The Proposed U.S.-South Korea Free Trade Agreement (KORUS FTA): Automobile Rules of Origin

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Summary

The U.S.-South Korea Free Trade Agreement (KORUS FTA) was signed on June 30, 2007. The provisions on the automotive sector were among the most difficult areas negotiated, and were among those in which the Obama Administration and South Korean officials reached further agreement on December 3, 2010.

The agreement's effect on the automotive sector has drawn particular scrutiny as Congress considers implementation of the KORUS FTA. In particular, the specific rules of origin (ROO) for automobiles and auto parts have become a matter of debate. These rules determine whether the products imported into an FTA participating country are eligible to receive the duty-free or reduced tariff benefits of the agreement. For autos and auto parts, a certain percentage of the parts, labor, and other associated costs must come from the region. This is known as a regional value content (RVC) test.

Few vehicles built today are built of parts made in any one country. The roughly 15,000 parts needed to produce a single motor vehicle are typically supplied by a complex web of manufacturers located throughout the world. This makes it challenging to determine whether a particular vehicle or a complex component, such as an engine or a transmission, qualifies for duty-free access to the U.S. or South Korean markets under the KORUS FTA.

Based on analysis of the regional value content required under the KORUS FTA rules of origin, a significant proportion of a vehicle's value would need to originate in South Korea or the United States for that vehicle to enter the United States duty-free. Simply assembling a product from inputs obtained from other countries would likely result in insufficient regional value content for a product to qualify for the tariff benefits of the KORUS FTA. It appears that the requirements under the KORUS FTA are roughly equivalent to those imposed upon South Korean and European Union vehicles under the South Korea-European Union Free Trade Agreement, which takes effect July 1, 2011.

Content produced in North Korea is not presently allowed into the United States, a situation that the KORUS FTA would not change. If at some future time the United States were to ease trade restrictions on North Korea, U.S. and South Korean negotiators would then need to discuss the treatment of North Korean inputs to South Korean products under the agreement. The KORUS FTA contains provisions to promote cooperation between the two countries' customs officials. Nonetheless, ensuring that North Korean parts are not used in South Korean products exported to the United States will remain a challenge, whether or not the KORUS FTA takes effect.

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Introduction

On June 30, 2007, the United States and South Korea signed the U.S.-South Korea Free Trade Agreement (KORUS FTA). If approved by Congress, it would be the second-largest U.S. free-trade agreement in terms of the value of trade affected, next to the North American Free Trade Agreement, NAFTA.[1]

The provisions concerning automobiles and auto parts are among the most controversial elements of the KORUS FTA. On December 3, 2010, the United States and South Korea reached a further agreement that modified the auto sector provisions. Nonetheless, these provisions have continued to generate considerable debate in Congress. One prominent issue in that discussion is the agreement's specific rules of origin (ROO) for automobiles and auto parts. These rules will be used to determine if automotive goods imported from South Korea are eligible to receive duty-free or reduced tariff benefits under the KORUS FTA, and whether automotive goods from the United States are eligible for corresponding benefits upon export to South Korea.

This report begins with a discussion of the complex supply chains that now underlie automotive production. It then explains the procedures established in the KORUS FTA for determining whether an automotive product qualifies as being of South Korean or United States origin and compares those procedures to the rules established in the free trade agreement between South Korea and the European Union. Finally, it discusses whether the domestic content rules in the KORUS FTA could enable circumvention of the rules of origin by allowing automotive components produced in North Korea's Kaesong Industrial Complex (KIC) to enter the United States duty-free in assembled motor vehicles, and thereby receive the benefits provided by the agreement.

