows markets to function properly).¹

The degree of marketization and which areas are marketized vary among market socialist economies. For example, markets may be allowed substantial freedom within agriculture and manufacturing but not in utilities or transportation. A distinction should be made here between marketization of the non-state and the state sector. Although allowance of free markets in the non-state sector may be considered a step toward market socialism, its full enactment requires significant marketization in the state sector also.

Central Planning vs. Decentralization

If market mechanisms play a major role in determining prices and enterprise objectives in particular arenas, then government economic control must be substantially decentralized in those arenas. Thus, decentralization and firm autonomy comprise the third key feature. Decentralized planning does not reject

central planning, but rather delegates substantial decision-making to local governments and firm managers. Although the CPB retains macroeconomic control via planning, financial and fiscal measures, and decision-making of large State Owned Enterprises (SOEs), local governments and medium and small SOEs obtain a significant amount of autonomy in economic decisions.

Decentralized planning need not preclude central authorities from playing important roles in the economic life of the market socialist state. For example, state-controlled banks may determine general investment areas and levels by adjusting interest rates at which various sectors can borrow money (Roemer, 1991, pp. 562–77). Other central government economic activities suggested by market socialists include: ownership and management by the state of key industries and public utilities; indicative planning, which involves government consultation in the construction of economic plans; and planning overall economic, income, fiscal and credit policies (Nove, 1991; Sik, 1985). In so far as such activities do not stultify the operations of markets, they are compatible with market socialism. What is not compatible is centralized decision-making in the old style of determining prices, quotas and output.

Decentralization implies firm autonomy, not in the sense of private ownership, but rather in respect to economic decision-making. This too is a corollary of marketization, for if markets are to determine economic response, then SOEs must have the freedom to respond appropriately to markets. Robert Dahl (1985), for example, advocates self-governing enterprises owned and democratically governed by their workers. Other theorists, such as James A. Yunker (1995), are skeptical about the efficiency of worker management. Which kinds of economic institutions are free from government control and the degree to which they are so free may differ in market socialist systems. The more fully economic institutions within the socialist system act autonomously, the more the system can be said to be market socialist. Alternatively, the less economic institutions are able to respond to the market, the less the system can be considered marketized.

National Goal vs. Profit Motivation

Traditional socialist economic systems faced serious incentive problems that hampered efficiency and stifled innovation. This is understandable when the primary motivation for firms' activities is the fulfillment of plans and goals set down by central planning authorities. Given that a primary purpose of market socialist practice is to improve economic efficiency and spark innovation, it is imperative that the system incorporate motivations that reward productivity, efficiency, innovation and entrepreneurship. Market socialism embraces such economic values; *profit* is the motive *par excellence*, the fourth key feature. In his 'prototype blueprint' for market socialism, Kornai argues that firms' success should be measured by profits, with incentives for managers and workers tied to earnings (Kornai, 1992, p. 45).

Profit as a main economic motivator is implied by marketization since for markets to perform their proper economic functions they must comprise individuals who seek their own good through their dealings. This is not to say profit is the only economic motivation in a market socialist system. For example, social need and welfare will normally be a major determinant of the distribution of economic goods. Furthermore, the fulfillment of centrally determined economic objectives might play a considerable role in determining firms' activities. However, unless the profit motive is allowed to play a major role, markets will not work properly and the economic enhancement goals that motivate market socialism are likely to be thwarted.

Self-sufficiency vs. Open Economy

Kornai (1992) argues that opening the economy to the capitalist world is essential for a market socialist economy. Given the chief motivation for changing from a command economy to market socialism is to develop a stronger, more dynamic economy, economic opening is our fifth key feature. Formerly, socialist command economies constituted a sizeable economic bloc that could comprehend a large portion of one another's trade. But with most of those economies having evolved into market economies and having been incorporated into economic globalization, current command economies can no longer rely on trade with other socialist nations and expect strong economic growth.

This dimension notably differs from those previously listed by not referring specifically to the structure of the market socialist state and its economy, but rather to the state's relations with other nations. As the primary motivation for replacing old-style socialism is to improve productivity and efficient allocation of resources, advanced capitalist economies can provide the capital, technologies and markets needed to achieve these goals. However, opening up to the outside world and encouraging foreign trade does not mean that a free trade regime would exist in a market socialist state. The state continues to regulate, guide and even control foreign trade through state trading companies and trade policy. The state usually adopts a graduated and phased integration with the world economy under a controlled open-door policy to guard against possible negative foreign influence and protect SOEs' competitiveness on the international markets.

Market Socialism in China and Vietnam

The transition from state socialism toward market-oriented socialist economies is one of the most significant historical developments of the late twentieth century. Former state socialist economies in Asia, such as China and Vietnam, have made enormous progress in market reform. We deduce the analytical framework from the general theories of market socialism, with dimensions 1 to 5 derived from considerations of what kinds of economic adjustments are required to (1) enable substantial marketization of the economy and (2) gain the primary objective of

the change to market socialism. We test and validate the framework by applying it to the analysis of real-world cases and by demonstrating that states with admittedly market socialist economies exhibit all or most of the five dimensions. The reformed economic systems of China and Vietnam, both of which have substantially transformed their economies into market socialist systems, serve as the best cases in support of the analytical framework.

China

China's process of economic reform occurred in three main stages in the 1970s and 1980s (Sachs and Woo, 1994). First, in 1979, China undertook a major step toward economic liberalization by allowing farm households to lease state land and to sell output above state-fixed quotas in agricultural markets at free prices. Town and village enterprises were encouraged to produce and sell industrial goods outside the CPB's plan. The second stage occurred as the 1980s unfolded, with the Chinese government increasingly opening the economy to international trade and capital. These changes included devaluations of the exchange rate, the creation of special economic zones, the establishment of more inviting circumstances for foreign investment and the establishment of a small foreign exchange market. Third, in the mid-1980s, industrial enterprises gained greater autonomy. This included increased freedom to determine inputs, outputs and prices. The pay of employees, both managers and workers, was tied more closely to the performance of the enterprise. Also, SOEs were provided the same kind of two-level opportunity that farmers were given. After fulfilling state quotas at predetermined prices, an enterprise's remaining product could be sold at market prices. A system of taxation replaced the old system of profit remittance. Furthermore, not only were SOEs liberalized, but also collective, private and joint venture enterprises were encouraged.

