

Benchmarking North Korean Economic Policies;
The Lessons from Russia and China

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The Origin of North Korean Economic Institutions

Like China, the DPRK owes its political and economic structure to the command economy of the Soviet Union—a structure that provides political control at the expense of poor economic performance. This system is built on state ownership of industry and land, collectivized agriculture, the centralized coordination of economic activities by a hierarchical bureaucracy taking its direction from a Communist Party, the absence of true market prices, and the lack of legal alternatives to the centrally-determined administrative plans. The chief goal of the planners is maximum economic growth, but the poor information and incentive features of administrative planning foster protectionism and autarky, impede productivity and innovation, and yield disappointing results for consumer well being.

A large Western literature explores the economic consequences of the Soviet command system. Centralization of management in a state bureaucracy yielded monopoly outcomes, with rent-seeking, privilege, and biased information, writes Joseph Stiglitz. Monopoly control eliminated competitive access to alternatives. Missing markets impeded the shift of resources from low-value to high-value use, and lack of property rights distorted incentives and hindered innovation (Stiglitz, 1995).

However, the Chinese socialist system differed from the Soviet system in its resource endowment and its economic organization. China was poor. Agriculture was the primary economic activity. In agriculture, labor was under-employed for much of the year and vulnerable to shocks in output. Before 1978, the consequence of the government's emphasis on industrial investment and a "grain first" policy in agriculture

blocked the mechanization of farming and adjustment of cropping to local conditions. It resulted in slow growth of output for all crops.

In industry, too, central planning was ill-suited to Chinese circumstances. Industrial plants in China were smaller and widely dispersed. Large plants coexisted with shops and small collectives. Physical infrastructure and transport were weak. There was little capacity to move commodities between provinces.

China made central planning work by decentralizing. Decentralization of the Chinese fiscal system accompanied decentralized planning. Provincial and sub-provincial governments controlled depreciation allowances and profits of small-scale enterprises, which they used for regional investment. Thus, regional governments had mechanisms for influencing the direction of local production and incentives to use resources for growth (Wong, 1985).

Chinese economic performance in the pre-reform era was shaken by political conflicts at the center, compounded by the poor information and incentive problems of planning. In 1959, China's "Great Leap Forward" ended in famine and catastrophe. Again, the Cultural Revolution, beginning in 1966 inaugurated a decade of chaos and succession struggle, ending with the death of Mao. The willingness of China's leaders to support market-oriented reforms reflects, in part, the emergence of pragmatic decision-makers under the influence of Deng Xiaoping who recognized that economic failure challenged their political legitimacy (Naughton, 62.)

North Korea Today

The Soviet model fits the DPRK more easily than it ever fit China. North Korea is small and industrialized. Its industry is centralized and its bureaucracies tightly controlled. However, the unraveling of Gorbachev's Soviet Union should serve as a warning that seemingly-strong command systems that are built on coercion are brittle and can come unglued under the pressure of economic imbalances. Thus, North Korea today appears to be an unraveling command system. It shares more features with China in 1978 or the former Soviet Union in 1985 than with any reforming economy. Its Stalinist heritage persists in spite of the emergence in the DPRK of a legal farmers' market, informal markets for consumer goods, and widespread household reliance on outside

hard-currencies for transacting and saving. Under the guiding hand of the Dear Leader, the government retains state ownership of industrial capacity and land. Agriculture remains collectivized, and hierarchical bureaucracies choose priority government targets, coordinating their fulfillment administratively.

Seen from outside, based on fragmentary information, the priority economic activities of the government are determined by administrative coordination. Production and export targets are set centrally. Input deliveries, determined from an input-output balance, are coordinated administratively. State industrial employment and the main components of household consumption in the state sector are determined bureaucratically. In the state sector, nominal prices and wages play a minor role in household consumption. As was true in the former Soviet Union, the military sector and military-industrial complex appear to function as a separate, privileged hierarchy. William Brown reports in a workshop at Stanford University that the DPRK military and security establishment manages its own industrial investment and export enterprises, accumulating its hard-currency revenues separately from the government budget (Brown, 2006). Nevertheless, the consumption of the North Korean draftee during his required six years of service is reported to be low. Eberstadt estimates this military employment at roughly 1.2 million persons (Eberstadt, 2005).

A rising share of household purchases of food and consumer goods in informal markets at market-determined prices raises the question of whether a legal, market-oriented consumer sector is emerging. The answer depends on whether there is a legal, decentralized population of non-state producers, not merely black-market traders. Flexible supply responses and structural change in variety and availability of consumer goods would be a promising indicator. Are peasants producing and selling a greater variety of products? Are they able to sell their products directly outside of official channels? Can peasants invest in small-scale structures and acquire fodder and feed to engage in animal husbandry? Can they purchase equipment to re-establish traditional activities, such as soybeans and apiaries?

