1. Introduction

Korea has been, and still is, a key player in the regional integration process in East Asia. First of all, Korean firms are actively participating in regional production networks and dynamic intra-regional trade accounts for a large extent for the country’s strong rate of economic growth. In the wake of the 1997-98 Asian financial crisis in particular, the Korean economy managed to recover swiftly thanks to its exports to rapidly growing China. Secondly, Korea was also among the first economies to promote East Asian regional integration de jure through its active role in the East Asia Vision Group (EAVG) in the late 1990s.\(^2\)

As a traditional promoter of East Asian regionalism and as one of the best-integrated economies in the region, Korea provides an interesting case study. For these two reasons, it is worth having a look at Korea’s current position within the integration process from a de facto as well as from a de jure perspective in order to get a better grasp of the prospects for further economic integration in the region.

The objective of the paper is twofold; the first one is to examine how Korea fits in the regional production networks and how it contributes to the institution-based regional cooperative efforts and the second one is to anticipate possible changes and prospects from these two perspectives. The paper starts with an overview of the current state of play before turning to the analysis of potentially important developments which may be expected to deeply modify the regional environment and thus impact Korea’s approach and contribution to regional economic integration.

2. Korea’s economic integration in East Asia

*Korea is increasingly connected with East Asia, in particular China …*

As is the case with all other East Asian economies (with the notable exception of China), Korea has been trading more and more intensively with the rest of East Asia since the mid-1990s, leading to a sharp decline in the relative importance of its other traditional trading

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1 Director, Ifri Center for Asian Studies (Paris) and assistant professor, Paris-Est University (Marne-la Vallée).
2 Then South Korea’s President Kim Dae-jung initiated the East Asian Vision Group (EAVG) as well as the East Asia Study Group (EASG) whose aim was to implement the recommendations from the former.
partners such as the US and the EU. The combined shares of these two partners dropped from close to 40 per cent in 1990 to about 20 per cent in 2010 (Figure 1). In contrast, the share of Korea’s trade with East Asia rose from 33.5 per cent to 48.2 per cent over the same period of time. Its exports to the rest of the region rose from 33.6 per cent to 52 per cent, while the share of its imports coming from the same partners rose from 33.5 per cent to 44.4 per cent over the past twenty years.

Within the East Asian region, the most dramatic changes are the increase in China’s share as an export destination as well as a source of imports, and the parallel drop in Japan’s share as an export market (but, interestingly, not as an import supplier). China is now well ahead of the US, Japan and the EU among Korea’s top trading partners (Figures 2 and 3).

Trade between China and Korea has been growing at an astoundingly average annual rate of close to 19 per cent over the period 1993 – 2010, leading to deepening economic interdependence and the trend is still ongoing, with two-way trade between China and Korea crossing the US$ 200 billion line in 2011. As a result the share of Korea’s exports going to China more than doubled, rising from about 10 per cent in 2000 to close to 25 per cent in 2010, while the share of its imports from China doubled from 8 to 16.8 per cent. Today China is Korea’s largest export destination (it has been the case since 2003, when China overtook the US) and also its largest import supplier (ahead of Japan, since 2007).

The dynamism in Sino-Korean trade has obviously to do with China’s stellar economic growth and hence with its rising importance as a trade powerhouse and as an expanding market. However, the calculation of Korea’s export bias with respect to China suggests that exports to this country were exceptionally dynamic, at least until recently. Although still high, the indicator has been dropping lately after reaching a peak in 2005. This suggests that Korea’s exports to China are greater than expected but decreasingly so (Figure 4). On the import side, the bias indicator is much lower (although slightly rising) at about 1.40. These results reflect an asymmetry in Sino-Korean trade, with greater than expected Korean exports to China, while its imports are more or less in line with expectations.

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3 The export bias is calculated as the ratio of the share of country’s i exports to country j in country i’s total exports to the share of the world’s exports to country j in total world exports (Hamanaka 2012).
Another way of gauging whether a trade relationship is greater than expected is to resort to a gravity equation. The estimation helps determine what can be seen as the “potential” trade between a given pair of countries. As a next step, comparing the fitted values with the actual values indicates whether there is still an untapped potential or not. The evolution highlighted earlier is confirmed by the results of a gravity equation estimated for Korea’s exports over the period extending until 2007.\(^4\) The estimation suggests that Korea tends to over-export to China, while the reverse is not true. These various elements suggest that the China-Korea trade relation is a major building block of intra-East Asian integration.

