

INVESTMENT STRATEGY &
MACRO
Geopolitics

Industry Overview

Alastair Newton
+44 20 7102 3940
a.newton@nomura.com
NI plc, London

Young Sun Kwon
852 25367430
youngsun.kwon@nomura.com
NIHK, Hong Kong

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North Korea: Through A Glass Darkly*

An "Issues Which Keep Me Awake At Night" Special Report

KEY JUDGMENTS

"The only predictable thing about the Kim regime is its unpredictability."

The Economist, 29 May 2010

- The sinking of the South Korean corvette, the Cheonan, has been a sharp reminder to markets – which had for some years been relatively muted in the face of rising tensions on the Korean peninsula – that regional stability cannot be taken for granted.
- We believe that there are several possible reasons for North Korea's recent "bad behaviour", not least South Korea's hosting of the G20 summit in November, and that at least the majority of those reasons are unlikely to ease soon.
- However, we think it probable that tensions will ease somewhat shortly, albeit with relations between the two Koreas remaining very volatile.
- More widely, if the six-party talks resume – and we believe they may as China in particular looks to keep Pyongyang in check without risking regime collapse – we are doubtful that North Korea will be prepared to make and/or deliver on meaningful concessions in response to the demands of the international community.
- Whether the six-party talks resume or not, Beijing has a careful balancing act to sustain over North Korea given the – in our view – already greater and still growing importance of China's bilateral relations with both the US and South Korea.
- Despite significant internal stresses in North Korea – perhaps especially around the succession to Kim Jong-il and in the run-up to the 100th anniversary of the birth of Kim Il-sung in 2012 – we see a low probability of imminent regime collapse.
- We doubt, however, the political status quo in Pyongyang is sustainable for more than a short period now and note three possible scenarios for regime "evolution" over the coming years.
- Any one of these scenarios could precipitate regime collapse with consequent potential major security risks in the absence of coordinated contingency planning among the regional powers.
- We also weigh the potential cost of various reunification scenarios, even though we place a relatively low probability on such an event in the foreseeable future.

*"Through a glass darkly" is an abbreviated form of a phrase from the King James Bible version of the New Testament, Corinthians 1.13 which has come into common usage as a metaphor for limited vision and understanding.

ANY AUTHORS NAMED ON THIS REPORT ARE RESEARCH ANALYSTS UNLESS OTHERWISE INDICATED.

PLEASE SEE IMPORTANT DISCLOSURES BEGINNING ON PAGE 38



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Introduction

"Something unusual seems to be happening in Pyongyang and it's probably time to think about the future a bit more seriously. We are heading towards serious changes, and nobody seems prepared."

Andrei Lankov (March, 2010)¹

Against a backdrop of significantly heightened geopolitical tensions on the Korean peninsula, this special report examines in some depth political and other factors which underpin those tensions and considers possible developments in North Korea in particular over the coming months and years. It is based in part on research carried out during a visit to Pyongyang in March 2010.

For our latest assessment of the economic and market implications of the current crisis, we recommend *Brinkmanship returns to the Korean peninsula*, Nomura Global Economics, 26 May 2010.

¹ A crisis in the North Korean leadership?" by Andrei Lankov, East Asia Forum, 12 March 2010.

Is history repeating itself?

For the Republic of Korea (RoK), ie South Korea, 1988 was a watershed year. For that was the year that Seoul hosted the XXIV Olympiad, or Summer Olympics.

The rationale behind the original bid to host, which had been submitted in 1981 included: legitimisation of the authoritarian regime of that time; showcasing South Korea's economic progress; and increasing international awareness of the threat posed to the South by its northern neighbour, the Democratic People's Republic of Korea (DPRK), ie North Korea.² North Korea played its part in highlighting that threat by claiming that it should have co-host status then boycotting the Games entirely when the International Olympic Committee (IOC) declined to make more than minimal concessions.³

Furthermore – and much more seriously – on 29 November 1987, Korean Air Flight 858 en route from Baghdad to Seoul was downed by a terrorist bomb, killing all 115 people on board. One of the bombers, Kim Hyon Hui, later confessed to being a North Korean agent and claimed that the order to bomb the plane had been “personally penned” by Kim Jong-il; and that discouraging teams from attending the Seoul Olympics had been among the latter's motives.⁴

Fast forward to the next major global sporting event to be held in South Korea.

In 2002, South Korea co-hosted the soccer World Cup with Japan.⁵ Ironically given what had happened around the 1988 Olympics, this time North Korea rejected offers by the Japan and South Korea to join them in co-hosting – a bid by the two which was explicitly aimed at trying to promote peace on the Korean peninsula in the context of the latter's “Sunshine Policy” towards the North. Worse, on 29 June 2002, the day before the final of the tournament was played in Japan, North Korean naval vessels crossed the disputed maritime border in the Yellow Sea and, in what became known as the Second Battle of Yeonpyeong, opened fire on monitoring South Korean vessels.⁶

² The Games failed in the first of these respects. By the time they took place political demonstrations in June 1987, which were thought to be a potential threat to the Games, had precipitated an end to authoritarianism and South Korea's first direct elections in December 1987.

³ Cuba and Ethiopia also boycotted in solidarity with North Korea. But this was a modest number compared to what many had expected when South Korea was awarded the Olympics, as few of the Soviet Bloc nations even had diplomatic relations with South Korea in 1981.

⁴ Kim Hyon Hui and her terrorist partner, Kim Sung Il, had left Flight 858 at its Abu Dhabi stopover before the bomb exploded. They were arrested at Bahrain airport where Kim Sung Il succeeded in committing suicide with a cyanide pill. Kim Hyon Hui was transferred to Seoul where she made a full confession and was found guilty of the bombing. The bombing was the subject of two extensive UN Security Council debates but no resolution was passed.

⁵ Japan and South Korea had in fact put forward rival bids to be the first Asian country to host the World Cup and the unprecedented decision by soccer's world governing body (FIFA) that they should co-host was widely seen at the time as contentious.

⁶ In the exchange of fire which ensued, 13 North Koreans were reported killed and 25 wounded. South Korea suffered six fatalities and 18 wounded. One South Korean vessel sank as it was being towed back to port.

Fast forward again, this time to 2010.

On 11-12 November, South Korea is due to host the G20 Summit. Given this history around two previous global “showcase” events hosted by South Korea, is it surprising that experts are wondering whether North Korean “bad behaviour” already this year may be no coincidence – even if the 26 March sinking of the South Korean corvette, the Cheonan, of which North Korea stands accused – is, in our assessment, a far more serious act than we have seen in the recent past. And if, especially given the domestic stresses and strains from which North Korea appears to be suffering at present, we should be braced for the possibility of more of the same – and, possibly, worse – for some time to come.

A turbulent 20th century

In any consideration of North Korea today, we believe it useful to bear in mind some key events of the last century which underpin the status quo and which may help to explain prevailing perceptions in Pyongyang.

The Korean Peninsula 1900-1945: United But Not Independent

At the start of the 20th century, Japan was seeking to emulate the major powers of Western Europe in imperial outreach. In the case of (the then united) Korea, which fell at that time in the sphere of influence of China's Qing dynasty, this process had effectively begun in 1876 with the Treaty of Ganghwa which opened three Korean ports to Japanese trade and granted extraterritorial rights to Japanese citizens – in other words, very much on the model of the “unequal treaty” concessions made by Japan to the Western powers under the 1854 *Convention of Kanagawa*.⁷

For the next 30 years or so, Japan sought gradually to expand its influence in Korea in the face of local resistance and, from the 1890s onwards, in competition with Imperial Russia. The turning point was the Russo-Japanese war of 1904-05 which culminated in the US-mediated Treaty of Portsmouth in September 1905 after the Russians had suffered significant land and naval defeats at the hands of Japanese forces.⁸ Under the terms of the treaty, Russia, inter alia, formally recognised Korea as part of Japan's sphere of influence.⁹

Historians differ over the significance of another document which has its origins in US mediation efforts, the so-called *Taft-Katsura Agreement*. This is not, in fact, a signed agreement or treaty but notes of secret conversations held in July 1905 between US Secretary of War William Howard Taft and Japanese Prime Minister Katsuro Taro. To this day, some Korean historians claim that the notes amount to at least de facto US recognition that Korea should become part of Japan's sphere of influence in exchange for Japan recognising the Philippines as part of America's; and they argue that, as such, it violated the *Korean-American Treaty of Amity and Commerce* of 1882. US historians, on the other hand, note the absence of any formal agreement emerging from the dialogue and that Secretary Taft had been careful to make clear that he was not speaking in an official capacity (which would have been the prerogative of the Secretary of State). Nevertheless, even in South Korea, left-leaning historians still cite the notes as “evidence” that the US is not to be trusted with Korean security.

⁷ Also known as the “American-Japan Treaty of Amity and Friendship”, the Convention of Kanagawa had been concluded in March 1854 between US Navy Commodore Matthew C Perry and Japan's Tokugawa shogunate. Its main provisions were to open up the Japanese ports of Shimoda and Hakodate to US trades and to lay the foundation for the establish of a US consulate in the former; and to guarantee the safety of any US sailor shipwrecked in Japan. More generally, it is widely credited with ending 200 years of Japanese isolationism; and with triggering an internal crisis in Japan which ultimately brought about, in 1867, the downfall of the Tokogawa shogunate and beginning of the Meiji Restoration. Underlining the relationship with the Convention of Kanagawa, the Treaty of Ganghwa was also known in Japan as the “Japanese-Korea Treaty of Amity”.

⁸ The treaty is named for the Portsmouth shipyard in Maine, where it was signed. Then US President Theodore Roosevelt was awarded the Nobel Peace Prize for his mediation efforts.

⁹ Also of note is the fact that in 1902 the United Kingdom had made an exception to its imperial policy of “splendid isolation” which had prevailed for most of the second half of the 19th century by signing the first Anglo-Japanese Alliance (nb: it was renewed and extended in 1905 and 1911 before being abrogated in 1923). The 1902 treaty also effectively acknowledged Japanese interests in Korea, a provision which was strengthened in the 1905 renewal.

Two months after the signing of the *Treaty of Portsmouth* Japan declared Korea its protectorate, a move which was formalised under the 1907 *Japan-Korea Annexation Treaty*. This was followed in 1910 by a second *Japan-Korea Annexation Treaty* in which the first of eight articles states that: “His Majesty the Emperor of Korea makes the complete and permanent cession to His Majesty the Emperor of Japan of all rights of sovereignty over the whole of Korea”.