Alternatively, the appearance of market-based trade may simply signal the ability of decision-makers within the state apparatus to convert their access to rationed goods at low prices into hard-currency, black-market revenues. Transfers of rice, oil, and

imported “deficit” goods into the black market would give households outside of privileged circles access to commodities that are otherwise unavailable, but, unless the state, itself, undertakes a genuine liberalization of its policies toward decentralized producers, the emergence of black markets will not create incentives for market liberalization. Instead, insider officials, illegal traders, and corruptible regulators all will have incentives to retain administrative allocation and their opportunities for arbitrage.

A much more worrisome indicator for the planners is the indirect evidence that the DPRK is moving toward hyperinflation. I have been unable to find the requisite information on the size of the fiscal deficit or growth of money supply and credit. However, a steady increase in the market prices of food and a steady drop in the won/dollar ratio suggests that the DPRK is experiencing, not just a one-time adjustment from controlled to market prices, but a destabilizing approach to hyperinflation.

Recent Data on the North Korean Economy¹

A brief review of the fragmentary data on North Korean production provides little evidence of Chinese-style liberalization. In 1979, when China liberalized its agricultural markets and allowed households to engage in decentralized production again, there were immediate output responses. However, a look at DPRK statistics gives little cause for optimism. Data from the IMF International Financial Statistics and (smoothed) data from Angus Maddison documents South Korea’s growth and North Korea’s continued stagnation (Table 1). Recent estimates by the Bank of Korea show a modest recovery in North Korean production after the recent influx of assistance (Table 2). Yet, aside from a modest recovery in output of minerals and in production of soybeans and vegetables, output of major products is stagnant (rice) or declining (fish products and steel). Electricity output, too, appears to be unchanging (Tables 3 and 4). If there is greater activity in the informal economy, it is not yet reflected in greater availability of goods.

Thus, the rise in national income appears to originate in the substantial, aid-funded import surpluses that the DPRK has enjoyed in recent years, notably with South Korea and China (Table 5). Since the drastic decline in trade with the former Soviet

¹ I am grateful to Stephanie Price for collection of data from the Bank of Korea and construction of the accompanying charts.

Union in 1990, these two countries account for roughly 60 percent of North Korea's reported imports and almost half of exports (Table 6, 7, 8). China, alone, is the major supplier of consumer goods, with border trade between DPRK and Northeast China accounting for one-third to one-half of these deliveries (Li, 2005).

Human development indicators suggest that humanitarian assistance has played a vital role in protecting vulnerable populations from the dire side effects of imprudent policies. Although the World Bank reports that one-third of North Korea's citizens suffer from malnutrition, UN statistics show high rates of immunization for measles and DPT.

With foreign assistance providing a major source of potential budget revenue for the North Korea government, we would expect to observe a rise in the value of North Korean budget expenditure. However, Bank of Korea data provide no evidence of such an increase. As South Korean budget expenditures surge, North Korean expenditures remain lower than a decade ago (Table 9). Official statistics for the 1990s attribute two-thirds of that budget expenditure to the category "national economy" and twenty percent to social-cultural spending, implying that most of North Korea's large military expenditure is off-budget (Table 10). It appears that government distribution of foreign aid occurs outside of the formal budget accounts as well.

Clearly, estimates of North Korean economic activity are dependent on the choice of currency and price deflators used. The extraordinary drop in the official won/dollar ratio after 2002 might indicate a one-time shift of DPRK financial accounting from a notional to a more realistic level, recognizing that repressed inflation is more destabilizing than open inflation (Table 11). However, the reports of a steady rise in market prices for food, noted by William B. Brown and cited in Table 12, suggests that the Central Bank has the credit window wide open—a policy that can lead to hyperinflation in short order (Brown, 2006).

In sum, I read the fragmentary evidence so far, not as a sign of Chinese-style reform, but rather as an indication of official surrender to inflationary pressures in informal black markets. "Dollarization" of North Korean transactions has probably saved the domestic economy from greater disruption than it is now facing. (Are the dollars genuine or locally produced?)

An Agenda for Chinese-Style Reform in North Korea

There are as many variants of market-supporting reform as there are countries. Since North Korea's agricultural sector is smaller and offers less potential for productivity increase than did China's communes, a shift of agriculture to household cropping, alone, will not ignite economic growth. With a large, well-educated, under-employed pool of labor, notably in the military, future growth in North Korea will require a complementary mix of investment, modern technologies, and market know-how. Such an infusion is likely only if the DPRK leadership embarks on a new, growth-oriented course. Such a course would involve active participation in international organizations, an opening of the economy to the international market for both trade and foreign direct investment, and improvement of the existing institutional infrastructure for business. In short, it would require a miracle!

It is easy to see lessons, both positive and negative, for North Korea in Chinese-style economic reform, (Thornton-Parker, 2007).

