Rules of Origin Regimes and their impact on Business in the APEC Region

Rules of Origin: Facilitators or Frictions

University of Southern California
Marshall School of Business

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Analyzing APEC Rules of Origin Regimes

Introduction
This report offers a detailed analysis of Rules of Origin (RoO) regimes within the Free Trade Agreements in the APEC region. It builds on and complements research which comparing and contrasting APEC region FTAs prepared by the University of Southern California Marshall School of Business in 2006. Based on a line by line comparison of the legal text of rules of origin provisions, this report provides a detailed analysis of the similarities and differences across RoO regimes. It also presents the findings of field research into the “points of pain” experienced by businesses when employing rules of origin to take advantage of intended FTA trade preferences.

Though intended to promote local investment, facilitate free trade, and protect sensitive local industries from “unfair” competition, observers who have analyzed preferential RoO regimes in other regions report unintended consequences for business. The divergence of RoO provisions across FTAs, their restrictiveness, the complexity of the rules, and requirements for compliance have increased business transaction costs, and limited their use. With declining tariff rates, some businesses are even discouraged from even trying to access the benefits of the trade preferences because the costs of compliance outweigh the benefits received.

Our research of RoO regimes within APEC region is generally consistent with these conclusions. This report offers both specific examples and generalizations drawn from across our interviews in multiple economies, of businesses facing increased transaction costs from RoO usage, and business who intentionally forgo FTA advantages because RoO is too complex and costly.
Analyzing APEC Rules of Origin Regimes

Objectives

- The Marshall School of Business at the University of Southern California was asked to prepare a detailed comparative analysis of Rules of Origin regimes in all APEC FTAs.

- Three overarching objectives:
  
  **Objective I**
  Catalog Rules of Origin regimes across all APEC FTAs
  
  **Objective II**
  Capture the voice of business executives on obstacles to trade caused by Rules of Origin
  
  **Objective III**
  Examine the potential impact of Rules of Origin on trades in the APEC region

- A team of 13 MBA researchers with relevant academic backgrounds and industry experience collected and assessed the effects of Rules of Origin (RoO) in Free Trade Agreements (FTA) on trades, business operations, and investments.

- This research builds on and complements the comparative analysis of APEC Free Trade Agreements undertaken by the University of Southern California Marshall School of Business for ABAC in 2006.
Research Approach

Comparative Catalog of APEC FTA Rules of Origin Regimes

• Provided a detailed comparative inventory of Rules of Origin (RoO) provisions in all the Free Trade Agreements (FTAs) and Regional Trade Agreements (RTAs) between economies within APEC
  - Focused our primary research on the general Rules of Origin provisions
  - Analyzed all RoO provisions at the line by line level of the legal text of the agreements

• Analyzed the similarities and differences of RoO across FTAs/RTAs; against the proposed APEC Rules of Origin Model Measures; and against each other

• Examined the current academic literature to inform the preparation of comparative catalog

• Prepared two detailed cases studies on Food and Automotive Sectors.
  - Analyzed the legal text of the industry specific Rules of Origin in these two industry sectors
  - These sectors of among the most frequent industries targeted for special treatment in Rules of Origin regimes.
  - We combined the “desk research” with our field research to prepare two detailed illustrative cases studies of the issues and points of pain businesses face within these industries.
Research Approach

Field Research: Capturing the Voice of the Business Executives on Rules of Origin “points of pain”

- Determine the impact of different Rules of Origin regimes in different economies, and in different types of industries, on business decisions
- Evaluate the direct and indirect cost burdens that RoO place on businesses, and determine which areas of RoO cause the most concern for business executives
- Assess the benefits and drawbacks of using RoO provisions in FTAs/RTAs between APEC economies
- Primary research data collected in 13 APEC economies from business executives, industry representatives, and trade officials
  - In-person interviews in 10 APEC economies: Chile, China, Hong Kong, Japan, Malaysia, Mexico, Singapore, South Korea, Thailand, U.S.A.
  - Telephone interviews: Australia, Canada and New Zealand
  - Questionnaire survey responses
  - Industry sectors in which interviews were conducted: Agriculture, Automotive, Construction, Food & Beverage, Government, Manufacturing, Professional Services, Telecommunication, Pharmaceuticals

