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Following in China's footsteps? The political economy of North Korean reform

Kevin Gray¹ and Jong-Woon Lee²

Abstract Since the coming to power of Kim Jong Un in 2012, the North Korean government has recently announced, and to some degree has implemented, a new set of economic management policies known as the June 28th measures in 2012 and the May 30th measures in 2014. Both of these sets of measures seek to build upon the abandoned reforms of the early 2000s through restructuring North Korea's highly inefficient collective farm and state-owned enterprise management system. In addition, the government has intensified ongoing efforts at building special economic zones for the purpose of attracting foreign investment. As such, the country is attempting to emulate the reforms adopted by China in the late 1970s. Although the success of these efforts is by no means guaranteed, they do serve to question mainstream analyses that suggest that *Juche* Self-Reliance or Sŏn'gun Military First Politics ideologies will inhibit any genuine attempt at economic reform in North Korea. We argue, in contrast, that ongoing changes to North Korean state and society mean that, a cyclical stop and start rhythm to the reforms notwithstanding, such attempts at economic reform are likely to continue. However, we also argue that while the contemporary reform drive resembles and may indeed reproduce some of the successes of the Chinese experience, North Korea faces significantly greater challenges, including the greater decline of North Korean industry, local resistance to reform, and the dangers of inflation.

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Furthermore, North Korea faces a highly challenging external security environment that undermines the ability of the regime to attract investment and by extension the political standing of reformist elements within the country. Given this contrast with the international environment surrounding China's own reform experience, our analysis emphasises the importance of geopolitical context in shaping experiences of economic reform and of development more broadly.

Keywords: North Korea; China; economic reform; agriculture; state-owned enterprises; special economic zones.

Introduction

North Korea's developmental trajectory represents a marked departure from the experiences of other state socialist economies. Despite North Korea's rapid industrialisation in the post-war era, the country began to experience economic decline from the 1970s. As a result, North Korea became increasingly reliant on the largesse of its communist neighbours, China and the Soviet Union. The latter's collapse in 1991 led to a drastic reduction in aid to North Korea from both allies, and consequently to severe shortages in energy, raw materials, and foreign currency, and to general economic decline. North Korea henceforth earned the dubious distinction of becoming '... the only literate and urbanized society in human history to suffer mass famine in peacetime' (Eberstadt 2011), with 'excess deaths' estimated to be within a range of around 600,000 to 1 million, or approximately 3–5 per cent of the population (Haggard & Noland 2007: 73–76). During the 1990s, the economy reportedly shrank by about 40 per cent, averaging 4.3 per cent negative annual growth in consecutive years from 1990 to 1998 (Bank of Korea 2012). Despite this decline, the impulse to economic reform in North Korea has remained weak in comparison to other state socialist societies. Indeed, North Korea underwent neither a 'big bang' transition to capitalism along Soviet lines, nor did it consistently pursue a more gradual state-guided transition to 'market socialism' as in the case of China. This apparent refusal to follow the Chinese path is surprising given the geographical proximity to, and economic and political linkages between, the two countries, the correspondingly greater potential demonstrative effect of China's reforms, as well as explicit exhortations by China's leadership on Pyongyang to follow its model of reform.

The mainstream literature on North Korean political economy has tended to view the limited reformist drive as resulting primarily from domestic politico-ideological factors. The failure to reform has, for example, been seen as a result of the obstinacy of the country's leadership (Eberstadt 2007: xii; Lankov 2008), which stems from the threat that economic reform poses to the reigning ideologies of *Juche* Self-Reliance and *Sŏn'gun* Military First Politics (French 2005: 113; Kong 2014: 75). Mainstream observers argue that North Korean political elites fear that economic liberalisation would undermine their authority and loosen their hold

over the populace. As a result, it is argued that elites take no deliberate steps toward Chinese-style economic reform (Oh & Hassig 1999: 295). However, such analyses fail to adequately explain why, if the politico-ideological barriers to reform are so strong, North Korea has made any attempts at economic reform at all. The earliest attempts at encouraging foreign investment, for example, date back to the early 1980s. The July 1st Measures of 2002 sought to adjust the centralised planning system to reflect ongoing processes of marketisation at the grassroots level as well introduce measures to increase management and worker incentives in industry. In addition, in the early 2000s, Pyongyang sought to further attract foreign investment through establishing the Sinuiju Special Economic Zone (SEZ) and Kaesong Industrial Complex.

However, the sincerity of these measures has been widely doubted. For example, it was argued that, rather than actively introduce market reform, the primary aim of the July 1st measures was to overcome specific difficulties such as the paralysis of the food rationing system. The measures were thus designed to reinforce, rather than relax centralised control over the economy and the expanding informal markets (Koh 2004: 432). The continued obsession with maintaining a self-reliant economy meant that problems of economic inefficiency would continue (Yang 2010: 72). As such, the measures should be seen as minor reforms *within* the system rather than fundamental reform *of* the system, and as such, they shared more in common with the failed Soviet reforms of the 1960s than the Chinese reforms of the late 1970s (Seliger 2005). By the late 2000s, following a limited degree of economic recovery, such pessimism seemed to be vindicated as the government sought to reverse the reforms through cracking down on private markets and attempting to dispossess citizens of their new-found wealth through a confiscatory currency reform (Ishiyama 2013: 581). As such, reforms that may have offered a solution to the North Korea's economic malaise took second place to the imperative of regime maintenance, with the possible negative effects of reform seen by the leadership as simply too dangerous (Jo 2009: 5).