Japanese imperial rule of Korea was contested in its early days by the Provisional Government of the Republic of Korea which was declared in Shanghai in 1919. However, the Japanese occupation of Manchuria in 1932 forced many Korean exiles to join the communist-backed forces in eastern Russia. The consequent drift towards communism was reinforced in 1939 by the establishment in China of the communist-backed Korean Volunteer Army (KVA), which initially fought alongside China’s People’s Liberation Army (PLA) and which evolved into the Korean People’s Army (KPA) of North Korea.

A Divided Peninsula

In the wake of Japan’s surrender in August 1945, the Soviet army crossed into Korea and occupied the peninsula as far south as the 38th parallel.¹⁰ This was in accord with a hastily drawn-up document known as General Order No 1, which was approved by US President Harry Truman on 17 August 1945 and which required the senior Japanese commanders in Korea north of the 38th parallel to surrender to the Commander in Chief of Soviet Forces in the Far East.¹¹

General Order No 1 established a Soviet trusteeship north of the 38th parallel and an American one to the south with the aim of establishing a Korean provisional government which would carry the country forward to independence. However, the US and the Soviet Union were unable to agree over implementation and in 1948 separate governments were established in Pyongyang and Seoul, each of which claimed to be the legitimate government of the whole of Korea.

¹⁰ Korea received little attention among the Allies during the Second World War. In November 1943, US President Franklin Roosevelt, UK Prime Minister Winston Churchill and Chinese Nationalist leader Chiang Kai-shek had agreed at a conference in Cairo that Japan should be stripped of all its colonies in the event of Allied victory, declaring that they were “determined that in due course Korea shall become free and independent”. Some historians believe that in subsequent informal discussions President Roosevelt and Soviet leader Joseph Stalin may have disagreed over the time period envisaged in the words “in due course” – with the latter pressing for immediate independence. What is clear is that there was no formal agreement reached over Korea’s future by the time the war ended. The Soviet Union had declared war on Japan in August 1945 shortly before the end of the war.

¹¹ The General Order was just seven days in preparation and finalisation after two US officers – Dean Rusk (who was to serve as US Secretary of State from 1961 to 1969) and Charles H Bonesteel III (who was Commander United States Forces Korea from 1966 to 1969) – were charged with defining the US occupation zone. They later claimed to have chosen the 38th parallel as it divided Korea more or less in half while leaving the capital, Seoul, in US hands, without being aware that in 1905 Japan and Russia had considered dividing Korea along the same parallel.

North Korea Turns To Communism

By late August 1945, the Soviet military authorities in Pyongyang had delegated administrative authority to a Korean communist council which quickly vested political power entirely in the Workers' Party of Korea (WPK) and sought to bring all major national means of production under state control.¹² It was at this time that Kim Il-sung was brought back to Korea by the Soviet Union after 26 years in exile probably, it is believed, on the recommendation of the then head of the People's Commissariat for Internal Affairs (NKVD), Lavrenty Beria.¹³

In 1948, Kim Il-sung succeeded in persuading the Soviet Union not to allow pan-Korean elections sponsored by the UN to take place in the North, thus consolidating the division of the Korean peninsula as the South moved to independence later that year as the Republic of Korea and the North declared itself the Democratic People's Republic of Korea on 9 September with Kim Il-sung as premier. On 12 October 1948, Moscow claimed that the Kim Il-sung regime was the only lawful government of Korea.¹⁴

Resort To War

By early 1949, it was clear that Korea was unlikely to be reunified simply as a result of communist insurrections in the South which Pyongyang was supporting. Kim Il-sung therefore decided to turn to the possibility of reunification by force of arms as US forces began to withdraw and as the South Korean regime continued to struggle to win the loyalty of many of its citizens (see footnote 14 above). Initially, the Soviet Union kept North Korea in check. But the Communist victory in China – coupled with Mao Zedong's commitment to provide troops and logistical support to help North Korea – and the Soviet Union's first successful atomic bomb test in August 1949 were instrumental in bringing about a change of heart in Moscow, even though the Soviet Union made clear that it would not itself be drawn into any direct confrontation with the US.

On 25 June 1950, North Korea launched a major offensive across the 38th parallel, catching the much weaker South Korean military off-guard, despite the months of border skirmishes which had preceded the invasion. Hours later, the UN Security Council

¹² Independent experts calculate that 90% of industry and finance was under state control by 1945 and that virtually all agriculture was collectivised by 1958

¹³ There are few details about the early life of Kim Il-sung. However, it is generally accepted that he joined the Communist Party of China in 1931 and served in Chinese communist guerrilla units fighting the Japanese from 1935. In 1940 he and his unit are believed to have fled Japanese forces by crossing into the Soviet Union; he then served in the Soviet Red Army until the end of World War II.

¹⁴ Until around this time, communism in Korea itself (as opposed to the exiles in, mainly, China) had effectively been led principally out of Seoul where the Communist Party of Korea had been founded in 1925. After World War II it nominally had authority over the North Korea Bureau of the Communist Party of Korea; but, in practice, there was little contact between the two. By 1948, the main communist organisation in the south, estimated at that time to have over 350,000 members, had been declared illegal and gone underground. It launched a guerrilla struggle and widespread strikes in opposition to plans then being formulated to declare a separate South Korean state (under UN Resolution 112 which had called for UN-organised elections throughout Korea); it was also a major force behind the Jeju Island uprising which began in April 1948 and which dragged on until 1953 (in part as a result of North Korean support for the rebellion). In 1949, the southern communists merged with their northern counterparts to form the Workers Party of Korea under the chairmanship of Kim Il-sung; many of the southern leaders (some of whom fled to North Korea) were subsequently purged.

(UNSC) passed UNSC Resolution 82 (UNSCR82) condemning the invasion and laying the platform for the passing of UNSCR83 on 27 June which recommended UN member state military assistance to South Korea.¹⁵

It is not especially relevant to this report to recount the details of a war which ultimately saw US and Commonwealth forces (operating under a UN banner) supporting South Korea against the North and its Chinese ally in a struggle which directly affected almost the whole of the Korean peninsula in the ebbs and flows of its initial 12 months.¹⁶ Suffice it to say that by July 1951 the opposing forces were effectively at stalemate around the 38th parallel where they remained until the July 1953 armistice.

That armistice created a Demilitarised Zone (DMZ) approximately 4km wide and running 250km across the Korean peninsula; its western end lies south of the 38th parallel and its eastern end is to the north of the parallel (see Figure 1 below). Despite its name, it is widely agreed to be the world's most heavily militarised border (see Figure 2 below). North Korean incursions into the DMZ in contravention of the armistice have been numerous.

Still Technically At War

The 1953 armistice is legally where things still stand today. The closest there has been to a breakthrough since 1953 is the 15 June 2000 *North-South Joint Declaration*, signed by North Korea's Kim Jong-il and then South Korean President Kim Dae Jung at their 13-15 June summit in Pyongyang at the height of the South's "Sunshine Policy", under which the two agreed to work together to achieve "peaceful reunification".

In other words, no peace treaty has ever been signed between the two Koreas which therefore remain, technically, at war with one another.¹⁷ Nevertheless, until this year hostilities had been mostly confined to regular belligerent rhetoric from Pyongyang, periodic frictions around the DMZ, occasional naval clashes and (seemingly suspended some time ago) North Korean attempts to assassinate high-level defectors to the South.¹⁸

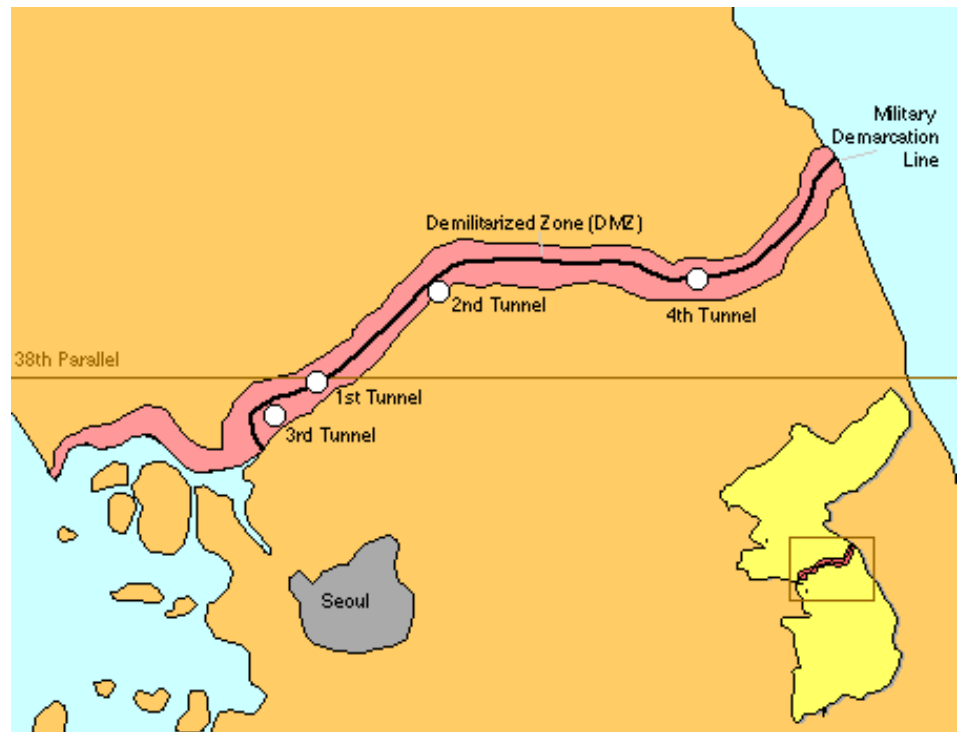
¹⁵ The two resolutions would, no doubt, have been vetoed were it not for the fact that the Soviet Union had been boycotting UNSC meetings since January 1950 in protest over China's security council seat being occupied by the authorities in Taiwan rather than the People's Republic of China authorities in Beijing.

¹⁶ It is worth noting, however, that President Truman's decision of 27 June 1950 to send the US Seventh Fleet to the Taiwan Strait almost certainly averted an imminent Chinese invasion of Taiwan. The PLA forces preparing for that invasion were regrouped as the PLA North East Frontier Force and, as such, led the Chinese intervention in Korea which was authorised by the Politburo on 2 October 1950, the day after forces of the UN Command, which had been penned in Pusan in the extreme southeast of the peninsula only weeks previously, pushed northwards across the 38th parallel.

¹⁷ In fact, then South Korean President Syngman Rhee even refused to sign the armistice agreement.