- Our specific intention was to interview executives, trade association officials, and trade specialists, with deep knowledge of Rules of Origin issues. This inherently biases our sample of opinions to large corporations involved with significant amounts of cross-border trades. Though not intentionally excluded, our sample has fewer opinions from SMEs.
Scope, Caveats, and Limitations

- Focus of our interviews was with executives, industry specialists, consultants, and trade officials who are knowledgeable about Rules of Origin issues and challenges
  - Intentionally our focus was on depth, rather than breadth of opinions
  - These interviews were intended to supplement our comparative analysis of RoO regimes
- Gathered data in multiple economies, both developed and developing
  - Despite our efforts to interview executives in all economies, our sample is biased toward larger companies in developed economies. Fewer executives in SMEs and in developing economies had deep knowledge of RoO issues, and were willing to speak with us
- Gathered data in diverse industries and types of companies
  - However, there was a focus on automotive and food companies given the objectives of our study
  - While we tried to obtain responses from SMEs as well as large companies, our focus on managers with RoO expertise led to larger sized enterprises in our sample.
- With the small number of interviews conducted and the relative low number of respondents to our questionnaire, caution should be used in drawing generalizations
  - Despite the limited number of respondents, a strong consensus of opinions emerged regardless
  - Where the interviews were unable to identify a strong consensus additional follow up interviews were sought
- Limited FTAs/RTAs to those already negotiated and posted on the APEC website
- Analyzed all material readily available by public search
  - While a good faith effort was made to find addenda, additional amendments, memoranda of understanding, etc., if they were not posted or obviously linked on government websites, they may not have been analyzed
Key Findings and Conclusions

1. Rules of origin are unnecessarily difficult to understand and interpret. Significant variances exist amongst rules of origin provisions across APEC region. These differences coupled with no standard interpretation of HS codes make Rules of Origin certification challenging and costly. In many instances companies will actually forfeit the benefits of FTA preferences because the origination process is too burdensome and costly.

2. Applying rules of origin can be a huge expense for businesses. Companies that apply Rules of Origin must invest in and develop significant capabilities to do so. Businesses must make significant investments in IT infrastructure and human capital just to prove origination. Additional expenses are incurred in ensuring compliance of not only their own organizations but also their suppliers, and in the associated record keeping and reporting.

3. Rules of Origin complexity (and costs) are compounded when companies operate across Free Trade Agreements or within overlapping agreements. No two rules of origin sections within the region are alike. These differences across free trade agreements make it impossible for businesses to realize synergies from IT systems, administrative procedures, and subject matter expertise.

4. Implications for the APEC Region:
   - Rules of Origin are being used as a barrier to entry in some industries, potentially stalling economic development in the region. Rules of Origin can effectively block new entrants from entering a market because of its complexity. As a result, some companies that have “figured out” rules of origin do not want a more transparent and harmonized system. They are benefiting from government enabled competitive advantages.
   - Complex Rules of Origin can increase company costs to a point where they can not justify the expense... further potentially stalling economic development in some industries. Companies do not apply Rules of Origin because there is little to no benefit from doing so. In many cases, companies (both large and small) can not justify the cost associate with meeting Rules of Origin requirements. As a result, the benefits of Free Trade Agreements within the APEC region are not used. In these cases, companies either do not enter the market (i.e., invest) or simply pay the tariff.
Comparing Rules of Origin Regimes within APEC Region Free Trade Agreements
Comparing APEC Region Rules of Origin Regimes

This section presents the comparative analysis of RoO regimes across APEC FTAs. The data on which these comparative analyses are based is available on an accompany CD:

*Catalog of Rules of Origin Regimes in Free Trade and Regional Trade Agreements Among APEC Economies 2006*

The CD contains the legal text of the Rules of Origin separated by provisions for ease of comparison. It also provides a simplified provision by provision comparison.

**Specific Research Objectives**
- What does the Rules of Origin landscape look like?
- How are the Rules of Origin similar and/or different?
- Are Rules of Origin complex? If so, what makes them complex and how complex are they?