During the earlier stages there was no explicit statement by Chinese leaders that they intended a move toward market socialism. This did not occur until 1992 when a formal endorsement of the 'socialist market economy' was made at the Fourteenth Chinese Communist Party (CCP) Congress. Additional reform measures in the 1990s were adopted by the Chinese government as major steps toward marketization, which included reducing mandatory state planning and government intervention in economic activity, allowing enterprises to operate independently and set prices and wages according to supply and demand, developing various factor, real estate and stock markets, integrating the Chinese economy more closely with the global economy and allowing the private sector a greater degree of economic freedom. Since the late 1990s, the private sector is the fastest growing part of the Chinese economy, although the public sector continues to occupy a dominant position in strategic industries. Throughout the reform process, China took a gradual, phased and experimental approach, proceeding steadily toward market socialism (Guo, 2003). Socialist market reform has contributed greatly to economic growth in China over the past few decades, and

continues to do so today. This success resulted from an open-door policy and foreign investment, massive entry of non-state firms into the economy, increased competition among firms and improvements in the running of state-owned firms (McMillan and Naughton, 1992).

The result of reforms suggest all five features of the analytic framework are present in China's economic transition: (1) The pattern of ownership developed into a multi-sectoral structure in which several types of ownership coexist, with public ownership (state and collective) occupying a predominant position. The socialist nature of the economy persists as the predominant ownership of the means of production is the public sector, which controls the key resources and the 'commanding heights' of the national economy (Guo, 2000, p. 162). On the other hand, China's private sector has surged since the late 1990s, and its presence in the economy continues to increase in scope and importance. Moreover, since the 1979–82 agricultural reforms, individual farmers gained land-use rights based on the 'household responsibility system'. Now, individual farmers freely determine production and prices for those crops they grow on their leased land. (2) Marketization is one of the great achievements in China's reform. Market mechanisms were introduced into the economy and given a greater role in the formation of prices and the allocation of resources. Factor, real estate and stock markets all now exist (Guo, 2000, pp. 162–3). (3) Decentralization changed the relationship between the central government and local governments. Although the central government retains the power to interfere with the macro economy, economic decision-making is now substantially decentralized to local governments and enterprises (Guo, 2000, pp. 162–3). There is an increasing liberalization for private and joint venture firms as well as for village and township enterprises and other collectives, and SOEs generally possess greater decision-making autonomy. (4) The profit motive is the major driver of the Chinese economy and its integration into the world economy. SOEs are largely transformed into profit-driven modern enterprises to compete in the marketplaces, while private, collective and other non-state sectors depend on profit maximization to survive in the competitive environment. (5) China's open-door policy achieved the greatest success in the past two decades, and China has surpassed the United States, ranking first among nations receiving foreign direct investment (FDI). Foreign investment accounts for at least 20 per cent of gross domestic product (GDP), and contributes directly to rapid economic growth in China and its integration into the world economy. The swift rise of China as a trading economy also exerts a significant impact on the global economy.

Vietnam

In response to various economic crises, in 1979 Vietnam implemented a series of reforms that resulted in a mixed-ownership economy, where the state and private enterprises play important roles (Fahey, 1997). The 1979 reform, however, had limited success (St John, 1997). A larger step toward liberalization occurred in

1981, when production groups on cooperative land were allowed to sell surplus products on the free market, creating a two-tiered agricultural production system similar to that initiated in China in 1979. Moreover, although production for the market by state-owned industries was sanctioned, prices and wages were adjusted to match market prices more closely. Economic difficulties continued, however, especially in the planned sector, with most government investment going to heavy industry. Large budget deficits were worsened by subsidizing unprofitable SOEs (Fahey, 1997). By the mid-1980s, agricultural production was again declining and the inflation rate rose to 700 per cent.

In 1985, the government ended the rationing system and monetized state employee wages. At the same time, almost all of the southern and central provinces and some in the north had difficulty implementing plan directives and pressed for reform, while the non-plan economy continued to expand. Facing an increasingly serious economic crisis, in 1986 the government announced the *doi moi* (renovation) policy, which instituted several major reform steps toward market socialism. The government abolished price controls, devalued the dong, legalized private ownership, freed the private sector, withdrew subsidies from some loss-making state enterprises, opened up the country for foreign investment, began to introduce a modern legal framework and pursued monetary and fiscal policies. In addition, agricultural reforms were introduced in 1988–9, including private land-use rights. Cooperatives and production teams, self-governing units within which the means of production are used and managed by individuals and families, became voluntary (St John, 1997). Like China, land, though still state-owned, was leased to households for 15 years, or for 50 years for lands dedicated to perennial crops. Households were given the freedom to make all decisions relating to production and investment. Government procurement contracts were abolished and output was sold on the market at free prices (Beresford, 2001). Furthermore, direct subsidies to SOEs ended in 1989, and enterprises had to turn a profit or go out of business.

In 1991, the Seventh National Congress moved to normalize relations with Japan and the United States. In 1992, a new constitution specified that though land remained the property of the state, it could be allotted for long-term use and transferred by the user. Furthermore, beginning in 1993, land-use right certificates, both for agricultural land and urban residential property, could be transferred, rented, inherited and mortgaged during the period the land was allocated, thereby further increasing incentives for agricultural production (St John, 1997).

In recent years, reform stalled due to questions of how free markets and greater political freedoms are to be properly integrated into a socialist system. Nevertheless, Vietnam has made a significant economic transition toward market socialism over the past twenty years. According to Melanie Beresford (2001, p. 217), a market economy has been operating in Vietnam since the late 1980s 'for all intents and purposes'. Although Vietnam's economic reform differs from China's in

many respects, and they do not display the key features of economic transition to the same degree, Vietnam exhibits all five dimensions of market socialism: (1) Substantial public ownership of the means of production remains with the state sector, accounting for 38.7 per cent of GDP production share in 2003, which represents a 12.4 per cent increase from 2002.² (2) While the state-run sector remains dominant in the economy, other forms of ownership including the private sector are now permitted to invest and operate businesses in those areas not prohibited by law. Thus, marketization achieved significant progress and both the state and non-state sectors operate in a socialist-oriented, market-based, multi-sectoral economy. Factor, real estate and stock markets have come into being since *doi moi*, and the government has committed to building greater capital, property and labor markets. In addition, land-use right markets exist, and buyers are given land-use certificates under the Land Law, with the state retaining actual ownership.³ The non-state sector has become predominant in certain sectors, such as agriculture, and exhibits rapid growth in production. (3) While considerable government interference in state-run enterprises exists, the strictly planned economy is long gone. As early as 1981, the 'Three Plan System' legalized SOE market activities alongside the planned activities of the state (Fahey, 1997).