¹⁸ The naval skirmish which took place in November 2009 after a North Korean patrol boat crossed the disputed maritime border in the Yellow Sea was the first since the 2002 incident. After the North Korean vessel opened fire on a South Korean patrol boat retaliatory fire set it ablaze and forced it to retreat. There has recently been some speculation that the sinking of the Cheonan on 26 March 2010 could have been in revenge for that incident.

Figure 1: The Korean Peninsula – Demilitarised Zone (DMZ)



Note: The Military Demarcation Line (MDL) marks the frontline at the time the Armistice was signed; it runs down the centre of the DMZ which is, in effect, a buffer zone either side of the MDL. The map shows the sites of four known infiltration tunnels dug by North Korea between 1974 and 1990.
 Source: Wikipedia Commons

Figure 2: How The Militaries Compare

	North Korea	South Korea
Army	950,000 regular soldiers	560,000 regular soldiers and conscripts
Main Battle Tanks	3,500	2,750
Armoured Personnel Carriers	2,500	2,750
Artillery Pieces	17,900	10,774
Tactical Submarines	63	13
Principal Combat Surface Ships	8	47
Combat Capable Aircraft	620	490
Reservists	3,500,000	
US Forces <i>in situ</i>		28,000
US combat aircraft <i>in situ</i>		64

Sources: IISS: The Military Balance 2010, Nomura research

Nuclear aspirations

That has not, of course, prevented North Korea from continuing to try to bolster its military strength, including through the development of nuclear weapons.

Work began on the country's main nuclear facility at Yongbyon as long ago as 1980. But it was not until 1994 when North Korea threatened withdrawal from the Nuclear Non-Proliferation Treaty (NPT) that alarm bells really started sounding. That threat followed closely on the heels of the death of Kim Il-sung on 8 July 1994, though the extent to which the two events are directly related remains unclear.

Consequent US diplomacy, coupled with a US military build-up in the region and an at least implicit threat of bombing the Yongbyon reactor, resulted in the signing of the Agreed Framework between the *United States of America and the Democratic People's Republic of Korea* on 21 October 1994, the main objectives of which were to replace North Korea's plutonium-producing power plant with two more proliferation-resistant light water reactors (LWR) and to underpin a step-by-step normalisation of US/North Korea relations.¹⁹

To be clear, the Framework was not a formal treaty (which would have required ratification by the US Senate) but a non-binding political agreement between the two countries. Unfortunately, implementation was patchy from the outset – including on the US side where the Republican Party had won control of Congress just two weeks after the agreement was struck, with the consequence that funding was not always available in a sufficiently timely manner for Washington to stick to its side of the bargain in terms of delivery of transitional oil supplies. For its part, the Americans believed that the North Koreans were pursuing a covert uranium enrichment programme, finally confronting Pyongyang with their assessment in October 2002. This led to suspension of the (already seriously delayed) LWR installations in December 2002 and to North Korea's withdrawal from the NPT (which had been "suspended" in 1994) on 10 January 2003.²⁰

At the time, the US claims concerning North Korean uranium enrichment were contested not only by Pyongyang but also by independent experts who considered that there was insufficient evidence to sustain US assertion that production-scale enrichment was imminent.²¹ However, in September 2009 North Korea itself claimed in a letter to the UN

¹⁹ Some experts believe that the US Administration was only willing to sign off on the agreement because of its belief that the North Korean regime was likely to collapse following the death of Kim Il-sung; in which case it was simply a matter of buying a little time.

²⁰ Construction of the LWRs was led by KEDO, the Korean Peninsula Energy Development Organisation, a consortium build around the US, South Korea and Japan. The original plan specified that the construction costs would be met via an interest-free loan from KEDO which North Korea would repay over 20 years once each of the two plants under construction was operational. KEDO formally terminated the project in May 2006.

²¹ See, eg, "North Korea's Alleged Large-Scale Enrichment Plant: Yet Another Questionable Extrapolation Based on Aluminum Tubes" by David Albright, The Institute for Science and International Security (ISIS), 23 February 2007, available at <http://www.isisonline.org/publications/dprk/DPRKenrichment22Feb.pdf>.

to be in the “final phase” of uranium enrichment.²² Whether this claim was justified or not is far from clear; after all, North Korea has something of a track record for making unlikely assertions of scientific progress – for example and most recently, its announcement in May 2010 that it had harnessed nuclear fusion (which has been widely dismissed).²³

What is clear to us, however, is that the potentially provocative uranium enrichment claim fits a general pattern of recent years which appears to have been enhanced over the past 18 months or so and which Korea specialist Peter Beck (Stanford University) describes as “the sweet and sour approach”, ie alternating conciliatory and threatening actions and rhetoric.²⁴ This is a theme which has been a consistent strand in the six-party talks.²⁵

²² See, eg, “North Korea in ‘final phase’ of uranium enrichment” by Peter Foster, Daily Telegraph, 4 September 2009, available at <http://www.telegraph.co.uk/news/worldnews/asia/northkorea/6136348/North-Korea-in-final-phase-of-uranium-enrichment.html>

²³ See, eg, “North Korea claims nuclear fusion breakthrough” by Justin McCurry, The Guardian, 12 May 2010, available at <http://www.guardian.co.uk/world/2010/may/12/north-korea-creates-nuclear-fusion-claim>. In fact, South Korean experts are not totally dismissive of claims of some progress towards possible nuclear fusion, suggesting that North Korea may have succeeded in the very preliminary step of producing plasma. The claim has also been tentatively linked by some experts to the 14 May 2010 dismissal/retirement of Kim Il-chol, a high-ranking naval officer and member of the all-powerful National Defence Commission (NDC) who had been a close associate of Kim Jong-il for many years. Although the retirement could have been entirely due to old age (Kim Il-chol is believed to be 80) and/or ill-health, experts note that the public announcement by North Korea’s official news agency (KCNA) was nevertheless unusual, leading to speculation over a possible link to the nuclear fusion story. See, eg, <http://nkleadershipwatch.wordpress.com/2010/05/14/vmar-kim-il-chol-retiresii/>. However, others – at least as plausibly, in our view – believe that the dismissal/retirement could have marked the beginnings of a North Korean “climb down”/apology over the sinking of the Cheonan – see, eg <http://www.newsweek.com/2010/05/26/north-korea-s-exit-strategy.html>.

²⁴ See, eg, “North Korea in ‘final phase’ of uranium enrichment” by Peter Foster, Daily Telegraph, 4 September 2009, available at

<http://www.telegraph.co.uk/news/worldnews/asia/northkorea/6136348/North-Korea-in-final-phase-of-uranium-enrichment.html>.

²⁵ See, eg, “North Korea gives mixed messages to South”, Economist Intelligence Unit, 10 February 2010.

Talks and tests

The international community's response to North Korea's withdrawal from the NPT was the so-called six-party talks which were formally launched in August 2003.

The six parties in question are: China, Japan, North Korea, Russia, South Korea and the United States. The international community's aim is to broker a peaceful solution to security concerns arising from North Korea's nuclear programme (though whether this aim is a priority for Pyongyang – which has seemingly been focused on its own security concerns for the majority of the past decade – remains, in our view, open to question).

Such substantive progress as there had been in five rounds of talks which took place between August 2003 and November 2005 was essentially unravelled in April 2006 when North Korea elected to link continuation of the process with an insistence that the US release financial assets frozen in a bank in Macau. The US declined to acknowledge any linkage and negotiations were, therefore, effectively stalled.

On 5 July 2006 (still, perhaps not coincidentally, 4 July in the US), North Korea launched a series of missile tests including of its long-range *Taepodong-2*.²⁶ The market's reaction was immediate but muted. The international community responded on 15 July in the form of UNSCR1695, which banned the supply of material to North Korea which could aid its ballistic missile programme.

Then on 9 October 2006 North Korea tested a nuclear weapon (as it had warned it would do six days previously). Market reaction was negative but, again, relatively muted (aided by the fact that there was a public holiday that day in both Japan and Taiwan).

Question marks remain over the degree to which the test was successful, ie whether it was an unusually small but successful test or whether the device failed to trigger properly. American experts tend towards the latter, also believing that the test device was too large to be classified as a "warhead" as such. Nevertheless, the test brought forth a rapid response from the international community in the form of UNSCR1718 which was adopted on 14 October and which, *inter alia*: forbade North Korea from further nuclear tests and ballistic missile launches; called upon North Korea to return to the six-party talks; authorised inspections of North Korean cargo ships in international waters; banned exports of a range of military equipment and of luxury goods to North Korea; and ordered the freezing of overseas assets of individuals and companies involved in North Korea's weapons programme, coupled with an international travel ban.

North Korea's rhetorical reaction to the sanctions package was predictably harsh. But on 31 October China announced that the six-party talks would resume, which they duly did on 10 December, permitting the fifth round to be wrapped up in February 2007 with what was considered to be a landmark "action-for-action" agreement which did lead to the US

²⁶ Not only is 4 July US Independence Day but on 4 July 2006 the Space Shuttle Discovery was launched on a new mission.

unfreezing all North Korean assets the following month. The talks then entered into a sixth round but ground to a halt in late 2007 over the issue of whether North Korea had provided a full inventory of its nuclear programme as it had agreed to do.

Nevertheless, October 2008 did see progress outside the strict framework of the six-party talks when Pyongyang agreed to US demands on nuclear inspections and the Bush Administration responded by removing North Korea from its terrorism blacklist.²⁷

In February 2009, the recently confirmed US Secretary of State, Hillary Clinton, appointed Stephen Bosworth as Special Representative for North Korean Policy.²⁸ However, despite continued diplomatic efforts since then by the US and China to re-launch the six-party talks, they remain stalled as Pyongyang continues to pursue its "sweet and sour approach".²⁹

In particular in the context of its nuclear programme, on 25 May 2009 North Korea tested a second nuclear device, this time seemingly with greater success than it had achieved in 2006.³⁰ Again, market reaction was muted – the KOSPI dropped 4% on the day and the South Korean won 1% against the US dollar but both recovered quickly despite Pyongyang's 28 May threat to annul the 1953 armistice. The international community responded by agreeing UNSCR1874 which again ratcheted up economic and commercial sanctions.

²⁷ See, eg, "US Removes North Korea from terrorism blacklist" by Matthew Weaver, *The Guardian*, 11 October 2008, available at <http://www.guardian.co.uk/world/2008/oct/11/korea-usa-terrorism-blacklist>.

²⁸ Mr Bosworth, who is also Dean of the Fletcher School at Tufts University, served as Executive Director of the Korean Peninsula Energy Development Organisation (KEDO) from 1995 to 1997 and as US Ambassador to South Korea from 1997 to 2001.