**Section Outline**
The comparative analysis of the Rules of Origin regimes is divided into five sections:

1. The Rules of Origin Landscape in the APEC region
2. Comparative Analysis of FTAs against the *proposed* APEC Rules of Origin Model Measures
3. Comparative Analysis of FTAs to One Another
   - Comparing each FTA by individual Rules of Origin provisions
   - Examining potential Rules of Origin complexity drivers
   - Analyzing process oriented provisions and origination criteria provisions
4. Comparative Analysis of Industry Specific Rules of Origin
5. Summary and Conclusions
The Rules of Origin Regime Landscape in the APEC Region
APEC Free Trade and Regional Trade Agreements

- 21 Economies in APEC
- 25 FTAs analyzed
- Signature dates from 1977 to 2007
- 4 multilateral and 21 bilateral agreements
- FTAs within member economies range from 0 to 12
- New FTAs are being negotiated currently

FTAs are increasingly being used as a tool to facilitate free trade in the APEC region.
Rules of Origin provisions appear complex and inconsistent across FTAs in the region

- This chart contains the legal text for each RoO provision across all APEC FTAs
  - 25 FTAs
  - 48 individual RoO provisions
- Key Observations
  - Provisions lack consistency with one another
  - In general, provisions lack transparency
  - Provisions help to explain either the origination criteria or the process to claim origin

Across all FTAs, Rules of Origin provisions vary in definition, transparency, origination criteria, and compliance requirements
Comparative Analysis of FTAs Against the Proposed APEC Rules of Origin Model Measures
No global standard for benchmarking Rules of Origin

Issue

• No Rules of Origin sections are alike across all FTAs in the APEC region
• There is no global standard or best practice blueprint for Rules of Origin
  - WTO is negotiating non-preferential Rules of Origin provisions
  - WTO is shifting towards general, yet precise, Rules of Origin provisions
  - WTO states Rules of Origin provisions should:
    • Be transparent and administered impartially
    • Not have restricting, distorting or disruptive effects on international trades
    • Focus on what confers origin rather than what does not

Research Approach

• In January 2007, the USA proposed “APEC Model Measures for RTAs/FTAs: Rules of Origin and Origin Procedures”
• To compare similarities and differences across each FTA, we used these proposed Model Measures as a benchmark
• The objective of this comparison is to benchmark all FTAs against a single standard that is consistent with the WTO description of Rules of Origin provisions

Caveats

• The Model Measures are not an accepted and ratified Rules of Origin standard for benchmarking

Given the lack of a global rules of origin standard, we employed the “APEC Model Measures for RTAs/FTAs: Rules of Origin and Origin Procedures” as a benchmark
Rules of Origin Model Measures used as a benchmark for comparative analysis among FTAs

APEC Model Measures for RTAs/FTAs: Rules of Origin and Origin Procedures

1. Criteria for Originating Goods
2. Regional Value Content Requirement
3. Value of Materials
4. Accumulation/cumulation
5. De Minimis
6. Fungible/interchangeable Good and Materials
7. Accessories, Spare Parts, and Tools
8. Sets of Goods
9. Packaging Materials and Containers for Retail
10. Packaging Materials and Containers for Shipment
11. Indirect Materials Used in Production
12. Material that is Self-Produced
13. Transit and Transshipment
14. Consultation and Modification
15. Claims for Preferential Tariff Treatment
16. Exceptions to Certification Requirements
17. Verification
18. Obligations Relating to Importation

We used the 18 Rules of Origin Model Measures as a standard benchmark to compare FTAs
Comparing against the Model Measures: Is a RoO provision present or not?

### Benchmarking FTAs Against RoO Model Measures

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Only one FTA across the APEC region addresses all 18 of the Model Measures.
### Comparing against the Model Measures: Is a RoO provision present, consistent, or different?

