

South Korea

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Technology identified as the key to rejuvenation

As big manufacturers’ contribution falls, the emphasis is on innovation and start-ups to boost growth, writes *Simon Mundy*

Some 65 years after the Republic of Korea was born amid a landscape of desperate poverty, its armed forces recently brought central Seoul to a standstill with a huge anniversary parade. As tanks, missiles and thousands of troops coursed through the streets of the capital, the gleaming office buildings and trendy coffee shops surrounding them bore testament to one of the past century’s most stunning economic success stories.

Yet, amid the flag-waving children and the confetti, last month’s display reflected the military tensions that continue to haunt the Korean peninsula and which have been unresolved since its formal division in 1948. And while South Korea’s annual output has grown since then from an estimated \$86 a head to \$22,590 last year,

it is gripped by a nervous debate over its path to continued economic development.

As South Korea has closed the gap with the rich world, its growth has slowed. A rise in GDP last year of 2 per cent is expected to be followed this year by 2.8 per cent growth, though well down on the average of more than 5 per cent in the decade leading to the 2008 financial crisis.

“Korea has come a long way by fast-following, imitating what has been done by advanced nations,” says Choi Byung-il, president of the Korea Economic Research Institute. “But that road is coming to an end.”

Five decades ago, the military ruler Park Chung-hee set about transforming a poor, agrarian economy by fostering a group of export-led conglomerates: the chaebol. Many of these

groups have fallen by the wayside over the years, but the strongest have grown to rank among the global leaders in their fields. Samsung has shed its image as a low-budget electronics brand to outstrip Apple as the leading manufacturer of smartphones by sales. Samsung and LG dominate the global market for televisions.

Hyundai Motor Group has undertaken a similar metamorphosis, building a growing reputation for quality

Bill Gates, Larry Page and Mark Zuckerberg are among those summoned this year to give advice

as it consolidates its position as the world’s fifth-biggest carmaker by sales. Posco continues to expand its global operations as one of the world’s leading steelmakers.

Yet, there is growing concern in South Korea about the ebbing marginal returns of this manufacturing-driven growth model. The big manufacturers’ contribution to national employment has steadily declined over the past few years as production moves offshore, and the government – now led by Park Chung-hee’s daughter, Park Geun-hye – is under pressure to build new growth industries.

Ms Park has based her response to this problem on the slogan “creative economy”, with an emphasis on promoting technological innovation and start-up businesses.

US technology leaders, including

Microsoft’s Bill Gates, Facebook’s Mark Zuckerberg and Google’s Larry Page have been summoned to the presidential Blue House this year to advise on the drive.

Policies have included tax incentives to encourage equity rather than debt investment in new technology businesses, in the hope of encouraging more stable, long-term funding that will enable start-ups to flourish.

A new stock exchange, Konex, has been established to cater specifically for fast-growing new businesses. A Won500bn (\$470m) “Future Creation Fund” has been set up to provide state financial support.

Such measures are welcome and overdue, says Jimmy Kim, co-founder of SparkLabs, a start-up accelerator

Continued on Page 2



Signs of the times: South Korea has closed the gap with the rich world but it is under pressure to build new industries Alamy

Inside »

Foreign stage and domestic drama
Generous political promises prove difficult to keep
Page 2

Culture club
Games, films and comics enjoy record growth in exports
Page 2

Banking
Government urged to step back to let the sector flourish
Page 3

Relations with Pyongyang
Rapprochement with the north still out of reach
Page 3

Education rethink
Rote learning and cramming are not enough to meet modern challenges
Page 3

Small businesses battle to make mark alongside conglomerates

Chaebol companies

The official shift of focus will take a while to bear fruit, says *Song Jung-a*

South Korea is a nation of exporters. The manufacturing-driven conglomerates such as Samsung, Hyundai and LG have been at the heart of rapid economic development over the past half century, but the country faces growing questions over whether a handful of so-called chaebol companies can continue to drive its growth amid increasing competition from China.

The government’s policy of favouring the chaebol over smaller, domestically focused businesses has made South Korea the global leader in sectors like shipbuilding, flat screens, mobile phones and memory chips. The country has also become a serious contender in areas such as refinery, auto and steel production.

Chaebol companies continue to grow rapidly but their growth is fastest outside South Korea, with companies like Samsung and Hyundai building their factories overseas for cost savings and better access to bigger markets. According to McKinsey, South Korea’s top 10 conglomerates have grown by 13 per cent annually since 2000, on the back of strong overseas sales.

However, small and mid-sized companies (SMEs) remain far weaker, overshadowed by the chaebol’s economic dominance at home.

Although the performance of a dozen large manufacturers remains critical to economic growth in the near future, experts say South Korea should build more vibrant small and medium-sized companies to add vitality, while developing the inefficient service sector to create more jobs.

“It is increasingly apparent that the export-oriented growth formula that helped the large Korean conglomerates drive economic

development and raise incomes is running out of steam,” McKinsey said in a recent report.

“The growth of the conglomerates that drove the economy in the past should be balanced with growth among SMEs and service industries to write another success story for South Korea.”

A handful of Korean manufacturers such as Samsung and Hyundai continue to post robust profits as their mobile phones and cars gain increasing popularity in global markets.

Experts caution, however, that manufacturing overall is losing its strength as shipbuilders, petrochemical and steel producers concede market share to low-cost Chinese competitors.

“A couple of sectors such as information technology and autos are supporting our economy, but many traditional heavy industries seem to have hit the wall amid growing challenges from China and other developing countries,” says Kim Joo-han, researcher at the Korea Institute for Industrial Economics and Trade.

“It is hard to expect a few capital-intensive industries to continue to drive growth,” adds Mr Kim.



Driven abroad: a Hyundai car plant in southern India Reuters

“It is time to move into higher-valued industries on the back of stronger R&D efforts.”

It is not easy to move up the value chain, however, because of the country’s technological weakness in producing precision components and key materials. Although Samsung and LG are pulverising their Japanese rivals in the technology sector, most South

Korean companies heavily depend on parts from Japan’s specialist engineering companies. Last year, South Korea suffered a \$25.5bn trade deficit with its old colonial overlord.

Mindful of this problem, Korean policy makers are keen to nurture the high-quality small and mid-sized manufacturers that serve both Japan and Germany so well.

Under the slogan of making a “creative economy”,

President Park Geun-hye is trying to create an ecosystem where venture firms can flourish, by expanding financial support for start-up companies with innovative ideas.

Developing SMEs has become increasingly important for the South Korean economy as they provide jobs for 90 per cent of the population. Chaebol companies now produce more abroad, rather than create quality employment opportunities at home.

“The growth story driven by big conglomerates seems to have reached its limit as the increasingly automated manufacturing sector is not creating as many jobs as it used to,” says Mr Kim.

“High-tech venture firms should be nurtured to add vitality to the slowing manufacturing sector.”

