The Information Technology Agreement (ITA) has been one of the most successful trade agreements ever undertaken, as the World Trade Organization (WTO) underscored in its report, *15 Years of the Information Technology Agreement.* By eliminating tariffs on a wide range of information and communication technology (ICT) products, the ITA has played an indispensable role in expanding global trade in those products, in turn spurring innovation, enhancing productivity, increasing employment, and accelerating global economic growth. But the list of products covered by the ITA has not been expanded since the agreement was chartered in 1996, to the detriment of all nations. With a final deal on ITA expansion close at hand, Korea has an opportunity to embrace the ITA deal on the table to the benefit of both its ICT industries and broader economy.

**INTRODUCTION**

The Information Technology Agreement has been one of the most successful trade agreements ever undertaken, as the World Trade Organization observed in its report, *15 Years of the Information Technology Agreement.* The agreement, initially chartered in 1996 by 29 WTO member countries, eliminated tariffs on trade for hundreds of information and communications technology products. The ITA has played a catalytic role in expanding global two-way trade in ICT products to over $5 trillion annually. Today, 80 countries are signatories to the pact.
Yet whereas the ITA was once transformative, today it risks becoming a dated agreement, with the list of ICT products it covers now close to two decades old. This means that many of the vast array of innovative ICT products developed since 1996 do not currently enjoy the benefit of duty-free trade. Accordingly, negotiators from 54 countries have been laboring for the past several years to conclude an agreement that would expand the scope of products—such as next-generation MCO (multi-component) semiconductors, video recorders, GPS systems, video game consoles, and a vast array of ICT parts and components—that can enjoy duty-free treatment under the ITA.

By the end of 2014, it appeared negotiating nations were on the verge of reaching agreement on a final list of ICT products to be included as part of ITA expansion. Yet a final deal was left on the table in December 2014 because certain negotiating parties, including Korea (and Taiwan), felt there were not quite enough benefits on the table for them to close the deal.3

It has been four months since then and there is still no clear pathway toward completing a final deal. The risk now is the tremendous momentum that had propelled the negotiations forward is dwindling, which could infect other important trade talks currently going on at the WTO. The central question addressed here is: Does the ITA expansion deal left on the table in December include significant benefits to Korea?

**THE ITA HAS SIGNIFICANTLY BENEFITTED KOREA**

For context, it is important to recognize that Korea recorded 10 percent average annual growth in its exports of ICT products from 1996 to 2010. Moreover, the ICT industry accounts for an increasingly significant percentage of the Korean economy, with the ICT sector contributing 11.2 percent of Korean GDP as of 2011, as Figure 1 shows. That represents almost a 2 percentage point increase since 2006. Major factors driving this growth include the ITA’s tariff-eliminating regime significantly boosting demand for global trade in ICT products, as well as decreasing prices for key ICT parts and components entering Korea through global ICT production value chains.

![Figure 1: Contribution of the ICT Industry to Korean GDP](image-url)
Related to but distinct from an industry’s contribution to a nation’s GDP is its contribution to value-added activity in an economy. As Figure 2 shows, among all OECD countries, Korea achieves the second-highest contribution of ICT industry value-add to its economy, at 9.1 percent (exceeded only by Ireland’s 11.9 percent). Notably, Korea’s ICT industry value-add exceeds that of Japan (8.1 percent), the United Kingdom (7.4 percent), the United States (7.1 percent), Sweden (6.8 percent), the OECD average (6.0 percent), and every other European country in the OECD. Put simply, the ICT industry contributes an outsized share of economy-wide value-added in Korea as compared to nearly all of its trading partners—and the ITA has played an important role in achieving this status.

![Figure 2: ICT Industry-Value Add, 2013](image)

Further, ICT products account for a significant share, approximately one-fifth, of Korean goods exports. This is in no small measure because of the explosive growth in global trade in ICT products generated by the ITA. As Figure 3 shows, ICT goods exports account for a higher share of total goods exports in Korea than most other countries—developed and developing alike. For example, Korea’s share of ICT goods exports in total goods exports significantly outstrips the 8.9 percent share in the United States, the 8.6 share in Japan, and the 3.6 percent share in Indonesia.