However, the incumbent Kim Jong Un government has recently resumed the reform drive, announcing and to some degree implementing a new set of economic management policies known as the June 28th measures in 2012 and the May 30th measures in 2014.¹ These measures seek to build upon earlier efforts through reforming the management of North Korea's collective farms and state-owned enterprises (SOEs). Indeed, it has even been argued that North Korea is finally emulating the reforms adopted by China in the late 1970s (Lankov 2014; Park 2015). Although the success of these reforms is by no means assured, they do suggest that analyses that emphasise the inhibiting role of ideology or imperatives of political survival fail to fully explain the dynamics of economic reform in North Korea. We argue that underlying changes to North Korean state and society suggest that such attempts at economic reform are likely to

continue. However, we also argue that while the contemporary reform drive resembles and may indeed reproduce some of the successes of the Chinese experience, North Korea faces particular challenges, including greater industrial decline, local resistance to reform, the dangers of inflation, and an external security environment that threatens the ability of the regime to attract investment and potentially undermines the political standing of reformist elements within the country. We will first proceed with a brief overview of the developmental challenges faced by the North Korean economy.

North Korea's developmental challenges

Following North Korea's catastrophic economic collapse of the 1990s, the country began to see a limited degree of recovery from the mid-2000s. However, the raising of agricultural productivity and alleviation of food shortages has remained a considerable challenge that requires addressing the problem of the inefficiency of the collective farms and a chronic shortfall of investment in resources including fuel, fertiliser, pesticides and farm machinery. As a result of these problems, domestic food production remains unable to meet the needs of the population, with the average annual food deficit remaining at approximately one million tons since the mid-1990s (UN Country Team in North Korea 2011: 8). Ongoing problems in the agricultural sector alongside declining international food assistance have meant that chronic malnutrition remains endemic. A nutrition survey in 2009 revealed that 32 per cent of children showed stunted growth, 19 per cent were underweight, and 5 per cent were emaciated (DPRK Central Bureau of Statistics 2010: 31). Chronic malnutrition is also reflected in the country's decreased life expectancy (male: 65.6; female: 72.7) compared to 1993 figures, which has in turn contributed to the country's slowing population growth (DPRK Central Bureau of Statistics 2009).

Food shortages and the breakdown of the state apparatus in the 1990s meant that many ordinary North Koreans resorted to private economic activities in order to survive (Smith 2015). These activities included the sale of agricultural produce in the farmers' markets that spread throughout the country. These markets facilitated daily trade in basic commodities and manufactured goods, but also involved dealings associated with corruption, the unofficial trade of resources between SOEs, and the theft of workplace equipment. This rise of this private economic sphere has led to growing tensions with the country's central planning system. The private earnings of workers and their households have created income disparities with those who limit themselves to state employment and rely on the public distribution system (PDS). As will be discussed, the key dilemma for the state is the extent to which it is willing to tolerate and adapt to this grassroots marketisation.

North Korea's economic collapse has also been strongly felt in the industrial sector. During the 2000s, the North Korean government increased the state budget and investments in the so-called 'four leading sectors': the metal industry, electricity generation, railroads, and the mining industry. Despite positive reports in the domestic media, these efforts have in reality been met with mixed results. For example, the recovery of the metal industry has been slow, with the output of crude steel estimated to have remained at around 1.2 million tons during the last decade, thereby failing to reach the levels of the late 1980s (Lee & Kim 2014: 19–20). The chemical industry was badly hit by the reduced supply of electricity, leading to a drastic decline in the supply of inputs for light industry and agriculture. Production of fertiliser, for example, reportedly fell to around 10 per cent of the total requirement, posing a significant challenge to agricultural recovery. Indeed, North Korean agriculture had one of the highest fertiliser utilisation rates in the world prior to the 1990s (Yu 2007: 85–87). Although North Korea's official newspaper *Rodong Sinmun* (2014a; 2014b) has reported increased investment in the late 2000s in major chemical plants and a resulting increase in the production of fertiliser, the declining number of such media reports suggests that further increases are proving difficult due to continued energy and raw material shortages.

Indeed, the ongoing energy shortage is a major barrier to economic recovery. During the late 2000s, the construction of large-scale hydro-electric power plants – those with a capacity in excess of 50,000 kW – was promoted. For example, the construction of Hochon Hydro Power Plant in Jagang Province, with a total capacity of about 300,000 kW, was completed in 2012. Furthermore, North Korea has about 20 thermal facilities, the majority of which are coal-burning plants that suffer from an insufficient supply of good quality coal as well as delays in plant and equipment repairs. The country's power generation facilities thus reportedly operate at less than 40 per cent of their combined potential output (KoFC 2010: 133–136), and as a result, industrial recovery has at best been modest, with production in most sectors failing to return to levels seen prior to the sharp collapse of the 1990s.

The dynamics of economic reform in North Korea

While North Korea's inefficient system of agricultural and industrial management has often been cited as a key barrier to economic recovery, attempts to liberalise the system date back at least to the early 1980s. In 1984, following visits to China by both Kim Il Sung and Kim Jong Il, North Korea passed a Joint Venture Law aimed at encouraging foreign investment, though it succeeded in attracting only a handful of deals with pro-Pyongyang ethnic Korean residents in Japan (Eberstadt 2007: 66). Following a further visit to China by Kim Jong Il in 1991, the Rajin-Sonbong Free

Economic and Trade Zone was established near the Chinese and Russian borders, representing North Korea's earliest attempts at replicating China's own success with SEZs. However, the Rajin-Sonbong (commonly abbreviated to 'Rason') SEZ remained largely undeveloped for nearly two decades, suffering from minimal foreign investment, poor infrastructure, and lack of linkages with the rest of the economy.