But it will take a long time for the government’s shift of focus from chaebol to SMEs to bear fruit. Small businesses have struggled to grow as chaebol companies have spread across many unrelated domestic markets – including food and retail – encroaching upon business areas traditionally reserved for SMEs.

Chaebol groups are accused of choking smaller businesses, by pushing them too hard to cut prices and buying out promising ones to strip assets and repress competition.

“Our domestic economy has been monopolised by a handful of chaebol groups, so SMEs with no business relationship with them cannot survive,” says Kim Sang-jo, economics professor at Hansung university.

“Chaebol squeeze profits out of their parts suppliers so their SME partners have no room for R&D investment.”

There are many in the country who say that the conglomerates’ influence should be checked.

Experts stress that the chaebol should accelerate their move into higher, value-added products, and strengthen their push into new overseas markets rather than wasting their energy on competing with SMEs at home.

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South Korea

President scores higher abroad than at home

Politics Generous promises prove difficult to keep, says *Simon Mundy*

The national mood surrounding last year's presidential election was not obviously auspicious for Park Geun-hye, a pillar of the conservative establishment and daughter of the late military ruler, Park Chung-hee. Talk of "economic democratisation" filled the air amid widespread disillusionment with the pro-business policies of then president Lee Myung-bak, Ms Park's stablemate in the conservative New Frontier party.

In her second campaign for the presidency, Ms Park took the fight to her left-of-centre opponents by unveiling a string of eye-catching social spending promises worth Won135tn (\$125bn). She also pledged to fund these measures without raising taxes or the national debt. The promises helped win her the election – but eight months into her term, her government's inability to meet them threatens to undermine her credibility.

It was the administration's reversal of a pensions pledge that attracted the heaviest media attention when the 2014 budget was unveiled in September. There will now be means-tested payments for elderly citizens, instead of a promised universal monthly pension of Won200,000. Promises for expanded funding of serious disease treatment and university tuition were cut back.

The changes were "inevitable," Ms Park said, given disappointing tax revenues amid slower-than-expected economic growth this year. Her efforts to mitigate this problem ended in embarrassment in August, when the government hastily withdrew a tax plan that would have increased payments by workers earning more than Won34m a year.

"Domestic politics has been a total disappointment," says Kim Ji-yoon, an analyst at the Asan Institute for Policy Studies. "But it seems it doesn't count that much. She is the only president who has enjoyed an increase in the approval rating in the first year."

In the first few weeks following her inauguration in February, Ms Park's approval rating slumped after a range of scandals forced several of her anointed cabinet members to withdraw, raising questions about her judgment. A bounce in popularity came within weeks – with the unlikely assistance of Pyongyang.

Ms Park's unflustered response to North Korean talk of war in March and April helped to restore public confidence in her leadership. In August, her government called Pyongyang's bluff. After the temporary breakdown of talks to reopen the joint economic project at Kaesong, South Korea offered to pay out insurance claims to the companies who had invested there. North Korea's subsequent return to negotiations, and the reopening of Kaesong, were widely seen as a vindication of Ms Park's "trustpolitik" doctrine.

Opinion polls suggest strong approval for the president's broader foreign policy performance. A visit to the US in May, when she addressed a joint session of Congress, was seen to have strengthened the country's most important alliance – although South Korean media attention was largely distracted by accusations of sexual harassment in a Washington hotel against her spokesman.

There is "a strong personal relationship between Barack Obama and Park Geun-hye, and a huge amount of respect in Washington for Park," says Bruce Klingner, an analyst at the Heritage Foundation.

That trip was followed by one to China, where she discussed trade links and the North Korean nuclear threat in extended discussions with



Premier alliance: Park Geun-hye, president, after addressing a joint session of the US Congress

Chinese president Xi Jinping. This month brings a tour of France, Belgium and the UK. One country unlikely to form part of Ms Park's itinerary in the near future, despite its proximity, is Japan. Her government has been open in its anger towards the new administration of Shinzo Abe over what Seoul sees as its refusal to recognise wrongs committed during its colonial period.

Such ill feeling prompted Seoul to abandon last year a US-brokered military co-operation deal with Japan. Criticism of Seoul's stern stance towards Tokyo has begun to surface among US analysts, but Ms Park has remained unmoved, complaining recently to visiting US defence secretary Chuck Hagel about Japan's "regressive remarks". Her stance on Japan, like most of Ms Park's foreign policy actions to date, has met with public approval. "But how long [her support] is going to last I don't know," says Ms Kim at the Asan Institute. She warns that the public will be unforgiving of continued domestic policy problems, although economists point to some positive achievements during her first months in office. A Won17.3tn supplementary budget in April – although mostly serving to cover tax revenue shortfalls – gave growth a boost, while tax relief helped to shore up the property market.

Ms Park still faces a stern challenge in unwinding her generous election promises – as well as from political opponents eager to associate her with the authoritarian characteristics of her father.

Economy requires technical upgrade

Continued from Page 1

that provides funding and advice to new companies. "This initiative to foster a creative economy really is recognising that Korea needs to build an ecosystem for start-ups and growth. For entrepreneurs like us, it's all good signals and we're hoping they can follow through."

With world-leading levels of mobile internet speed, smartphone ownership and broadband penetration, South Korea has served as a nurturing environment to successful software ventures such as gaming group NCSoft and mobile chat app KakaoTalk.

KakaoTalk's overseas success reflects a broader regional embrace of South Korean culture. "K-pop" singers are mobbed at airports from Tokyo to Bangkok, while sales of the country's TV soap operas are expanding into markets in the Middle East and Latin America.

The glamour has rubbed off on other sectors: the cosmetics industry has enjoyed strong export growth, while growing numbers of foreign patients have treatment at the plastic surgery clinics that line streets in upmarket areas of Seoul. Conventional tourism is growing, driven by visitors from China: their numbers grew by an annual 71 per cent in the first three months of this year.

Yet, overall productivity in the services sector is weak by developed country standards. It is hoped that recently implemented trade agreements with the EU and the US will help drive competition. The legal services sector is to be gradually opened to foreign players and several of the leading US and UK law firms

Games, films and comics exports enjoy growing acclaim

Culture 'Hallyu' has emerged as a boon to a slowing economy, reports *Song Jung-a*

Seoul has emerged as Asia's new capital of pop culture as South Korea is fast becoming synonymous with "cool". A growing number of young people in the region listen to "K-pop" stars and planes full of Asian fans of Korean films and soap operas visit the country.

Its pop culture, overshadowed by that of its bigger neighbours, such as China and Japan, was unknown to the west for decades. Its films, soap operas and pop music idols have taken Asia by storm in recent years and have also become big in some parts of the west. Psy's Gangnam Style became the YouTube sensation of last year, with more than 1.7bn views.

"Until recently, globalisation meant US culture," says Han Koo-hyun, president of the Korean Wave Research Institute. "But Korean pop culture has emerged as a possible

alternative to Hollywood in Asia."