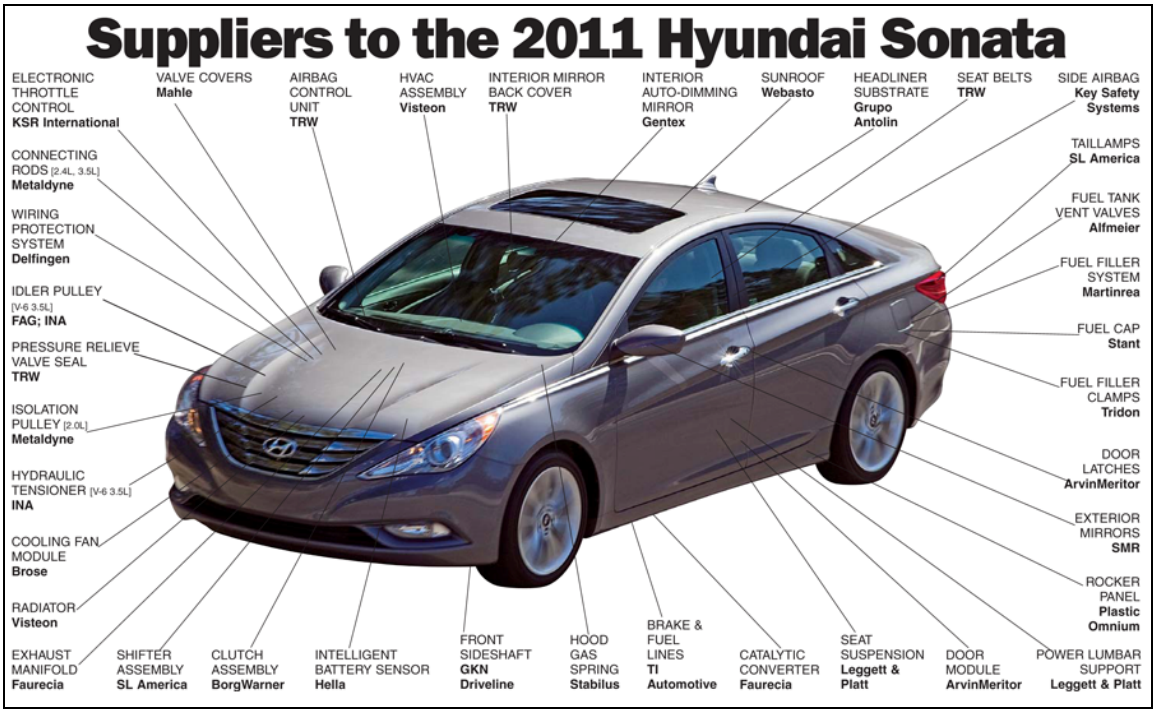
The Automotive Supply Chain

Motor vehicle assemblers, such as Ford, Chrysler, General Motors, Honda, and Hyundai, build vehicles at final assembly plants using parts and subassemblies from an extensive global network of suppliers. Roughly 15,000 components are needed to assemble a motor vehicle.[2] Typically, the assemblers purchase entire systems, such as seats or cooling systems, from Tier 1 suppliers, which are often multinational companies such as Denso, Robert Bosch, Continental AG, and Magna International. The Tier 1 suppliers, in turn, obtain components and subassemblies from Tier 2 suppliers, which tend to be smaller and less well known. Tier 3 auto parts companies generally supply relatively simple products, from bolts to plastic moldings, to the suppliers of more complex products. **Figure 1** provides a graphic example of the diversity of parts in a typical 2011 Hyundai Sonata, which is manufactured at the company's first U.S. assembly plant in Montgomery, AL.

[1] For more specific information on the KORUS FTA in general, see CRS Report RL34330, *The Proposed U.S.-South Korea Free Trade Agreement (KORUS FTA): Provisions and Implications*, coordinated by William H. Cooper.

[2] Thomas Klier and James Rubenstein, *The Parts of Your Vehicle*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2008, p. 1, http://research.upjohn.org/cgi/viewcontent.cgi?article=1009&context=up_bookchapters&sei-edir=1#search=%22Motor+Vehicle+Parts+Suppliers:+Moving+America+Part+by+Part%22.

Figure 1. Many Suppliers for Every Vehicle



Source: Supplier Business and Automotive News Data Center, December 14, 2010

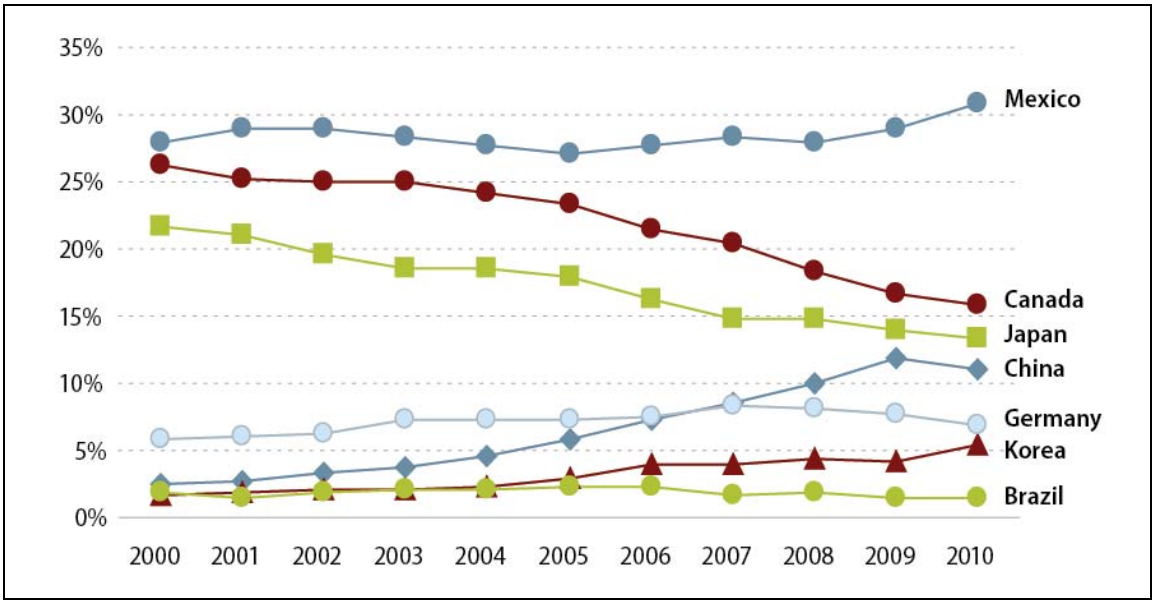
Today, few, if any, vehicles are built entirely from parts made in any one country. More than one-quarter of the parts in vehicles assembled in the United States are imported from other countries.[3] Due to the high level of global competition in the automobile market, automakers source parts as inexpensively and efficiently as possible. Rules of origin matter to automobile assemblers because they determine what tariffs, or tariff concessions, apply to imported inputs, and therefore can be decisive in shaping trade patterns.

The leading suppliers of parts to the United States are Mexico and Canada, whose producers have free access to the U.S. market under NAFTA. In recent years, as shown in **Figure 2**, a greater share of imported parts has come from China. Parts imports from South Korea account for only 5% of U.S. auto parts imports by value. The South Korean share has grown due to the establishment of South Korean-owned assembly plants in the United States, as these plants make extensive use of South Korean components.

[3] Thomas Klier and James Rubenstein, *Imports of Intermediate Parts in the Auto Industry*, in "Measurement Issues Arising from the Growth of Globalization," Washington, D.C.: National Academy of Public Administration, 2010, p. 219. http://www.upjohninst.org/measurement/klier-rubenstein-final.pdf.

Figure 2. U.S. Motor Vehicle Parts Imports by Major Source Countries

Percentage by dollar value



Source: U.S. Department of Commerce, Office of Transportation and Machinery.

Automobiles and Domestic Content

The fact that a car is assembled by a U.S. automaker does not mean that the majority of its components are made in the United States. Even the percentage of U.S. content in vehicles manufactured by the Detroit Three varies widely from model to model.