Next to the two Northeast Asian partners, ASEAN countries (in particular Indonesia, Singapore and Vietnam) have emerged as important trading partners (Cheong 2011). Today ASEAN is Korea’s second largest trading partner after China and ahead of Japan and the European Union. As in the case of China, the estimation of a gravity equation suggests that Korea’s exports to ASEAN are greater than expected with very little untapped potential.

… *through regional production networks* …

A detailed analysis of the structure of Korean exports to, and imports from, East Asia (in particular China) provides a clearer picture of the way the various economies are inter-linked.

Figures 5 and 6 show the breakdown of Korean exports to China and Korean imports from China by product category, using the Broad Economic Categories (BEC) classification. Following Gaulier et al. (2005) commodities are aggregated by stages of production and a distinction is made between i) *primary goods* [food and beverages, primary mainly for industry (111), primary industrial supplies (21), primary fuels and lubricants (31)], ii) *intermediate goods* [processed industrial supplies (22), processed fuels and lubricants (32), parts and components of capital goods excl. transport equipment (42) and of transport equipment (53)] and iii) *final goods* [capital goods (41), and consumption goods: food and beverages (112 and 122), passenger motor cars (51), consumer goods (61, 62, 63)].

The bulk of Korea’s exports to China are intermediate goods (75 per cent in 2010) and primarily for processing. Part of these intermediate products may be used to produce goods to be sold on the Chinese market, but this share is small. Most intermediate products are processed in China and exported to other countries as final products. While these intermediate

\(^4\) The estimated model makes use of the ARTNet gravity modeling analysis tool developed by the UN Economic and Social Commission for Asia and the Pacific. Pacific (http://www.unescap.org/tid/artnet/artnet_app).
goods were initially industrial supplies (22), over time the share of parts and components (categories 42 and 53) has risen substantially to account for about 35 per cent. At the same time, the share of capital goods (41) has also tended to rise (to account for 25 per cent of total Korean exports to China). In contrast, consumer goods only account for less than 3 per cent of Korea’s exports to China.

Korea’s imports from China also had a large portion of intermediate goods, but the share of final goods (and in particular consumption goods with 12.1 per cent) was larger than what is observed for Korea’s exports to China. As a result, Korea has a deficit in final goods trade with China and a surplus in intermediate goods.

Korea’s exports to ASEAN countries such as Malaysia or Vietnam in particular are also dominated by intermediate products (Cheong 2011) -- parts and components of capital goods (42) as well as processed industrial supplies (22). These exports are mainly semiconductors, TV screens, electronic goods, vehicles, steel, chemicals, refined petroleum products, ships and machinery, while its imports from Southeast Asia are mainly oil and gas, coal, paper, rubber, wood products and garments.

All these observations suggest that Korea, China and a number of ASEAN countries belong to regional production networks. The existence of a strong correlation between Korea’s exports to China and China’s exports to the US provides further evidence that Korea and China are parts of the same production chain.

The tight interconnections between Korea and the rest of East Asia are also illustrated by the active involvement of Korean firms in the region. Since the establishment of diplomatic relations in 1992, Korea’s FDI to China has grown dramatically. Korea invested massively in China in the early-2000s, making it one of the most important sources of FDI in China. However, according to the latest Mofcom statistics, Korea’s FDI in China peaked in 2005 (when it reached US$ 5.17 billion, accounting for over 10 per cent of total foreign inflows) and has been shrinking ever since to drop below 3 per cent of total foreign inflows. Similarly, from Korea’s perspective, while China accounted for close to 40 per cent of total Korea’s ODI outflows in 2003 – 2004, it started declining in the following years and accounted for merely 14 per cent in 2011. In terms of stock Korea lags behind Hong Kong, Taiwan, Japan, Singapore and the United States. These various observations suggest that Korea may be losing ground in the competition with other economies in the region which are closely connected to China, namely Hong Kong and Taiwan.
Again, next to China, Southeast Asian economies constitute non negligible partners for Korean outward direct investors and ASEAN as a whole ranks as the second largest investment destination (after the US). Korean ODI flows to the region have been particularly dynamic over the past few years, making Korea ASEAN’s fourth largest investor. Most of Korea’s investments are in labor intensive and export-oriented industries like footwear, garments, electronic and electrical goods and chemicals.