The phenomenon, known as "Hallyu", or Korean wave, started with popular Korean dramas in the early 2000s. It has recently spread with the emergence of a new hip generation of South Korean musicians, including Psy, Big Bang and Girl's Generation, whose popularity has given South Korea new-found kudos across the region, improving the country's global image.

As an economic phenomenon, Hallyu has emerged as a boon to South Korea's slowing economy, with

cultural exports topping cultural imports for the first time last year. Cultural exports – including films, comics and computer games – hit a record \$4.8bn last year from \$2.6bn in 2009.

South Korea's increasing soft power is helping the growth of other industries, such as tourism, fashion and cosmetics, which are piggybacking on the country's glamorous image.

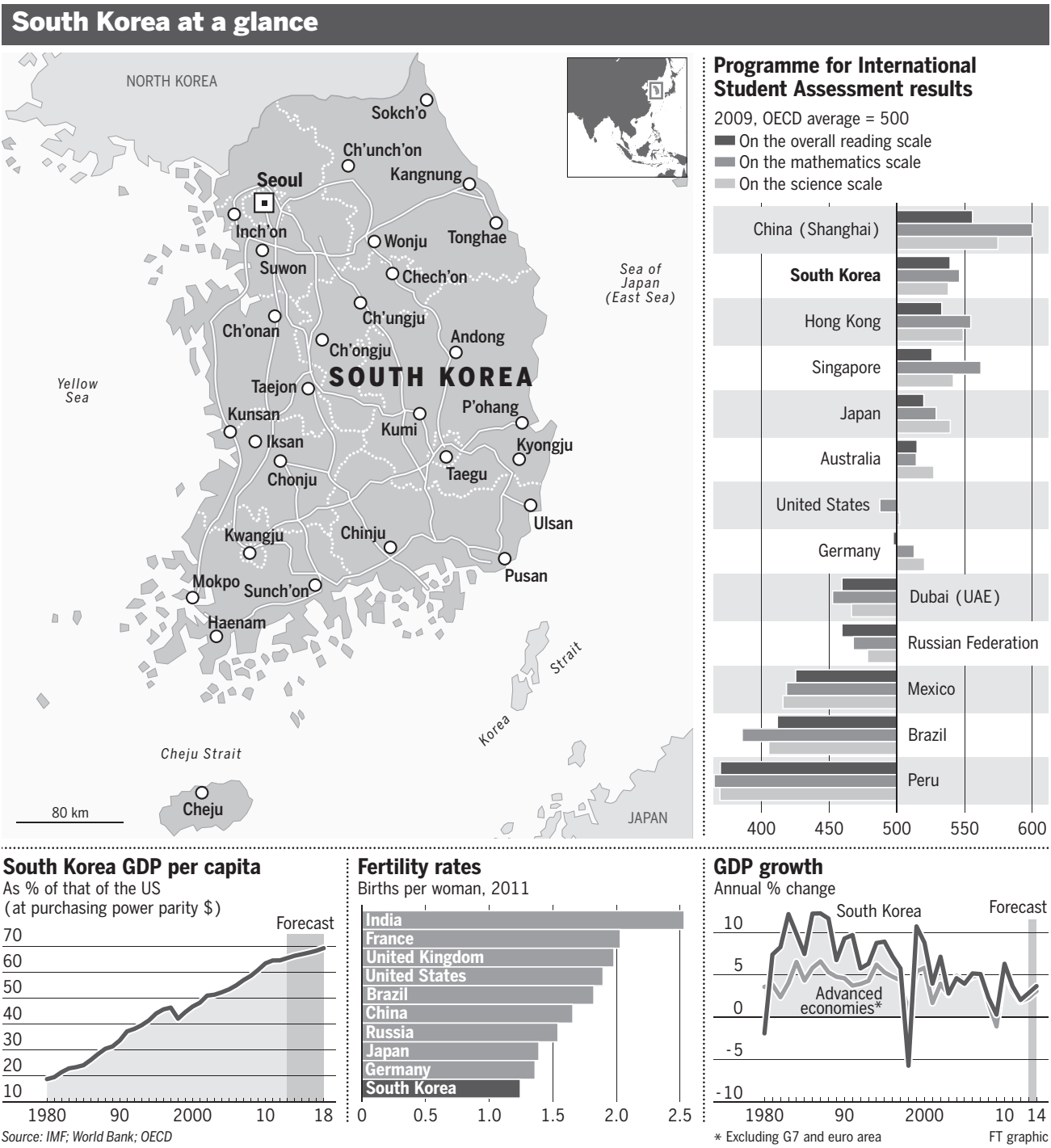
"With cultural promotion one of the key policy goals of the new government, the Korean Wave is seen as a stepping stone to having culture become a bigger contributor to Korea's

economic growth," says Seo Min-soo, researcher at the Samsung Economic Research Institute.

Cultural exports still account for less than 1 per cent of South Korea's total overseas sales, with economic growth driven by big manufacturers, such as Samsung and Hyundai. However, experts believe that cultural exports are giving the country a global cachet, boosting sales of the country's consumer goods abroad.

"The portion of cultural exports is still small but Hallyu can have huge leverage effects when it is linked

'Korea needs to build an ecosystem for start-ups and growth' Jimmy Kim



Mobile messenger app expands reach into Asia

Company profile **KakaoTalk**

Software industry is gaining confidence, writes *Song Jung-a*

In South Korea, nearly all smartphone users are KakaoTalk subscribers. Kakao Corp brought "mobile big bang" to the country by launching the popular messaging service three years ago. Now, it is the main means of communication among smartphone users.

KakaoTalk boasts 110m registered users, with 40 per cent of them believed to be from outside South Korea. They enjoy free instant messaging, photo sharing, mobile games and shopping on its platform.

It was the first mobile messenger to open its platform to mobile games. A video game called Anipang, offered on its KakaoTalk platform, became almost a national competition last year, with about one-fifth of the 50m population playing it on a daily basis.

The growing popularity of its mobile games – the company now offers about 270 on its platform – helped it turn a profit last year. It posted a net gain of \$6.5m in 2012 on revenues of \$42m, collecting about \$29m from mobile games and shopping.

KakaoTalk is the latest success story of the software industry, one of the few areas not dominated by big conglomerates such as Samsung and Hyundai, in the manufacturing-driven economy. South Korea has a vibrant internet software industry, represented by search engine NHN, global online game maker NCSoft, and leading antivirus

software maker AhnLab.

Building on its domestic success, KakaoTalk is expanding abroad as soaring mobile web traffic offers new growth drivers to internet companies and game developers. It is offering mobile messaging services in 230 countries in 13 different languages, across all major mobile operating systems. In addition to free messaging and mobile games, the company has added a range of services, including music, digital content, mobile shopping and business marketing.

"We have secured enough user pool at home. It is time to go global," says Lee Sir-goo, joint chief executive of Kakao. "We are the most advanced in terms of mobile service experiences and knowhow." Kakao began

have set up offices in Seoul. Movement towards a more competitive financial sector has been erratic. Karel De Gucht, European trade commissioner, said last month the EU was "very concerned indeed" about South Korea's implementation of its commitment to allow financial groups to process data offshore. Industry executives and analysts warn that government interference has consistently held back the performance of the financial sector, although some see signs of a friendlier approach under the new government.