The collapse of the Soviet Union, the first nuclear crisis of 1993, the death of Kim Il Sung in 1994, and the famine, all contributed towards an inauspicious climate for further reform. However, following Kim Jong Il's formal rise to power in 1998, a number of diplomatic breakthroughs were made with the US as a result of the engagement strategy pursued by the Clinton administration. Although relations with the US soured again following the inauguration of the George W. Bush administration in 2001, Pyongyang continued its efforts to increase foreign trade and external assistance through economic diplomacy with EU and other developed states. Dozens of laws and regulations related to foreign economic activities were revised or newly enacted, and further efforts to attract foreign investment were made when, in September 2002, North Korea revealed a plan to develop Sinuiju as an SEZ. There was more success with the establishment of the Kaesong Industrial Complex following the inter-Korean summit with South Korea's pro-engagement President Kim Dae-Jung. Currently, 123 South Korean small and medium enterprises hiring about 53,900 North Korean workers operate in the Complex, thus having a significant effect on the local economy.

While SEZs amount to the establishment of enclave capitalist spaces within the broader state socialist economy, there were also attempts at reforming economic management itself. The so-called July 1st Economic Management Improvement Measures of 2002 consisted of six major reforms: (1) the adjustment of state-controlled prices to realistic levels; (2) the increase of salaries to compensate for price inflation; (3) the partial abolishment of the PDS and decentralisation of the state planning system; (4) the partial liberalisation of the decision-making process in SOEs; (5) the establishment of a realistic exchange rate; (6) the strengthening of material incentives to encourage growth in labour productivity (Cargill & Parker 2005). Furthermore, in April 2003, around four hundred farmers' markets nationwide were converted to 'consumers' markets' whereby the public was permitted to buy and sell food, daily necessities, and manufactured goods. SOEs and local factories were also given responsibility for obtaining necessary raw materials and equipment directly; raw material exchange markets were reportedly established in order to enhance distributive efficiency (Lee 2004). These policy adjustments were Pyongyang's way of adapting to the grassroots expansion of markets upon which an increasing proportion of the population relied upon. Though there was, as discussed, much scepticism amongst observers about these reforms, others did see in these measures an attempted emulation of the Chinese

experience (Hong 2002; Seliger 2005), suggesting that slogans such as *Juche* and *Sŏn'gun* were not as monolithic as to prevent what was in all but name an economic reform programme.

However, by the mid-2000s, many of these reform measures came to a halt as the regime sought to re-establish state control in the economy. The currency reform of November 2009 was one such effort, though this attempt to re-establish control over market activities without first ensuring the proper distribution of food through the PDS led to sharp price increases in agricultural and consumer goods. The regime also attempted to close the consumer markets and prohibited the use of foreign currency amongst ordinary citizens. The fact that markets reportedly continued to operate and that informal economic activities persisted suggests the degree to which grassroots marketisation had become an irreversible process. The regime thus abandoned such attempts by officially permitting the reopening of the markets in May 2010. It persisted, however, with an emphasis on traditional mass mobilisation as a means of achieving reconstruction, as could be seen in the 'The 150-day Battle' that was initiated in April 2009, and the subsequent '100-day Battle' the following September. This strategy was given added urgency as a result of the leadership's longstanding claims that the country would achieve the status of a 'great, powerful and prosperous nation' (*kangsŏng daeguk*) by April 2012, the 100th anniversary of the birth of Kim Il Sung. Yet, mass mobilisation failed to tackle issues related to the inefficient system of economic management.

What explains these attempted reversals of economic reform? One approach to understanding the dynamics of North Korean policymaking has been to examine the alleged contestation between economic reformists and the conservative Old Guard (Harrison 2002: 25). Patrick McEachern, for example, has argued that contestation over reform has been expressed through inter-institutional struggles between the more conservative military and Korean Workers' Party, and the more reformist Cabinet. Whereas the military and Party have tended to emphasise security concerns and ideological correctness respectively, McEachern argues that the Cabinet has adopted a reformist position more favourable towards attracting foreign aid and investment as a means of achieving economic rehabilitation (McEachern 2010: 34–35). This inter-institutional competition can also be seen in the rise and fall of particular individuals within the bureaucracy. For example, Premier Pak Bong Ju had been responsible for several of the measures of the early 2000s, a period that coincided with the ascendance of the Cabinet's political stature and its role in economic management. However, Premier Pak's dismissal in 2007 and the shift in authority over economic policymaking from the Cabinet back to the Party coincided with the reversals of the late 2000s (Choi & Shaw 2010: 183).

Such views see these shifts in the balance of power from reformists to conservatives as being strongly influenced by the increasingly hostile external environment of the 2000s. This heightened hostility dates back to the

State of the Union ‘axis of evil’ address by George W. Bush in 2002 and the clear implied threat posed by the US-led coalition’s 2003 invasion of Iraq. As Rudiger Frank has argued, through adopting an increasingly aggressive stance of containment towards North Korea, the West

... failed to support the reformers. Indigenous reforms need domestic promoters. These take a great risk and must be able to show a few successes every once in a while to convince the leadership to stay the course. But we never gave pro-reform forces in North Korea a chance. (Frank 2009)

In this view, the international response to North Korea’s nuclear test in 2006 can in particular be seen as having radically undermined the standing of domestic reformers. Faced with international sanctions, the Party became increasingly vocal in emphasising the importance of planning over markets, arguing that commitment to socialist economics was in line with *Juche* ideology and thus must be adhered to. The Party’s call for retreat from the July 1st reforms of 2002 thus increasingly came to shape the government’s economic policies (McEachern 2010: 211–213).