#### RoO Provision Consistency vs. RoO Model Measures

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</table>

15 of the FTAs have Rules of Origin provisions consistent with 9 or more of the Model Measures
Comparing against the Model Measures: Extent of consistency with Model Measures

- Percentage of Model Measures consistency per FTA
- 100% = FTA consistent with all 18 Model Measures

FTAs vary significantly with respect to being consistent with individual Rules of Origin Model Measures
FTAs with more total provisions are typically more consistent with Model Measures.
A closer look: More provisions, more consistency with Model Measures

- FTAs can be sorted based on the number of provisions consistent with Model Measures
  
  \[
  \begin{array}{c|c|c}
  \text{Min} & \text{RoO provisions consistent} & \text{Max} \\
  3 & \text{with Model Measures} & 16 \\
  \hline
  \text{Australia – PNG} & \text{US - Peru} & \\
  \end{array}
  \]

- Or by total number of Rules of Origin provisions addressed in the FTAs
  
  \[
  \begin{array}{c|c|c}
  \text{Min} & \text{Total number of RoO provisions} & \text{Max} \\
  6 & 32 & \\
  \hline
  \text{Australia – PNG} & \text{Korea - Singapore} & \\
  \end{array}
  \]

- For example:
  
  \[
  \begin{array}{c|c|c}
  3 & \text{RoO provisions consistent} & 12 \\
  \text{with Model Measures} & \text{Australia – PNG} & \text{Korea - Singapore} \\
  \end{array}
  \]

FTAs with more provisions are more consistent with the Model Measures
Summary: Comparing against the Model Measures

• There is no accepted and ratified global Rules of Origin standard
  - The presence of such a set of standards would assist in standardizing and harmonizing Rules of Origin provisions, and benefit business with less complexity and reduced transaction costs

• FTAs vary significantly in level of consistency with the 18 proposed Rules of Origin model measures
  - Businesses face greatly increased transactions when they must use multiple FTAs, and when FTAs are overlapping. When Rules of Origin requirements differ significantly, business cannot share learning or use the administrative procedures and systems.

• FTAs with more provisions are more consistent with the Model Measures
  - Those free trade agreements which negotiate a complete set of RoO provisions in detail tend to be more consistent with the proposed Model Measures and more transparent and less complex for businesses.
Comparative Analysis of Rules of Origin within APEC FTAs to One Another

1. Comparing each FTA by individual Rules of Origin provisions
2. Examining potential Rules of Origin complexity drivers
3. Analyzing process oriented provisions and origination criteria provisions
Comparing Rules of Origin provisions to one another

Issue
• Comparing FTAs to one another helps to identify potential drivers of complexity and administrative costs

Analytical Approach
1. Divided the 48 provisions into three groups according to how many FTAs contain each provision
   - 1st group for most commonly used provisions (16 provisions)
   - 2nd group for moderately used provisions (14 provisions)
   - 3rd group for less commonly used provisions (18 provisions)
2. Examined complexity drivers sited most frequently by Rules of Origin researchers
   - Regional value content vs. tariff change
   - Accumulation
   - Certification
3. Compared each FTA’s Rules of Origin to all other FTA Rules of Origin provisions
   - Each FTA is assigned an empirical score based on how many common provisions it shares with other FTAs’ Rules of Origin

Caveat
• Comparing legal text to other legal text requires subjective judgment

Comparing Rules of Origin to one another shows potential drivers of complexity
Dividing the 48 Rules of Origin provisions into three groups according to how many FTAs contain each provision

**Most Common**
These provisions are addressed within at least 2/3 of all FTAs

**Moderately Common**
These provisions are addressed between 1/3 to 2/3 of all FTAs

**Least Common**
These provisions are addressed within less than 1/3 of all FTAs

Our analysis focuses primarily on the “Most Common” provisions; those found in at least 2/3 of all FTA Rules of Origin
Individual provisions grouped by frequency of occurrence in Rules of Origin