²⁹ See, eg, "US envoy Bosworth arrives in North Korea for high-level talks" by John M Glionna, *Los Angeles Times*, 8 December 2009.

³⁰ Although experts differ over the yield of the test they do generally agree that the May 2009 test was successful (although some still point to the absence of radionuclide confirmation to suggest that the blast could have been caused by conventional explosives). It coincided with the start of several days of missile tests.

Sanctions start to bite hard

As the *International Crisis Group* (ICG) spelled out in a March 2010 report, the past two years in particular have seen a rapid escalation in sanctions against North Korea.³¹ Although the focal point for sanctions imposition has been the United Nations – just as it is likely to be following the sinking of the *Cheonan* – we believe that unilateral measures imposed by Japan and South Korea (as well as longer-standing US measures, including financial sanctions which have tightened significantly over the past decade) are at least as important in pressuring the regime in Pyongyang as multilateral ones.

Japan, which had been one of North Korea's more important trading partners until recently, now has a virtually total trade embargo in place in response to Pyongyang's continued nuclear proliferation activities and refusal to discuss the issue of Japanese citizens who were abducted by North Korea in the 1970s and 1980s.³²

In South Korea, since Lee Myung-bak assumed the presidency in February 2008, Seoul has gradually been moving away from the "Sunshine Policy" towards North Korea which President Kim Dae-jung had brought in in 1998 and which had been continued by his successor, Roh Moo-hyun. Notably, in June 2009 Seoul took the unprecedented step of imposing (albeit largely symbolic) sanctions against North Korea entities believed to be involved in nuclear and missile programmes, as well as the substantively more significant one of authorising the interception of North Korea ships suspected of carrying arms shipments in contravention of UNSCR1874 which effectively multilateralised the US Proliferation Security Initiative (PSI).³³ Furthermore, since February 2008 the South Korean government has insisted that North Korea submit formal requests for fertiliser and food aid; as no such request has been forthcoming despite persistent food shortages (see below), aid of this type has virtually dried up. The latest round of measures announced by Seoul following the sinking of the *Cheonan* (coupled with North Korea's threatened retaliation measures) stands to reduce cross-border economic ties still further, amounting to what might be termed a *de facto* "sunset policy" as far as bilateral relations are concerned.

Putting to one side the humanitarian impact of tightening sanctions, expert opinion is that potentially the most serious consequence to the North Korean regime is the near drying-up of foreign currency inflows.

Legitimate inflows are now largely confined to payments made by Seoul direct to Pyongyang in connection with the Kaesong Industrial Park, the collaborative economic development situated just 10km north of the DMZ where around 41,000 North Koreans

³¹ See "North Korea under Tightening Sanctions", *International Crisis Group Asia Briefing No 101*, 15 March 2010.

³² On 28 May 2010, Japan announced a further tightening of its sanctions in response to the sinking of the *Cheonan*; and the Diet enacted a bill enabling Japan's coastguards to inspect North Korean ships in international waters in compliance with UNSCR1874.

³³ For more background on the PSI, see, eg, http://www.nti.org/f_wmd411/f1b4_6.html; and for commentary on its impact see, eg "Net closes on North Korea's arms exports" by Christian Oliver, *Financial Times*, 15 December 2009.

are employed in close on 120 factories.³⁴ However, the future of that source of hard currency is now under threat if North Korea follows through on its recent threat to close the border crossing on which Kaesong depends.

As for illegal earnings, ICG notes as follows:

“North Korea’s illicit transactions have also been hit, reducing foreign exchange earnings.... North Korean contraband, such as counterfeit cigarettes and narcotics, have mostly disappeared from Japan recently because Chinese organised crime groups have displaced their North Korean competition. Furthermore, conventional arms shipments, another significant source of foreign exchange, have been seized as contraband in accordance with Security Council Resolutions 1718 and 1874. Even though the DPRK has declared the resolutions illegitimate, export earnings from arms sales almost certainly will decline given the likely impact of sanctions on the demand side. Prospective buyers must now weigh the risk of their purchases being seized in transit.”³⁵

³⁴ Another significant source of hard currency flows from South Korea has dried up following the suspension of tourism from the South after a South Korean woman was shot and killed by a KPA soldier at Mount Kumgang in July 2008. Officially, tourism to the North is suspended by the South Korean government because of the North’s alleged refusal to cooperate over a formal investigation of the killing; but, according to ICG, tours are likely to be suspended irrespectively until there is some substantive progress over denuclearisation. The suspension of South Korean tourism and related impact on hard currency earnings may account in part for Pyongyang’s announcement earlier this year – again consistent with its “sweet and sour approach” – that it would ease restrictions on American tourism. See, eg, “North Korea to welcome more US tourists” by Christian Oliver, Financial Times, 15 January 2010.

³⁵ “North Korea under Tightening Sanctions”, International Crisis Group Asia Briefing No 101, 15 March 2010. In considering the impact of increased interdictions of arms shipments – by air as well as by sea – ICG goes on to warn of the risk that North Korea might resort to other selling WMD-related “intangibles” in its quest for hard currency “if they have not already done so”. For a slightly different take on tobacco, ie North Korea’s efforts to raise hard currency by re-exporting British cigarettes, see, eg, “North Korea draws on tobacco for cash” by Tom Mitchell and Pan Kwan Yuk, Financial Times, 8 March 2010.

“Self-sufficiency” on the road to impoverishment

Although sanctions are certainly hurting North Korea’s economy, we doubt that they have done anything like the damage inflicted over the years by domestic policy.

From the mid-1920s onwards, the Japanese colonial administration of Korea sought to concentrate industrial development in the resource-rich north of the country (where only just over 22% of the land is suitable for arable farming), as the south concentrated largely on agriculture. By 1945 approximately 65% of Korean heavy industry was in the North; but a similar proportion of agricultural production was to be found in the South together with almost 70% of light industry and almost 80% of Korea’s total commerce.

The Korean War wrought significant damage to the productive capacity of both North and South Korea. But, thanks in part to substantial economic aid from China and the Soviet Union, North Korea’s command economy was able to achieve significant economic growth in the immediate post-war period, albeit still rooted strongly in heavy industry.

Figure 3: North Korea/South Korea – Basic Data

	North Korea	South Korea
Land Area	122,762 sq km (official data)	99,720 sq km
Population	24.1m (2008 census)	49.4m (2009)
GDP	US\$28.2bn (2009 est)	US\$742.6bn (2009)
GDP - real growth rate	3.7% (2009 est)	0.2% (2009)
GDP per capita	US\$1,900 (2009 est)	US\$15,037 (2009)
GDP composition by sector	Agriculture - 23.3%; Industry - 43.1%; Services - 33.6% (2002 est)	Agriculture - 3%; Industry - 39.4%; Services - 57.6% (2008 est)
Exports	US\$2.062bn (2008)	US\$491.1bn (2008)
Imports	US\$3.574bn (2008)	US\$502.7bn (2008)
External Debt	US\$12.5bn (2001 est)	US\$352.2bn (2009 est)

Sources: Economist Intelligence Unit/CIA World Factbook, Nomura research

Reliable hard data on North Korea’s economy is not easily come by (see Figure 3 above).³⁶ However, it is clear that since the 1960s North Korea’s economy has increasingly been struggling, even though living standards probably continued to rise well into the 1970s.³⁷ We reckon that one factor at the very heart of North Korea’s economic woes is the official state philosophy of *juche*.

³⁶ For example, even the UNDP Human Development Report, which is almost universal in its country coverage has very little data for North Korea and (together with only 11 other economies worldwide) no country factsheet for 2009.

³⁷ North Korea’s economic trajectory since the early 1960s stands in stark contrast to that of South Korea which grew at an average of over 8% per annum from 1962 to 1989, a rate of growth which is widely attributed in significant part to an outward-looking strategy.

The first known reference to *juche*, which is usually translated in North Korean sources as “spirit of self-reliance”, dates back to a speech delivered by Kim Il-sung in 1955 in which he sought to denounce the Soviet Union’s efforts to reform its bureaucracy in the post-Stalin era. But it was only in the 1960s following a break-down in Sino-Soviet relations, that *juche* really began to emerge as a philosophy underpinned by three principles, ie: political independence (*chaju*); economic self-sufficiency (*charip*); and self-sufficiency in national security (*chawij*).³⁸

In 1982, the *juche* principles were elaborated upon in what is still seen as the definitive statement of what had by then become official state ideology by Kim Jong-il, albeit subject to the incorporation of the “military first” (*songun*) policy in 1996 which officially grants the KPA the highest economic and resource-allocation priority as the primary organ of state for determining both domestic and international policy. The proportion of GDP which is currently devoted to the military is far from clear; but informed independent experts suggest that, at minimum, it amounts to 25%.

There is little doubt in our mind that, despite its apparent success in its early days, from the outset the *juche* philosophy contributed significantly to policies which were ultimately damaging to North Korea’s economy, eg in the strong emphasis on heavy industry in the 1956-61 Five-Year Plan, driven by a desire for greater political independence from China and the Soviet Union.

Debt Default...

Even putting international sanctions to one side it would, however, be wrong to place all the blame for North Korea’s economic decline on the state philosophy; for, in truth, the reasons are probably multiple and complex. One other factor which certainly played a part was the oil shocks of the 1970s, which were instrumental in driving North Korea to renegotiate its international debt in 1979 and then to default in 1980 (by which time the North’s economy was estimated to be no more than one-third the size of South Korea’s). The country has remained frozen out of international credit markets ever since.

...And Geopolitical Shifts

Furthermore, despite *juche* North Korea had never been able to wean itself away from a significant economic dependence on industrial aid and “fraternal” loans from the Soviet Union and its allies in particular and from China. When the Soviet Union collapsed in 1991, the major source of that aid not only dried up but the Soviet successor states started demanding payment for their exports to North Korea in hard currency. Initially, China picked up some of the slack; but it too began to cut back on aid in 1994.

Natural Disasters...

As a result, shortages of fertiliser, pesticides and power for irrigation had already triggered a decline in agricultural output even before a series of natural disasters struck beginning with record floods in 1995. Those floods marked the start of the North Korean famine which peaked in 1997 and which some UN reports suggest continued outside the capital

³⁸ Kim Il-sung first publicly identified these principles in a speech delivered in April 1965.

until 2000.³⁹ Estimates of related deaths vary significantly, ranging from 200,000 to over 3 million. Some experts believe that the North Korean economy could have contracted by as much as 50% between 1992 and 1998.