Some qualification is needed with regards to analyses of divisions between reformists and conservatives, however. In terms of inter-institutional competition, key North Korean political figures in reality hold concurrent positions in the Party, government and the military, thereby problematising the notion of clear-cut institutional positions. It is also important to be clear what is meant by the term ‘reformist.’ As yet, there is little clear evidence of any calls for reform that explicitly question the legitimacy of the existing *Juche* Self-Reliant socialist economy. Indeed, explicit calls for radical change would be politically dangerous, and would in any case entail the loss of bureaucrats’ existing privileged status. As such, it is more accurate to speak of the increased influence of economic technocrats rather than ‘reformists’ per se. This influence reflects a broader generational shift within the economy-related ministries as key officials in their forties and fifties have replaced their retiring more-ideologically inclined elders. These emerging technocrats are much more likely than their ideologically inclined counterparts to propose pragmatic improvements to the existing system. Despite the more cautious discourse in North Korea, this resembles the manner in which Chinese reforms were framed as ‘reform within the system,’ with strong continuities in terms of the role of the authoritarian state (Ji 1998: 8). The question thus becomes that of to what extent such pragmatic adjustments combine with molecular processes of marketisation to facilitate a shift towards a fundamentally different economic system.

The more recent shift in emphasis back towards the Cabinet under Kim Jong Un is highly significant in this regard and represents the resurgent influence of technocrats within the economic policymaking process. Since

2012, key officials with economic expertise have been assigned important ministry posts, and the role of the Cabinet as 'the nation's economic headquarters' has been emphasised. As a *Rodong Sinmun* editorial on 3 September 2014 stated, 'all economic sectors and overall economic projects are to be concentrated under the authority and supervision of the Cabinet' (Rodong Sinmun 2014c). This shift was also manifest in the reappointment of Pak Bong Ju in 2013 as the country's Premier. Together with Vice Premier Ro Tu Chol, Pak was charged with the task of devising new policies for the improvement of the country's system of management in agriculture and industry, resulting in the June 28th and May 30th measures (Tongil News 2013, 2015).

This resurgence of the reform drive under Kim Jong Un also suggests that the role of the external security environment in shaping policymaking dynamics should not be exaggerated. Indeed, at a time when North Korea's relations with the US and its allies have barely been worse, the fact that Pyongyang appears to be adopting some of the most far-reaching economic reforms yet suggests that there is still considerable room for agency in terms of the North Korean leadership. Whether the reforms can be successful in the context of a hostile geopolitical environment is another question, however. As such, the following section will examine further the question of whether the reforms do indeed represent an attempt to emulate the Chinese experience and the question of challenges inherent in implementing such reforms.

Following in China's footsteps?

Kim Jong Un's rise to power became the occasion of much media speculation over he might be a reformer or whether his lack of revolutionary credentials might compel him to prove himself through provocative military acts and through associating himself with a hard line version of his grandfather's *Juche* ideology (Cha 2012). While there is little doubt that the government remains thoroughly authoritarian, there has, as noted above, been a clear shift in the top economic leadership back towards pragmatic technocrats. Kim Jong Un has, for example, dismissed his father's closest advisors such as his aunt and uncle Kim Kyong-Hui and Jang Song-Thaek, as well as chief of general staff Vice-Marshal Ri Yong-Ho, along with scores of other party, state, and military officials (Mansourov 2014). Indeed, by the end of 2014, Kim had replaced over half of the key figures in the Party, the government (including the Cabinet), and the military (IFES 2014). Furthermore, at the Plenary Meeting of the Workers' Party of Korea Central Committee on 31 March 2013, Kim Jong Un stressed the importance of economic reform through moderating his father's emphasis on *Sŏn'gun* Military First politics with a dual *Pyŏngjin* line of simultaneous development of the economy and the military, thus representing an increased focus

on economic rehabilitation. In terms of the actual measures put in place, it is clear that they draw closely on the economic reforms put in place in China in the late 1970s and the early 1980s. As such, it is worth first examining briefly China's own experience in order to shed light on the potential of as well as barriers to applying similar reforms to North Korean agriculture and industry.

China's reforms involved, in the first instance, an increase in agricultural procurement prices as a means of tackling the problem of low incentives inherent in the collective farming system. In 1979, prices paid by the state for agricultural produce saw an increase of 22.1 per cent on the previous year. This increase alone was successful in inducing an almost immediate rise in output, with a corresponding improvement in farmers' incomes and purchasing power. Between 1979 and 1981, farmers received an extra 46,290 million *yuan* as a result of these price adjustments (Ash 1988: 540). An additional key Chinese reform involved the reduction of the size of the collective production teams, thereby strengthening the link between individual effort and reward. Prior to the reforms, each production team had consisted of about 20 to 30 households, but due to difficulties in monitoring work done, rewards to individual farmers were not tied directly to their own efforts (Ash 1988: 533). At the outset of the reform era, collective farms themselves took the initiative in contracting pieces of collective land out to individual households to cultivate, with experiments in individual household agriculture eventually tolerated by the government in the poorer provinces of Sichuan and Anhui (Naughton 2007: 241). The reforms subsequently spread spontaneously throughout the country and full official acceptance of the new household responsibility system (HRS) was finally given in late 1981, by which time 45 per cent of production teams had already been dismantled. By the end of 1983, 98 per cent of all production teams had adopted the HRS (Lin 1992: 37).