- China succeeded in retaining macroeconomic balance in the face of rapid structural change. It kept inflationary pressures under control.
- In agriculture, liberalization of markets, disbanding of collective production, and *de facto* long-term tenancy rights to land led to rising agricultural productivity and increasing well being. However, Chinese peasants still do not hold legal title to their land.
- A rapid increase in the share of small and medium-sized non-state firms introduced competition into both product and labor markets, reducing the monopoly profits of large-scale producers and forcing SOEs to improve their performance as well.
- Over a period of 25 years, China accomplished an extraordinary structural change from agriculture to industry and from public to private employment.
- China's public sector was highly decentralized, measured on two dimensions—the decentralization of public-service administration and the effective separation of the public sector from the producing sector, as signaled by the replacement of administrative direction with market coordination.

- Government budget expenditures in China were consistently lower than in other transition economies, whether one focuses on the consolidated central and sub-national accounts or on the federal level alone. In regression estimates, central government investment is *negatively* associated with subsequent regional growth.
- China has increased the role of market mechanisms relative to administrative mechanisms and subsidies in government policy, although it still depends on large-scale firms to provide implicit social services and to maintain excess employment.
- China is gradually reducing the share of unproductive, policy lending, which subsidizes loss-making state-owned firms.
- Foreign investment and know-how have played a crucial role in China's growth. Multiple centers of foreign-invested business have emerged in China's coastal regions, far from Beijing's oversight. These foreign-assisted businesses have markedly higher levels of productivity than other domestic firms.
- Local governments that were allowed to keep marginal increases in local tax revenue had incentives to pursue growth-supporting policies. These coastal regions enjoyed high growth, assisted by foreign investment and openness to the international market. Central government investment, in contrast, was directed to relatively capital-intensive state-owned enterprises.
- China's provinces are extremely heterogeneous in their levels of income and economic development. To date, China has not created mechanisms for delivering education, health, and social services to many of its low income areas.

Not all of Chinese experience is available to the DPRK. For example, China's fondness for decentralized experiment would be hard to emulate. But obvious lessons are many: break up official collective farms and return to peasant cooperatives or family farms; legalize small and medium-sized production activities and establish banks to intermediate between savers and borrowers; liberalize markets for consumer goods, services, raw materials, and inputs; provide infrastructure to protect private ownership of housing and small-scale business; commercialize large state-owned enterprises and

impose hard budget constraints on them....and so forth. The elements of market-supporting change are well known:

Reform Benchmarks

Macroeconomic Management

1. Fiscal policy: creation of a separate, tax-funded budget sector
2. Monetary and debt policy: provision of a stable currency

Benchmarking Introduction of Market-Supporting Policies

1. Property rights, markets, and free competition
 - Liberalization of markets for food, consumer goods, services, raw materials and inputs
 - Legal private ownership and investment in housing and assets, beginning with small-scale enterprises
2. Competitive access to the market by new, decentralized producers
3. Convertible currency and openness to the world market
 - Access to the world market for domestic exporters and importers
 - Access to the domestic market for foreign firms and foreign investors
4. Financial Sector:
 - Creation of institutions supporting intermediation between savings and investment
 - Impose hard-budget constraints for borrowers

Benchmarking the Quality of Institutional Infrastructure

1. Property Rights and Rule-Based Governance
 - Provide a legal and administrative framework defining and enforcing property-rights
 - Support commitment to contracts, and transparent, rule-based governance
2. Quality of Budgetary and Financial Management
 - Creation of a separate, tax-funded budget sector
 - Provide fiscal balance in a non-inflationary environment
3. Quality of Public Administration
 - Transparency and accountability in the public sector
 - Eliminate incentives for corruption
4. Government ability to provide local public goods
 - Water, sewerage
 - Protection of public safety
5. Government ability to support education, health, and social protection

In sum, the DPRK remains a small Stalinist survival. Its gradual entrance into the modern world will, no doubt, be slow until Kim Jong Il decides to retire to a comfortable villa in France to write a weekly column on opera for *Le Monde*.