The main reason for Ms Park's visit to London this week is to gain a better understanding of the city's global financial centre, according to Cho Won-dong, her chief economic adviser.

A stronger services sector – services employ most South Koreans – would help address concerns about a creeping rise in inequality, with average real wage growth having failed to keep pace with the broader economy. In the long term, a rise in productivity will be vital if the country is to cope with looming demographic problems.

In part because of the high cost of education, the birth rate has fallen to one of the lowest in the world, at just 1.2 children per woman in 2011.

This will radically reshape the population pyramid. If trends continue, the ratio of workers to retired people will fall from 4.5 in 2010 to 1.2 in 2050, the OECD says.

The ageing population gives one reason for long-term caution about South Korea's fiscal situation. Central government debt – low by European or Japanese standards – is ticking up, from 34.8 per cent of GDP last year to a projected 36.5 per cent next year.

Another long-term risk is posed by North Korea. Few analysts anticipate conflict, but any eventual reunification of the peninsula would impose huge expense.

For now, South Korea's relatively robust economic fundamentals – notably a strong current account surplus – are keeping it in favour with investors.

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South Korea

Government urged to step back to let the sector flourish

Banking Interference has been deterring foreign investors, writes *Simon Mundy*

As South Korea hauled itself up the development ladder from the 1960s onward, its economic model laid out a clear role for the country's banks. They served as a tool of the state to channel funding to – and impose discipline on – the fast-growing chaebol exporters, which duly led the country's rapid rise to prosperity. But while this strategy helped build a powerful manufacturing industry, it left a banking sector much less competitive by international standards. "Financial services are relatively under-developed for a nation of South Korea's wealth and stage of development," the consultancy McKinsey said in a report this year. "South Korean banks are sub-scale, largely national in scope, and too focused on traditional commercial and retail services."

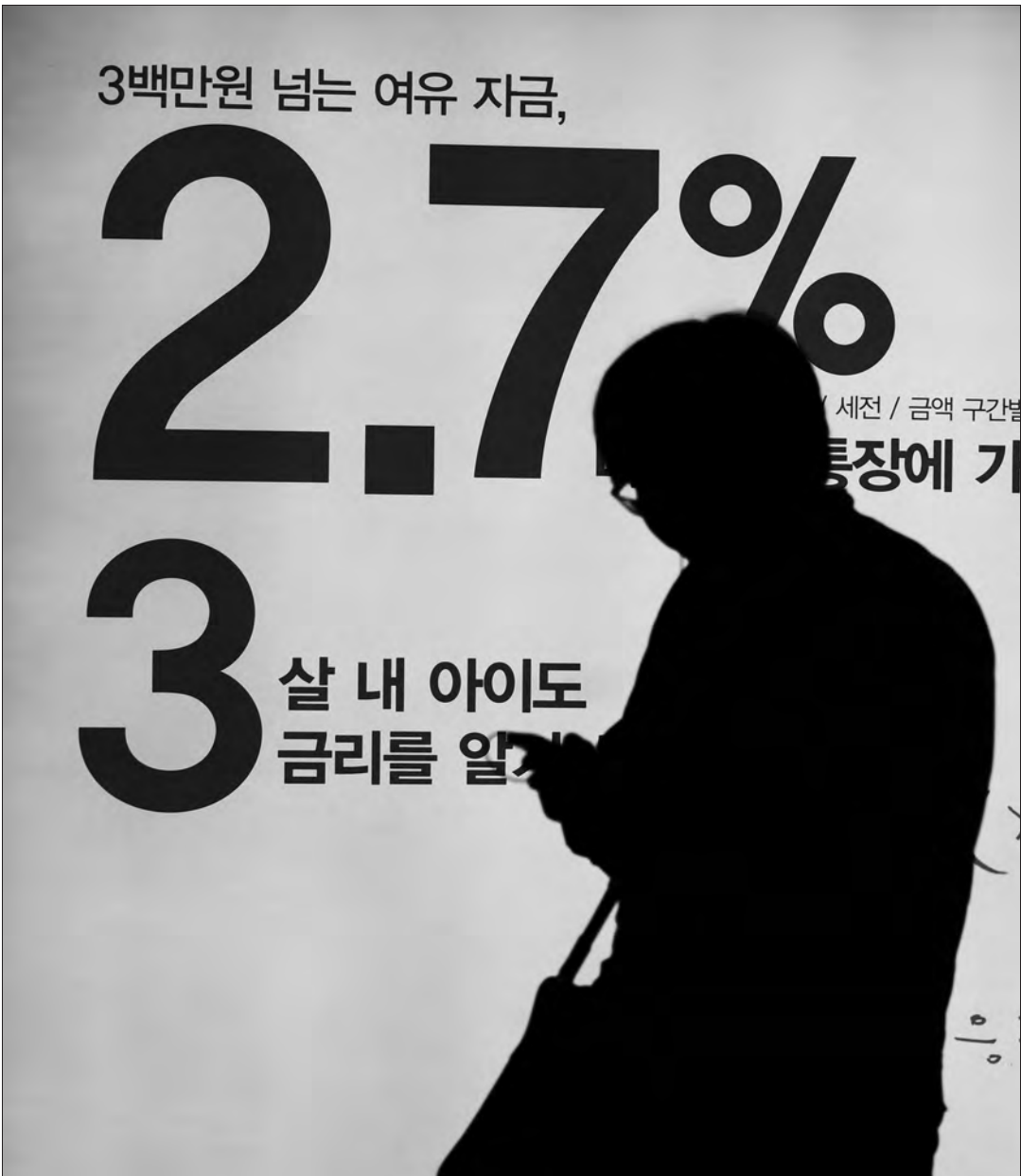
These limitations did not prevent the banks recording decent profits during a period of strong economic growth in the middle of the last decade. But earnings have been starkly lower since the 2008 financial crisis. Return on equity for South Korean banks slumped to 3.1 per cent in the second quarter of this year, compared with 18.4 per cent in 2005. Loan demand has been weak as a result of shaky confidence among both companies and households, while three policy rate cuts by the central bank over the past 12 months helped bring the average net interest margin down to a four-year low of 1.88 per cent. The sector has also been hit by large debt writedowns stemming from a financial crisis at STX, one of

the country's biggest conglomerates. "It's been difficult for the past couple of years," says Park Geun-hoon, deputy head of investor relations at Hana Financial Group. "But we think our margins will recover from the second half of this year."

Michael Na, an analyst at Nomura, agrees, saying loan growth will pick up in the final quarter, thanks to a stronger housing market and quickening growth in the overall economy. There is now "light at the end of the tunnel" for the banks, he says.