This manifest efficiency of the HRS served to undermine the view of many scholars and policymakers that larger farms were by their very nature more appropriate to the application of modern farming technologies. Indeed, the HRS encouraged peasants to shift from the superficial application of fertilisers towards the practice of 'stratified insertion' into the soil for quickening nutrient absorption by plant roots (Kueh 1984: 370–371). Furthermore, while land contracts were originally set for just one or two years, in 1984, the contracts were extended to 15 years in order to discourage over-exploitation of the soil and to promote investment and intensive farming while conserving soil fertility (Ash 1988: 537). Between the years of 1978 and 1984, per capita grain output had seen a yearly increase of 3.8 per cent, and between 1983 and 1984 alone, China's gross agricultural output value saw an increase of 14.5 per cent (Riskin 1987: 291–293). These successes encouraged policymakers to reduce the state's compulsory grain purchases. Thus, when farmers contracted for their land, they agreed to turn over a certain amount of grain to the

government, with the rest being released to the market. The success of agricultural reform led to the same principles being applied to industry and commerce, extending the pattern whereby powers and resources from the central planners were decentralised to local actors while core interests were protected through contracts (Naughton 2007: 90).

North Korean reform measures under Kim Jong Un bare strong parallels with the Chinese experience. In April 2012, Kim Jong Un vowed in his first public speech that the North Korean people would 'not tighten their belts again' and would enjoy the wealth and prosperity of socialism. Following a process of deliberation in the Cabinet, on June 28th 2012, the government released a directive titled 'On establishing a Korean-style New Economic Management System.' Lectures to explain this new system to workers and farmers were reportedly held across the country in early July and again in early August, with the aim of gradually rolling out the measures later in the year (Park 2014: 3). In terms of agricultural reform, the June 28th measures, as they are known, seek to increase incentives for farmers through reducing the size of agricultural sub-work teams (*bunjo*) from 10–25 members down to around 5–6 members.² Sub-work teams had originally been introduced in the mid-1960s to address incentive problems, with material benefits introduced so that rewards were related to the team's output rather than number of days worked. As such, the personal desire for higher income was respected, while equality in distribution was deemphasised. However, subsequent economic decline meant that the government turned back on earlier promises that surpluses could be disposed of as the sub-work team saw fit. Pilot schemes to further reduce the size of the sub-work team to 7–8 people were carried out again in 1996 in the midst of the famine, but were reportedly not expanded to the entire country (Nam 2007: 103–111).

While the reduction in the size of the sub-work team thus had a clear precedent, the new 'Field Responsibility System' (*p'ojŏn damdangje*) goes much further in seeking to fully replicate the Chinese HRS. Under the North Korean version, this reduced sub-work team would be assigned an individual plot of land, with state procurement levels set at 70 per cent of the overall harvest paid for at market prices. This would then confer rights upon individual teams to dispose of the remaining 30 per cent as they wish, including via sale on private markets. This represents a marked departure from the existing system whereby the state had collected a set amount regardless of the size of the year's harvest. Under that system, Provincial Agricultural Management Committees set output targets and then submitted them to the Ministry of Agriculture for approval. Once approved, a quota was handed down to each production unit. Thereafter, the value of inputs, land usage fees, and other non-tax payments such as 'military support' were deducted, with the production unit then given the right to distribute the remainder as it wishes (Sung 2012). The main problem with this system was that, as in China's pre-reform system, there was

little motivation for farmers to increase production because the amount appropriated by the state was fixed. The June 28th measures were thus designed to explicitly address this problem. As economist Ri Ki Song of North Korea's Academy of Social Sciences has argued, the main goal of the measures is to encourage greater profits and to solve the country's chronic food shortage. While Koreans work hard, Ri argued, the new incentives will give them the incentive to work even harder (Associated Press 2013).

In 2014, the agricultural reforms were reportedly expanded in scope and rolled out on a national basis. In February that year, a convention of 8,000 sub work unit leaders was held in Pyongyang, where they received a detailed letter from Kim Jong Un which contained details of the Field Responsibility System and associated measures to increase the role of the *bunjo* head were mentioned. This letter amounted to the most publicised statement of North Korean agricultural policy in decades, and served to restate the government's commitment to the principles of the June 28th measures (Ireson 2015). Furthermore, three months later the so-called 'May 30th measures' were announced, which aimed to deepen the agricultural reforms by reducing the size of the sub-work team further to a *de facto* HRS. The measures also adjusted the state-production unit ratio so that the state would retain just 40 per cent of the harvest, leaving 60 per cent to the household. Furthermore, land would be assigned on the basis of 1,000 *p'yŏng* per household family member. What the measures did not do was dismantle the collective farm units themselves, in contrast to China where the People's Communes were abolished in 1982 (Park 2015: 5).

Despite the problems in implementation discussed below, there is evidence to suggest that the reforms have had some positive effects. For example, overall food production in 2013 (in cereal equivalents) was estimated to have increased by 5 per cent compared to the previous year, from 5.73 to 5.98 million tonnes. After taking into account milling rates for rice, this translated into 5.03 million tonnes of food available for domestic consumption. This increase occurred despite the fact that agricultural inputs were at similar levels to that of 2012.³ As such, this was the best harvest that North Korea had seen in decades, and the first time since the 1980s that North Korea came close to producing enough food to feed itself. Despite a drought earlier in the year, the system appears to have proved resilient and reports about the 2014 harvest were largely positive (Lankov 2014). As economist Chi Myong Su of North Korea's Academy of Agricultural Sciences has argued, the relatively strong 2014 harvest can be taken evidence of the effectiveness of the Field Responsibility System and its ability to increase farmers' 'patriotism' (*aegukjŏk yŏlŭi*) and productivity (Hong 2015).