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Appendix A: Tables

Table 1

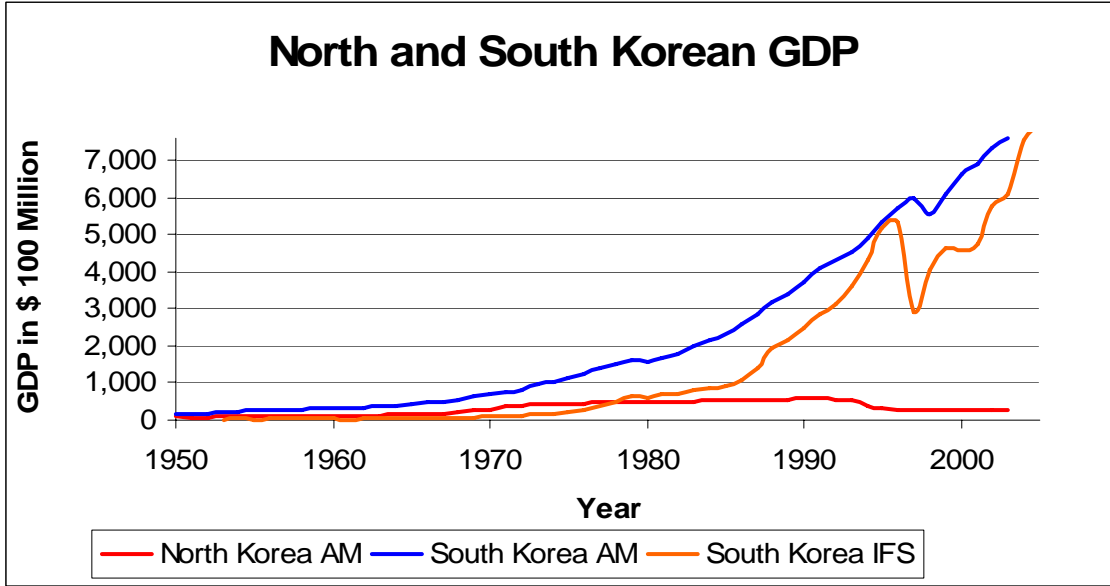


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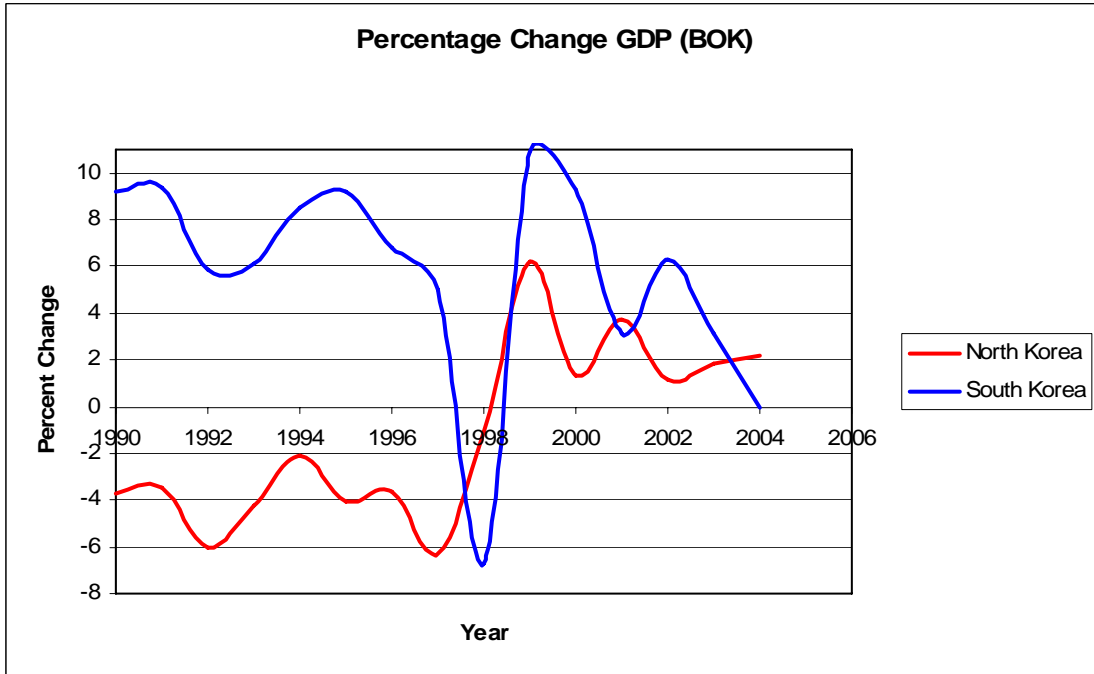


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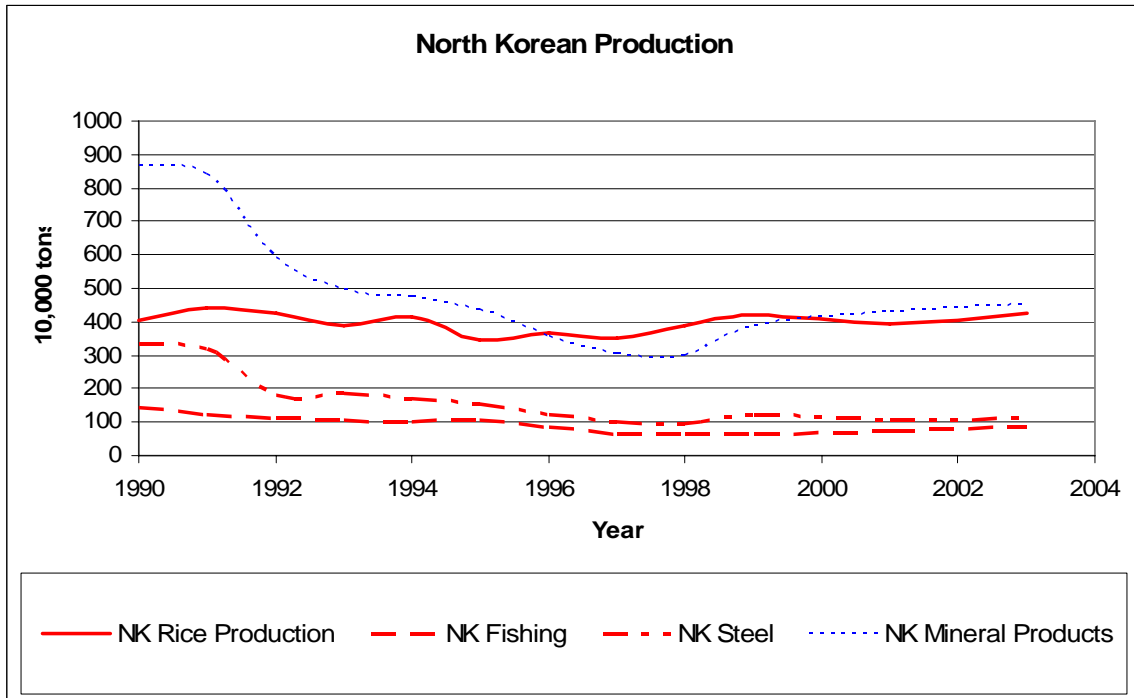