In 1987–91, budgetary subsidies to SOEs were abolished and managers were provided greater decision-making autonomy and expected to turn a profit. Since the early 1990s, Vietnam has attempted both management diversification and transformation of the SOEs into shareholding companies. Since 1992, *equitization*, or the legal transformation of SOEs into joint stock companies, has been pursued (Dinh, 2000). The government is aware of the need for additional reform of SOEs as many continue to be poor performers. Since the implementation of *doi moi*, the number of SOEs has been reduced from 12,300 in 1987 to around 5,300 at the end of 1999 (Dinh, 2000, p. 375). (4) The profit motive strongly guides private and SOE economic activities. In 1981, output contracts in agriculture permitted the allocation of cooperative land to production groups and the ability to sell surplus on the free market. By 1989, the government abolished most official prices, except for certain government monopolies (Beresford, 2001). Today prices are mainly market-determined and the majority of SOEs must now turn a profit to continue operating. However, even with the abolishment of direct subsidies to SOEs, Vietnam continues to support the dominance of SOEs through tax breaks, state contracts and bank credits (Dinh, 2000). (5) The government has normalized relations with capitalist countries while welcoming foreign investment. Vietnam adopted a strategy of gradual and phased-in integration with the global economy. Vietnam has committed under the ASEAN Free Trade Agreement (AFTA), the United States Bilateral Trade Agreement (BTA) and agreements with the World Bank and International Monetary Fund (IMF) to liberalize its trade and investment rules, abolish quantitative restrictions on all but five items, lower tariffs and gradually develop transparent trading and investment systems as a prerequisite for entry into the World Trade Organization (WTO) (Asia Pacific Economic Cooperation, 2004).

Market socialist practices in China and Vietnam provide strong empirical evidence in support of the conceptual framework. In what follows, we assess the state of economic transformation in North Korea and examine the changes, trends, achievements and limits of reform along the five empirical dimensions to determine if North Korea is moving toward a market socialist economy.

North Korean Economic Reform

Poor economic performance throughout the 1970s and early 1980s led North Korea first to implement partial reforms and an open-door policy in 1984 by allowing direct sales and production of some consumer goods outside central planning, bypassing centralized quotas, procurement and pricing. Later that year, the enactment of a Foreign Joint Venture Law was implemented as a means to attract foreign investment along with increased material incentives for enterprises and workers (Lee, 1996, p. 321). In 1998, North Korea amended its constitution to allow private non-productive property to meet the individual aims of citizens. Additionally, technocrats charged with economic management were freed from oversight of the Central People's Committee, and local governments were made responsible for managing light industries and cooperatives, with cabinet ministers remaining in charge of the heavy industrial sector.

Despite various reforms, limited success was achieved. After decades of misguided economic policy and poor planning, trade shocks hit the economy after the fall of the Soviet Union; coupled with devastating floods in 1995 and 1996, the economy collapsed. It is estimated that between 1990 and 1998, the country's GDP contracted by 5 per cent each year (Oh and Hassig, 1999, p. 297). The massive floods displaced an estimated 500,000 people according to a UN report and devastated the agriculture sector. Widespread food shortages resulted in an estimated 600,000 to 1,000,000 people's deaths due to famine (Noland, 2003, p. 1). Faced with an increasingly desperate situation, in July 2002, North Korea implemented sweeping economic reforms which went far beyond previous attempts to alter the economic environment (Table 1).

Reforms are associated with five major changes: the first is an attempt to monetize the economy by curtailing the coupon system for food rations, relaxing price controls, thereby allowing supply and demand to determine prices. Rüdiger Frank (2005b) describes the current economy as a 'hybrid system' with a basic amount of staple food distributed through the state, and the remainder left to market distribution. Small-scale markets have sprouted up all over North Korea and the public distribution system has broken down. In order to meet rising prices, the government hiked wage levels – for some sectors as much as 20-fold (110 won/month to 2,000 won/month) and for other 'special' wage sectors as much as 60-fold (government officials, soldiers, miners, farmers). Furthermore, wages are now apparently tied to the actual amount worked (Yoshikawa, 2004). This differential in wages by sector represents an important departure from the command economy through the introduction of a wage discrimination system.

Table 1: Major Economic Reforms in North Korea, 1 July 2002 (Unit: North Korea Won)

	Before July 2002 (A)	After July 2002 (B)	Price Increase (B/A, Times)
Commodities			
Rice (kg)	0.08	44	550
Corn (kg)	0.07	33	471
Beans (kg)	0.08	40	500
Beer (per bottle)	0.5	50	100
Diesel Oil (kl)	1	38	38
Electricity (kwh)	0.035	2.1	60
Subway fare (per sector)	0.1	2	20
Train Fare	50	3,000	60
Wages			
For a laborer (per month)	110	2,000	18
In the personal service industry (per month)	20–60	1,000–1,500	50–25
For a military lieutenant (per month)	95	2,970	31.3
Exchange rate			
US \$ equals	2.15 North Korea won	150 North Korea won	69.9

Sources: *People's Korea*, 17 August 2002, <http://www.korea-np.co.jp>; Gey, 2004, p. 127; Hong, 2002, p. 96.

Second, the government abandoned the artificially high value of the won, depreciating the currency from 2.2 won to US\$1 to 150 won to US\$1. This measure aimed at inducing foreign investment and providing export incentives for domestic firms. The 'unofficial' value of the currency has depreciated further since reforms.

Third, the government decentralized economic decision-making. Measures entailed cutting government subsidies, allowing farmers' markets to operate and transplanting managerial decisions for industry and agriculture from the central government into the hands of local production units. Enterprises have to cover their own costs and managers have to meet hard budget constraints. At the same time, a new accounting system was introduced which helped identify inputs and outputs of single enterprises. SOEs now set prices subject to approval, make purchasing decisions of intermediate inputs, invest out of retained earnings and engage in some foreign trade. However, central authorities retain the ability to make a number of management decisions, including decisions on salaries, promotions and demotions, and employment reductions.