Moreover, from 2001 to 2012, Korean exports of ICT products more than doubled, with Korea rising from being the OECD’s sixth-largest exporter of ICT goods in 2001 to the third-largest in 2012. According to data provided by the Korean Ministry of Trade, Industry, and Energy (MOTIE), Korean exports of ICT products grew to an all-time high of $173 billion in 2014, a 2.6 percent increase over 2013. Moreover, the sector also generates significant trade surpluses for Korea, including an $88.6 billion surplus in 2013 and $86.4 billion surplus in 2014. As MOTIE has noted, ICT exports often are “a driving force to reach the nation’s [overall] trade surplus.” In fact, the ICT sector has on average provided more than 25 percent of Korea’s annual total exports over the past 10 years. In 2012, four ICT product categories—semiconductors (2), flat panel displays and sensors
(5), wireless communications devices (6), and electronic appliances (10)—ranked among Korea’s top 10 product export categories. Together, those four ICT product categories accounted for $113 billion of Korean exports in 2012.

Furthermore, being deeply and fully integrated into global value chains for the production of ICT products has significantly benefitted Korea. For example, a deconstruction of the location, by country, of value-added in Apple’s iPhone 4 found that Korea (i.e., Korean-headquartered companies) accounted for 42.7 percent of the total value-added in the iPhone 4. In particular, LG and Samsung contributed applications processors, displays, and DRAM memory chips. In total, Korea’s share of value-added to the iPhone 4 was 3.5 times greater than that of the United States and almost 4 times that of Taiwan.

The ITA has also proven instrumental in boosting countries’ innovation potential in the ICT sector itself. As the WTO’s 15 Years of the Information Technology Agreement report notes, “Among developing ITA participants, the rise of China, Korea, and Chinese Taipei as the top traders in the GPNs [global production networks] of ICT products is mirrored by a profound shift of relative innovation efforts into ITA-related industry fields in these economies.” For example, the report notes that Korea’s patenting activity after the 1996 launch of the ITA “concentrated disproportionately” in the three ITA-related fields of computer technology, telecommunications, and semiconductors, surpassing Europe in nominal terms and almost reaching Japanese dimensions in absolute numbers by 2006.

**THE ITA DEAL ON THE TABLE BENEFITS KOREA**

The deal left on the table in Geneva last December is significant. ITA expansion as currently defined would eliminate tariffs on roughly $1 trillion in annual global sales of ICT products. Further, it is estimated that the cost reductions for ICT products achieved by eliminating these tariffs would increase global demand for ICT products by as much as
8 percent. Under the existing deal, more than 200 tariff lines of ICT products would see tariffs reduced to zero. Table 1 provides concrete examples of products that would be impacted by the current deal, paired with the maximum size of tariff reduction they would enjoy:

<table>
<thead>
<tr>
<th>ICT Product</th>
<th>Maximum Tariff Reduction Achieved Globally via ITA Expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television cameras</td>
<td>Tariffs up to 35 percent reduced to zero</td>
</tr>
<tr>
<td>Set-top boxes</td>
<td>Tariffs up to 30 percent reduced to zero</td>
</tr>
<tr>
<td>Next generation semiconductors (MCOs)</td>
<td>Tariffs up to 25 percent reduced to zero</td>
</tr>
<tr>
<td>Semiconductor manufacturing equipment</td>
<td>Tariffs up to 10 percent reduced to zero</td>
</tr>
<tr>
<td>Optical lenses</td>
<td>Tariffs up to 10 percent reduced to zero</td>
</tr>
<tr>
<td>Television parts</td>
<td>Tariffs up to 15 percent reduced to zero</td>
</tr>
<tr>
<td>Global Positioning System (GPS) devices</td>
<td>Tariffs up to 8 percent reduced to zero</td>
</tr>
<tr>
<td>Printed matter/cards to download software and games</td>
<td>Tariffs up to 10 percent reduced to zero</td>
</tr>
<tr>
<td>Static converters and inductors</td>
<td>Tariffs up to 10 percent reduced to zero</td>
</tr>
<tr>
<td>Printer ink cartridges</td>
<td>Tariffs up to 25 percent reduced to zero</td>
</tr>
<tr>
<td>Loudspeakers</td>
<td>Tariffs up to 30 percent reduced to zero</td>
</tr>
<tr>
<td>Software media, such as solid state drives</td>
<td>Tariffs up to 30 percent reduced to zero</td>
</tr>
<tr>
<td>Video game consoles</td>
<td>Tariffs up to 30 percent reduced to zero</td>
</tr>
</tbody>
</table>