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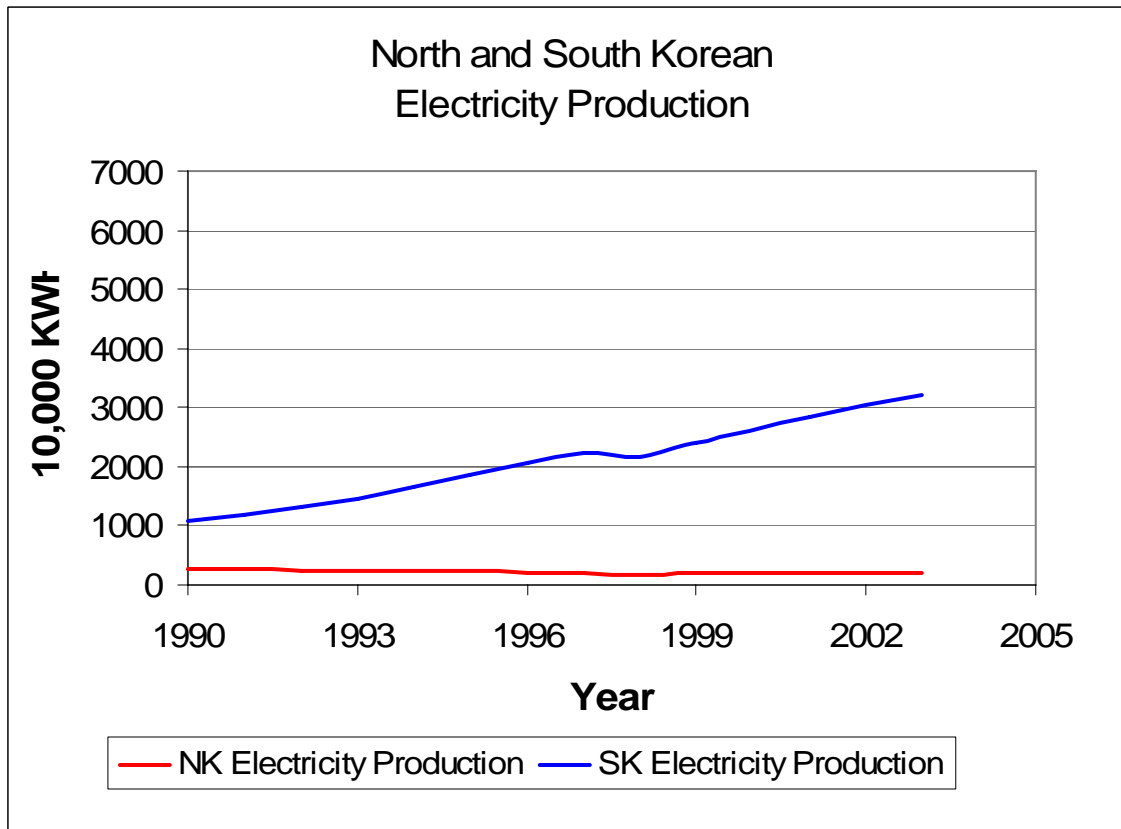