Fourth, the government pressed forward with special administrative and industrial zones to induce foreign investment. As early as 1991 the Rajin-Sunbong was

created to stimulate international trade and investment. In September 2002, North Korea designated the Shineuiji Special Administrative District as an open economic zone for foreign businesses, designed to exist outside regular legal strictures. In October 2002, the Mount Geumgang Tourism District was created to provide hard currency from tourism (Cha, 2004). Finally, in November 2002, the Gaeseong Industrial Zone was implemented to attract small and medium-sized South Korean businesses.

Fifth, the government encouraged profit motivation and reduced rationing significantly, along with its attendant coupons (Bayer, 2004), although it appears the Public Distribution System (PDS) continues to distribute food rations of 250 g/day of rice (down from 300 g/day) to about 70 per cent of the population.⁴ To provide more incentives for farmers and cooperative farms, working units were reduced to ten persons, and up to 40 per cent of farm products can be sold autonomously, with individual farming lands expanded to 1,300 m².⁵ Also, a 'Family Farming System' was announced, and in 2004 was experimented with in two provinces. In the system, two to five families constituting sub-work teams lease land from cooperatives. After contributing 30–50 per cent of their harvests to the state, they are free to dispose of the remainder as they wish (Shin, 2005). Next, we assess reforms against the conceptual framework of market socialism.

Public vs. Private Ownership

North Korea's political economy continues to maintain one of the five characteristics of market socialism, namely, substantial state ownership of the means of production, which is considered by all socialist states as the fundamental core of socialist principles and the defining feature of market socialism. Public ownership consists of state-owned enterprises, collective-owned enterprises and rural collectives or cooperatives. It refers to the means of production that are not owned and controlled by any individual but owned by public or collective entities. Like any market socialist economy, North Korea has not abandoned this principle. However, since 1984, particularly during the 1990s, the state sector has shrunk to around 30 per cent of Gross National Product (GNP), and it demonstrates a significant departure from the pre-reform command economy.

This suggests some state farms in agriculture and small state enterprises in urban areas have been restructured and 'downgraded' to rural collectives or urban cooperatives, which are still 'public' in nature and guided by state policy. This is a result of recent decentralization, reduction of state subsidies to SOEs and changes in enterprise management. These collectives and cooperatives now constitute a larger portion of the economy, though the state sector continues to retain the dominant position in the economy. Both the state sector and collectives account for most of the economic activity in North Korea.

Although the economy remains largely state-owned and controlled, the government implemented some economic reforms in previous years, such as tolerance

and promotion of limited entrepreneurship (small businesses and farmers' markets) and the development of economic and trading zones (in concert with Beijing and Seoul), which promote the growth of private business and foreign investment. More significantly, constitutional revisions in 1998 gave more freedom and autonomy to cooperatives and private businesses. Farmers' markets flourished and the development of free trade zones in Rajin-Sunbong, Shineuiji, Gaeseong and Mt Geumgang increased private sector and foreign share of GDP and industrial output.⁶ Since the end of 2003, farmers' markets are now just called 'markets' to reflect the fact that not only agricultural goods but also industrial and commercial goods are traded. The Economist Intelligence Unit (2004a) reported that de facto private enterprise were emerging to complement or supplant the failing formal economy. Although such developments do not necessarily represent an embrace of privatization, they seem to indicate Pyongyang is tolerating some private ownership. In 2000, the private sector reportedly accounted for 3.6 per cent of its \$16.79 billion GDP, with 5 per cent of industrial output attributed to private enterprises.⁷ The expansion of the private sector and the so-called 'second economy' has inevitably brought into being a new social class which pursues private interests and profits in competitive markets. 'Most visitors to North Korea today are struck by the growth of small shops and restaurants that have been tacitly (if not explicitly) approved in the wake of the reforms initiated in July 2002' (Kelleher and Kim, 2005, p. 75).

The extension of kitchen gardens to 1,300 m² and the experiment with the family farming system are moves in the direction of private ownership. Both measures give individual workers and families greater control of the land and its products. So far, however, the family farming system remains in the experimental stage. Although other reforms increase farmers' incentives, they fall short of the land reform measures taken by China in 1979 and Vietnam in 1988–9.

State Control vs. Market Mechanism

North Korea launched sweeping price reforms in 2002. Pyongyang used to buy rice at 0.8 won from farmers, and sell it at 0.08 won to consumers. After reform, rice is bought at 40 won, and sold at 44 won. Prices of other goods also soared such as those for utilities, bus/train services and rent (Frank, 2003; Yoshikawa, 2004). Foreign visitors increasingly see evidence of a grass-roots market economy. Large market halls have been built in Pyongyang and in most of the major cities and towns. There, people buy and sell vegetables, grain, shoes, clothes and cosmetics at largely free-floating prices. The markets legalize what was a flourishing unofficial market and make up for the state's inability to maintain the food and clothing rationing system. Increasingly, farm managers choose their crops and individuals now make money repairing bicycles and renovating apartments. Government-run companies have won more freedom to invest their foreign exchange earnings in production. Private groups increasingly are leasing restaurants, hotels and shops from the state. Perhaps indicating a move toward a

free-floating exchange rate, Pyongyang banks pay the new exchange rate of 900 won to the dollar as compared to the pre-reform rate of 2.15. Although this represents a significant increase, it is still far below the free market rate (various estimates place the free market rate between 900 and 2,500 won to the dollar); although at the time of reforms the free market rate was between 210 and 280 won to the dollar.⁸

Reports indicate the reforms have led to a proliferation of small markets dealing with farm and non-farm goods (Ihlwan and Sager, 2004). These reform measures allowed prices to rise to the levels of market prices while providing further autonomy to factories, and appear to represent an active hybrid sector of the economy with both private and public players, though representatives of SOEs may have become predominant sellers in many of the markets. Market forces are clearly operating in these establishments, though the government appears to be setting some price guidelines. Within SOEs, market forces are allowed significant room to operate as firms now have the right to set prices and determine production. The Ministry of Unification of South Korea reports that while price limits are fixed for rice, oil and other major products sold in general markets, market prices are largely determined according to supply and demand. This fact itself marks a radical departure from the centrally planned economy under which all operated according to central planning guidelines. However, the government continues to reinforce its guidance and control functions in many ways. Some observers describe such a reform as similar to China's in the early 1980s, 'which regarded a planned economy as the mainstay and market functions as being subsidiary' (Lim and Chul, 2004, p. 77).