Table 1: Sample Tariff Reductions for Select ICT Products Possible as Part of ITA Expansion

Korea and any other remaining holdouts would do well to acknowledge the tremendous benefits the deal currently on the table yields and help wrap up the negotiations. Indeed, of the roughly 200 ICT product lines on the current ITA expansion list, many would significantly benefit Korean exporters of ICT parts, components, and finished products. Companies such as Samsung, LG, and Hynix are Korean powerhouses in the global ICT trade arena. They would stand to reap significant gains from the current deal. As a specific example, Korea is a major exporter of semiconductors, which are covered under the existing ITA. Next-generation MCO semiconductors, however, are the next big growth market for the semiconductor sector, yet they are not currently covered by the ITA. However, these next-generation MCO semiconductors are included as part of the expansion on the table.

What’s more, for dozens of ICT products, the terms of an ITA expansion deal would deliver significantly better and quicker market access than Korea was able to negotiate as part of its recent free trade agreement (FTA) with China, another massive ICT trader in the region. Under the China-Korea FTA, China:
Obtained numerous exclusions—that is, no tariff cuts—on many key Korean ICT and electronics product exports;

Committed to only slight reductions in tariffs for other important ICT products under the bilateral agreement; and

Imposed long tariff phase-out periods for many other ICT products.  

By contrast, China would commit to much more quickly eliminating tariffs on all ICT products covered under an ITA expansion—the majority of which would be eliminated within only three years.

In fact, there are 26 HS-6 level customs lines (HS standing for the Harmonized Commodity Description and Coding System) that China excluded from tariff elimination under the China-Korea FTA, but for which China has committed to completely eliminate the tariffs on as part of a plurilateral ITA expansion deal. For example, for satellite television receivers (under HS code 8528.71), China would eliminate tariffs under ITA expansion but has completely excluded the same product from tariff elimination as part of the China-Korea FTA. Other examples include cleaning apparatus operated by ultrasonic processes (pertinent to machines and apparatus for the manufacture of flat panel displays, under HS code 8486.3041), universal signal generators (under HS code 8543.20), and electronic testing equipment (under HS code 9024.90).

In dozens of other cases, Korean companies will have to wait up to 20 years for tariff elimination in China’s market under the bilateral China-Korea FTA, whereas China would eliminate tariffs on the same products in just three years as part of an ITA expansion deal. For example, Korea boasts several competitive manufacturers of the various parts and components used in semiconductor chip or flat panel display screen production. Whereas ITA expansion would see China more rapidly eliminate tariffs on vacuum pumps used in the production of semiconductors and flat panel displays, the China-Korea FTA would phase out China’s 8 percent tariffs on vacuum pumps over ten years. Television cameras and video camera recorders (under HS code 8525.80) are another good example of this. Under ITA expansion, China has agreed to eliminate tariffs on these products within three years. Under the China-Korea FTA, the same products will ultimately be subject to 10 to 15 percent tariffs and cuts to those levels will take up to 15 additional years to kick in.