... with institutional arrangements playing a marginal role

Interestingly Korea’s dynamic trade with a number of its neighbors cannot be accounted for by the existence of preferential arrangements. As explained, Korea’s trade is particularly dynamic with China but the two partners have not engaged in any preferential arrangement.

In contrast, Korea has an FTA with its second largest trading partner, namely ASEAN. However, the Korea-ASEAN FTA has only been in effect since 2007 for goods and 2009 for services and the sharp rise in bilateral trade predates the signing of the agreement and cannot thus be accounted for by the FTA. Similarly Korean ODI in ASEAN was already substantial in relative terms in the early 1990s well before the FTA came into force.

The logic underlying Korea’s FTA strategy is pragmatic. The country has chosen to negotiate FTAs with its major trading partners, be they neighbors or not, however, in order to learn how to conduct a negotiation the first initiatives taken by Korea involved relatively minor partners such as Chile and EFTA. Today, Korea has FTAs in force with the EU, the US, Chile, EFTA, Peru, Singapore, ASEAN, and India. It has also been trying to reach an agreement with Japan for a number of years. Korea may thus be seen as a champion of bilateral agreements rather than a champion of regional trade agreements.

In East Asia as a whole, there has been so far a proliferation of FTAs but no major attempt at creating a formal region-wide trade block. More progress may be observed in the financial area (with the establishment of the Chiang Mai Initiative in 2000 followed by the multilateralization of the mechanism in 2011) while the opening of negotiations for the establishment of an East Asian Free Trade Area for instance is still to take place.

As explained elsewhere (Nicolas 2010), “the absence of de jure regional integration in East Asia so far may be accounted for, to a large extent by the nature of de facto regional integration which is characterized by the importance of trade in parts and components, in
particular in the IT sector. A substantial share of East Asia’s exports is in electronic products for which customs duties and other duties and charges were eliminated as a result of the Information Technology Agreement (ITA). Engaging in an FTA thus does not provide any additional advantages to participating countries.” As a result, major changes in the pattern of intra-regional trade can be expected to provide renewed momentum to de jure trade cooperation.

3. Looking ahead: changing conditions and their implications for Korea

In the wake of the global financial crisis (GFC) a number of developments are likely to impact the economic environment in East Asia and change the conditions for regional economic integration and the way Korea interacts with its regional partners, in particular China. The following section examines three such developments in turn: China’s shift in economic strategy, the full implementation of the economic partnership agreement between China and Taiwan and the new project of a Trans-Pacific Partnership (TPP).

Major factors of change

China’s economic strategy shift

In China, the GFC has led to the conclusion that the development strategy followed so far was deeply flawed and that it was as a result necessary to reduce the economy’s vulnerability to external demand shocks and to move away from too exclusive a strategy of export-orientation by rebalancing growth, especially through the promotion of domestic consumption. Although the awareness of the need to enhance the expansion of domestic consumption is nothing new in China and although it had already inspired the 11th Five-Year Plan (2006-10), the much needed structural reform has become a more explicit objective of the recently issued 12th Five-Year Plan. As a result, the Chinese Government now seeks to deeply reform its economic strategy beyond the mere promotion of domestic consumption. The major objectives of the 12th Five-year Plan (2011 – 2015) are first to rebalance the country’s growth strategy by moving away from exclusive export-orientation towards developing the domestic market, and secondly to move the economy up the value chain in the coming years so as to enhance its technological independence. 

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5 In order to reach the latter objective, China is targeting seven emerging strategic industries: energy conservation and environmental protection, new information technology, biotechnology, high-level equipment manufacturing, alternative energy, alternative materials, and new energy vehicles.
As a result of these strategy shifts in China, the existing form of cooperation and interconnections between China and the rest of East Asia is likely to be deeply modified. As explained by Shim (2011), East Asia’s division of labor in manufacturing is based on differences in technologies and the labor productivity of the various countries. This division of labor will change as China continues to develop technologies and improve productivity, and Korea and Japan try to gain a comparative advantage by developing new technologies and new products.