Congress mandated under the American Automobile Labeling Act (AALA) that the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) annually document and list the percentage by value of a vehicle's parts that originate in the United States and Canada. NHTSA also names any countries that individually supply 15% or more of the content of a vehicle model sold in the United States.[4] Since the AALA counts U.S. and Canadian parts together, it is not possible to know the percentage of U.S. content alone. Examples of U.S./Canadian and foreign parts content in selected models appear in **Table 1**.

U.S. motor vehicle assembly has become increasingly international, and domestic carmakers rely more on imported parts than in the past. By one estimate for cars that were assembled in the United States, the percentage of auto parts that were imported increased from 20% in 1997 to 29% in 2005.[5] At the same time, foreign carmakers are using more parts produced in the United

[4] The American Automobile Labeling Act was originally part of the Department of Transportation and Related Agencies Appropriation Act for Fiscal Year 1992, P.L. 102-388, October 6, 1992. Subsequently, the AALA was incorporated into Title II of the Motor Vehicle Information and Cost Savings Act, P.L. 103-272, July 5, 1994. AALA requires automakers to provide information on six separate items on every new passenger vehicle, including the percentage of U.S./Canadian equipment (parts) content; the final assembly point; the country of origin of the transmission and engine; and, the names of any countries other than the United States and Canada, which individually contribute 15% or more of the equipment content.

[5] Thomas Klier and James Rubenstein, *Who Really Made Your Car?* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2008, p. 303.

States, and many foreign auto parts companies have established production in North America to be closer to their U.S. and Canadian customers.

As shown in **Table 1**, the domestic content of some cars sold in the United States is less than 5%, while the domestic content of others is 80% or more. For example, 60% of the parts in the Ford F-Series pickup truck, assembled in Kansas City, MO, and Dearborn, MI, are from the United States or Canada. U.S. and Canadian content in South Korean carlines range from 2% in the Hyundai Accent to 41% in the Hyundai Sonata.[6]

Table 1. Domestic Content in Selected Vehicles

Parts Content in Selected Vehicles Sold in the United States, 2011

Manufacturer	Make	Carline	Percent Content U.S. and Canada	Final Assembly Country	Source of Engine	Source of Transmission
Ford	Ford	Explorer	85%	U.S.	Germany/U.S.	U.S./France.
Chrysler	Chrysler	Chrysler Town & Country	80%	Canada	U.S./Mexico	U.S.
Toyota	Toyota	Camry	80%	U.S./Japan	U.S./Japan	U.S/Japan
Ford	Ford	Crown Victoria	75%	Canada	U.S.	U.S.
Ford	Mercury	Mariner	70%	U.S.	U.S./Mexico	U.S./Japan
American Honda	Honda	Pilot	70%	U.S.	U.S.	U.S.
Chrysler	Dodge	Dodge Ram Pickup	70%	U.S./Mexico	U.S. / Mexico	U.S.
Ford	Ford	Mustang	65%	U.S.	U.S.	China, Mexico, France
General Motors	Chevrolet	Suburban	65%	U.S./Mexico	U.S./Mexico	U.S./Mexico
Ford	Ford	Flex	65%	Mexico	U.S.	U.S.
Mercedes Benz	Mercedes	ML-Class	62%	U.S.	Germany	Germany
Ford	Ford	F-Series	60%	U.S.	U.S.	U.S.
Nissan North America	Nissan	Maxima	55%	U.S.	Japan	Japan
Hyundai	Hyundai	Sonata	41%	U.S.	Korea	Korea
General Motors	Chevrolet	Volt	40%	U.S.	Austria	Japan
Ford	Ford	Fusion	20%	U.S./Mexico	U.S./Mexico	Japan
Ford	Ford	Fiesta	10%	Mexico	Brazil	Mexico/Brazil
Porsche	Porsche	911 Carrera	4%	Germany	Germany	Germany

[6] AALA data on the percentage of U.S./Canada equipment content are calculated on a "carline" basis, rather than for each individual vehicle. Carline refers to a name of a group of vehicles which has a degree of commonality in construction, e.g., body and chassis. A carline includes all motor vehicles of a given nameplate.

Manufacturer	Make	Carline	Percent Content U.S. and Canada	Final Assembly Country	Source of Engine	Source of Transmission
Hyundai	Hyundai	Accent	2%	Korea	Korea	Korea
General Motors	GMDAT	Aveo, Aveo 5	2%	Korea	Korea	Korea
Volkswagen/Audi	Audi	A3	1%	Germany	Hungary	Germany

Source: Department of Transportation, National Highway Traffic Safety Administration (NHTSA).

Notes: These statistics can be accessed at http://www.nhtsa.gov. The AALA does not provide a separate list of U.S. parts because the United States and Canada are considered to be one source of auto parts. AALA data are reported on a carline basis, which refers to a name of a group of vehicles which has a degree of commonality in construction. A carline includes all motor vehicles of a given nameplate.

Automotive Rules of Origin in U.S. Free Trade Agreements

A free trade agreement (FTA) is a pact between two or more countries to eliminate tariff or non-tariff barriers affecting trade among these countries. Each country applies its own independent schedule of tariffs on imports from countries that are not members. An important objective of any FTA is to ensure that only products of signatory countries receive preferential tariff treatment. Rules of origin are included in all FTAs to make certain that transshipment and light processing, such as simple assembly or repackaging, are not used by third-country suppliers to circumvent higher duties.

Determining the country of origin is fairly straightforward when a product is "wholly obtained" from one country.[7] When a finished product's component parts are manufactured in many countries, however, determining origin can be a complex process.[8] For goods to receive the more favorable tariff treatment provided by an FTA, importers must demonstrate that their products meet the eligibility criteria to receive it.