The potential impacts of the reforms on North Korea's economic recovery are therefore significant. One group of South Korean researchers has suggested that improving farmers' incentives is likely to lead to a 7.5 per

cent GDP growth rate, and that is without considering the impact of growth in agriculture upon other sectors (Yi et al. 2014). Nonetheless, it is important not to exaggerate the problems faced by North Korean agriculture, and in particular, the chronic shortage of fertiliser. For many decades North Korea had achieved impressive increases in collective agricultural production (Yu 2007: 79). This was achieved under a highly industrialised model, and as such, the reconstruction of industry will be essential for the full recovery of agriculture. Failing that, North Korea will, like South Korea, need to be able to earn enough foreign exchange to purchase grain imports, which again is unlikely without a significant degree of industrial recovery, thereby raising the question of reforms to industrial management.

North Korean reforms in industrial management also bare strong similarities to the Chinese path, although it is important to keep in mind that Chinese SOE reform was itself far from a success story. In China, following the successes of agricultural reform, the government sought to apply similar principles to the urban SOE sector. Prior to the reforms, prices as well as quantitative production targets in industry had been set by the government. In order to increase the role of the market in determining price levels and guiding decisions relating to production, a dual price system was introduced whereby SOEs were permitted to sell any production above the plan openly on the market. They were given greater freedoms to purchase their own inputs and make decisions over what commodities to produce and at what quantity, with the right to introduce new product lines. SOEs were also given the right to retain a share of the profits, with the exact percentage being the subject of negotiation with the state. With these new rights, SOEs were also able to determine how it rewards both managers and where new investments are to be made (Dollar 1990: 90). The reforms also included attempts to introduce a labour market, with greater flexibility for managers to adjust employment levels in accordance with market conditions, leading to an end to the system of permanent employment. Thus, in 1985, contract workers accounted for 4 per cent of total employment, but by 1995, this had increased to 29 per cent. Until the late 1990s, dismissal of workers was still tightly regulated, however, with enterprises being allowed to dismiss no more than 1 per cent of their workforce each year (Cai et al. 2008: 171–172). In general, SOE reform was slow. However, their share in industrial production declined from 77.6 per cent in 1978 to 34 per cent in 1995 (Brandt et al. 2008: 573), with around half of industrial SOEs losing money (World Bank 1997).

This decline resulted from the fact that most of the dynamism in urban reform in the 1980s came from the private sector. In contrast to the experience of the former Soviet bloc, there was no widespread privatisation of SOEs in the early stages of reform. The Chinese government did, however, permit the establishment of private businesses, commonly referred to as *getihu*, or sole industrial and commercial proprietorships. These *getihu*

were seen by the government as only supplementary to the collective units and SOEs, with an initial cap of seven employees for each *getihu*. Nonetheless, the number of *getihu* expanded rapidly due to the fact that the dual track price system had released a considerable amount of resources outside of the planning system, and that rising purchasing power in the urban and rural areas boosted demand for lower-priced consumer goods (Song 2004: 31–32). In rural areas, a further source of private sector dynamism came from the rapid rise of town and village enterprises (TVEs). These were an outcome of the farmers' new found freedom in the allocation of their own labour as a result of increased grain output and a reduction in the number of days they spent in the field (Naughton 2007: 90). In 1980, there were 1.4 million TVEs with 30 million employees, though this had grown to 23.4 million TVEs in 1996, with 135 million employees (Perotti et al. 1998: 1).

In North Korea, the June 28th measures bare strong parallels with early Chinese attempts at reforming the SOE sector. They include measures to confer greater managerial rights on enterprises, with factories being encouraged to devise their own plans and given the right to trade in raw materials, to determine product lines, prices, as well as to recruit workers directly themselves. It was also reported that new 'direct supply centres' are to be established in each province, whereby enterprises will be able to purchase raw materials as well as food to feed their own workers in the context of the further scaling back of the PDS. Profits are to be divided between the state and the enterprises on a 70:30 basis, with management given the right to make their own decisions regarding the sale of their output, and how to dispose any earned income (Park 2014: 3). Furthermore, large SOEs in the mining and steel sectors have been given the right to make their own decisions regarding imports and exports, and have been given permission to receive foreign investment (Yonhap 2013). To some extent, these measures are reactive in the sense that, as with the aborted July 1st 2002 measures, they represent acceptance of an already established practice whereby factories were already operating outside of the state plan and are increasingly oriented towards market activities (Kwōn 2014: 17–19). But, as with the agricultural reforms, they are also aimed at further formalising and increasing incentives available to factory directors through increasing managerial autonomy and discretion over the utilisation of profits.