Full implementation of the ECFA between Taiwan and China

From Korea’s perspective, another recent development with potentially important implications pertains to the coming into force of the Economic Cooperation Framework Agreement (ECFA) signed between Mainland China and Taiwan in June 2010.

The objective of the ECFA is to “normalize” trade across the straits, in particular by putting an end to the numerous restrictions imposed by Taiwan so far on imports from the mainland. As the name indicates the agreement merely provides a framework that outlines the main content of the future FTA, before individual agreements are signed on specific issues. So far, tariffs were lowered for products covered in the Early Harvest Product list (EHP) with effect from 1 January, 2011 and they are scheduled to be fully eliminated on 1 January, 2013. Further follow-up talks are expected in the coming years. For the time being, the liberalization has been rather asymmetrical with higher commitment level on the part of mainland China. This agreement is no doubt of importance to Korea since Taiwan and Korea share a number of similarities in their specialization patterns and in particular in their export structures to China. The two countries are export competitors in China which is their largest export market. Although the agreement is far from being complete, rising competition may be expected from Taiwan, with Taiwanese firms able to export on more favorable terms.

TPP project

Lastly, a recent initiative is likely to bring about further changes in the way the region is economically organized. The Trans-Pacific Partnership (TPP) is a trade agreement currently under negotiation between nine countries in three continents, including Australia, Brunei, Chile, Malaysia, New Zealand, Peru, Singapore, United States and Vietnam. In late 2011 three additional countries--Japan, Canada and Mexico--announced their intention to join as

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6 The agreement builds upon another agreement reached by four Asia-Pacific economies (P4: Singapore, Brunei, New Zealand and Chile).
well. The TPP aims to establish an ambitious high-quality trade agreement encompassing issues which are not often part of a FTA. Such topics include intellectual property rights, government procurement, environmental protection regulations, labor issues as well as small and medium enterprises.

At this stage it remains to be seen whether this project will go ahead and whether it may overpass other competing schemes. From Korea’s perspective the importance of the TPP lies in its being designed to allow further members to join. As a result the TPP could very well become the core of a future grand Asia Pacific trade agreement. It may thus be perceived as a competitor to the Comprehensive Economic Partnership in East Asia (CEPEA) or the East Asian Free Trade Agreement (EAFTA).

**Korea’s renewed contribution to East Asian integration**

So far regional integration in East Asia was primarily of the *de facto* kind rather than *de jure* because the need for trade liberalization was not perceived as very high (given the type of intra-regional trade as recalled above), but this form of integration seems to have reached its limits. China is seeking to develop its own market rather than being exclusively a production base. This poses a challenge for its trading partners which need to adjust their economic strategies accordingly but this may also require a change in the institutional setting with better structured regional trade liberalization. Korea has to face these two challenges.

**Korea’s approach to China revisited**

If China manages to reduce its dependence on manufactured exports and increase its domestic consumption in line with the objectives of the 12th Five-Year Plan, it will provide Korea with an opportunity for more stable growth based on China’s final demand. But this is only possible if Korea proves able to seize this opportunity.

A number of signs already seem to point in the right direction. Although the GFC may not have triggered a major change in the composition of Korean exports to China, the trend which started in the early 2000s was not reversed either. In particular we observe a continuous (although slow) decline in the share of intermediate goods (dropping from more than 80 per cent in 2000 to a little over 70 per cent in 2010) together with a change in the composition of these exports. Of particular note is the rise in the share of parts and components of capital goods for transport equipment (category 53). This development may be the result of an emerging change in strategy in the automotive sector, with assembling activities being encouraged in China. As explained by Shim (2011), Korean automakers have indeed
increased their production capacity in China and their exports of related materials and components.