Central Planning vs. Decentralization

North Korea retains central planning as the guiding principle of the national economy in order to achieve socialist goals. Nonetheless, decentralization is a major aspect of economic reform. The central government plans only strategically important departments and industries, while letting other enterprises and factories formulate their own plans within the framework of the state's overall planning. These entities now sell or export their products and earn the capital necessary for their plan, which includes price autonomy. The bank has an increased role in providing operational funds for enterprises as the result of a decentralization of banking functions. Recently, more enterprises have used their own capital and bank loans to cover operational costs. The emphasis on decentralization and autonomy is part of ongoing efforts to promote restructuring and boost production in accordance with practical socialism or 'new thinking'. By decentralizing decisions, and separating the local economy from the central economy, local governments and counties can set production levels and prices, which encourage competition. State-owned enterprises now have incentives to meet production targets and then sell surplus on the open market for profit (Noland, 2002).

In 2001, Pyongyang allowed agricultural cooperatives greater autonomy to determine production and to sell (one third) of their output at a price determined by the cooperative (Yoshikawa, 2004). Furthermore, in collective farms in the north, farmland is allocated to individual farmers for cultivation (Yoshikawa, 2004). Visitors to North Korea note a new, albeit limited, spirit of entrepreneurship. Caritas and other international relief organizations report makeshift small-scale markets with kiosks selling drinks, cigarettes and cookies as the public distribution system has basically broken down.⁹ While propaganda still maintains anti-capitalist rhetoric and spurns market-economic principles, the regime now admits flaws in the socialist-style economy as the source of the problem. '[T]he socialist economic management method is still immature and not perfect ... If we stick to this hackneyed and outdated method, which is not applicable to the realities of today, then we will be unable to develop our economy.'¹⁰ Overall, in respect of decentralized decision-making and increased firm autonomy, North Korea has taken some significant steps toward creating favorable conditions for economic liberalization, marketization and profit motivation.

National Goal vs. Profit Motivation

Reforms strengthened profit as a primary economic motivator at the individual and enterprise level. Sellers at legitimized town and city markets are motivated by profit, and SOE survival requires profitability now that subsidies are withdrawn. At the individual level, reports indicate small enterprises appearing along city streets throughout Pyongyang. Many of these kiosks are run by small trading companies, workers' and farmers' organizations and cooperatives, which are subordinate to the state. Yet, prices are determined by market forces and customers pay with cash rather than coupons (Linter, 2004). Throughout the country, private markets are permitted where work teams sell their surplus and individual farmers sell food grown on household plots. Similar to the kiosks and markets in Pyongyang, prices are market-determined with profit as the main economic motivation.

The ascendancy of the profit motive is aided by government pronouncements that profit need no longer be considered anathema to socialism. For example, the 2003 New Accounting Act and 2004 Finance Act made profit, rather than production quantity, the basis for enterprise performance assessment. The government stated, 'In the past, companies needed to focus only on production. However, now that they are being evaluated by their earnings, it has become necessary for these businesses to focus on sales, which in turn, shifted attention to the quality of the manufactured goods'.¹¹

In the spring of 2004, Kim Jong-il told workers at the Kosong Machine Tool Factory that 'It is very gratifying that this plant has abided by the principle of profitability'. He urged workers and managers 'to thoroughly ensure profitability in production'.¹² SOEs are now allowed to trade part of their production and

materials between themselves in the 'socialist goods trading market' (Murooka, 2003). They can sell or export products, and earn the capital necessary for their plan, with prices set between traders, within 10–15 per cent of the prices set by the government (Lee, 2002). In production, such indicators as cost and profit are emphasized and SOEs are expected to be self-financed, with highly inefficient ones shut down. Overall, decentralization is the major contributing factor for profit-oriented production in the North Korean reformed economy.

Self-sufficiency vs. Open Economy

Since the early 1980s, North Korea has adopted a more liberal trade policy in order to stimulate economic growth. As early as 1984, the Foreign Joint Venture Law was considered as a means to attract foreign investment, followed by the establishment of free trade and special economic zones throughout the 1990s. In addition, in 2000, Pyongyang established or restored relations with Italy (5 January), Australia (8 May), the Philippines (12 July), Britain (December) and Germany (March 2001). North Korea was also accepted into the ASEAN Regional Forum on 27 July 2000. More recently, North Korea normalized relations with 23 member nations of the Economic Union, and sent economic delegations to capitalist nations, including European countries and Australia. These moves reflect the government's assessment of the necessity of creating a more inviting environment for capitalist investment.

While the 2002–3 reforms are aimed at changing the domestic economy, the designation of Shineuiji, Gaeseong, Mt Geumgang and Rajin–Sunbong as Special Economic Zones (SEZs) is part of the open-door policy. Although North Korea claims the reform is not an acceptance of a free-market economy, it is recognition that socialism can coexist with capitalism, and it is a practical application of the socialist framework. North Korea has used *silli* (practical) socialism to redefine *juche* (self-reliance) and provide ideological justification for the reform policy (Chul, 2004). Pyongyang granted each zone strong autonomy under the guidance of market principles. In addition, special economic considerations are given to foreign companies investing in the SEZs. At the same time, Pyongyang appears to harbor a continuing distrust of capitalism and capitalist intentions. According to Bruce Klingner (2004), the special economic zones are fenced off to prevent the rest of the country from being 'contaminated' by capitalist ideas. The regime is concerned that SEZs might lead to social unrest because they will allow North Koreans to interact in a world from which they have been isolated. By fencing off the SEZs, the government is capable of controlling the flow of information from the outside. To the extent such anxieties continue, they might impede opening the economy to capitalist investment and fuller integration into the world economy.