Such sentiments – along with a broader diversion of capital to South Korea from emerging Asian markets – have prompted a rally in banks' share prices since the end of August. Yet all the big banks trade well below the book value of their assets. State-controlled Woori Financial Group – now being sold in parts after the government failed to find a buyer – trades at just half its book value, according to Mr Na. "The verdict is out there," says Hwang Young-key, former chief executive of both Woori and KB Financial Group, arguing that the sector discount is partly a reflection of investor unease over government interference in the banks. "The government is so concerned about the safety and the public nature of the banks, that they step in very deeply into the operations of the financial institutions. The market says: 'We don't like that.'"

Other bankers and analysts agree, pointing to steps to restrict dividend payouts and reduce customer fees on cash withdrawals and credit card transactions. "The government has



Number crunching: the sector has been hit by large debt writedowns Reuters

introduced populist measures to grab voter attention," analysts at Fitch, the rating agency, said in a recent report. Foreign financial executives attribute a lack of investment from abroad to government policy. In August, Standard Chartered bank complained of "multiple policy and regulatory interventions", as it announced a \$1bn writedown at its South Korean subsidiary. Last year, Lone Star, a US private equity fund that bought Korea Exchange Bank in 2003, alleged "unlawful" government interference in its attempts to sell the bank.

Yet sentiment towards lighter touch financial regulation could be weakened as authorities come under fire for failing to prevent a crisis at Tongyang Group, a financial services-focused conglomerate that has been unable to find cash to repay maturing debts of more than \$1bn.

Some of the most controversial regulatory steps may be helping to shore up the banks' credit ratings: Moody's in June praised supplementary reserve requirements and restrictions

on dividends for "improving the loss-absorption capacity of the banks". Lee Byung-rhae, director-general of the financial services bureau at the Financial Services Commission, rejects claims of excessive intervention, and complaints that regulators view bank profits as a "social cost". "The FSC has no intention of restricting bank profits," he says, citing a "principle of no intervention in market prices such as interest rates and financial service fees".

Regulators are devising measures to encourage banks to grow abroad, where their operations – largely focused on catering to ethnic Korean communities in China and the US – account for just 4 per cent of total assets. But critics say a higher priority should be allowing the banks to make decent returns at home.

"There is a political sentiment against greedy banks," says Lee Jang-yung, president of the Korea Banking Institute and a former regulator. "But in Korea we don't need that kind of sentiment, when the net interest margin is less than 2 per cent."

A prescription for joining the premier league

Guest column
JUN KWANG-WOO

Some things seem to defy basic instinct and common sense. Perhaps one of them is the fact that an aircraft takes off better with headwinds, rather than tailwinds. South Korea needs to keep this idea in mind at this juncture. The country is at a crossroads. On the surface, it has plenty to boast about. Having achieved a most successful early recovery from the 2008 global financial crisis, the South Korean economy has once again proved to be resilient in the face of the recent QE tapering and US debt ceiling debacles. A case in point is the record pace of capital inflows to local markets during the past few months, which has differentiated the country from other big emerging economies suffering from fiscal imbalances and current account deficits. But unless decisive and pre-emptive action is taken soon, the country's prospects are bound to be clouded. Although we may see slightly better figures next year from the very low base today, gross domestic product growth is too weak to catapult the world's 13th largest economy to the next level and close the per capita GDP gap with advanced countries.

of dealing with an ageing population within the constraint of preserving fiscal soundness. Preparation requires other expensive programmes to improve health, long-term care services and quality of life, as well as expansion of employment opportunities for retirees. Rising pressures for larger welfare expenditure for the more vulnerable also puts fiscal austerity to the test. In the midst of repeated financial crises, increasing income polarisation has emerged as a critical social issue in many countries. South Korea is no exception. Devising an expanded welfare program in the increasingly divisive socio-political environment is a daunting task, even more so when growth stalls. More immediate economic challenges rest with mounting household debt, coupled with depressed housing and construction sectors, and impending restructuring and even legal problems at some conglomerates. Some leading industries, from steel to shipbuilding, suffer from overcapacity, which undermines export performance and profitability. Service sector weakness remains a significant impediment to growth and job creation, and the financial sector is in a dire situation with squeezed profit margins. Strengthening service industries is also important so as to improve an industrial structure skewed heavily towards manufacturing.

The key to reignite South Korea's growth is reform and deregulation

As the world economy sets out on an uncertain recovery path, headwinds continue to blow. The delayed implementation of the US Federal Reserve's exit strategy and the eleventh hour compromise to avert US default are welcome. But they can only offer temporary relief, and may risk recurring bubbles and turbulence down the road. Likewise, European debt issues remain a dormant volcano. Softening trends in the Chinese economy and the uncertain impact of Abenomics add to downside risks to an open economy, especially in Asia. Moreover, such adverse external conditions can be further exacerbated by internal problems. There is no shortage of homemade challenges and the list is getting longer. A rapidly ageing population, rising demand for welfare expenditures, and rigidity in the labour market are some of the structural obstacles South Korea faces. Moreover, mounting household debt and impending corporate restructuring pose more immediate threats to the stability of the economy. The most profound long-term challenge for South Korea must be its ageing and shrinking population. The country is projected to become the world's most aged society by the middle of this century. The situation is compounded by one of the world's lowest fertility rates. Declining productive labour forces can seriously damage growth potential and competitiveness. Nevertheless, the current debate on the introduction of a basic pension scheme underscores the difficulties

Policy making is about setting the right priorities, and the best remedy for complex problems often lies in a simple approach. We must start promoting investment, employment, consumption, and growth by utilising market forces and private sector initiatives. In sum, the key to reignite South Korea's growth engine is "R&D". This is not just the usual abbreviation for research and development, but rather "reform and deregulation". The aim is to boost growth by reducing barriers to private investment and embracing greater openness and dynamism. South Korea has shown its remarkable capability to turn adversity to opportunity, especially in times of crisis. With luck, the challenges will give the country enough sense of crisis to take bold action to revitalise the economy and create another miracle to move up to the premier league of the world economy.