<table>
<thead>
<tr>
<th>Most Common</th>
<th>Moderately Common</th>
<th>Least Common</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Accessories, Spare Parts, &amp; Tools</td>
<td>• Fungible/interchangeable Goods &amp; Materials</td>
<td>• Set of Goods</td>
</tr>
<tr>
<td>• Accumulation/cumulation</td>
<td>• Obligations Relating to Importations</td>
<td>• Automotive Goods</td>
</tr>
<tr>
<td>• Claims for Preferential Tariff Treatment</td>
<td>• Material that is Self-Produced</td>
<td>• Certain Apparel Goods</td>
</tr>
<tr>
<td>• Consultation &amp; Modification</td>
<td>• Interpretation &amp; Application</td>
<td>• Cost Incurred</td>
</tr>
<tr>
<td>• De Minimis</td>
<td>• Non-Qualifying Operations</td>
<td>• Customs Valuation</td>
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<tr>
<td>• Exceptions to Certification Requirements</td>
<td>• Obligations Regarding Exportations</td>
<td>• Decision on Origin</td>
</tr>
<tr>
<td>• Indirect Materials Used in Production</td>
<td>• Paperless Trading</td>
<td>• Denial of Preferential Tariff Treatment</td>
</tr>
<tr>
<td>• Verifications</td>
<td>• Penalties</td>
<td>• Enquiry Points</td>
</tr>
<tr>
<td>• Criteria for Originating Goods</td>
<td>• Review &amp; Appeal</td>
<td>• Intermediate Goods</td>
</tr>
<tr>
<td>• Packaging Materials &amp; Containers for Retail Sale</td>
<td>• Risk Management</td>
<td>• Invoicing by 3rd Country</td>
</tr>
<tr>
<td>• Packing Materials &amp; Containers for Shipment</td>
<td>• Advance Rulings</td>
<td>• Outward Processing</td>
</tr>
<tr>
<td>• Regional Value Content Requirement</td>
<td>• Certificate of Origin or Declaration of Origin</td>
<td>• Recording of Costs</td>
</tr>
<tr>
<td>• Transit &amp; Transshipment</td>
<td>• Confidentiality</td>
<td>• Release of Goods</td>
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<tr>
<td>• Value of Materials</td>
<td>• Express Consignments</td>
<td>• Rules of Origin Subgroup or Joint Committee</td>
</tr>
<tr>
<td>• Cooperation</td>
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<td>• Security of Trade &amp; Repression of Terrorist Activity</td>
</tr>
<tr>
<td>• Records</td>
<td></td>
<td>• Treatment of Goods for which Preference is Claimed</td>
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<td></td>
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<td>• Uniform Regulations</td>
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</tbody>
</table>

*Bold, italicized provisions are proposed APEC Model Measures

All but 4 Model Measures are within the most commonly used provisions
How much variation is there within similar Rules of Origin provisions across FTAs?

The following chart presents an analysis of the variation within the most common rules of origin provisions. Two key questions drive this analysis:

1. How many FTAs use similar legal text for each Rules of Origin provision?
   - For each provision, the length of the color block represents the number of FTAs that use the same definition of that provision. For example:
     - Transshipment, Accumulation, and Originating Goods have the most similarity among FTAs
     - Value of Materials, De Minimis, and Verification have the most variance among FTAs

2. How many different variations of each Rules of Origin provision are there?
   - For each provision, a colored block represents a group of FTAs that are similar on that provision. Fewer colors per bar indicates more similarity in the landscape on that provision. For example:
     - Transshipment, Indirect Materials, and Claims for Preferential Tariff Treatment have the fewest types of provisions
     - Value of Materials, Cooperation, and Verification have the most types of provisions

Complexity is driven by variations in each provision and differences between FTAs
There is more commonality within certain provisions

Each color block represents a group of FTAs that are similar on a particular provision.

More divergence in a provision across FTAs can cause more administrative complexity for firms operating across multiple FTAs.

8 FTAs have similar criteria for Value of Materials. The other 17 FTAs are split among 5 different rules.
Comparative Analysis of Rules of Origin within APEC FTAs to One Another

1. Comparing each FTA by individual Rules of Origin provisions
2. Examining potential Rules of Origin complexity drivers
3. Analyzing process oriented provisions and origination criteria provisions
APEC region FTAs are equally split between Regional Value Content and Tariff Change.