In contrast Korean firms have also changed their strategies in the ICT sector but following a different logic. They increased their imports of products manufactured in China, especially medium and low-level technology products while manufacturing high value-added products in Korea. These opposite changes in two of the most important sectors of Sino-Korean trade are indicative of different industrial strategies. While Korean ICT producers may be losing ground in the Chinese market, Korean automakers are apparently getting increasingly active in China, in particular in the ICT industry. As stressed by Chung (2011), since Korean investment in China started declining four years ago, there have been only limited signs of recovery. Korea’s investment in China peaked in 2007 before shrinking by almost half in 2009. It increased slightly in 2010 and 2011, but remained much lower than it had been in the past. This evolution is probably mostly driven by a decline in investment in processing activities while investment in activities targeting the domestic market may explain the recent recovery.

In parallel to the drop in the share of exported intermediate goods, the share of capital goods (41) has increased. This may be indicative of Korea’s ability to also cater to Chinese needs as a market rather than exclusively as an exporting engine but it may alternatively merely reflect that China’s major exportable goods have changed from simple and labor-intensive goods to more complicated and capital intensive goods.

For the time being Korea may not be particularly well-positioned to take advantage of the Chinese market, compared to Taiwan. Already Korea’s apparent loss of competitiveness vis-à-vis Taiwan suggests that it is time for a rethink of Korea’s expansion strategy in China. The challenge for Korea is to find ways of taking advantage of the new conditions prevailing in China. As explained by Chung (2011), “South Korea should focus its investments in China’s domestic market and try to shift its processing trade with China to complex (or network) processing trade, which links the markets of South Korea, China, and third countries. It should also move away from simple manufacturing toward complex manufacturing, which offers a combination of manufacturing and services. Moreover, South Korea needs to expand its business areas to include logistics, science and technology, medical science, education, and other services.” All this means that substantial domestic reform is needed if Korean firms are to make the best of the Chinese market.
The slow pace of change should not come as a surprise however, since shifting away from supplying intermediate goods to supplying consumption goods will necessarily be a lengthy and costly process. Moreover as some of the products exported so far cannot be used domestically, a significant industrial restructuring may be needed to ensure a shift from export-led to consumption-led growth in the region. As explained by Ando (2010) the significance of East Asia as a market for final goods may be on the rise but expansion and further activation of intra-regional demand are essential for the production networks in East Asia in the future.

Korea’s regional FTA strategy

In order to enhance the expansion of China, and East Asia as a whole, as a market, reducing tariffs on final goods is no doubt required. Pushing for an East Asia-wide FTA may thus be an appropriate step forward. The past few years have indeed seen a renewed interest in the establishment of an East Asian FTA, involving ASEAN+3 countries and possibly some other partners. In August 2009, ASEAN and its six major trading partners (China, Japan, South Korea, India, Australia, and New Zealand) reasserted their commitment to establishing an East Asia Free Trade Agreement (EAFTA) and Comprehensive Economic Partnership in East Asia (CEPEA) within the next 15 years. For the time being, opening such an ambitious negotiation still seems to be out of the question although the aforementioned developments may help give new momentum to the project.

As a preliminary step, the establishment of a trilateral agreement between China, Japan and Korea or at least a bilateral agreement between Korea and China may contribute to pave the way to a broader East Asian FTA but also facilitate Korea’s penetration of the expanding Chinese market. Korea may thus emerge as an important contributor to, if not the major driver of, further de jure economic integration in East Asia.

In the wake of the GFC, Korea’s attitude toward a Korea-China FTA has indeed changed and it is seriously considering pushing for such an agreement\(^7\) in order to move into the Chinese domestic market further, improve its trade structure and establish a stable framework for economic cooperation. In October 2009, the Ministers of Trade of the two countries signed an agreement to increase bilateral economic cooperation, and Seoul began to consider serious talks with Beijing about negotiating a FTA (Zhang 2010). A major reason for the change in

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\(^7\) The two parties launched a joint study on the feasibility of a bilateral FTA in 2004 and eventually upgraded it to government-industry-academia research in 2007, but the decision to go ahead with negotiations did not materialize until 2010.
Seoul’s position is the need to respond to China’s FTA activism (as exemplified by the full entry into force of the China-ASEAN FTA (as of January 1st, 2010) and of the Economic Cooperation Framework Agreement (ECFA) between China and Taiwan (as of January 1, 2011). As explained earlier, Korea is in direct competition with Taiwan on the Chinese market; with the ECFA likely to improve Taiwan’s competitiveness in the China market possibly at Korea’s expense, the case for a China-Korea FTA is made more compelling than ever.