Each free trade agreement to which the United States is a party has distinct rules of origin, which may differ greatly from those in other FTAs. Within an FTA, there may be different rules of origin for different industry sectors.[9] Specific rules of origin are associated with the motor vehicle and motor vehicle parts industry, as with other industry sectors.[10]

[7] Ibid.

[8] Ibid. See also LaNassa, Joseph A. "Rules of Origin and the Uruguay Round's Effectiveness in Harmonizing and Regulating Them," The American Journal of International Law, 90:4 (October 1996), pp. 625-640.

[9] In the KORUS FTA, specific rules of origin are covered in Chapter 6, Rules of Origin and Origin Procedures, and in Annex 4-A, Specific Rules of Origin for Textile or Apparel Goods. Specific domestic content rules for other products such as chemicals, electronics, medical devices, and automobiles are found in Annex 6-A (Specific Rules of Origin). Other means used to mitigate the adverse effects of an FTA include staging tariff reductions over time and measures to safeguard domestic industries from adverse impact. These measures appear in the KORUS FTA under Chapter Two, Annex 2-B (Tariff Elimination) and Chapter Ten (Trade Remedies), respectively.

[10] For other products, two other methods are used to determine product eligibility in an FTA: (1) a tariff shift test in (continued...)

To determine the origin of assembled autos and of auto parts such as gearboxes and steering wheels, most U.S. FTAs apply a test of regional value content (RVC). An RVC test requires that a certain percentage of the value of a manufactured product (as determined by the cost of inputs, labor, and other direct costs of processing operations) originate in the FTA region. When calculating RVC, specific equations are required to determine the value of the materials originating within the FTA countries and the value of inputs not originating within one of the FTA countries, and other costs, such as processing and shipping.

Over the past two decades, the United States has concluded 11 bilateral and regional FTAs. As with other provisions, RVC requirements for automotive products vary among free trade agreements.[11]

In general, the tariff benefits provided by an FTA may create incentives for automakers, part suppliers, and all other manufacturers to source from the agreement region. Therefore, when FTAs are negotiated, representatives of the auto industry, as well as other manufacturers, consult with their respective country's trade negotiators to ensure that they will be able to meet the rules of origin established in these agreements while still maintaining their global sourcing patterns.

At the same time, it is also possible that an FTA's tariff incentives may not provide sufficient inducement to alter an already-established supply chain. For example, the U.S. normal trade relations (NTR) tariff rate[12] for imported passenger cars is an already low 2.5%, so it is not likely that an exemption from this tariff level alone would prompt manufacturers to build cars for the U.S. market within the FTA region rather than outside it. The substantially higher U.S. light truck tariff of 25%, however, could result in significant cost savings for manufacturers that build trucks for U.S. sale in the United States or in a U.S. FTA partner country. This high tariff on imported light trucks is one reason why nearly all pick-up trucks sold in the United States are manufactured in North America.

Since tariff rates on automobiles tend to be higher in the markets of the United States' FTA partners than in the United States, tariff savings in the foreign market could provide an even greater incentive for U.S. automakers to meet the preferential rules of origin requirements when exporting to these trading partners. For example, NTR tariffs for automobiles in the countries that are parties to the Dominican Republic-Central America-United States (CAFTA-DR) FTA run as high as 20%.[13] This underscores the asymmetrical benefits that can accrue to producers of

(...continued)

which each component or ingredient incorporated in a product from outside the region must undergo a change in tariff classification (e.g., textiles and apparel, machinery and mechanical appliances, and even some auto parts such as spark plugs and auto glass); and technical tests such as the "yarn forward rule" which requires that yarn, fabric, and sewing thread used in textiles and apparel must originate in the FTA region.

[11] Edwin A. Vermulst, "Rules of Origin as Commercial Policy Instruments - Revisited" in *Rules of Origin*, eds. Edwin A.Vermulst, Paul Waer, and Jacques H. J. Bourgeois (Ann Arbor: The University of Michigan Press, 1994), pp. 435-450.

[12] "Normal trade relations" (NTR) is used in U.S. laws to replace the internationally-used term "most-favored nation" (MFN) P.L. 105-206. Congress considered the term "normal trade relations" to be a more accurate description of the principle of non-discrimination than the term "most-favored nation," which many misunderstood to imply preferential trade treatment. The United States is the only country that uses NTR. Other countries and international institutions continue to use MFN.

[13] According to World Trade Organization tariff statistics, the NTR tariff rate for motor vehicles in HTS heading 8703 is 0% in Costa Rica, 10% in Nicaragua, 15% in Honduras, and 20% in Guatemala and the Dominican Republic.

vehicles in the United States if other countries' tariffs are reduced or eliminated through a free trade agreement.

NAFTA has the highest RVC requirement for automotive products at 62.5%, meaning that nearly two-thirds of the value of the vehicle must originate in the United States, Mexico, or Canada for an assembled vehicle to receive the NAFTA tariff benefit.[14] This high regional content requirement reflects the fact that the North American auto market was already highly integrated at the time of the agreement's negotiation.[15]

Regional value content rules for auto products in other FTAs vary from 30% to 50%. Older free trade agreements such as the 1989 U.S.-Canada FTA considered a vehicle to be domestic if it had at least 50% U.S. or Canadian content. Value can be calculated in various ways, such as "building down" from the value of the finished product or "building up" from the value of the originating materials. The specific, and often complicated, rules of origin for automotive products under selected FTAs are shown in **Table 2**.

Table 2. Automotive Product Rules of Origin in Selected Free Trade Agreements

Free Trade Agreement	Entry into Force	Automotive Product Rules to Obtain FTA Benefits
U.S.-Canada Free Trade Agreement	1989	At least 50% domestic content requirement.
North American Free Trade Agreement (NAFTA)	1994	RVC of at least 62.5% using the net cost requirement for passenger automobiles, light trucks, and their engines and transmissions; for other vehicles and auto parts, the threshold is 60%.
U.S.-Chile Free Trade Agreement	2004	RVC of not less than 30% when the build-up method is used, or 50% when the build-down method is used.
U.S.-Singapore Free Trade Agreement	2004	RVC of not less than 30% based on the build-up method for automotive products.
U.S.-Australia Free Trade Agreement	2005	RVC of not less than 50% under the net cost method for automotive products.
Peru Trade Promotion Agreement	2009	RVC of not less than 35% based on the net cost method.