### Regional Value Content
- ASEAN
- ASEAN - China
- Australia - PNG
- CCFTA
- China - Chile
- Mexico - Chile
- New Zealand - Singapore
- Peru - Chile
- Peru - Mexico
- SAFTA
- US - Korea

### Tariff Change
- Australia - Thailand
- Australia - US
- ANZCERTA
- Japan - Mexico
- JSEPA
- Korea - Chile
- Korea - Singapore
- New Zealand - Thailand
- US - Chile
- US - Peru
- US - Singapore

### Mixed Method
- China - Hong Kong CEP
- NAFTA
- P4 (Trans Pacific SEP)

Mixed Method FTAs allow users to prove origin using Tariff Change or RVC Method.
24 of 25 FTAs in the APEC region allow for accumulation

Most APEC FTAs allow for some form of accumulation, decreasing administrative complexity when determining origination criteria.
Certification is a trade-off between potential dispute resolution costs and upfront administration costs

“The more numerous the bureaucratic hurdles and the higher the costs for an exporter to obtain an origin certificate, the lower the incentives to seek PTA-conferred preferential treatment.”

Comparative Analysis of Rules of Origin within APEC FTAs to One Another

1. Comparing each FTA by individual Rules of Origin provisions
2. Examining potential Rules of Origin complexity drivers
3. Analyzing process-oriented provisions and origination criteria-oriented provisions
Comparing Rules of Origin regimes by their relative emphasis on process-oriented versus proof-of-origination provisions

• The spatial positioning map on page 37 presents an alternative framework for comparing and contrasting RoO regimes

• Provisions within RoO can be loosely categorized as “process” or “origination criteria” oriented

Process Provisions
• Process RoO provisions describe processes for proving the origin of a good
• Examples include:
  - Records
  - Cooperation
  - Origin Verification
  - Consultation and Modification

Originating Criteria Provisions
• Originating criteria RoO provisions describe the method for determining origin
• Examples include:
  - De Minimis
  - Regional Value Content
  - Value of Materials
  - Accumulation

VS.

Process provisions describe **how** to prove origin while originating criteria provisions describe **what** a user must prove
Comparing FTAs based on process and origination criteria Rules of Origin provisions

- In the following Chart each FTA is scored on the similarity of its process provisions and origination criteria provisions

**Process Provisions Score**
- For each FTA in the group, an FTA receives 1 point for each other FTA to which it is similar
  - Example: If FTA #1 is similar to FTA #2 on *Origination Verification*, it gets 1 point; if not, FTA #1 gets 0 points

**Origination Criteria Provisions Score**
- For each FTA in the group, an FTA receives 1 point for each other FTA to which it is similar
  - Example: If FTA #3 is similar to FTA #4 on *Accumulation*, it gets 1 point; if not, FTA #3 gets 0 points

**The total score is the sum of the scores for each process provision and each origination criteria provision**

Mapping FTAs on these two measures shows which FTAs are similar to the group on process oriented provisions and origination criteria provisions
Example of possible scoring outcome for this analytical comparison

- **High / High**: This indicates similarity to the group on both types of provisions
- **Low / Low**: This indicates difference from the group on both types of provisions
- **High / Low**: This indicates similarity to the group on one type of provision, but difference from the group on the other type of provision

Sample Scores

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<thead>
<tr>
<th>Criteria</th>
<th>ANZCERT</th>
<th>Australia - PNG</th>
<th>SAFTA</th>
<th>New Zealand - Thailand</th>
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</thead>
<tbody>
<tr>
<td>Process</td>
<td>81</td>
<td>- 53</td>
<td>- 62</td>
<td>87</td>
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<tr>
<td>Process</td>
<td>100</td>
<td>- 38</td>
<td>86</td>
<td>- 29</td>
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</tbody>
</table>

Limitation

Two FTAs close to each other in score are not necessarily similar to each other. The scores indicate similarity to the group of FTAs only.

Higher scores for process provisions and origination criteria provisions indicate that an FTA’s Rules of Origin are more similar to the group of FTAs.
FTAs mapped based on the extent of Rules of Origin process and origination criteria similarity and difference

FTAs plotted on the upper right quadrant are the most similar to the group
Summary: Comparing Rules of Origin regimes against one another