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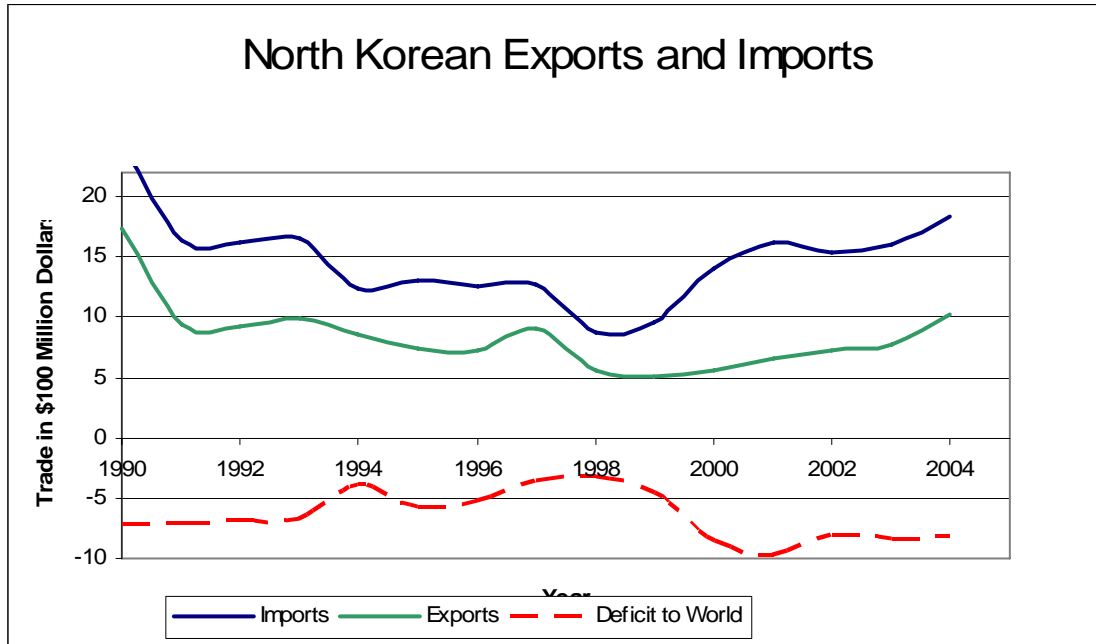


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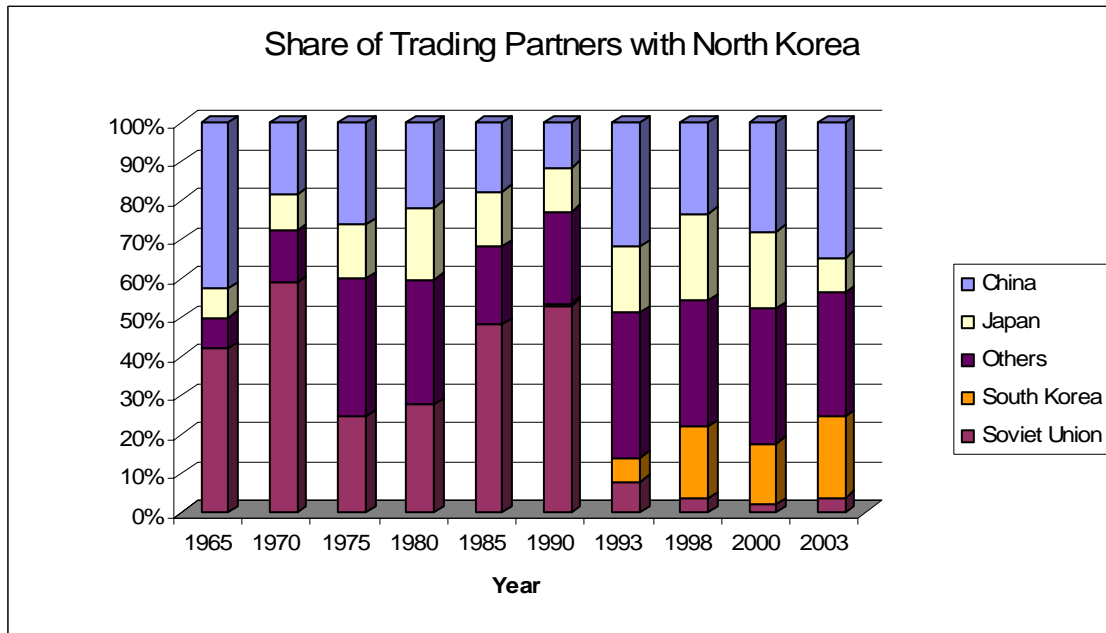