[14] NAFTA final text, Article 403. NAFTA also includes an additional special category for vehicle manufacturers setting up a new vehicle plant, or significantly retooling an existing plant, to produce a class or size of vehicle not previously produced at that plant; this provision allows for 50% regional content to meet rule of origin requirements. For more information, see "Compilation of Foreign Motor Vehicle Import Requirements," U.S. Department of Commerce, July 2008.

[15] The integration of North American vehicle production began nearly 50 years ago with the signing of the Canada-United States Automotive Products Agreement in 1965. Thereafter, the two countries concluded the U.S.-Canada Free Trade Agreement in 1989, and a regional free trade agreement was concluded between the United States, Canada, and Mexico (NAFTA) in 1994.

Free Trade Agreement	Entry into Force	Automotive Product Rules to Obtain FTA Benefits
CAFTA-DR Free Trade Agreement (Costa Rica, Honduras, El Salvador, Guatemala, Nicaragua, and the Dominican Republic)	Signed 2004; entered into force 2006 through 2009	ROO were largely modeled upon NAFTA and the U.S.-Chile FTA; include RVC of not less than 35% under net cost; not less than 35% under build-up; or not less than 50% under build-down.
U.S.-South Korea Free Trade Agreement	Pending	One of three RVC tests can be used: not less than 55% under build-down; not less than 35% under build-up; and not less than 35% under the net cost method. Auto manufacturers can elect which method to use.

Source: Compiled by CRS based on a review of the regional value content requirements (RVC) for automotive products in selected free trade agreements. U.S. free trade agreements with Israel, Jordan, Morocco, and Oman do not include auto-specific content requirements.

Notes: Automotive products are mainly covered in Section 87 of the Harmonized Tariff Schedule. Passenger cars are covered by HTS 8703 (motor cars and other motor vehicles principally designed for the transport of persons) and light trucks are found in HTS 8704 (motor vehicles for the transport of goods). Other automotive products covered in this section of the HTS include 8707 (bodies for motor vehicles) and 8708 (parts and accessories for motor vehicles).

Rules of Origin for Vehicles and Parts in the Proposed KORUS FTA

Current U.S. NTR tariffs are 2.5% for autos and most auto parts, with some auto parts already duty-free. In South Korea, tariffs for comparable products can be as high as 8% (see **Table 3**). Light truck tariffs are higher in both countries at 25% and 10%, respectively. If the KORUS FTA were enacted, both countries' tariffs on passenger cars, light trucks, and auto parts would be phased out. Ultimately, all auto and auto parts tariffs would be eliminated 10 years following implementation of the agreement.

Table 3. U.S. and South Korean Tariffs on Cars, Light Trucks, and Auto Parts

Product	U.S.	South Korea
Passenger Cars (HTS 8703)	2.5%	8%
Light Trucks (HTS 8704)	25%	10%
Auto Parts (HTS 8708)	2.5% or lower	8% or lower

Source: CRS, compiled from South Korean and U.S. tariff schedules.

U.S. and South Korean car tariffs would be eliminated five years after the KORUS FTA enters into force. The U.S. light truck tariff would remain at its current level for seven years and would be phased out completely by year 10. South Korea would eliminate its 10% tariff on U.S. light trucks immediately upon KORUS FTA implementation. Auto parts tariffs would be eliminated immediately after KORUS FTA implementation by both the United States and South Korea.

The KORUS FTA has two specific rule of origin requirements. First, all products must be produced in either the United States or South Korea. Second, the product must meet the applicable rule of origin, which in the case of autos is a regional content requirement. Simple automotive assembly operations alone would not be sufficient to confer origin under the KORUS FTA, as industry sources indicate that only 15% of the cost of an automobile, on average, is associated with assembly.[16] An auto manufacturer thus would be unlikely to meet the ROO requirements without obtaining a significant number of components from either the United States or South Korea.

Alternative Ways to Calculate Regional Value Content

Under the proposed KORUS FTA, automakers and most component manufacturers can select one of three options for calculating regional value content. They thus have a certain amount of flexibility in demonstrating that a vehicle or component qualifies for preferential treatment. RVC is calculated as a percentage of the "adjusted value"[17] of the product, which, in general terms, can be thought of as the import price less freight costs. The three options vary in the required percentage of RVC because the methodologies used to calculate RVC are different. For finished automobiles and light trucks, and for engines, transmissions, and most other components, the three options are:

- 55% under the build-down method;
- 35% under the build-up method; or
- 35% under the net-cost method.[18]

Build-Down

The build-down method determines the regional value content by subtracting the value of the non-originating merchandise[19] from the adjusted value of the finished product. The adjusted value includes all costs, profit, general expenses, parts and materials, labor, shipping, marketing, and packing. Since the build-down method allows manufacturers to count all of the costs involved in building and marketing the final automobile or the component, a higher percentage (55%) is associated with this calculation in comparison to the other two allowable methods of calculating regional value content.

Figure 3 provides an example of regional value content calculations using the build-down method, which is one of the two methods reportedly preferred by automakers based on the adjusted value of an automobile. The other is net cost and is discussed below. Similar

[16] Industry estimate provided by the American Automotive Policy Council.

[17] For more information see U.S. Customs and Border Protection, *What Every Member of the Trade Community Should Know About: Customs Value*, Informed Compliance Publication Series, Revised July 2006, http://www.cbp.gov/linkhandler/cgov/trade/legal/informed_compliance_pubs/icp001r2.ctt/icp001r2.pdf

[18] See KORUS FTA, Chapter 6, p. 6-82.