• Broad differences in the rules of the most commonly used provisions of Rules of Origin creates a reality for business where there are essentially no common provisions
  - Business must treat each set of RoO as entirely new business requirements
• There most complexity arise within the accumulation, certification, and substantial transformation method provisions
• Complexity increases most for business when they must meet the requirements of multiple sets of RoO.
  - Where a company can use two or more similar FTAs it will experiences less difficulty and achieve lower costs
• Negotiating new Rules of Origin provisions that are similar to other RoO provisions will reduce company cost
  - Negotiating with this in mind, trade officials can eliminate unnecessary differences in these agreements
• Consistency to any standard reduces complexity in the landscape, promotes transparency, and lowers unnecessary administrative costs
Industry Specific Rules of Origin Analysis
Comparative analysis of *industry specific* Rules of Origin

**Issues**
- Special Rules of Origin provisions complicate firms’ sourcing decisions\(^1\)
- Product specific Rules of Origin allow governments to include sensitive products rather than exclude them from the FTA
  - However, because each Rules of Origin can be tailored to a specific product, quantifiable comparison is difficult across sectors\(^2\)

**Research Approach**
1. Examined industry specific Rules of Origin in the general Rules of Origin chapters and articles for all FTAs (excluding annexes)
2. Identified products that had special provisions and grouped by HS code
   - Examined individual Rules of Origin provisions containing these exceptions
3. Analyzed FTAs with the most exceptions

**Caveats**
- Many annexes contained all HS codes and therefore did not provide enough variation for a conclusive comparative analysis

89% of APEC FTAs have special rules for certain industries in the general Rules of Origin provisions

---
\(^1\) The Impact of RoO on Strategic Outsourcing: An IO Perspective
\(^2\) Selective Liberalization in Response to Globalization: RoO as Determinants of Market Access Provisions in PTAs
Rules of Origin provisions that include industry specific exceptions

- **Wholly Obtained or Produced**
  - Products easily qualify as originating but may have additional restrictions such as quotas, time windows, and other non-tariff trade barriers.

- **Substantial Transformation**
  - Additional change in tariff classification requirements
  - Specific regional value content requirements
  - Technical requirements

- **De Minimis**
  - Different de minimis levels for specific products

Industry specific Rules of Origin include additional restrictions and requirements in general provisions
Industry specific Rules of Origin appear across nearly all FTAs in the regions

<table>
<thead>
<tr>
<th>Industry</th>
<th>Australia-PNG</th>
<th>SAFTA</th>
<th>NAFTA</th>
<th>JSEPA</th>
<th>Korea-Singapore</th>
<th>Canada-Chile</th>
<th>Australia-US</th>
<th>Japan-Mexico</th>
<th>Mexico-Chile</th>
<th>US-Peru</th>
<th>Australia-Thailand</th>
<th>ANZCETA</th>
<th>Chile-Peru</th>
<th>Korea-Chile</th>
<th>US-Chile</th>
<th>New Zealand-Thailand</th>
<th>US-Singapore</th>
<th>New Zealand-Singapore</th>
<th>ASEAN</th>
<th>P4</th>
<th>Peru-Mexico</th>
<th>US-Korea</th>
<th>China-Hong Kong</th>
<th>ASEAN-China</th>
<th>CCFTA</th>
<th>Total by HS Code</th>
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</tbody>
</table>
General provisions do not apply universally to all industries in the FTAs

- 32% of FTAs have 0-2 industry specific exceptions
- 40% have 3-5 specific exceptions
- 28% have 6 or more exceptions

The number of different industry specific criteria can be an indication of FTAs level of industry restrictiveness and protection.
Textiles, Food & Agriculture, and Automotive industries have the most industry specific criteria.
Summary: Industry specific Rules of Origin analysis

• 89% of APEC FTAs have special exceptions for specific products and industries
• Textiles, Food & Agriculture, and Automotive have the most exempted HS codes
• Industry specific Rules of Origin provisions add complexity to FTAs
  - Complicate firms’ sourcing decisions
  - Force specialization of production to a certain market or markets when Rules of Origin are strict
  - Increase transaction costs when certification methods diverge for firms that operate under multiple FTAs
• Potential Impacts
  - Additional Rules of Origin complexity driven by industry specific exception reduces aggregate trade flows

Conclusions

Complexity of the landscape causes transaction and administrative cost in dealing with the interaction of different FTAs in addition to the cost of administering each FTA individually.

Simplification in the landscape reduces the cost of operating under two or more FTAs.