The writer is a professor at Yonsei University and former chairman of South Korea's National Pension Service and the Financial Services Commission

Rapprochement with Pyongyang remains elusive

North Korea
Kim Jong Un seems to combine sabre-rattling with talk of social reform, says *Simon Mundy*

This spring, global media were transfixed by an apparent crisis on the peninsula, as Pyongyang responded to a US-South Korean military exercise with fierce warnings of imminent nuclear war. Despite the heated rhetoric, not a shot was fired in anger, and North Korea has since made efforts to open the way for a resumption of talks with the US. But with Pyongyang apparently still pursuing its nuclear weapons programme, a solution to one of the world's longest-running diplomatic stand-offs seems as far off as ever. A deal last February, in which the US offered aid in exchange for a suspension of nuclear weapon and mis-

sile tests, broke down when North Korea launched a long-range rocket two months later. Since then, Washington has shown little appetite for a return to dialogue, giving South Korea an opportunity to take the lead. President Park Geun-hye ran for office promising to build trust with Pyongyang, after a deterioration in relations under her predecessor Lee Myung-bak. This policy was soon put to the test. A week before her election last December, North Korea launched a satellite, defying sanctions against its use of ballistic missile technology. A third nuclear device test came in February, two weeks before she took office; soon after that, came several weeks of beligerent rhetoric. But Ms Park has stuck to her "trustpolitik" plan, and has results to show for it. In June, representatives of Seoul and Pyongyang held talks for the first time in two years. Negotiations continued over the summer, yielding an agreement in September to reopen the

Kaesong Industrial Complex, the only inter-Korean economic co-operation project. Launched in 2004, 15km north of the border, the KIC housed 123 South Korean companies and 53,000 North Korean workers until Pyongyang shut it in April. Nearly all have resumed operations, although the workforce has yet to return to full strength. Yet, developments since then show trust remains elusive. Complaining of "reckless and vicious" provocations, North Korea cancelled a reunion meeting for elderly relations separated by the border in September, just days before the planned event – a step branded "inhumane" by Seoul. Last month, a US-South Korean exercise triggered martial rhetoric, as Pyongyang warned it could lead to "horrible disaster". Meanwhile, international pressure over North Korean human rights abuses has been growing. This year, the UN Human Rights Council ordered a probe into claims of crimes –



Speculation: Kim Jong Un

including summary execution, torture and forced abortion – dismissed as "slander" by Pyongyang. The investigating team has found evidence of "unspeakable atrocities", its leader said in September. Amid this turbulent run of events, foreign governments have been struggling to assess the policy priorities and dynamics of one of the world's most closed political systems, nearly two years after Kim Jong Un became leader. Swiss-educated and only

30, according to his family's former sushi chef, Mr Kim has adopted a gregarious style that contrasts with that of his dour, taciturn father Kim Jong Il. In his first public address last year, Mr Kim spurred speculation about reforms, saying North Koreans should not have to "tighten their belts again [but should] enjoy the wealth and prosperity of socialism as much as they like". The North Korean government's control of the economy has in any case been weakened by the black market that sprung up to fill the gap left by a failed state distribution system. Still, reports – treated with caution by many analysts – have suggested measures to reduce the size of agricultural work teams and allow farmers to keep surpluses. Expectations of changes in policy were boosted by the April appointment as premier of Pak Pong Ju, who oversaw economic reforms in 2002. But economic development is only one of two priorities announced in March,

the other being nuclear weapons development. A study of satellite images by analysts at Johns Hopkins University in September suggests activity has resumed at the Yongbyon reactor, capable of producing plutonium for nuclear weapons, mothballed under a 2007 agreement. In the past two months, North Korean representatives held three rounds of meetings with former US officials, in which they discussed the possibility of renewed talks. Yet, the path back to negotiations is far from clear, warns Joel Wit, a former US state department official, who took part. Washington insists North Korea take steps to honour previous commitments before talks resume, he says. Pyongyang insists there must be no preconditions. "I don't think either side will make compromises at this point," says Mr Wit. "This problem will only get worse, without American attention. It will lead to passive acceptance of North Korea as a nuclear power."

System must change to satisfy country's and pupils' needs

Education
Rote learning and cramming are no longer enough in a competitive world, reports *Song Jung-a*

South Korea's school system has been declared a model by many foreign politicians, including US President Barack Obama, as the country ranks near the top of most global education rankings. But at home, there are rising concerns that a school system focused on endless hours of rote learning has serious flaws, as the

intense competition to get into top universities puts children under too much stress and creates financial pressures for families to take on additional expensive private tuition fees. Three-quarters of children have private lessons after school and the same proportion go on to university. The expense contributes to a heavy household debt burden and to one of the world's lowest birth rates. Meanwhile, the deluge of graduates and subsequent skills surplus and labour underutilisation take a toll on the economy. "The obsession with education has spun out of control, creating a monstrous system, in which private tuition is replacing state

schools," says Ahn Sang-jin, deputy director at the civic group A World Free From Private Education Worries. "Both students and parents have become victims of this abnormal system." Devoid of natural resources, South Korea's recourse has been its human capital. An almost cult-like devotion to learning has been among the driving forces behind rapid economic development over the past half century, creating one of the world's most highly educated workforces. The proportion of high school students attending university is the highest among members of the OECD. Education is held in high regard and directly

linked to job prospects and marriage. South Korean students spend more time studying than those in any other developed country, with nearly 80 per cent routinely attending cram school, known as *hagwon*, often until midnight. South Koreans are the world's second biggest per capita spenders on education, at 8 per cent of GDP. They spent Won20tn on after-school education in 2011, with the average family spending 10 per cent of income on private tutoring. As a result, South Koreans perform exceptionally well in international performance rankings for various subjects, including mathematics and science.

They also represent one of the largest groups of international students at US universities. But there is growing dissatisfaction. Many parents are despairing of the rat race. "We don't want to send our kids to expensive *hagwon* but fear that they will fall behind, if not," says Park Bumi, who runs an association of parents calling for reform. "This is not real education, just an arduous process to get them through the university entrance exam." Although students compete fiercely to gain a place at a top university, about 25 per cent of tertiary graduates under 30 in 2009 were jobless, double the OECD average. Experts say South

Korea should strengthen vocational education to lower high youth unemployment, estimating more than 40 per cent of college graduates are overeducated. "We need a shift of perception towards higher education, because a university degree no longer guarantees social success," says Park Chun-soo, researcher at Korea Research Institute

for Vocational Education and Training. "Education for the sake of education is meaningless, if it is not linked to employment." The OECD says the system needs reform to meet the challenges the country faces. Randall Jones, Korea desk head at the OECD, said in a recent report: "Sustaining Korea's growth potential in the face of demographic headwinds requires further improving the education system to boost productivity growth." Productivity is 50 per cent of that of the US, with the contribution of labour input to GDP growth negative since 2009, partly because of late entry of young people to the labour market and the

outdated nature of the education system. South Koreans believe that higher education will be the key to creating a knowledge-based economy. But experts say the current focus on rote learning, placing almost no value on analysis, creative thinking or practical application, bodes ill for the future. "The talents that Korea Inc needs have become different. In the past, it was enough if you could do well what your bosses told you to, but now we need creative and more innovative people who can develop and apply knowledge, in order to become globally competitive," says Ryu Ji-sung, researcher at Samsung Economic Research Institute.

'In the past, it was enough if you could do well what your bosses told you to'
Ryu Ji-sung

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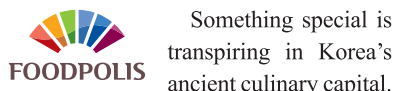
With ages long vision and passion for food

Korea’s FOODPOLIS to Create a Healthy Future for Asia and the World

New international food cluster offers strategic gateway to Northeast Asian markets



A bird’s eye view of FOODPOLIS, due for completion in 2015



Something special is transpiring in Korea’s ancient culinary capital. On the country’s southwest coast, within easy reach of China and Japan, Korea is developing a huge complex that will provide multinational food companies and research institutes unparalleled access to the region’s tremendous economic growth story.