Yet North Korea requested an end to food aid in 2002 despite international agencies' belief that the country was not self-sufficient. Certainly, Pyongyang felt obliged to seek aid again from South Korea after further floods in 2006; and international agencies were again mobilised after the 2007 floods, suggesting that North Korea has certainly not been able to build up reserves from its own resources even if it has managed to keep going temporarily living – literally – from hand to mouth. This is confirmed by the UN's World Food Programme (WFP) which notes on its website that: *"The progressive improvement in food security experienced by...DPRK between 2001 and 2005 has been reversed in recent years, and the country's reliance on external food supplies is again increasing"*.⁴⁰

WFP continues:

"The...DPRK continues to suffer widespread food shortages due to economic problems, limited arable land, lack of agricultural machinery and energy shortages. The country remains highly vulnerable to natural disasters.... DPRK has also suffered the effects of the global commodity crisis, with rampant increases in market prices for staple foods and fuel.

*Domestic cereal production consistently falls below the needs of the 24 million population.... WFP/FAO assessments confirmed a significant deterioration in food security in 2008. Close to three quarters of respondents had reduced their food intake, over half were reportedly eating only two meals per day (down from three) and dietary diversity was extremely poor among two-thirds of the surveyed population. Most North Koreans sustain themselves by consuming only maize, vegetables and wild foods, a diet lacking protein, fats and micronutrients.... The impact of food shortages has been unevenly divided amongst the population, with urban households in areas of low industrial activity (particularly the Northeast) being the most affected. These groups have been hard hit by higher food prices, reductions in public food rations as well as lowered employment and salaries caused by industrial recession. Vulnerable groups including young children, pregnant and lactating women and elderly people remain particularly vulnerable to food insecurity and malnutrition due to their particular dietary needs."*⁴¹

³⁹ The World Resources Institute calculates that North Korea produced only just over 70 percent of its cereal consumption from 1998 to 2000 and that 80 percent of food imports over that period were in the form of aid. Furthermore, in the period between 1990-92 and 2003-05 the UN Food and Agriculture Organisation estimates that the number of under-nourished North Koreans rose from 4.2 million to 7.6 million (or around one-third of the total population); and the World Food Programme reckoned that around 40% of the population would need food assistance in 2008/9.

⁴⁰ See <http://www.wfp.org/countries/korea-democratic-peoples-republic-dprk>.

⁴¹ Ibid.

...And Donor Fatigue

Even before the sinking of the Cheonan there were clear signs of increasing “donor fatigue” over North Korea. In early March, WFP warned that it would have to stop aid deliveries by the end of June if it did not receive further donations. This is already against a relatively low donor base – in 2008, annual aid to North Korea had been equivalent to US\$4.50 per person compared to an average of US\$37 per person in other low-income economies.⁴²

North Korea is arguably its own worst enemy. In March 2008 it expelled all US NGO workers and has severely restricted aid workers’ access beyond Pyongyang, as well as insisting on aid workers’ using official North Korean interpreters. The US, once North Korea’s biggest food donor, has responded by refusing to provide cereals until aid agencies are allowed to resume proper monitoring of final recipients.

Caveat Emptor?

Against this backdrop, there has – as the *Financial Times* reported earlier this year – been a recent drive by North Korea to attract more inward investment, albeit primarily (if not exclusively) through joint ventures with state-owned enterprises.⁴³ However, as the relevant article (which predates the sinking of the Cheonan) noted:

*“Although workers are cheap and technically capable, there are huge obstacles to investing in the poor one-party state. Pyongyang has a grim human rights record and is under tightening sanctions for detonating a second atomic warhead last May. It is effectively cut out of the global financial system, including the World Bank and the International Monetary Fund.”*⁴⁴

We would add to this list of obstacles: the unpredictability of the regime in Pyongyang as far as foreign investment is concerned, as is underlined by South Korea’s experiences over its manufacturing and tourism ventures in the North.

⁴² See, eg, “Donor fatigue threatens aid for North Korea” by Christian Oliver and Anna Fifield”, *Financial Times*, 3 March 2010.

⁴³ “North Korea is open for business” by Christian Oliver, *Financial Times*, 3 February 2010.

⁴⁴ *Ibid.*

Turmoil in 2010

“North Korea’s hot- and cold- relationship with the outside world will not change....
Managing the North’s hissy fits will, as usual, be a high-maintenance chore for the
South and other regional powers.”

Charles Lee (“The World in 2010”, *The Economist*, 2009)

Political Hardball

In considering prospects for the Korean peninsula in *The Economist’s* forecast for 2010 under the headline *Political Football*, Charles Lee began by reflecting on the fact that, for the first time ever, North Korea and South Korea have both qualified for the soccer World Cup finals this year.⁴⁵ However, he acknowledged that North Korea was unlikely to allow their rivalry to be restricted to the soccer pitch even though, as he noted: “...many Koreans...will want to see the teams of both North and South do well”.

That said, we judge that dealing with North Korea has turned out to be even more challenging thus far this year than might reasonably have been anticipated by all but the most pessimistic commentators. As always with North Korea, it is impossible to be precise about the causes of the political hardball which was the decision to torpedo the *Cheonan*. But they likely include all the following five factors.

Possible Political Tensions In Pyongyang

Unconfirmed reports that Kim Jong-il could be unwell began to appear in the South Korean and western journals in September 2008; and by November the press was reporting that both Chinese and US intelligence believed he had suffered a stroke in August.⁴⁶ By April 2009, North Korea was releasing photographs of Kim Jong-il which experts judged to be recent; but the consensus among Korea watchers was that he did indeed look to have suffered serious health problems.⁴⁷

Around the same time, official North Korean newspapers released photos of all 12 senior members of the country’s top organ of power, the National Defence Commission (NDC) – a break from past practice when photos of only the chairman and vice-chairman had been released.⁴⁸ The consensus among South Korean experts is that this probably indicates a strengthened role for the military in the running of the country as a whole (apparently at the expense of the WPK which experts believe also ceded control of three of North Korea’s main intelligence organs, the Operations Department and the WPK’s research and external liaison departments, to the NDC at that time).

⁴⁵ “Political football” by Charles Lee, *The World in 2010* (*The Economist*, 2009). North Korea has qualified for the finals for the first time since 1966. South Korea reached the semi-finals in 2002.

⁴⁶ See, eg, “China increases troops on North Korean border” by Demetri Sevastopulo and Song Jung-a, *Financial Times*, 13 November 2010.

⁴⁷ See, eg, “N Korea launch sparks arms race fear” by Christian Oliver, Demetri Sevastopulo and Harvey Morris, *Financial Times*, 6 April 2010.

⁴⁸ The chairman of the NDC is Kim Jong-il.

The same North Korean reports indicated that General O Kuk-ryol, director of the Operations Department, had also been elevated to vice chairman of the NDC. Experts believe that this places General O at number two in the North Korean hierarchy (after Kim Jong-il), a position formerly thought to have been occupied by Kim Jong-il's brother-in-law, Chang Sung-taek.⁴⁹

These changes caused a number of North Korea experts to wonder whether Kim Jong-il had been obliged to cede additional authority to the military in return for their agreement to one of his sons being named as his successor. Earlier in the year, the South Korean news agency, *Yonhap*, had speculated that Kim Jong-il's third son, Kim Jong-un, was likely to be named as his successor.⁵⁰ And in early June 2009, there was a wave of reporting in the western press consistent with that view.⁵¹ Nevertheless, twelve months on the question of the succession remains uncertain, at least as far as the wider world is concerned.

That said, if Kim Jong-un were to succeed his father – and we certainly see that as a distinct possibility given the extent to which the North Korean regime has its foundations firmly in a personality cult built around Kim Il-sung and Kim Jong-il – we reckon that, especially given his youth and lack of experience, he would likely have to work with some sort of regent-type figure or figures such as General O and/or Chang Sung-taek.

⁴⁹ Chang Sung-taek is widely believed by North Korea watchers to have been purged in 2004; but he reappeared in early 2006 accompanying Kim Jong-il on a visit to China. His election to the NDC in April 2009 was seen by some experts as a signal that he could have been governing North Korea during Kim Jong-il's 2008/9 illness and could again be a possible successor to Kim Jong-il despite the rise of General O.

⁵⁰ Facts about Kim Jong-un are hard to come by, eg:

- He is variously reported as having been born in 1983 or 1984;
- He may have attended the International School of Berne in Switzerland (which Kim Jong-chul is confirmed to have attended) under a pseudonym;
- He is said to speak at least some English and German;
- He is, according to at least one often cited report, "exactly like his father", including a ruthless streak and a hot temper;
- He may be diabetic;
- He reportedly looks like his father but there are no publicly available confirmed recent photos of him.

⁵¹ Factors which experts believe support the view that Kim Jong-un is the most likely successor include the following:

- Kim Jong-il's oldest son, Kim Jong-nam, seems to have fallen out of favour after he was caught entering Japan on a forged passport in 2001;
- His second son, Kim Jong-chul (a half-brother to Kim Jong-nam and full brother of Kim Jong-un), who may have been favoured at some stage (although others dispute this on the grounds that his father allegedly thinks him "too feminine"), is reportedly seriously ill;
- Kim Jong-un was appointed to a mid-ranking position on the powerful National Defence Commission in March, following a pre-succession path beaten by his father;
- Kim Jong-un's mother, Japan-born dancer Ko Young-hee who died in 2004, has for some time been the subject of a positive propaganda campaign run by the North Korean military.

Is It The Economy?

“Economic problems are the most apparent but may also be the least important: for years the regime has shown that it can carry on with its policies regardless of the hunger of its people.”

The Economist, 29 May 2010

Views over the extent to which Pyongyang’s recent behaviour may be driven by the country’s economic travails vary. But one thing which is clear is that the North Korean economy has come in for considerable scrutiny among Korea watchers throughout the past few months. The proximate cause of this closer interest has been the currency reform introduced at the end of last year (officially as an anti-inflation measure) which had the immediate – and, probably, intended – effect of closing down the country’s private markets or *jangmadang*.

This step appears to be consistent with what a number of experts see as a gradual reversal of economic liberalisation which had been permitted since the mid-1990s, probably in part at least in response to the famines which occurred then, and which had seen the emergence and growth of the private markets. But the precise reasoning behind the currency reform is yet another mystery.