However, the open-door policy is further constrained by US containment that prohibits economic exchanges and the non-resolution of the nuclear issue that

prevents economic cooperation with Western countries. The credibility of the government is still questionable to foreign investors, particularly from the West. As a result, North Korea has failed to attract substantial investment from South Korea and other industrialized capitalist countries, and the SEZs have not been as successful as expected. This is mostly due to the international community's strong skepticism on whether the North Korean internal environment can guarantee sufficient business activity and profitability (Vyapaarasia, 2005).

Conclusion

The application of the conceptual model against recent reforms in North Korea strongly suggests a transition towards a market socialist economy. The key features of reforms are a combination of state planning and commodity–market relations. This occurred through the introduction of costs, prices, profits and material incentives in the state-owned enterprises, the revitalization of commodity exchange in the rural areas, and the establishment of a special economic sector as an open-door window to attract foreign capital and new technology. According to Frank (2005a; 2005b), what emerged in North Korea is a 'dual structure' or 'hybrid system' combining state and market roles and blending market and socialist principles in reform practice. As stated in a North Korean official newspaper, *People's Korea*, 'we should manage and operate the economy in such a way as to ensure the maximum profitability while firmly adhering to the socialist principles'.¹³ Such reform efforts are comparable to those measures introduced in other Asian socialist economies such as China and Vietnam in the early and mid-1980s.

While North Korean propaganda still maintains anti-capitalist rhetoric and spurns market economic principles, the regime admits flaws in the socialist-style economy as the source of the problem. Even Kim Jong-il justified the new economic reform policy by stating:

things are not what they used to be in the 1960s ... no one should follow the way people used to do things in the past ... We should make constant efforts to renew the landscape to replace the one which was formed in the past and to meet the requirements of a new era (Kim, 2001, p. 2).

North Korean official, Ch'oe Hong-kyu, a bureau director in the State Planning Commission, explains, 'Kim Jong-il stresses all the outdated and dogmatic "Soviet-type" patterns and customs should be renounced in economic planning, finance, and labor management ... Foreign trade should be conducted in accordance with the mechanism and principles of capitalism' (Ch'oe, 2002). The North Korean-type market socialism can be summarized as follows (Guo, 2006, pp. 128–9).

- The goal of economic reform and the opening policy is to embrace the role of the market and improve productivity and people's living standards while maintaining socialist principles and reinforcing the predominant position of public ownership in the economy.

- The reform is the application and renovation of *juche* ideology in response to new challenges and changes in a new era.
- Market relations exist in a socialist society as socialism is the transitional stage toward communism. Therefore, the North Korean socialist economy is a dual structure that combines state and market roles with market and socialist principles; however, socialist principles serve as the guiding force of the economy.
- The core of socialism remains but coexists with market relations. Markets play a supplementary role in the economy to improve the productivity of public sectors, rather than replacing the state in guiding the economy. The decision-making of public and non-public-owned enterprises is becoming more market-oriented, but is still subjected to state interference and influence since the state controls the majority of resources. Many elements of the market economy, such as factor markets, real estate market, stock market, etc., have come into being, but are weak and distorted.
- The party-state control system remains effective and powerful and state intervention remains extensive. The core of the party-state system defines the nature and functioning of North Korean politics and the parameters within which state economic policy is initiated and implemented.

Despite substantial economic restructuring toward market socialism, North Korean reforms have yet to achieve significant progress due to external and domestic constraints. Unlike the early success that China and Vietnam experienced in their market reform and open-door policy, as measured by GDP, Foreign Direct Investment (FDI) and other economic indexes, North Korean success has been limited. Reforms have lagged behind in many areas compared to its counterparts in East and South-East Asia and have resulted in high inflation, a growing disparity between rich and poor and a soaring exchange rate. However, two points are noteworthy: first, a key difference between North Korea and China and Vietnam is the relative weight of agriculture in the national economy and society (Frank, 2005c). In Vietnam and China, workers employed in agriculture represented 80 per cent and 70 per cent of the economy, respectively, while in North Korea the figure is much lower at 30 per cent (Naughton, 1996). Consequently, North Korea began reforms at a very different stage as compared to China and Vietnam which were largely peasant agricultural societies while North Korea is more urban and industrialized. While China and Vietnam faced a classical economic development trajectory – moving workers from low-productivity agricultural jobs to higher-productivity industry, North Korea faces more difficult structural adjustments – the scale-back of workers in inefficient and subsidized industries to allow for new jobs in more efficient sectors of the economy. As noted by Jeffrey D. Sachs and Wing Thye Woo (1994, p. 112), ‘For many reasons, normal economic development is easier than structural adjustment, both politically and economically’. Thus, comparing economic growth levels with China and Vietnam at this stage of reform seems inappropriate.

Second, the degree of success in reform and open-door policy does not determine the nature of economic transformation. It is the defining features of market socialism that determine if North Korea has departed from the traditional command economy toward market socialism. To be sure, North Korea's move toward market socialism is impeded by specific problems and challenges that China and Vietnam did not face, namely the uncertainty of the unresolved nuclear weapons crises and the strict totalitarian nature of the regime. To a large extent, the success or failure of restructuring will be determined by the leadership's ability to resolve the nuclear stalemate with the United States in order to achieve a favorable international environment for market-style reforms.

(Accepted: 26 July 2006)

About the Authors

Sujian Guo, Department of Political Science, San Francisco State University 1600 Holloway Avenue, San Francisco, CA 94132, USA; email: sguo@sfsu.edu

Gary A. Stradiotto, Department of Political Science, University of California at Davis, One Shields Avenue, Davis, CA 95616, USA; email: gstradiotto@ucdavis.edu