Korea’s vision and passion for food

Food markets in Northeast Asia, comprising Korea, China and Japan, have remarkable growth potential. All three are among the world’s top 15 economies, and all are export-oriented with eased trade and investment barriers. The purchasing power of some 1.5 billion consumers in the region provides the optimum conditions for growth for food companies.

When complete, the cluster, which has been named FOODPOLIS, will possess a number of clear advantages to investors, and be an ideal destination for food firms seeking to make inroads into these countries and the greater Asia Pacific region.

For starters, some 60 cities with a population of 1 million or more are located within a two-hour flight. The complex itself, located in Iksan City, North Jeolla Province, is very close to Korea’s major airports and seaports, and the country’s highways and high-speed KTX trains are convenient to use.

Tariff rates have been lowered significantly following Korea’s implementation of free trade agreements

with 47 different countries, including two major accords with the European Union and the United States.

FOODPOLIS is also being established with a comprehensive support network that will include three state-funded research centers, including the Food Functionality Evaluation Center, Food Quality and Safety Center and Food Packaging Center. R&D will also be closely aligned with food institutes nationwide.

In addition, firms locating in the cluster are eligible to receive a variety of incentives and benefits, including lowered tax rates and property rental fees, cheap utility charges and even state subsidies. The government plans exemptions on corporate income tax for the first three years, and a 50 percent reduction in the following two. Companies can also avoid property taxes for 15 years and, in some cases, receive rent exemptions from 50 to 100 percent for 50 years, with the potential to extend for an additional 50.

When construction is complete in 2015, FOODPOLIS will be, by any standard, the best place for agro-food, food processing and packaging companies to set up their base and aim for markets anywhere in the dynamic Asia Pacific region.

“The basic concept of this cluster is to create an optimum business and research environment for global food companies. It’s a mini city tailored for the food industry,” said Lee Dong-phil, minister of agriculture, food and rural affairs. “It will be a combination of information technology, culture and food science. The entire system will be friendly to all investors regardless of their nationalities.”

FOODPOLIS is being designed to foster the food industry into the next growth engine for not only South Korea, but also other Asian countries.

Clusters of a similar kind exist at Food Valley in the Netherlands and Napa Valley in the U.S. but FOODPOLIS is the first among its kind in Asia and perhaps the world in its emphasis on providing a healthy future for Asia and the world. The cluster is expected to create thousands of jobs and a huge amount of added value for the regional economy. For example, Food Valley hosts the operations of 70 global food firms and 20 research centers, producing an annual output of \$64 billion.

The South Korean advantage

Korea is at the center of Northeast Asia, one of the fastest-growing regions in the world. It takes only a few hours to reach major cities in China and Japan. The country’s skilled and highly-educated workforce, advanced information technology infrastructure, and high economic growth potential are only some of the advantages.

In fact, Korea has been a test bed for many global firms before they target other Asian markets. Foreign firms can use FOODPOLIS as an export base targeting China as a growing number of wealthy consumers there demand higher-quality food items. The cluster will meet the needs of global firms preparing to tap Asia’s rapidly growing food markets.

For its part, Korea aims to increase exports of agricultural, marine, and processed food products to \$30 billion by 2020 to become one of the top- 10

food exporters in the world. To achieve this goal, it plans to nurture globally-competitive food companies, diversify export markets and enhance global awareness of Korean food.

Korea has recently moved to capitalize on the growing worldwide popularity of Korean pop culture by launching ambitious projects to promote its traditional cuisine, called “hansik.” The government runs education programs for chefs in major foreign markets like the U.K., U.S., and China, to help restaurants provide higher-quality Korean dishes and more professional customer service. These efforts will help raise the global profile of the country’s food industry and make Korea’s agriculture sector more competitive.

The FOODPOLIS vision

FOODPOLIS will be a unique place for the leading food companies, labs and food industry professionals who are powering growth in the global food industry. According to government forecasts, companies in the cluster will create some 23,000 jobs.

It will increase the value of the food industry overall by creating a more advanced industrial structure. Supported by R&D centers, for example, firms will be able to provide consumers in the region with top-quality foods. This will create a virtuous circle of economic activity that not only drives growth and profits for corporations, but also supplies increasing household incomes and promotes the local economy.

In North Jeolla Province, many vocational high schools and universities provide courses on agriculture, livestock, fisheries and processed food products, meaning that FOODPOLIS investors can secure talented workers and researchers from a pool of highly-educated students.

And foreign firms have already expressed high expectations for the project. More than 80 firms and research institutes have already signed MOUs or expressions of interest to invest, and FOODPOLIS is aggressively marketing itself. NIZO Food Research from the Netherlands said in a message to the Korean government that it is excited for the future of FOODPOLIS:

“The incredible progress made by Korea in other technical fields is well known and we expect that this initiative will be backed by the same dedication and energy.”

When Harry Potter Meets FOODPOLIS

Lee Dong-phil

Minister of Agriculture, Food, and Rural Affairs, Republic of Korea



The Opening Ceremony for the London Olympics touched the hearts of many around the globe, showing us the rich traditions of Britain’s powerful popular culture. In one singular hour, the world was treated to an incredible parade of more than a century’s worth of unrivaled cultural creativity.

It was quite a demonstration of Britain’s creative standing in the world, a status that owes as much to the heritage of Shakespeare and the Beatles, as to the British ability to continuously create greatness.

This creativity is not just inspiring. Britain’s culture industry generates sixteen percent of the country’s GDP, while at the same time burnishing the national brand in the minds of people worldwide.

Koreans watched with avid interest. Where does such soft power come from? Governments cannot create Ian Flemings or David Bowies. What governments can do is marshal resources to help the nation capitalize on such innate creativity.

From Seoul, we see efforts like Creative Britain, and we are more than impressed. We look to recreate a similar model, linking multiple industries with concerted efforts in research and development, as we develop and promote a national food cluster, which we’ve dubbed FOODPOLIS.

Today, the Korean brand is known for consumer electronics and cars but we also see tremendous opportunity for our food industry, and not only in the global popularization of our healthy and delicious Hansik. We are also looking closely at the coming challenges of food security and aggressively targeting food industry opportunities in Northeast Asia to find success. We think our efforts will be of considerable interest to international food companies and food research institutes as well.

Our vision is to bring together food producers and food researchers, introducing our traditional wisdom on a healthy diet along with advanced information technology,

nanotechnology, and biotechnology to taste and food functionality to create products and services that can penetrate the massive consumer markets around the region. Scheduled for completion by the end of 2015, FOODPOLIS will host leading food industry players from Korea and around the world and will be a center for the birth of innovative food products and services.

Korea brings several key advantages to the table. Our country is industrialized and cosmopolitan, and has a business friendly environment with ample opportunities to merge Western knowledge with Eastern potential. We also have a highly educated and motivated talent pool upon which investors can draw.