Next to this bilateral move, a trilateral FTA (involving China, Japan, and South Korea) is also increasingly being envisaged. The three Northeast Asian countries agreed in October 2009 to examine the feasibility of a trilateral FTA, and committed in May 2010 to complete a joint study on this issue by 2012. As a result, a private council (the Korea, China, Japan Economic and Trade Forum) to support a China-Japan-Korea (CJK) FTA and economic cooperation and integration among the three countries has been established in Seoul on June 3, 2011 and the feasibility study was completed by the end of 2011. China has been pushing lately for the opening of formal negotiations in the course of 2012. On May 14, 2012, the three parties concluded the Fifth Trilateral Summit meeting in Beijing by signing the *Trilateral Agreement for the Promotion, Facilitation and Protection of Investment*, and agreed to launch negotiations for a three-way FTA by the end of the year. China’s determination to go ahead with this trilateral FTA has no doubt to do with Japan’s interest in joining the US-sponsored Trans-Pacific Partnership (TPP) which involves a number of countries on both sides of the Pacific, with the exception of China.

A trilateral agreement is widely believed to be instrumental in strengthening trilateral relations, hence contributing to the ongoing process of economic integration in East Asia, such as ASEAN+3 or ASEAN+6. A CJK FTA would be regarded as a milestone in regional integration, fostering prosperity not only for the region but for the world as a whole. According to some estimates, a trilateral deal may be the most promising scenario in terms of gains. However, as it is certainly not the easiest one to negotiate it is also not the most likely option in a near future.

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8 It is worth stressing here that the two initiatives are not perceived by Korea as being mutually exclusive. Far to the contrary going ahead first with a bilateral agreement with China may help Korea gain a stronger bargaining position vis-à-vis Japan in the negotiation of a trilateral agreement.

9 A major advantage of such a trilateral scheme is to help defuse bilateral tensions, in particular between Japan and Korea, as well as ease China’s suspicions vis-à-vis Japan’s and Korea’s attempts at containing its rise (Byun 2011).
It is worth stressing at this stage that an FTA with China was so far not really deemed necessary because the level of tariffs imposed on intermediate goods (categories 22 and 42, the most intensively traded goods) was quite low, at least much lower than on final goods, in particular consumption goods (see Table 1). More importantly still, the decline in these tariffs was the result of a unilateral move on the part of China (as a result of its accession to the WTO) and not of a formal bilateral agreement. Going ahead with tariff liberalization will thus facilitate the further expansion of bilateral trade and the diversification of such trade beyond intermediate goods.

[Insert Figure 8 about here]

As explained above, the top down approach implied by the enactment of a trilateral FTA (and its further possible extension to a larger number of member countries) is not the only option. However, it is the author’s conviction that a further reduction in Chinese tariffs is probably only possible in response to a similar effort on Korea’s part.

4. Concluding remarks

Until recently, Korea has benefited enormously from China’s opening up strategy and this explains to a large extent the deepening of its integration with East Asia. Similarly, Korea has also benefited by moving part of its production capacities to China, also contributing to the tightening of regional production networks. Recent developments call for changes in this so far successful strategy and the challenge for Korea is to adjust its policy accordingly.

Korea is probably illustrative of the possible changes in the way the whole of East Asia will be integrating in the coming years, with a shrinking importance of vertically-integrated production networks and a rising role of institutional arrangements. The emergence of East Asia as a market rather than as a production base requires substantial changes in the specialization and trade patterns of the countries in the region but it also requires institutional adjustments, and in particular a broader liberalization move. Although East Asian economic integration will keep its specificity, the de facto and de jure dimensions are likely to be increasingly mutually reinforcing, with Korea as a key player.
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Korea’s trade bias

Korea’s exports to China, 1990 - 2011

Korea’s imports from China, 1990 - 2011

Source: IMF

Source: UN Comtrade
Korea's ODI by destination, 1990 - 2010

Chinese tariffs effectively applied on imports from Korea

Source: TRAINS database