East Asia expert Dr Rüdiger Frank has speculated – plausibly, in our view – that the emergence of private markets and consequent partial monetisation of the economy was weakening the influence of the state over its citizens and revealing stark inequalities in North Korean society to the point where *“the same frustration that had brought socialism down in Europe began to grow in North Korea, dangerously, on a daily basis”*.⁵²

Equally plausibly (and not incompatibly), The Economist recently suggested that the reining-in of the markets could have been part of a power struggle between North Korea’s civilian leaders and the army which the Korea Institute for National Unification (KINU) in Seoul believes to be *“the artery and backbone”* of the growth of markets.⁵³ This does raise the possibility that the sinking of the *Cheonan* may have been the military flexing its muscles in response to the clamp-down on its business interests. We would not entirely rule this out. We do think it very unlikely, however, that an act of such gravity would be carried out without authorisation at the highest level of both military and civil authorities.

Whatever the reason(s), experts agree that the currency reform was a disaster. Consistent with others’ commentaries on its impact, we heard during our March 2010 visit to Pyongyang how food supply even in the capital effectively collapsed within weeks – anecdotal evidence which we believe to be supported by the fact that at least some of the

⁵² North Korea’s currency reforms: risky return to a money-less society” by Rüdiger Frank, East Asia Forum, 14 March 2010.

⁵³ “Not Waving. Perhaps Drowning”, The Economist, 29 May 2010.

elements of the crack-down on private enterprise had been reversed by early February.⁵⁴ Certainly, we saw firm evidence during our visit that the private markets were functioning again – albeit, we understood from independent sources in Pyongyang – at least partly on a hard currency basis.⁵⁵

All that being said, given the regime’s apparent indifference to the wellbeing of its citizens, why should there be particular concern in Pyongyang over the economy at this time?

One possible clue, in the opinion of many experts, lies in a rare apparent near-apology by Kim Jong-il which appeared in the 1 February edition of the WPK’s daily newspaper, *Rodong Sinmum*, which quoted him as saying: “*What I should do now is feed the world’s greatest people with rice and let them eat their fill of bread and noodles. Let us all honour the oath we made before the Leader [Kim Il-sung] and help our people feed themselves without having to know broken rice*”.⁵⁶ This is widely seen as being linked to the hundredth anniversary of the birth of Kim Il-sung in 2012, by which time North Koreans have repeatedly been promised by their leaders that theirs would be a “great and prosperous nation”.

Furthermore (and looping back into possible political tensions), some experts believe that that anniversary could have been penciled in, at least provisionally, as the time either for Kim Jong-il (who will officially be 70 in 2012) to hand over power to his successor or at least for Kim Jong-un to be officially named as his successor. Given the fragility which can often accompany moments of succession in non-democratic regimes it is, we believe, very likely that the authorities in Pyongyang would not want such a moment further complicated by avoidable economic stresses and strains.

⁵⁴ See, eg, “Market forces 1, brute force 0”, *The Economist*, 11 February 2010 and “Pyongyang executed financial chief, reports say” by Choe Sang-hun, *International Herald Tribune*, 19 March 2010. The second of these articles concerns unconfirmed reports that a top finance official, Pak Nam-gi, was executed over the currency reform, which some experts believe supports – again unconfirmed – reports that the food shortages it created caused civil protests (thought to be extremely rare in North Korea).

⁵⁵ Our findings are supported by press reports – see, eg, “Not Waving. Perhaps Drowning”, *The Economist*, 29 May 2010.

⁵⁶ See, eg, “North Korea: It’s the economy, stupid” by Aiden Foster-Carter, *East Asia Forum*, 11 March 2010.

Shifts In Seoul's Policy

"As a conservative president, Mr Lee has tried to ignore North Korea, so it is perhaps his ironic destiny to be propelled on to the world stage by brinkmanship from Pyongyang."

Christian Oliver (Financial Times, 29/30 May 2010)

As we noted previously, South Korea under President Lee Myung-bak has generally been inclined to a somewhat tougher line with Pyongyang since 2008 than was the case over the previous ten years. As Christian Oliver wrote in the *Financial Times* recently: "For Kim Jong-il, the dictator who has led a few South Korean presidents round in circles, Mr Lee is a particular figure of hate because he has switched off most largesse to the North, ending the unconditional "sunshine policy" of two previous liberal presidents".⁵⁷

Some experts believe that Pyongyang could have calculated that the sinking of the Cheonan might have precipitated a change of heart on the part of South Korea's President, determined to sustain his country's recovery from the financial crisis (and therefore avoid market turbulence) and not to hazard the November 2010 G20 summit in any way. However, since announcing the findings of the international investigation into the sinking, Lee Myung-bak has demonstrated what many commentators see as steely but measured resolve.⁵⁸

If it is indeed the case that Pyongyang miscalculated in this way (and we would certainly not rule it out), it remains to be seen, however, whether Kim Jong-il will now back down significantly by responding positively to Lee Myung-bak's 24 May demand that North Korea "apologise and punish those responsible for the attack", towards which some believe the recent dismissal/retirement of Kim Il-chol may have been a first step.⁵⁹

South Korea In The Limelight

At the start of this report we recalled Pyongyang's historical propensity to "bad behaviour" at times when South Korea is enjoying the international limelight, as it is this year thanks primarily to its presidency of the G20. And we also noted that the sinking of the Cheonan was not the first time North Korea had sought to do this through naval action of some sort.

For all that, though, this latest attack was clearly on a different scale entirely to anything we have seen over the past two decades or so. One possible underlying cause of that is the humiliation reportedly suffered by the North Korean navy during the previous exchange of fire at the disputed border in November 2009. On that occasion – precipitated by North Korea, perhaps not coincidentally, just prior to President Barack Obama's visit to Seoul – a North Korean vessel, which had crossed the border and ignored warning shots, opened fire on a South Korean warship and suffered serious damage in the exchange which followed.⁶⁰ So, revenge has also plausibly been cited as a possible motive for the sinking.

⁵⁷ "Bulldozer at the brink" by Christian Oliver, *Financial Times*, 29/30 May 2010.

⁵⁸ See, eg, "Hitting where it hurts", *The Economist*, 29 May 2010.

⁵⁹ See, eg, "North Korea's Exit Strategy" by Takashi Yokata, *Newsweek*, 26 May 2010.

⁶⁰ See, eg, "North and South Korean navies exchange fire" by Tania Branigan, *The Guardian*, 10 November 2010.

Waving To Washington

Since his appointment in February 2009, US Special Representative for North Korea policy, Stephen Bosworth, has been working quietly and patiently towards getting the North Koreans back to the negotiating table. On several occasions since then – particularly around his first official visit to Pyongyang in his present capacity (he visited unofficially but after his appointment was known in February 2009) – he has looked close to achieving a breakthrough.⁶¹ Furthermore, Mr Bosworth has not been alone in his efforts – witness, in particular, former President Bill Clinton’s visit to Pyongyang in August 2009 when he secured the release of two detained American journalists.⁶²

For all that, however, we do not rule out the possibility that North Korea is again indulging in what many experts see as a well-established propensity to indulge in “bad behaviour” when it believes it is not getting the attention it deserves from the outside world. After all – and even putting to one side the recent declining success rate of Pyongyang’s characteristic efforts to extort aid and/or extract it in return for promises which it has no intention of keeping – Mr Obama personally has had higher foreign policy priorities to address since he came to office (eg Iran, Afghanistan, the Middle East Peace Process), in addition to the pressing domestic challenges he faces.

⁶¹ See, eg, “North Korea politics: The US tests the water on talks”, Economist Intelligence Unit, 10 February 2010.

⁶² See, eg, “N Korea Releases U.S. Journalists” by Glenn Kessler, Washington Post, 5 August 2009.

At a turning point?

The pattern not only of the past 16 months since President Obama took office but also of the past 16 years since Kim Jong-il took over the helm in Pyongyang suggests that North Korea may now be due to revert from “sour” to “sweet”. However, if our assessment of factors which may lie behind the sinking of the *Cheonan* is correct, the challenges which face Kim Jong-il at home are unlikely to get any easier any time soon; and it is extremely unlikely indeed, in our view, that the other participants in the six-party talks will be willing to reward him for his recent endeavours. Indeed, North Korea’s “age of extortion” may be over and its ability to secure aid on ultimately un-bankable promises may equally be at an end. So, is it time for Kim Jong-il to deliver?

We believe that the question of whether we are at some sort of turning point with North Korea needs to be addressed in two distinct but related timeframes, ie: what to expect from Pyongyang in the short- to medium-term; and whether in the longer-term the regime is approaching some sort of existential crisis. In both cases, a decisive factor could well prove to be the amount of leverage which China is willing and able to exercise over North Korea’s leadership.

Beijing’s Near-Term Balancing Act

“Whatever Beijing’s misgivings about the idea of a nuclear North Korea, it fears instability on the Korean peninsula even more.”

Geoff Dyer (Financial Times, 27 May 2010)

Experts agree that China’s public policy of “strategic ambiguity” towards North Korea has come under significant strain in recent times, as was underlined in June 2009 when Beijing acquiesced to further UN sanctions against North Korea in the wake of its second nuclear test. However, as Geoff Dyer pointed out in a recent *Financial Times* article:

*“Beijing has fallen back on two strategic reasons for maintaining its support. It wants a buffer between the Chinese border and South Korea, a country where 28,500 US soldiers are still stationed. And it wants to avoid the chaos from a regime collapse, which it fears would bring a tidal wave of refugees.”*⁶³

To these two reasons we would tentatively add a third, ie commercial. For we agree with *The Economist* when it recently noted that: “...China continues to invest in mines in North Korea and a potentially valuable docking facility in Rajin-Sonbong that gives it its first access to the Sea of Japan [East Sea]”.⁶⁴ And we heard from textile factory managers and others during our recent visit to Pyongyang how China is looking to take advantage of cheap labour in North Korea by subcontracting labour-intensive manufacturing there.

⁶³ “Wen’s balancing act with Seoul and Pyongyang just gets harder” by Geoff Dyer, *Financial Times*, 27 May 2010.

⁶⁴ “Not Waving. Perhaps Drowning”, *The Economist*, 29 May 2010.

Thus, in our view the bottom line remains that, as the authors of a recent report on the Korean Peninsula published by the *Center for Strategic & International Studies* noted, Beijing still tends to see North Korea more as a strategic asset than a liability.⁶⁵

As long as this situation prevails – and what it would take to tilt the balance decisively in the opposite direction is by no means clear to us – Beijing is likely to continue, in our view, to ensure that it gives Pyongyang just enough practical support and diplomatic cover from international opprobrium to shore up the regime there. Furthermore, we believe that Kim Jong-il likely shares that view and, therefore, calculates that he can continue to push the envelope when it suits him (ie consistent in many ways with the extortion policy which has served him well with other regional powers in the past). In other words, North Korea effectively presents China with the sovereign equivalent of a “moral hazard” dilemma where Pyongyang is likely to continue to take calculated risks in the belief that, at least in China’s strategic calculus, it is “too big to fail”.