Table 7



Table 8

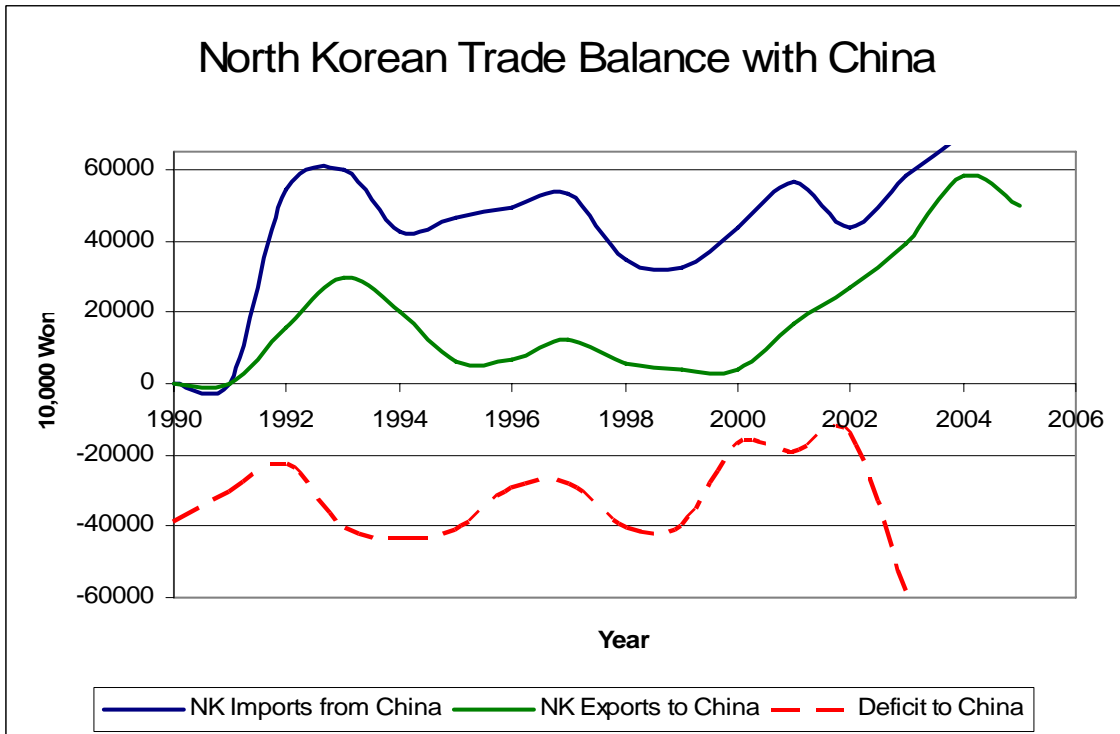


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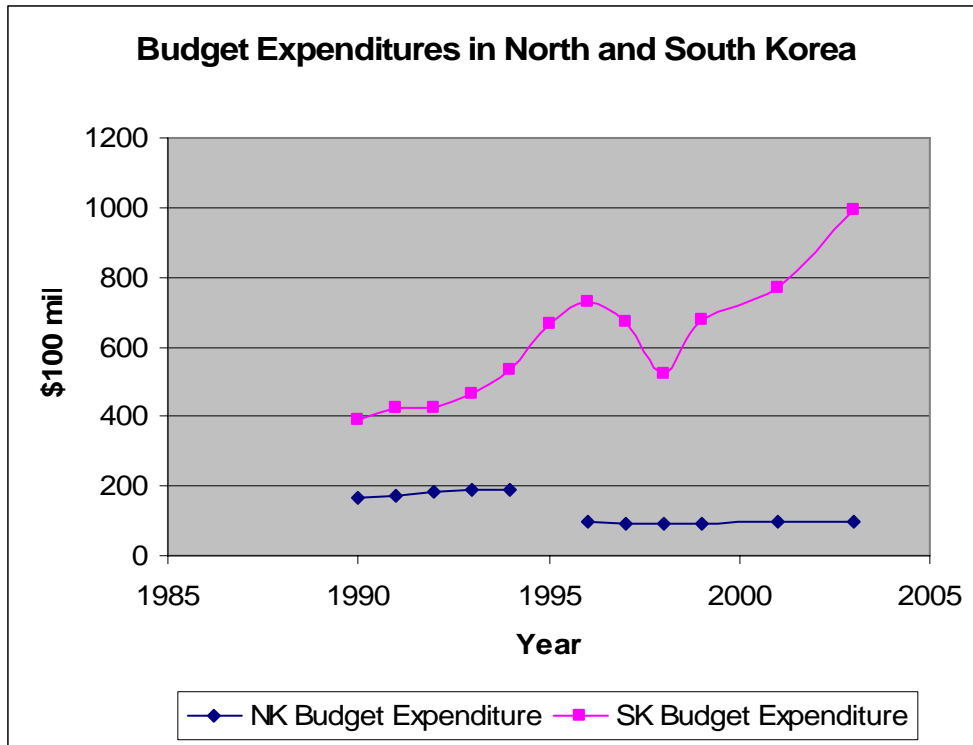


Table 10.