Notes

- 1 See, for example, Fischer and Gelb (1991); De Melo *et al.* (1996).
- 2 Figures provided by Industry Minister Hoang Trung Hai to *Vietnam News*, 1 July 2004; article posted to Vietnam Economy Archives (News Online – Vietnam Economic Times). Available from: <http://www.vneconomy.com.vn/eng/> [Accessed: 18 April 2007].
- 3 'Buyers Wait for Vietnam's Land Policy', *Asia Pulse*, 25 February 2004, p. 1 [Accessed at Lexis-Nexis].
- 4 See statement by Tony Banbury, Regional Director for Asia, World Food Programme, to a press conference in Beijing, China, 26 March 2005. Available from: http://www.wfp.org/newsroom/speeches/2005/050420_dir.pdf [Accessed: 18 April 2007].
- 5 Ministry of Unification, Republic of Korea, 'Recent Changes in North Korea'. Available from: http://www.unikorea.go.kr/data/eng0303/000158/attach/eng0303_158A.doc [Accessed: 18 April 2007].
- 6 The Shineuji Zone has faced difficulty. Yang Bin, who was appointed to run the zone, was arrested by China in late 2002 on charges of commercial crimes; as a result, North Korea withdrew its decision on the designation of the special economic zone in August 2004.
- 7 *Korea Now*, 'Politics & Policy'. Available from: http://kn.koreaherald.co.kr/SITE/data/html_dir/2002/05/08/200205080007.asp; The Economist Intelligence Unit (2004a); The Economist Intelligence Unit (2004b).
- 8 According to the CIA World Factbook (2005), the exchange rate increased from 150 to 170 won to the dollar in December 2004.
- 9 Embassy of the Republic of Korea in Washington DC (2003) [Accessed: 13 April 2006].
- 10 Editorial Comment, *Rodong Shinmun*, 21 November 2001, cited from Victor D. Cha; original comment made 4 January 2001.
- 11 The Korean Institute for National Unification, 'North Korea's Economic Reforms', p. 44, available from http://ifis.kyunghnam.ac.kr/eng/Images/main/NK_EconomicReform.pdf [Accessed: 22 August 2006].
- 12 Kim Jong-il, cited from 'Signs of North Korea Coming to Market', Korea.net. Available from: http://www.korea.net/news/news/newsView.asp?serial_no=20040603001&part=110&SearchDay= [Accessed: 18 April 2007].
- 13 'New Economic Policy Enforced in DPRK: Seeking Maximum Profits while Maintaining Principles', *People's Korea*, 17 August 2002; 'Let us Fully Demonstrate Dignity and Power of DPRK under Great Banner of Army-Based Policy', *Rodong Shinmun*, New Year Joint Editorial, 11 January 2003, p. 2.

References

- Asia Pacific Economic Cooperation (2004) *Member Economies, Vietnam: Economy Report: Integrating into the World Economy*. Hanoi: APEC.
- Bardhan, P. and Roemer, J. (1993) *Market Socialism: The Current Debate*. New York: Oxford University Press.
- Bayer, J. (2004) 'China's Influence onto North Korea's Program of Economic Reform'. Paper delivered at the Warsaw Workshop Conference, *Beyond the Party State: State, Law and Society in Contemporary China*, held 30 June to 1 July 2004. Available at: <http://www.isppan.waw.pl/cbap/ww/bayer.htm>.
- Beresford, M. (2001) 'Vietnam: The Transition from Central Planning', in G. Rodan, R. Robson and K. Hewison (eds), *The Political Economy of South East Asia*. New York: Oxford University Press, pp. 206–32.
- Central Intelligence Agency, *The World Factbook* (2005) Available at: <http://www.cia.gov/cia/publications/factbook/index.html> [Accessed 13 April 2006].
- Cha, V. (2004) 'North Korea's Economic Reforms and Security Intentions'. Testimony before US Senate Committee on Foreign Relations. Available from: <http://foreign.senate.gov/testimony/2004/ChaTestimony040302.pdf> [Accessed 18 April 2007].
- Ch'oe, H. (2002) 'Kim Jong-il's Plan to Build a Powerful Nation', *People's Korea*, 31 January. Available from http://www.korea-np.co.jp/pk/174th_issue/2002013101.htm [Accessed 18 April 2007].
- Chul, C. (2004) 'North Korean Reform and Opening: Dual Strategy and "Silli (Practical) Socialism"', *Pacific Affairs*, 77 (2), 283–304.
- Dahl, R. (1985) *A Preface to Economic Democracy*. Berkeley CA: University of California Press.
- De Melo, M., Denizer, C. and Gelb, A. (1996) 'Pattern of Transition from Plan to Market', *The World Bank Economic Review*, 10 (3), 397–424.
- Dinh, Q. (2000) 'The Political Economy of Vietnam's Transformation Process', *Contemporary Southeast Asia*, 22 (2), 360–88.
- Economist Intelligence Unit (2004a) *Country Profile 2004: North Korea*. London: Patersons Dartford.
- Economist Intelligence Unit (2004b) *Country Report: North Korea February 2004*. London: Patersons Dartford. Available from: <http://korea.co.kr/korealink/kn.html> [Accessed 18 April 2007].
- Embassy of the Republic of Korea in Washington DC (2003) 'NK Embarks on Initial Phase of Market Economy', *Korea Update*, 14 (10), 30 September.
- Fahey, S. (1997) 'Vietnam and the "Third Way": The Nature of Socio-Economic Transition', *Journal of Economic and Social Geography*, 88 (5), 460–80.
- Fischer, S. and Gelb, A. (1991) 'The Process of Socialist Economic Transformation', *Journal of Economic Perspectives*, 5 (4), 91–105.
- Frank, R. (2003) 'A Socialist Market Economy in North Korea? Systemic Restrictions and a Quantitative Analysis', in *The DPRK Briefing Book. Economy*. Nautilus Institute. Available from: http://www.nautilus.org/DPRKBriefingBook/economy/R_FrankonMarketEconomyinNorthKorea_08_May2003.pdf [Accessed 18 April 2007].
- Frank, R. (2005a) 'Economic Reforms in North Korea (1998–2004): Systemic Restrictions, Quantitative Analysis, Ideological Background', *Journal of the Asia Pacific Economy*, 10 (3), 278–311.
- Frank, R. (2005b) 'Failure or Success of a Hybrid System?', Nautilus Institute Policy Forum Online. Available from: http://www.nautilus.org/fora/security/0511A_Frank.html [Accessed 22 September 2006].
- Frank, R. (2005c) 'International Aid for North Korea: Sustainable Effects or a Waste of Resources?', Nautilus Institute Policy Forum Online. Available from: <http://www.nautilus.org/fora/security/05100Franks.html> [Accessed 22 September 2006].
- Gey, P. (2004) 'Nordkorea: Reform sowjetischen Typs und Erosion der Staatswirtschaft', *Internationale Politik und Gesellschaft*, 1, pp. 115–33.
- Guo, S. (2000) *Post-Mao China: From Totalitarianism to Authoritarianism?* Westport CT: Praeger.
- Guo, S. (2003) 'The Ownership Reform in China: What Direction and How Far?', *Journal of Contemporary China*, 12, 553–73.
- Guo, S. (2006) *The Political Economy of Asian Transition from Communism*. Hampshire: Ashgate.