On the other hand, Beijing is clearly mindful of the damage which North Korean “bad behaviour” risks doing to its relations with both the United States and South Korea – as China’s leaders will have been acutely aware of from the recent dialogue with US Secretary of State Hillary Clinton and from the end-May China/Japan/South Korea summit, even though both Washington and Seoul have seemed at pains not (yet) to pressure China publicly over the sinking of the *Cheonan*. Furthermore, especially with memories fading of the Korean War when perhaps as many as 400,000 Chinese soldiers died fighting alongside their North Korean allies and reportedly little public sympathy for North Korea among ordinary Chinese, relations with both Washington and Seoul are now significantly more important to Beijing than its relationship with Pyongyang.

Thus, in the short-term, we expect to see Beijing making every effort it can: (privately) to calm Pyongyang’s behaviour; and to assuage angry sentiment in Seoul in particular by acquiescing at least to a toughly worded UN Security Council condemnation of the sinking of the *Cheonan* (and, possibly, to more sanctions, although it is hard to know realistically what more could be brought to bear on that front which would have much impact on North Korea’s leadership).⁶⁶

In the medium term, we believe that Beijing will continue to work with the US and others to try to persuade North Korea to return to the six-party talks – and this time in earnest.

On balance, we think that Beijing will have some success over the coming weeks in maintaining the balance it is seeking to strike. So, we would not rule out some short- to medium-term calming of tensions on the Korean peninsula – albeit not without periodic rhetorical outbreaks in particular of the sort which financial markets have learnt largely to ignore over the years. Indeed, we judge that, although tensions will likely remain high for the next few weeks – at least until the sinking of the *Cheonan* has been addressed by the

⁶⁵ “Responding to Change on the Korean Peninsula” by Bonnie S Glaser and Scott Snyder (Center for Strategic & International Studies, 6 May 2010).

⁶⁶ We do not expect to see efforts to win agreement to a new UN Security Council Resolution on North Korea until after the US has secured China’s support for a further round of UN sanctions against Iran, which we believe to be a higher priority for Washington at this time with the aim of winning approval to a new UNSCR during June 2010.

UN Security Council – we see this as the more likely scenario, up to and including a resumption of the six-party talks perhaps even before the November 2010 G20 summit.

That said, as North Korea's record firmly underlines, it would be unwise to rule out what we see as the lesser probability of more or less continuing "bad behaviour" in the coming weeks and months. This could include: further frictions around the disputed maritime border; skirmishes around the DMZ (eg North Korea following through on its threat to attack the loud speakers which the South has threatened to reinstall to broadcast propaganda messages across the border); more missile tests (including the *Taepodong-2* ballistic missile); and, possibly, a third nuclear test. Furthermore, as the sinking of the *Cheonan* highlights, one can no more rule out the possibility that Pyongyang might even surprise with an act even more shocking than its dismal track record to date.

The Going Could Yet Get Tougher

If we are guardedly less pessimistic about prospects through to the year-end (and, perhaps, into early 2011), we remain more cautious about how things could develop thereafter. The key elements underpinning that caution are as follows:

- (a) As we have previously noted, we believe that the political and economic stresses from which Pyongyang is suffering are set to persist; indeed, that they may even get worse as the anniversary year of 2012 approaches;
- (b) Even if the six-party talks resume, we expect North Korea to pursue its established approaches of dragging the talks out and of trying to secure benefits without itself making any concessions and/or delivering on any of the commitments it is prepared to make. Furthermore, we believe that both Washington and Seoul have tired of that game to the point where Pyongyang is likely to find that it is beating its head against the proverbial brick wall and that they will, therefore, be very disinclined to cut North Korea more than minimal slack (eg some conditional humanitarian aid);
- (c) The combination of (a) and (b) might just push Pyongyang into acceding to the demands of the international community. But we think it more likely that the regime there believes that it needs to maintain the impression to its citizens of a credible external threat to national security as a key element in ensuring its own survival; and that, in a manner arguably not dissimilar to Iran, it will therefore be unwilling ultimately to reach a truly substantive agreement with the US. Indeed, based on a number of exchanges we had during our visit to Pyongyang, we do not rule out the possibility that key decision-makers there genuinely believe that the US and its allies do indeed pose an active threat to North Korean national security;⁶⁷ and,
- (d) In particular, we doubt that, even if there is some progress on other fronts, the North Korean military will willingly give up its nuclear arsenal.

⁶⁷ We were interested to note during our visit, for example, that the Pyongyang subway tunnels are around 100 metres below the surface and that the system is clearly designed to double up as air-raid shelters. The impression this gives is, in our view, consistent with frequent reminders we had from senior officials in Pyongyang about the extent of destruction caused by US bombing during the Korean War.

Is Regime Collapse Imminent And/Or Inevitable?

As we noted earlier, following the death of Kim Il-sung in 1994 there was widespread hope (if not expectation) that the regime in North Korea would collapse. In the past few months – first around the time of Kim Jong-il’s illness and then following reports of civil unrest arising from currency reform – there was something of an echo of those sentiments (albeit perhaps more in the form of concern over possible regime collapse, rather than hope *per se*). However, although we certainly do not rule out the possibility, we place only a low probability on regime collapse as such in the foreseeable future (ie over the next five years or so).

The main reasons for this are as follows:

- (a) Notwithstanding reports of civil unrest around the start of this year in connection with currency reform, we came away from our recent visit to Pyongyang firmly of the impression that the North Korean regime has a very tight grip on civil society and that a grassroots uprising of some sort is extremely unlikely no matter how tough things get economically;
- (b) Related to (a) above, although more news of the wider world does appear to filter through to ordinary North Koreans these days, there remains very little knowledge among the wider population of the realities beyond their country’s borders – far less than, for example, there was in East Germany in the 1980s;
- (c) Another marked contrast to East Germany in the 1980s is that North Korea today has no real equivalent to Poland, the then Czechoslovakia and Hungary where massive civil manifestations helped inspire the uprising which led to the tearing down of the Berlin Wall in 1989;
- (d) Although we accept that a change of leadership is likely over the next five years, we believe that that process itself is likely to make the inner circle put any differences which may exist among them to one side, at least temporarily, rather than risk rocking the boat at what stands to be a particularly delicate time for the regime;
- (e) Furthermore, in the event of the death of Kim Jong-il (in office or in official retirement) it would not surprise us to see apparently genuine outpourings of grief among ordinary North Koreans similar to those reliably reported among members of the KPA guarding the DMZ by observers in South Korea when Kim Il-sung’s death was announced – thus, pulling the nation together in its mourning and easing a smooth handover of power; and,
- (f) Perhaps most of all, China is far from alone, in our view, in not wanting regime collapse – to the point where we believe that other regional powers will be almost equally at pains as Beijing to bring meaningful pressure to bear on Pyongyang to behave more responsibly without risking provoking a real internal crisis there.

For all that, we have to acknowledge that, although the regime in Pyongyang may yet stagger on for some time, the status quo is almost certainly not sustainable for much longer. Putting to one side what we consider to be the low possibility of peaceful reunification with South Korea without there being some sort of major crisis in North Korea beforehand, we note three possible scenarios for change which fall short of regime collapse, as follows.

1. Regime change through orderly succession.

If the conventional wisdom is correct and Kim Jong-un were to step into his father's shoes, North Korea's titular head would then be a relatively young and untested man who may struggle to gain and retain a firm grip on the levers of power. It would, in our view, be typical of regimes such as North Korea's that that could lead to frictions within the inner circle which could make decision-making and policy even more unpredictable than it is currently, risking heightened tensions in the region.

2. Regime change through military coup.

Either in the aftermath of an apparently orderly succession, or even before that point had been reached, the possibility of the military formally seizing power (or, potentially worse, a faction of the military trying to seize power and meeting resistance from another faction) cannot be ruled out. Even by the standards of the current regime, that could well mark a step backwards in terms of moving towards greater stability in the Korean peninsula.

3. "Engineered" regime evolution.

Given China's non-negligible strategic – and, likely, increasing commercial – interests in North Korea, we do not rule out the possibility that Beijing could look to "engineer" changes aimed at bringing in a regime in Pyongyang which was more firmly under its control.⁶⁸ The key to this could be the reportedly close relations between the military of the two countries through which elements in North Korea's military were encouraged, out of furtherance of their business interests, to push the civilian regime in the direction favoured by Beijing.

However, such an approach may not be without its risks for Beijing. During our visit to Pyongyang we detected little warmth towards China; in fact, quite the contrary. Senior officials repeatedly told us that China had "betrayed socialism" and that North Korea "should never go down that path"; and factory managers complained about what they claimed was Chinese "exploitation" of their workers. Our sense is that, even if greater Chinese involvement in North Korea were to bring with it improved living standards for the average citizen (which we judge likely), it could still be seen as "neo-imperialistic" and therefore resented.

⁶⁸ See, eg, "The fantastical dream of a united Korea" by David Pilling, *Financial Times*, 6 May 2010.

Contingencies For Collapse

Although none of the three scenarios suggested above seems to us to be especially desirable, any of them could prove to be preferable to regime collapse – which could occur either independently of one of our scenarios or, possibly, as a result of moves towards any of them. For, as *The Economist* recently put it:

*“If...a meltdown does occur, the risks are enormous. North Korea’s GDP per head is about 6% of South Korea’s, which is far lower than East Germany’s was compared with West Germany when the Berlin Wall collapsed. This means that unifying the two countries could be treacherous, with costs that the South Korean central bank has put as high as US\$900 billion over four decades. There could be arguments over which special forces – China’s or America’s – would secure the north’s nuclear weapons. And if a desperate North Korea started shooting missiles at its enemies in the region, how would America and China react?”*⁶⁹

Although South Korea has clearly given considerable thought to the economics of reunification (with or without preceding regime collapse in the North), which we consider further in the final section of this report, it is not clear that serious discussions have taken place among the regional powers over the handling of regime collapse and its inherent risks. As a potentially important inflexion point in North Korea’s evolution approaches, we agree with the conclusion of *The Economist* that “...it would be good for the countries involved to have talks at some level...to avoid potentially catastrophic misunderstandings”.

⁷⁰

Notwithstanding the low probability we put on regime collapse in the near- to medium-term, we nevertheless believe that the Cheonan crisis has underlined the potential value of the regional powers having agreed and coordinated – if necessarily secret – contingency plans in place to deal with the security (and, therefore, wider) implications of just such an eventuality.