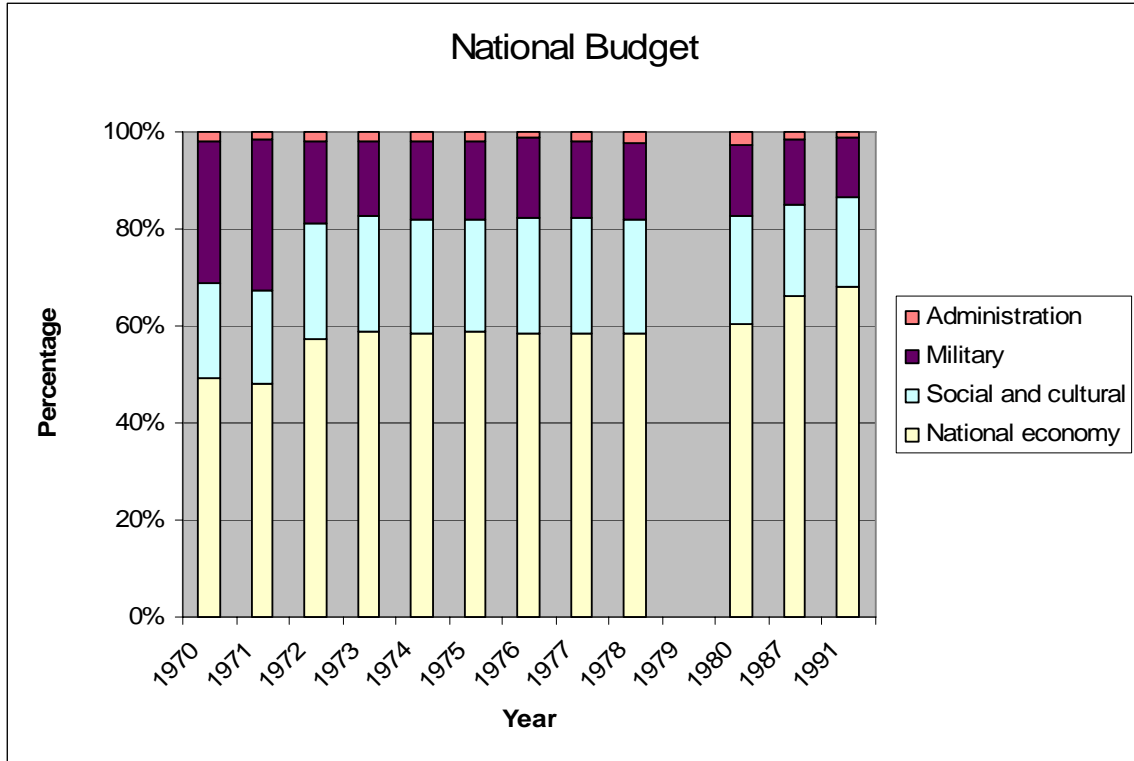


Table 11

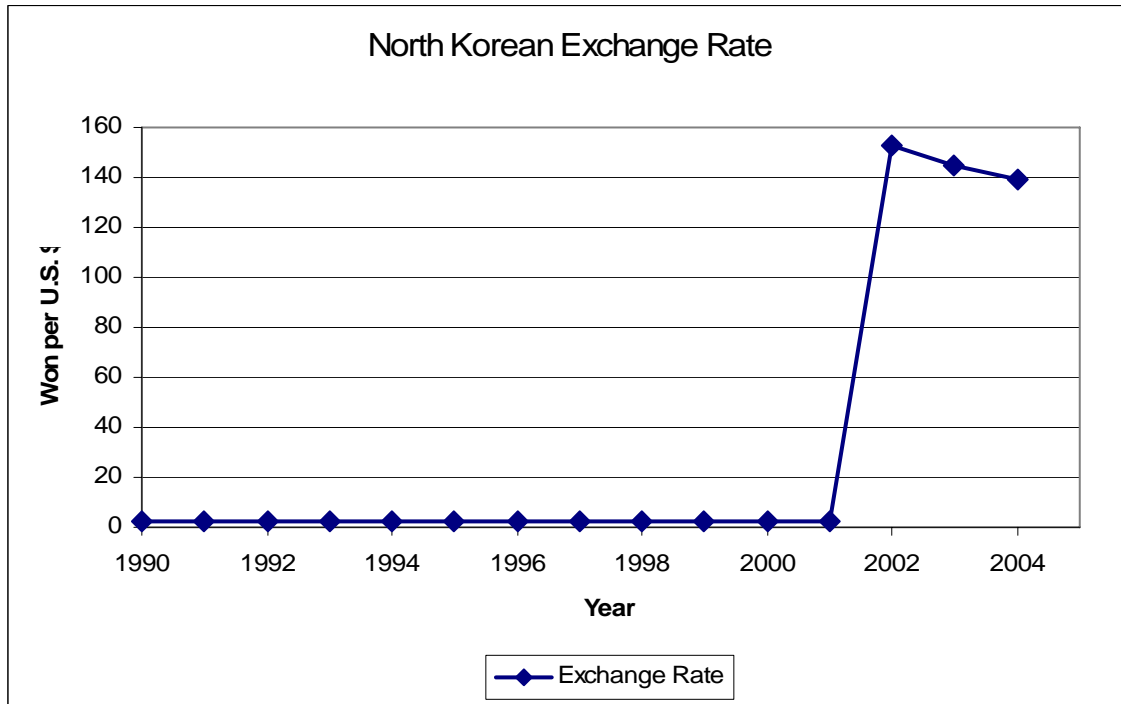


Table 12: Source: Brown (2006)

North Korea Rice Price: 1995-2006 Won per Kilogram