A further aim has been to reform the rigid wage system and allow factories to reward workers more generously. According to North Korean reports, enterprises such as Musan Iron Ore and Kim Chaek Ironworks are permitted to increase workers' wages in line with productivity. Previously, North Korean wages had been based on a basic wage and a bonus, the latter of which was not permitted to exceed 100 per cent of the former. Under the June 28th measures, however, permission has been granted for bonuses to be increased to between 10 and 100 times that of the basic wage, in line

with increases in productivity. As such, the reforms amount to an abandonment of 'equalism' (*p'yŏngdŭngjuŭi*) in socialist production. Again, there is a reactive element to these wage reforms. The 2000s had already seen a collapse of the 'monolithic wage system' as factories became increasingly oriented towards the market and had adopted widely varying wage payments. However, the fact that the June 28th measures allow paper currency to be used for wage payments represents the formal abandonment of the PDS for industrial workers (Kwŏn 2014: 19). As such, the measures represent a significant departure from the Tæan Work Method introduced in the 1960s, whereby industrial plans were drawn up by the state through incorporating demands from the enterprise rather than being unilaterally imposed. Instead, the new management system more closely resembles the Director Monolithic Management System that was in place until the 1950s, whereby state-appointed directors were given complete rights and responsibilities for the management of SOEs (Chang 2014).

While it is true that North Korea's reforms have not involved any recognition of individual property rights, there are again parallels here with the Chinese case. One of the key features of the Chinese reforms was the proliferation of collective firms owned by various local administrative organs operating outside of the state planning system. While they were *de facto* private firms, they continued to wear a so-called 'red cap' (带红帽子) in order to maintain access to supplies, credit, and tax benefits. They were therefore an adaptive informal institution during the first decade of economic reform when private enterprises with more than eight employees were not legally permitted (Tsai 2007: 53). A parallel situation is emerging in North Korea, whereby enterprises remain *de jure* public bodies, but in reality, many companies, shops and restaurants are emerging that are invested in by a single individual.

Challenges to North Korea's economic reform

Even before the reforms were implemented, there was no shortage of sceptical assessments as to their likely success. For example, it was argued that if the state procures at market prices, then distribution will also have to take place at market prices if the state is to avoid a significant deficit. If wages for industrial workers are not raised to realistic levels, they will not be able to purchase food. Furthermore, there is a very real danger that inflation could undermine the procurement pricing structure. Finally, anything less than a full marketisation of prices could lead farmers to hide their produce from the state as had also happened in the mid-2000s (Sung 2012). These were also problems that Chinese reformers grappled with during the early era of reforms, though the North Korean state is less likely to have the fiscal resources to deal with the consequences. It is also important to note that China's improvements in agricultural productivity in the

1970s were not only a result of greater incentives and more efficient use of labour, but also due to the import of new technologies and equipment. This led to a significant reduction in the production costs of key agricultural inputs, such as fertilisers and pesticides. Indeed, from 1979 to 1980, prices for such agricultural inputs had declined by between 10 and 15 per cent, thereby enhancing incomes in rural China and improving incentives for further increased production (Aglietta 2013: 89).

In terms of the actual implementation of the reforms, Park Hyeong-Jung of the (South) Korean Institute of National Unification has given the most detailed account of some of the problems. As Park has argued, agricultural production shortfalls have meant that the 70–30 split between the state and the farmers was impossible to implement. This shortfall may have been a result of a lack of clear direction from the state as to whether or not the collective farms were indeed to be completely abolished and replaced with family-based production units as the norm, leading to a decline in the motivation of farmers to take advantage of the new measures (Park 2014: 8). This is in marked contrast to the Chinese experience where, mindful of the frequent political reversals of the Cultural Revolution, reformers explicitly sought to stress the continuity and durability of reforms (Huang 2008: 91). While the North Korean leadership likely intended a complete transition towards a family-based system, bureaucratic resistance at the local level meant that there were sharp variations in the degree to which the reforms were implemented (Park 2014: 8). This resistance probably stems from the fact that an estimated one in ten collective farm members hold management positions, which are well paid and do not require any physical labour, but receive the same food allowance as labourers (Nam 2007: 106). As such, these non-productive strata will directly lose out if there is a shift away from the collective farm system, and thus have strong motivations to resist reform.

Factory management reforms have also faced significant problems. Even before the measures were put in place, briefings held in July 2012 led to increases in rice prices and to heightened demand for Chinese currency on the black market. When the measures began to be rolled out, the government emphasised that enterprises need to raise wages to reflect price increases and thereby enable workers to buy their own food. However, a tenfold wage increase offered alongside bonuses for large profits unsurprisingly raised concerns about inflation, despite the fact that the new wages were limited in terms of how much rice they could purchase. Again, there was little clear direction from the authorities about how the rationing system would change under the new system, thus generating uncertainty (Park 2014: 7). What transpired was a failure of the new system to generate enough profits to pay these increased wages. Indeed, there was a broad governmental failure to adequately address the lack of resources needed to resume production, with the state failing to provide energy, raw materials, and other necessary resources. As a result, workers' salaries remained

barely above subsistence level, thus failing to solve problems of widespread absenteeism (Park 2014: 5).

It should be noted that given that China's reforms had little impact on SOE efficiency, the outlook for North Korean industry appears particularly bleak. As the Chinese experience suggests, allowing the emergence of a non-state sector including the influx of foreign capital seems to be the only realistic path towards the revitalisation of industry (Kang & Lee 1992: 955). Yet there remain serious questions as to whether North Korea is able to attract the necessary foreign investment to facilitate industrial recovery. With growing interest in North Korea's natural resources and cheap labour, North Korea has since the mid-2000s been somewhat successful in attracting investment from China. Pyongyang has viewed SEZs as a central means of attracting further foreign investment. In 2011, China and North Korea formulated a joint development plan for the SEZs of Rason in the northeast and Hwanggumpyong Island near Sinuiju in the northwest. In October 2013, Pyongyang announced plans for 13 new provincial-level SEZs around the country. This has involved the decentralisation of powers from the central government to the provincial level so that each SEZ can be developed in line with the competitive strengths of each region. With the exception of Rason and Kaesong, however, these new SEZs have to date seen little visible success in attracting foreign investment, reflecting North Korea's widely perceived investment risks alongside the inhibiting role of international sanctions. As such, if Pyongyang is unable to improve its foreign relations, the objectives of establishing viable SEZs are unlikely to be realised.