⁶⁹ “Not waving. Perhaps drowning”, *The Economist*, 29 May 2010.

⁷⁰ *Ibid.*

The cost of reunification: comparisons with Germany

"The endgame is peaceful reunification of the Korean peninsula. That has never changed and that will remain our objective. However, having said that, I do not foresee peaceful reunification in the near future."

President Lee Myung-bak (2009)⁷¹

The German Experience: Putting Political Considerations First

The German approach to reunification was focused on economic convergence of the two German economies, with the aim being to raise the East's per capita income to the same level as that of the West. This turned out to be a costly exercise. Germany established parity between the West German deutschemark and the East German ostmark, despite the fact that the purchasing power equivalence of the two currencies was between 3:1 and 4:1. Germany also stipulated equalising wages, pensions and other entitlements for workers in the former East and West Germany, notwithstanding the fact that measured productivity of labour in what had become post-unification the eastern *länder* was less than one-third that of the western *länder*. These policies were adopted for strategic political considerations judged by Helmut Kohl's government to be of overriding importance regardless of the economic consequences. As a result, the resource transfers from west to east represented about 5-6% of western Germany's cumulative GDP in 1991-2004.

Since the short-lived post-reunification boom, German economic growth has slowed. From its long-term average of 3.2% in the three decades up to 1990, annual GDP growth abated to 2% in the second half of the 1990s; and it slipped further to a modest 1% in the first half of the 2000s when, for several years, Germany's growth lagged the rest of the euro area (see Figure 4). German exports largely benefited from a booming world economy; but domestic investment and consumption failed to respond to the external stimulus – they were held back by the unavoidable adjustments which had to be made thanks to the imbalances between East and West and to a number of structural rigidities which had built up over the years (see Figure 5).

Korean Reunification: Scenarios And Costs

The German experience has, for some, acted as a disincentive even to contemplating the costs of Korean reunification. This has encouraged an inference that the costs of reunification would be relatively higher because the pre-unification gap between North and South is larger than was the gap between East and West Germany – North Korea's GNI per capita is estimated to be less than 7% of South Korea's; East Germany's GNI per capita was 33% of West Germany's in 1991 (see Figure 6). However, interpreting potential reunification costs depends greatly on what process is adopted to attain that goal and it is by no means clear to us that, in the event of reunification, South Korea would make a similar political calculation to that which Mr Kohl made over German reunification

⁷¹ See, eg, "The fantastical dream of a united Korea" by David Pilling, Financial Times, 6 May 2010.

– especially given the new readily apparent economic costs to Germany which flowed from taking that route. For example, Wolf and Akramov (2005) have addressed three potential scenarios for Korean reunification (see Figure 7).⁷²

In some studies of Korean reunification, the implicit assumption is that the burden of meeting reunification costs could fall entirely on the South Korean economy rather than being shared with other countries and/or international financial institutions. We would expect benefits from reunification which, so far, have seemingly been largely ignored. For example, South Korea's technological frontier, combined with a Chinese-style, low-cost manufacturing base in the North, could make a unified Korea an even stronger economic powerhouse than South Korea is poised to become on its own. For this, a number of conditions would be required, notably: a positive business environment in the North; wage adjustment consistent with productivity in the North; and the creation of employment opportunities in the North which could prevent destabilising migration.

All in all, there are profound uncertainties surrounding the estimates of the cost of reunification. But one thing is for sure: if reunification's principal goal were to close the income gap between North and South rapidly, it is fair to expect a heavy, burdensome cost. By contrast, if reunification were to adopt less ambitious – arguably, more realistic – goals, the costs could be smaller (see Figure 8).

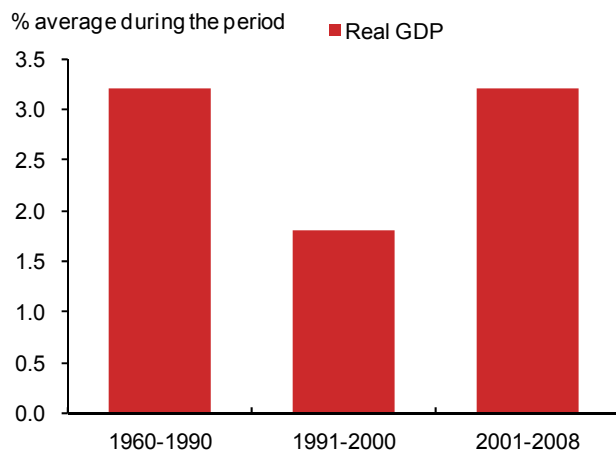
For example, Mun and Yang (2007) compared two types of economic integration.⁷³ The first involves the recognition of North Korea as a special economic region with its own currency and institutions, except for defence and foreign affairs. This would be akin to the "one country, two systems" model used by China and Hong Kong. The second method is more like the German model, which can be characterised as "one county, one system" and would see a unified Korea using the same currency and adopting the same legal framework.

Mun and Yang showed that, in order to increase the North's per capita GNI to US\$10,000, the first model would require a total fiscal transfer of payments from the South of about half as much as would be necessary under a German model. Moreover, they estimate that integration would take between 13 and 22 years in the first scenario compared between 22 and 39 years in the second.

⁷² "North Korean Paradoxes: Circumstances, Costs, and Consequences of Korean Unification" by Charles Wolf Jr and Kamil Akramov (RAND Corporation, 2005).

⁷³ "Simple calculation and its implication for Korean reunification" by Mun and Yang (Bank of Korea, 2007 – in Korean).

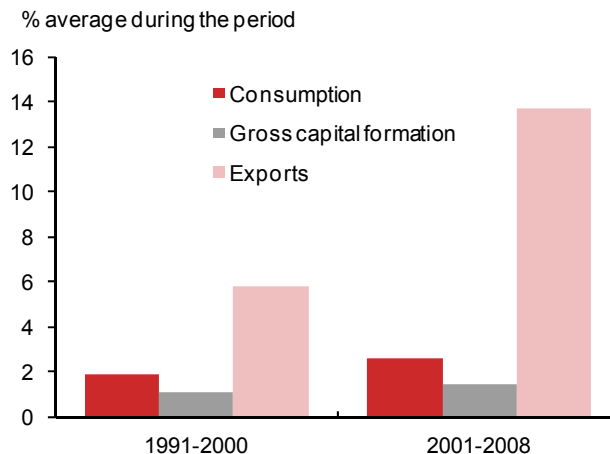
Figure 4: German GDP growth



Note: 1960-1990 is West Germany's GDP growth. Since then, unified Germany's GDP growth.

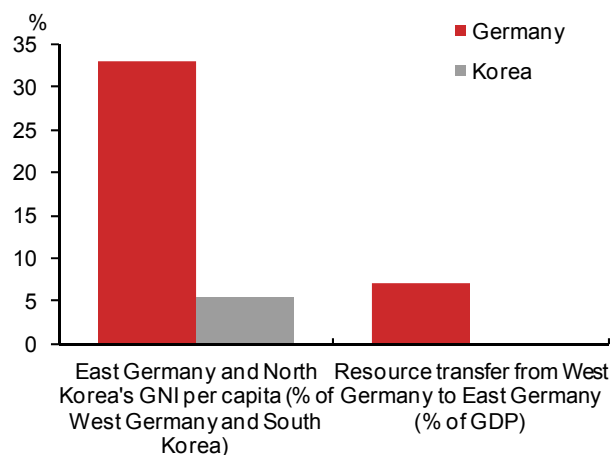
Source: Nomura Global Economics

Figure 5: German economic recovery



Source: Nomura Global Economics.

Figure 6: East/West Germany vs. North/South Korea



Note: Estimation of North Korea's GDP vary widely owing to the absence of reliable or available data for many components of the national accounts
Source: Nomura Global Economics

Figure 7: Three scenarios of Korean reunification

- Unification through evolution and integration: North Korea might adopt and implement China's remarkably successful economic model, including opening trade and capital transactions. The economic system in the North would become more compatible with that in the South.
- Unification through collapse and absorption: the North Korean regime has shown an extraordinary capacity to withstand severe internal economic adversity, mainly owing to the regime's ability to acquire finance and support from outside sources. Yet what has been manageable in the past may not be in the future. If economic adversity was severe enough and external help limited, Pyongyang would ultimately be unable to support its military assets.
- Unification through conflict: it is likely that a conflict would inflict considerable damage on South Korea's capital stock, which would raise reconstruction costs in the South as well as the direct capital costs of reunification in the North. If a conflict scenario were to include an insurgency in the North, the burden of achieving sufficient security before reunification could proceed would be heavier, and the attendant costs would rise accordingly.

Source: Wolf and Akramov (2005), "North Korean Paradoxes: Circumstances, Costs, and Consequences of Korean Unification", RAND corporations, Nomura Global Economics

Figure 8: Estimates of Korean reunification costs

Definition of reunification costs	Costs	Source
Incremental investment	US\$1.2tr-US\$2.4tr	Hwang (1993)
Total investment costs in 1990 prices over 10-year period	US\$360bn-US\$1.1tr	Joon-Koo Lee (1995)
Present discounted value of capital transfers from South Korea to North Korea	US\$290bn-US\$389bn	Young Sun Lee (1994)
Additional fiscal burden on South Korea	US\$332bn	Jin-Young Bae (1996)
Present discounted value of expenditures	US\$1.4tr-US\$3.2tr	Noland, Robinson, and Scatista (1997)
Transfers to North Korea from South Korea and other donors	0.25%-5% of South Korea' GDP Cumulative cost 55%-190% of South's GDP over 20 years	Frecaut (2003)
Total fiscal transfer from South Korea to North Korea until North Korea's GNI per capita reaches US\$10,000	German type: US\$511bn-US\$910bn, Special Economic Zone type: US\$286bn-US\$519bn	Mun and Yang (2007)
Doubling North Korea's per capita income in five years	US\$50bn-US\$667bn	RAND (2005)

Source: Wolf and Akramov (2005), Mun and Yang (2007), "Simple calculation and its implication for Korean reunification", Bank of Korea, Nomura Global Economics

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Stocks:

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- A rating of "4", or "**Reduce**" recommendation indicates that downside is between 10% and 20%.
- A rating of "5", or "**Sell**" recommendation indicates that downside is more than 20%.

Sectors:

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A "**Neutral**" rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a neutral absolute recommendation.

A "**Bearish**" rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a negative absolute recommendation.

Price targets

Price targets, if discussed, reflect in part the analyst's estimates for the company's earnings. The achievement of any price target may be impeded by general market and macroeconomic trends, and by other risks related to the company or the market, and may not occur if the company's earnings differ from estimate

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