[19] According to Article 6.4 of the KORUS FTA, *originating materials* may also include the costs of freight, insurance, packing, and transportation; duties, taxes, and customs brokerage paid in the region (other than those that are waived, refundable, or recoverable); and the cost of waste and spoilage of material used in production of the product. These costs may be deducted from the value of non-originating materials.

methodologies would be applied by auto parts suppliers when they import an automotive part or component, such as an engine, gear box, axle, or shock absorber.[20]

Build-Up

The build-up method starts with the value of originating materials.[21] The value of inputs from South Korea and the United States is added together, and if their total value exceeds 35% of the adjusted value of the vehicle or the component, the product would qualify for the benefits of the KORUS FTA. The build-up method is included in the KORUS FTA principally to benefit manufacturers of exports other than automobiles. According to auto industry representatives, U.S. manufacturers do not use the build-up method and are not expected to do so under the KORUS FTA.

Net Cost

The net cost method captures only the costs involved in manufacturing, such as factory labor, materials, and direct overhead, as shown in **Figure 3**. Other costs, such as sales promotion, marketing, royalties, and profit, are excluded from the calculation.[22] The use of a small, easily identifiable set of input costs is thought to make the net cost method easier to use in calculating RVC. This method was reportedly preferred by U.S. automakers and its inclusion in the KORUS FTA was a major negotiating priority for them, because it better reflects their production, accounting, and record-keeping methods.[23] As the net cost method excludes selling, general, and administrative (SG&A) costs, profits, expenses, royalties, and promotional costs, its 35% RVC requirement is approximately equivalent to the 55% RVC requirement under the build-down method described above.[24]

[20] These products are classified in HTS 8708 (motor vehicle parts), which have a similar RVC requirement as for vehicles.

[21] Ibid.

[22] NAFTA also uses a net cost method for RVC calculations. According to the NAFTA Rules of Origin Requirements, (19 CFR part 181, App.), "the net cost is the total cost of Good A (the aggregate of product costs, period costs, and other costs) per unit, minus the excluded costs (the aggregate of the sales promotion, marketing, and after-sales service costs, royalties, shipping and packing costs, and non-allowable interest costs) per unit. See sections 6(11) and 6(22). According to the U.S. Trade Representative (USTR) and Customs and Border Protection (CBP) officials, this definition was also applied in the KORUS FTA.

[23] Office of the U.S. Trade Representative, *Rules of Origin and the U.S.-Korea Trade Agreement, Frequently Asked Questions*, April 4, 2011.

[24] This information is based on comparative assessments of the two approaches by USTR and CBP officials.

Figure 3. Regional Value Content Calculations for an Automobile in KORUS FTA

	Build-Down Method	Net Cost Method
RVC Required	**55%**	**35%**
Equation	$RVC = \frac{AV - VNM}{AV} \times 100$	$RVC = \frac{NC - VNM}{NC} \times 100$
Solution	$RVC = \frac{\$28,050 - \$12,000}{\$28,050} \times 100$	$RVC = \frac{\$18,500 - \$12,000}{\$18,500} \times 100$
RVC %/Qualifies?	**57.2% / Yes**	**35.1% / Yes**

RVC	is the regional value content, expressed as a percentage.
AV	is the adjusted value of the good.
VOM	is the value of originating materials, other than indirect materials, acquired or self-produced and used by the producer in the production of the good. Originating materials may also include the costs of insurance, packing, transportation, duties and taxes (other than those waived or recoverable), and costs for waist and spoilage *(see KORUS FTA Article 6.4)*
VNM	is the value of non-originating materials, other than indirect materials, acquired or used by the producer in the production of the good. VNM does not include the value of material that is self-produced. The costs of insurance, packing, transportation, duties and taxes (other than those waived or recoverable), and costs for waist and spoilage may be deducted from VNM *(see KORUS FTA Article 6.4)*
NC	is the net cost of the good. Net cost excludes costs for SG&A, shipping, and all after-sales product costs.

Source: United States-South Korea Free Trade Agreement, Chapter 6, Rules of Origin. A sample regional value content calculation is shown in **Appendix A**.

The KORUS FTA allows motor vehicle producers to average their content over their fiscal year when calculating their regional value content under the net cost method for automotive goods. Automotive materials, which cover engines, chassis, bodies, and other motor vehicle parts, can also be averaged.[25] Auto manufacturers claim that averaging regional value content is easier administratively than determining the RVC of each individual vehicle or model, as RVC varies with vehicle options.[26]

[25] KORUS FTA, Article 6.2: Regional Value Content. The KORUS FTA includes two distinct sections on ROO averaging: one for vehicles and one for automotive materials. In most instances, averaging is allowed, but the terms are not identical.

[26] KORUS FTA Briefing: Facts about Kaesong and North Korea, May 24, 2011.

Has the European Union Won a Better Deal?

In addition to the KORUS FTA, the South Korean government has negotiated a trade agreement with the European Union, referred to as the KOREU FTA. This agreement enters into force on July 1, 2011.

The KOREU FTA requires importers of automotive products to use a different method for calculating regional value content than is allowed under the KORUS FTA, known as the *ex-works price method*. The ex-works price is defined in the agreement as "the price paid or payable for the product ex-works to the manufacturer in a Party in whose undertaking the last working or processing is carried out, provided that the price includes the value of all the materials used, minus any internal taxes which are, or should be, repaid when the product obtained is exported."[27]

The foreign (non-originating) content level for autos under KOREU FTA should not exceed 45% of the ex-works price of the product (see **Figure 4**). Therefore, if the KOREU FTA allows 45% foreign content under the ex-works method, it follows that 55% of the content must come from either the European Union or South Korea. This roughly corresponds to the 55% regional value content rule in the KORUS FTA build-down method described above, which incorporates a similar subset of costs to the ex-works price method.[28]

The ex-works calculations under the KOREU FTA are different from the build-up and net cost calculations allowed under the KORUS FTA, because these methods include a different subset of costs. Notwithstanding these differences, Administration experts assert that the regional value content requirements in the KORUS and KOREU FTA are roughly equivalent. What differs are the methodologies used to calculate RVC.