Conclusion

As we have argued, conventional discussions of economic reform in North Korea present a general picture of a domestic political culture that inhibits measures that might liberalise the existing system. Such analyses fail, however, to fully explain the recent measures being applied in the agricultural and industrial sectors and do not adequately comprehend the degree to which North Korea's economic management system and broader economic activities amongst the population have already diverged from the socialist principles that the state's official discourse claims to adhere to. Although it is true that the North Korean government is unlikely to undertake radical reform measures that might lead to socio-economic disorder and the weakening of political control, recent policy adjustments to economic management do appear nonetheless to have had significant initial results, most notably in agriculture. As such, there are clear parallels between North Korea's current reform and the Chinese reforms of the late 1970s and early 1980s. As Prof. Jin Jingyi of Beijing University has argued, a key characteristic underpinning China's economic reforms was the decentralisation of

power (权力下放) through passing down decision-making rights from the state to a multitude of economic subjects. In North Korea, changes in the mode of state procurement in agriculture and reforms to the factory wage system similarly amount to an abandonment of 'equalism' and the transition towards a 'get rich first' ideology (Jin 2014). It is reasonable to expect therefore that if procurement prices are raised and the Field Responsibility System consistently implemented, then farmers will have strong incentives to increase production. However, agriculture's heavy dependence on fertiliser means that the revitalisation of the chemical industry is a crucial task. The reform of the SOE sector is likely to face continued difficulties, and will depend on the extent to which the country is able to attract foreign investment.

Perhaps the greatest challenge for North Korea in this regard is its adverse international environment. UN resolutions on sanctions against North Korea have been adopted five times from July 2006 to March 2013, and the South Korean government has since 2010 implemented sanctions against Pyongyang in response to the alleged sinking by the North of the South Korean naval ship, the *Ch'önan*. South Korean bilateral economic assistance, other than that directed at the facilitation of Kaesong Industrial Complex operations and basic humanitarian relief, has been halted. As such, international aid to North Korea amounted to just US\$30 million in 2014, the second lowest figure since 1995.⁴ While North Korea has received significant levels of aid and investment from China in recent years, this has mainly served to facilitate North Korea's low-level integration into cross-border production networks, either in terms of mineral exports or consignment-based processing.

Nonetheless, the reform programme of the Kim Jong Un government is likely to continue. Certainly, reform should not be understood as a linear process. Even in China, economic policy was characterised by a clear 'stop-go' cyclical rhythm to the policy process, with each cycle characterised by an initial push forward with reform measures followed by the appearance of certain problems, including fears amongst policymakers of 'unhealthy' cultural and ideological currents, followed by attempts to pull in the reins to stabilise the situation (White 1993: 58–59). North Korea's reversals have at times been severe, to the extent there appears to be continued doubt amongst farmers regarding the permanence of the current reforms. Andrei Lankov has argued, for example, that the pace of the June 28th/ May 30th reforms appeared to slow down in 2015, though he also makes clear that, in contrast to the July 1st measures, this does not mean that there has been a *reversal* of the reforms (Lankov 2015). Indeed, despite their somewhat erratic nature, the underlying context of irreversible marketisation means that continued attempts at economic reform are inevitable (IFES 2014; Ireson 2015). As noted, however, the extent to which the reforms are likely to facilitate recovery depend much on regional and global context. Resolving the ongoing geopolitical standoff will require

some concessions on North Korea's nuclear programme, though this will only take place as part of a quid pro quo whereby the United States and allied powers make guarantees on North Korea's external security. At the very least, there is an urgent need for a rethinking of the strategy of international sanctions, since they serve to inhibit North Korea's successful reintegration into the world economy and to potentially undermine reformist constituencies within the system.

Notes

1. While the term 'measures' (*choch'i*) and 'reform' (*kaehyök*) are commonly used by South Korean and international observers, the North Korean state itself prefers more moderate terms, such as 'improvements' (*kaesön*). In this paper, the South Korean/international terms will be used interchangeably.
2. As with many of North Korea's major policy initiatives, the announcement of the June 28th/May 30th reforms has been low key and there are no available official government documents that provide a definitive statement on the substantive content of the reforms. The earliest reports on the June 28th measures, for example, relied on anonymous sources within North Korea (Sung 2012), although since then, further details of the reforms have become available in piecemeal fashion through interviews with government officials and economists in the North Korean media. The reforms have also received significant attention in reports made by research institutes and media outlets in South Korea and abroad. In the following sections, we present an account of the reforms through drawing upon a variety of sources and cross-verifying key features of the reforms. At the same time, we recognise that there is likely to be variations in the scope and extent of the reforms across the country.
3. See FAO/WFP Crop and Food Security Assessment Mission to the Democratic People's Republic of Korea. 28 November 2013. <http://www.wfp.org/content/democratic-peoples-republic-korea-fao-wfp-crop-food-security-assessment-nov-2013> (Accessed 28 January 2015).
4. UNOCHA Financial Tracking Service (<http://fts.unocha.org>).

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