Other products for which Korean exporters would see far-quicker elimination of Chinese tariffs by joining the ITA rather than by relying on the China-Korea FTA include magnetic tape and record players (under HS code 8522.90), optical telecommunication and optical fibre performance testing instruments (under HS code 9031.80), optical lenses (under HS code 9001.90), and video compact disc and digital video disc players (under HS code 8521.90). The same holds true for many additional ICT products, parts, and components, including accumulators, non-alkali glass, and free-film adhesives for the manufacture of displays and touch screen panels. These are products Korean industry specializes in producing. They would all see rapid tariff elimination as part of ITA expansion as opposed to being subject to up to 15-year phase-outs in the bilateral FTA.
It should also be observed that several of the products that Korea would like to see included in ITA expansion are not slated for inclusion in the China-Korea FTA. For instance, HS 8528.7292—“digital television”—which includes organic light-emitting diode (OLED) flat screen displays, is excluded from tariff reduction in the FTA, just as it is excluded from the ITA expansion negotiations. Likewise, HS 8528.5910, color monitors, is excluded from both ITA expansion and the China-Korea FTA. And while lithium-ion batteries are included in the FTA, Korea is slated to receive only a 20 percent reduction over a five-year period on China’s 12 percent tariffs on Korean exports of the product. Virtually all parties would like to see these important product lines transition to zero-tariff status. But given that Korea failed to secure a commitment from China to eliminate these tariffs for Korean exporters as part of its bilateral FTA, it is inconceivable Korea could convince China to make concessions on these products in the plurilateral ITA expansion negotiations, where China would have to offer zero tariffs on a most-favored nation (MFN) basis.

Bottom line: for the vast majority of ICT products that Korean industry exports, Korea will benefit far more by paving the way for ITA expansion than it would in the absence of ITA expansion, particularly in the Chinese market.

CONCLUSION

While the ITA expansion package on the table is not a perfect deal, it is a very good deal. Holding out for a better deal carries the very real risk that global ICT exporters will not see any deal at all. Negotiators have worked extremely hard to identify roughly 200 ICT products for inclusion in ITA expansion, a significant achievement. This will result in roughly $50 billion in tariff savings on ICT sales each year globally and add approximately $190 billion to global GDP through increased trade. Korea is a powerhouse in the design, manufacture, and sale of ICT products. It will be a huge winner with the ITA deal currently on the table. As Kwon Hyuk-Jae of the Samsung Economic Research Institute has written, “An expanded ITA will have a positive impact on the Korean economy.” In other words, just as Korea has benefitted tremendously from the initial ITA agreement, so too does it stand poised to benefit from the ITA’s expansion.

As ITIF has written, the ITA has played an indispensable role in expanding global trade in ICT products, in turn spurring innovation, enhancing productivity, increasing employment, and accelerating global economic growth. Accordingly, Korean negotiators should join their peers in working toward a swift conclusion of an ITA expansion deal. In fact, Seoul has a unique leadership opportunity here, wherein it can seize the moment to make the endgame moves necessary to propel the negotiations across the finish line to the betterment of the global economy and to strengthen the WTO as an institution back in the business of opening markets. But the window is closing. If this deal does not get done soon, the air may completely go out of the balloon, and it will never get done. That’s the critical calculus Seoul needs to be contemplating.
ENDNOTES


5. The Organization for Economic Cooperation and Development (OECD) defines “ICT value added” as “the difference between a country’s information and communication technology sector’s gross output and its intermediate consumption.”


8. Ibid.


11. Ibid., 6.

12. World Bank, World Development Indicators, “ICT goods exports (% of total goods exports),” (accessed April 12, 2015), http://data.worldbank.org/indicator/TX.VAL.ICTG.ZS.UN. The World Bank calculated these figures using the following definition of the ICT sector: “The ICT sector combines manufacturing and services industries whose products primarily fulfill or enable the function of information processing and communication by electronic means, including transmission and display.”


14. Ibid., 74.

15. Ibid.


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ABOUT ITIF
The Information Technology and Innovation Foundation (ITIF) is a Washington, D.C.-based think tank at the cutting edge of designing innovation strategies and technology policies to create economic opportunities and improve quality of life in the United States and around the world. Founded in 2006, ITIF is a 501(c) 3 nonprofit, non-partisan organization that documents the beneficial role technology plays in our lives and provides pragmatic ideas for improving technology-driven productivity, boosting competitiveness, and meeting today’s global challenges through innovation.