[27] *Free Trade Agreement Between the European Union and its Member States, of the One Part, and the Republic of Korea, of the Other Part* (KOREU FTA), Section A, Rules of Origin.

[28] The difference between the ex-works price calculation and the build-down method is that the adjusted value as calculated in the build-down method includes the cost of foreign inland freight, which is always excluded from the ex-works price.

Figure 4. Regional Value Content Calculation for an Automobile in KOREU FTA

	Ex-works Method
Foreign Content	45%
Ex-works Method	$\text{Foreign content} = \frac{\text{VNM}}{\text{Ex-works}} \times 100$
Solution	$\text{Foreign content} = \frac{\text{VNM}}{\text{Ex-works}} \times 100$
Foreign Content %/ Qualifies?	**42.8% / Yes**

VNM is the value of non-originating materials, other than indirect materials, acquired or used by the producer in the production of the good. VNM does not include the value of material that is self-produced. The costs of insurance, packing, transportation, duties and taxes (other than those waived or recoverable), and costs for waist and spoilage may be deducted from VNM *(see KORUS FTA Article 6.4)*

Ex-works Is the price paid or payable for the product ex-works to the manufacturer in a Party in whose undertaking the last working or processing is carried out, provided the price includes all the value of all the materials used, minus any internal taxes which are, or should be, repaid when the product obtained is exported. Thus, it includes costs for SG&A and profit, but excludes shipping costs.*

Source: South Korea-EU Free Trade Agreement, Section A, Rules of Origin.

North Korean Components and the KORUS FTA Rules of Origin

The proposed KORUS FTA does not require that 100% of an automobile or auto component be sourced from parts produced in the United States or South Korea in order to receive preferential tariff treatment. A certain percentage of the product's value, as discussed above, must originate in either the United States or South Korea. Enforcement of the automotive rules of origin therefore depends upon the ability of U.S. and South Korean officials to identify and determine how much of an automotive product's value was produced in the two countries.

A number of South Korean manufacturers use inputs produced at the Kaesong Industrial Complex (KIC), an industrial park located in North Korea just across the demilitarized zone from South Korea. At present, U.S. law prohibits any "direct or indirect" imports from North Korea to the United States without approval of the Office of Foreign Assets Control (OFAC) of the Department of the Treasury.[29] One enforcement issue is whether the KORUS FTA could

[29] Section 73 of the Arms Export Control Act (P.L. 90-629; 22 U.S.C. 2797b) requires the President to deny U.S. government contracts and export licenses relating to missile equipment or technology controlled under the Missile Technology Control Regime (MTCR). Sanctions vary depending on the nature of the engagement. Various North (continued...)

encourage manufacturers in South Korea to incorporate goods produced in the KIC into products exported to the United States, effectively circumventing the U.S. restrictions on goods from North Korea and also enabling North Korea to obtain duty-free access to the U.S. market, to which it is not entitled under the agreement. This issue is important with respect to automotive imports, as the KIC's low labor costs may make it an attractive future location to make labor-intensive products that could be used in more complex products assembled in South Korea.

Annex 22-B of the proposed KORUS FTA, titled "Committee on Outward Processing Zones (OPZ) on the Korean Peninsula," establishes a process under which the United States and South Korea might ultimately decide that certain goods produced on the Korean Peninsula should be deemed to be "originating goods" and thus be accorded the preferential tariff treatment and other benefits extended to such goods under the KORUS FTA. The Committee on OPZ on the Korean Peninsula (shorthand for Kaesong and any other similar zones that might be created in the future within North Korea) would be established by the United States and South Korea. It would initially meet on the first anniversary of the entry into force of the KORUS FTA, and at least once annually thereafter, or at any other time mutually agreed upon by the committee.[30] The committee's purpose is to consider whether KIC products should receive duty-free treatment. Its consideration would be based on various criteria, such as environmental standards, labor standards, or progress on denuclearization of the Korean Peninsula.

Although current U.S. regulations effectively prohibit any North Korean goods, including auto parts, from being incorporated into South Korean products that are exported to the United States, if OFAC were to approve a license application, then the KORUS FTA rules of origin for automobiles would apply. As North Korea is not a party to the KORUS FTA, the North Korean inputs would not be counted as regional value content under the rules discussed in a previous section of this report.

There is a significant question whether automotive products from the KIC that are incorporated into finished U.S.-bound products in South Korea can be detected by U.S. authorities. As vehicles have thousands of components, it is not possible for U.S. Customs and Border Protection (CBP) to identify the origin of every component. Even the auto manufacturer may be unaware of the origin of every input used by the many companies in its supply chain. Given these complexities, the United Steelworkers, a labor union, recently asked that the "long-term potential of products or components from the KIC entering the U.S. and receiving preferential trade benefits under the KORUS FTA" be taken into account in considering the agreement's possible impact.[31]

CBP officials assert that their agency's targeting, verification, and enforcement processes help to mitigate the risk of illicit products from North Korea entering the United States. However, the number of laws that CBP enforces, combined with the need to swiftly assess millions of

(...continued)

Korean entities have been identified under terms of section 73 over the years (see CRS Report R41438, *North Korea: Legislative Basis for U.S. Economic Sanctions*, by Dianne E. Rennack, Appendix C, for a complete list). U.S. regulations (31 C.F.R. § 500.586) also prohibit U.S. importers seeking to import any products from North Korea without OFAC approval. Executive Order 13570 ("Prohibiting Certain Transactions With Respect to North Korea," 76 Federal Register 22291, April 18, 2011) further clarified these regulations.