- Hong, I. (2002) 'A Shift Toward Capitalism? Recent Economic Reforms in North Korea', *East Asian Review*, 14 (4), 93–106.
- Ihwan, M. and Sager, I. (2004) 'Reforms are Starting to Bear Fruit', *Business Week*, 26 July. Available at: http://www.businessweek.com/magazine/content/04_30/c3893009_m2003.htm [Accessed 18 April 2007].
- Kelleher, D. and Kim, H. (2005) 'Post-Unification Privatization of North Korean Enterprises', *Korea Observer*, 36 (1), 21–67.
- Kim, J. (2001) 'The 21st Century is a Century of Great Change and Creation', *Rodong Sinmun*, 4 January, p. 1.
- Klingner, B. (2004) 'Korean Economic Reforms a Non-Starter', *Asia Times Online*, 1 September. Available from: <http://www.atimes.com/atimes/Korea/FI01Dg01.html> [Accessed 20 December 2006].
- Kornai, J. (1992) *The Socialist System: The Political Economy of Communism*. Princeton NJ: Princeton University Press.
- Kornai, J. (1993) 'Market Socialism Revisited', in P. K. Bardhan and J. E. Roemer (eds), *Market Socialism: The Current Debate*. New York: Oxford University Press, pp. 42–68.
- Kwon, S. and Ford, G. (2005) 'Reading North Korean Ruins', Nautilus Organization Document. PFO 05-18A: 24 February 2005. Available from: http://www.nautilus.org/fora/security/0518A_Ford_Kwon.html [Accessed 18 April 2007].
- Lee, D. (1996) 'North Korea Economic Reform: Past Efforts and Future Prospects', in J. McMillan and B. Naughton (eds), *Reforming Asian Socialism*. Ann Arbor MI: The University of Michigan Press.
- Lee, J. (2002) 'The Implications of North Korea's Reform Program and Its Effects on State Capacity', *Korea and World Affairs*, 26 (3), 357–64.
- Lim, H. and Chul, C. (2004) 'Is North Korea Moving Toward a Market Economy?', *North Korean Studies Review*, 7 (1), 49–79.
- Linter, B. (2004) 'Taste of Change in North Korea: Pyongyang's Experiment with Consumerism Bears Some Success', *The Wall Street Journal*, 11 May, p. A16.
- McMillan, J. and Naughton, B. (1992) 'How to Reform a Planned Economy: Lessons from China', *Oxford Review of Economic Policy*, 8 (1), 130–43.
- Murooka, T. (2003) 'North Korean Economy Which Cannot Start a Step for Market', *Sekai Shuho*, 6–13 May, 20–3.
- Naughton, B. (1996) 'Distinctive Features of Economic Reform in China and Vietnam', in J. McMillan and B. Naughton (eds), *Reforming Asian Socialism: The Growth of Market Institutions*. Ann Arbor MI: University of Michigan Press, pp. 273–94.
- Noland, M. (2002) 'West-bound Train Leaving the Station: Pyongyang on the Reform Track'. Paper prepared for the Council on US-Korea Security Studies, Seoul, Korea, 14–15 October 2002. Available from: <http://www.iese.com/publications/papers/noland1002.htm>; and Lim and Chul [Accessed 22 September 2006].
- Noland, M. (2003) 'Famine and Reform in North Korea', *Working Paper 03–05*. Washington DC: Institute for International Economics, pp. 1–47.
- Nove, A. (1991) *The Economics of Feasible Socialism Revisited*. London: Harper Collins.
- Oh, K. and Hassig, R. (1999) 'North Korea Between Collapse and Reform', *Asian Survey*, 39 (2), 287–309.
- Putterman, L. (1996) 'The Role of Ownership and Property Rights in China's Economic Transition', in A. G. Walder (ed.), *China's Transitional Economy*. New York: Oxford University Press, pp. 85–102.
- Roemer, J. (1991) 'Market Socialism – A Blueprint: How Such an Economy Might Work', *Dissent*, 37 (Fall), 562–75.
- Roemer, J. (1994) *A Future for Socialism*. Cambridge MA: Harvard University Press.
- Sachs, J. and Woo, W. (1994) 'Structural Factors in the Economic Reforms of China, Eastern Europe, and the Former Soviet Union', *Economic Policy*, 18 (April), 103–45.
- Shin, J. (2005) 'North Korea Inside and Out: A Rundown of Internal Developments, Reforms, and Inter-Korean Relations', ICNK Forum of North Korean Development. Available from: http://ifes.kyungnam.ac.kr/eng/icnk/06_icnk_brief_view.asp?icnkbriefNO=10&page=1 [Accessed 18 April 2007].
- Sik, O. (1985) *For a Humane Economic Democracy*. Trans. F. Eidlin and W. Graf. Westport CT: Greenwood Publishing Group.

- St John, R. (1997) 'End of the Beginning: Economic Reform in Cambodia, Laos, and Vietnam', *Contemporary Southeast Asia*, 19 (2), 172–89.
- Vyapaarasia (2005) 'Guidelines on Economic Policies, North Korea'. Vyapaarasia. Available from: <http://www.vyapaarasia.com/n.korea/eco.asp> [Accessed 18 April 2007].
- Weisskopf, T. (1993) 'A Democratic Enterprise-Based Market Socialism', in P. K. Bardhan and J. E. Roemer (eds), *Market Socialism: The Current Debate*. New York: Oxford University Press, pp. 120–41.
- Yoshikawa, Y. (2004) 'The Prospect of Economic Reform in North Korea', *The DPRK Briefing Book. Transition*. Nautilus Institute. Available from: <http://www.nautilus.org/DPRKBriefingBook/transition/200312NKecon.html> [Accessed 18 April 2007].
- Yunker, J. (1995) 'Post-Lange Market Socialism: An Evaluation of Profit-oriented Proposals', *Journal of Economic Issues*, 29 (3), 683–717.
- Yunker, J. (2001) *On the Political Economy of Market Socialism*. Burlington: Ashgate.