And the location is strategic. FOODPOLIS is situated in Iksan City in beautiful North Jeolla Province, traditionally known here as our agricultural heartland. Infrastructure will be first class, with quick and easy access to major air and sea port facilities. China and Japan are just a two-hour flight away, putting forty-nine cities of more than one million people within easy reach.

All of this, plus generous government support and our FTAs with various nations including the US and European Union, create a very favorable operating environment for investors.

Together with strong passion and strategic thinking, we hope for a bit of Harry Potter’s creative magic to make FOODPOLIS fly. But, in reality we already see exceptionally strong regional demand for food that is safe, healthy, and delicious, and that will only grow as the Asia Pacific food market rises to forty percent of the global market by 2020. This presents a compelling growth story to international food industry players who will find a welcome home in FOODPOLIS.

Netherland’s NIZO Food Research Picks Korea’s FOODPOLIS as Its Asian Base

Earlier this year, South Korea’s National Food Cluster project, also known as FOODPOLIS, received a huge vote of confidence when one of Europe’s most important food research centers, Netherland’s NIZO Food Research, signed a memorandum of understanding to invest.

NIZO Food Research, one of the European Union’s top three research outfits, chose FOODPOLIS as a strategic foothold into the ever-growing Asian food market. The agreement means that FOODPOLIS, which is located in Iksan, South Korea, just hours from massive consumer markets in China and Japan, will become NIZO’s first home in Asia. The cluster will provide NIZO with a range of support services to nurture its development there, paving the way for further inroads into the wider Asian market.

NIZO is the only fully independent food research company and one of the most advanced research centers in Europe. Founded in 1948, it provides research and technical expertise to the Dutch dairy industry and has since branched out to service the entire food sector. It has even recently expanded its activities to include personal care, pharma and other non-food industries.

NIZO Food Research’s strong foundation rests on its centers for advanced research, development, and manufacturing. Additionally, some 200 expert researchers work on food related issues and run a high quality manufacturing system test facility.

NIZO supports the improvement of food functionality, while also enhancing food product research that can help companies meet consumer demand by producing and applying innovative technologies that fuel innovation in the global food industry.

The MOU, signed by NIZO CEO Ad Juriaanse and FOODPOLIS’ Investment Promotion Team Leader, Chang Kee Young, facilitates collaboration in the area of product development and knowledge transfer via NIZO courses and staff exchange. FOODPOLIS will also benefit from NIZO’s core expertise in flavor/texture, intestinal health, food safety and food processing.

Juriaanse sees many opportunities for both parties: “NIZO is internationally oriented and we already work intensively with many food companies in Southeast Asia. We understand their business and can contribute with relevant expertise, such as fermentation or protein technology. At the same time this collaboration can help Korean and other Asian food processors to develop foods for the European market.”

Bernold Kemperink of the Development Agency for East Netherlands (Oost NV), who played an important role in developing the partnership, is already looking ahead: “The relationship between these ambitious agro food clusters/regions will create a strong gateway for new opportunities for both parties in the near future and will help to enhance the competitive position worldwide.”

FOODPOLIS, a Vision to Feed a Healthy Future

When it comes to types of food and food availability, the playing field differs greatly by nation, region and household income level. In nutrition and public health, individual beliefs and behaviors within the context of one’s environment play a key role. In both domains, food is an important determinant of well-being and quality of life.

Important concepts and health beliefs have been converging in recent years between the East and West. One significant example is the several-centuries old Korean concept of “YakShikDongWon”, the notion that food and medicine originate from the same source. It even outlines our physiological and genetic variations into categories, showing how we respond differently to specific foods.

These Eastern concepts of functional foods, for preventive and therapeutic purposes, are grounded in evidence-based empirical data.

The concepts of “Functional Foods” and “Functional Medicine” have been expanding the connection between food and health in recent years, an endeavor accompanied by intense research and marketing activities. In the West, functional foods have been based on scientific data that can be logically explained, with varying degrees of evidence regarding their efficacy. The idea of functional foods has now gained appeal with the general public.

Meanwhile, the newly emerging concepts of “Nutrigenetics” and “Nutrigenomics” emphasize personal health. “Nutrigenetics” focuses on identifying an individual’s genetic susceptibility to disease and the role of genetic variation on the effects of nutrient intake on the genome, while

“Nutrigenomics” aims to uncover how specific foods activate genes that influence one’s susceptibility to certain illnesses such as cancer.

Two very important potential applications of these scientific concepts are personalized disease prevention by functional foods, and investigating how individual genetic makeup impacts the efficacy of functional foods. This means that individual health can be impacted by our dietary choices as well as our genetic makeup.



Another concept of importance is “Epigenetics,” which investigates how one’s dietary practices affect personal health outcomes and those of one’s offspring. It does this through functionally relevant modifications to the gene without involving permanent changes in the genome. As these changes sometimes remain throughout cell division, the effect can also be inherited generationally.

All these new concepts and evidence, and the converging Eastern and Western health beliefs and practices that are associated with foods, open

opportunities to research and develop “future foods” that can enable improved agricultural practices and better public health.

The process of developing “future foods” will need to incorporate advanced knowledge in medical and nutritional sciences, particularly the “omics”: genomics, transcriptomics, proteomics, and metabolomics. Only then can “future foods” lay down the important groundwork for practical application of foodstuffs on sustaining human health and longevity.

The personal health paradigm can also be initialized by the food industry in response to the diverse nutritional genomics.

Global convergence of foods has accelerated rapidly through the exponential increase in the import and export of ingredients, commodities, and prepared and ready-to-eat products. However, the current geographic variations of the food market are expected to remain widespread, as food behaviors of individuals and communities are deeply intertwined with culture and beliefs, which are the essence of one’s perceived comfort and quality of life.

Overcoming these geographic variations or cultural barriers, and addressing genetic predispositions and nutritional genomics, requires localized research and marketing efforts. FOODPOLIS and its affiliated research institutions in Korea will be strategically equipped with entire sets of the most current scientific knowledge and skills, and cutting-edge facilities for venturing

into “future foods” for the entire Asian market. Collectively, it is expected to offer access to the necessary scientific network, R&D centers, biotechnology laboratories, and product development centers.

FOODPOLIS is strategically located at the heart of Asia, at the center of, or in close proximity to, the world’s most densely-populated regions and nations, namely China and India. It is also just hours away from the rapidly emerging economies in Southeast Asia, where the populations in countries like Singapore, the Philippines, Malaysia, Indonesia, Vietnam and Thailand are quickly advancing.

Korea’s FOODPOLIS will also benefit from rapid immigration from the aforementioned countries and regions.

All of this activity thoroughly favors international and localized food research for any food companies that want to expand and capitalize on the tremendous economic activity in East Asia. And the only way for innovative food industries to respond to the next generation of consumer demand is through R&D in evidence-based future foods for personalized medicine.

Won O Song, PhD, MPH

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