[30] For more information on Article 22-B and the KIC see CRS Report R41843, *Imports from North Korea: Existing Rules, Implications of the KORUS FTA, and the Kaesong Industrial Complex*, coordinated by Mark E. Manyin.

[31] United States International Trade Commission, *U.S.-Korea Free Trade Agreement: Passenger Vehicle Sector Update*, March 2011, p. D-5.

individual entries of merchandise entering the United States, make this a challenging task.[32] While CBP monitoring and assurances from South Korean officials may indicate that no North Korean content will be incorporated into goods destined for the United States and imported under the KORUS FTA, it is impossible to ascertain with 100% certainty that no illicit North Korean parts or components will enter U.S. commerce.

However, it is important to note that these goods could be imported into the United States illegally whether or not the KORUS FTA enters into force. According to CBP and USTR officials, the customs cooperation and trade facilitation chapter (Chapter 7, "Customs Administration and Trade Facilitation") in the KORUS FTA will make the detection of unauthorized North Korean products simpler than at present, in part, because U.S. officials will be permitted to inspect South Korean factories and shipment documentation to detect any circumvention. CBP and USTR officials also report that the mandated sharing of information and intelligence when unlawful activity is suspected will help to significantly reduce unlawful trade.[33]

The Korean Customs Service has recently announced new measures to better identify and stop possible circumvention of the rules of origin. For example, it is establishing an office of 157 customs officers to track the entire shipment process, including entry, unloading, transportation, shipping, and departure. These new procedures would apply to all products; it is not specific to the auto industry. There will also be targeted inspections of high-risk cargoes, which could include auto parts shipments.[34] U.S. customs officials also believe that additional targeting information can be gained through CBP's online trade reporting system, known as "e-Allegations," which is designed to encourage companies to report on competitors which they believe to be using inputs that may be illegal or fraudulently labeled.

KORUS FTA in the Broader Context of U.S.-South Korean Automobile Trade

Bilateral trade in automobiles has been a major point of contention in U.S.-South Korean trade relations for decades. Thus, it is not surprising that automotive-related issues are prominent in the KORUS FTA. The sensitivity of the issue has grown as South Korea has become a major producer and exporter of vehicles, especially small cars, in competition with U.S. manufacturers. In 2010, South Korea produced 4.3 million cars and commercial vehicles, making it the fifth-largest producer, behind, in order, China, Japan, the United States, and Germany.[35] Two South Korean automobile assemblers—Hyundai and Kia, which is partially owned by Hyundai—have assembly operations in the United States.

The export orientation of the South Korean motor vehicle industry, the high quality of South Korean cars, and the relatively low U.S. tariff on imported cars has made the United States a market of opportunity for South Korean automobile exporters. Combined light vehicle sales by

[32] According to CBP's *Summary of Performance and Financial Information, Fiscal Year 2010*, CBP processed over 28 million entries of merchandise in FY2010, amounting to $1.99 trillion in import value.

[33] Meeting with CBP and USTR officials, May 3, 2011.

[34] *Washington Trade Daily*, June 8, 2011, p. 4.

[35] International Organization of Motor Vehicle Manufacturers, *World Motor Vehicle Production*, World Ranking of Manufacturers, 2010, Provisional Production Statistics, http://oica.net/category/production-statistics/.

Hyundai and Kia in the United States, including both imports and domestic production, totaled nearly 895,000 cars and light trucks in 2010. This represented a 22% increase over 2009 sales.[36]

Some 90,562 imported cars were sold in South Korea in 2010, according to data from the Korea Automobile Importers and Dealers Association. Of these, 7,450 were vehicles imported from the United States.[37] In addition, Daewoo Motors, a subsidiary of U.S.-based General Motors, sold over 125,000 vehicles in South Korea in 2010.

If the KORUS FTA is to play a role in increasing U.S. automotive exports to South Korea, the rules of origin may be less important than other provisions of the agreement. Reduction of South Korea's non-tariff barriers and changes to the environmental and safety rules applied to imported vehicles could become more prominent issues affecting the future bilateral trade relationship in automobiles.[38]

[36] Automotive News, *U.S. Light-Vehicle Sales by Nameplate, December & 12 Months 2010*, January 4, 2011.

[37] Korea Automobile Importers and Dealers Association (KAIDA), *Annual Data*, http://www.kaida.co.kr/data/Archive.jsp?pageId=1.

[38] For more information see CRS Report RL34330, *The Proposed U.S.-South Korea Free Trade Agreement (KORUS FTA): Provisions and Implications*, coordinated by William H. Cooper.

Appendix A. Sample Regional Value Content Calculation

	Description	Dollar Value
A	Value of Originating Materials (VOM)	$6,500
B	Value of Non-originating Materials (VNM)	$12,000
C	Total Unit Product Costs (A+B)	$18,500
D	Selling, General, and Administrative Expenses (SG&A)	$7,000
E	Total Unit Cost before Profit (C+D)	$25,500
F	Profit (10%)	$2,550
G	**Adjusted Value (E+F, equals Customs value less international freight)**	**$28,050**
	RVC by Build-Down Method (G-B)/G	**57.2%**
H	Profits and excluded costs (SG&A) (F+D)	$9,550
J	**Net Cost (NC, adjusted value less profit and excluded costs) (G-H)**	**$18,500**
	RVC by Net Cost Method (J-B)/J	**35.1%**
	Foreign content by ex-works method (B/G)[a]	**42.8%**

Source: CRS calculations based on approximate percentages provided by the American Automobile Policy Council (AAPC).

a. The Ex-works Price (EU concept) and the Adjusted Value (United States concept) are roughly equivalent. The difference is attributable to inland freight costs from factory to port.

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