Precision and transparency reduce administrative guesswork and therefore cost.

Complexity of a single FTA causes transaction and administrative cost for a company operating under that FTA.

Simplification in the landscape reduces the cost of operating under two or more FTAs.

• Simplification of general Rules of Origin may lead to simplification of product specific Rules of Origin.
• Supporting a country's economic interests does not require complex Rules of Origin.
Capturing the Voice of the Stakeholder:
Business Executives, Trade Association Officials, and Trade Officials
Interviews and Survey Research: Identifying the major “points of pain” business executives encounter with Rules of Origin

Objective:
Beyond our analytical work on comparing RoO with FTAs, we attempted to learn directly from business executives with deep knowledge of Rules of Origin about their major concerns. We used a combination of both in-person interviews, telephone interviews and a survey instrument to gather both qualitative and quantitative information. Our objectives were to:

- Determine the impact of RoO on business decisions
- Evaluate the burdens that RoO place on businesses
- Assess the benefits and drawbacks of using RoO provisions in FTAs/RTAs between APEC economies

Field Research:
Primary research data collected in 13 APEC economies from business executives, industry representatives, and trade officials.

- Primary research was conducted in: Australia, Canada, China, Chile, Hong Kong, Japan, Korea, Malaysia, Mexico, New Zealand, Singapore, Thailand, United States
  - In-person interviews: 60
  - Telephone interviews: 14
  - Questionnaire responses: 41

Limitations:
- The objective was to seek information from knowledgeable executives, RoO specialists, and trade association officials in a variety of industries, and with government trade officials. As a consequence, there is more depth and less breadth in the research sample.
- There is a bias in our interviews toward executives in the Automotive and Food sectors. We sought explicit interviews with executives in these industries in order to develop the industry-specific case studies included in this report.
**Rules of Origin: Cost Time and Money**

**Rules of Origin factor into management decisions frequently...**

**Frequency of RoO impact on Management Decisions**
Respondents Across All Industries

- Less than once per year: 39%
- Once per year or more: 61%

**Rules of Origin issues impact decision-making at companies across industries and economies**

**The costs, while they vary widely, are real and unavoidable**

**The range of incremental Costs**
Associated with RoO-Related Issues
Automobile Industry

- $76 K
- $20 MM

One Japanese automaker claimed that it spends $76K per model to audit compliance of RoO.

Large American automaker is facing a penalty assessment of over $20 million for inadequate internal control of RoO compliance.

**See Appendix A for survey questions and summary of responses**
Rules of Origin have the largest impact on sourcing, market entry, and plant location decisions.

Rules of Origin have the largest impact on location-related strategic decisions.
Businesses in every economy, and every industry, are facing Rules of Origin issues, however…

** See Appendix A for survey questions and summary of responses

Differences are seen on the industry level…

...and also on the economy level

** Rules of Origin Points of Pain

Across companies in both developed and developing economies, RoO concerns are essentially the same. One significant difference is in market entry decisions, which are more prevalent decisions for businesses in the auto industry and developed markets.
Including all RoO administrative and compliance costs (upfront and on-going) in market entry decisions can tilt the scales to the point where a market entry opportunity is no longer attractive. Hence investments do not get made.
Identifying the top Rules of Origin cost contributors

**See Appendix A for survey questions and summary of responses**

The three most cited Rules of Origin-related costs: certification, staffing, and sourcing fees.

The key cost drivers are related to on-going administration of using RoO.

The less cited costs are mostly related to one-time incidents, events or decisions.

The largest RoO costs are in the areas of dispute resolution and RoO administration. Executives are also concerned with the costs of opportunities which may be missed because of the complexity of operating across FTAs with different Rules of Origin provisions.
Identifying the sources of Rules of Origin-related costs

Across interviews, three explicit drivers of Rules of Origin-related costs emerged:

1. Certification
2. Staffing
3. Sourcing

- Certification
  - "There are opportunities that we are not taking advantage of because of difficulty in certifying." - Japanese auto maker

- Staffing
  - "Recently, we hired 12 people to manage the (RoO) process." - Electronics Part Supplier

- Sourcing
  - "With our detergent products, we used a more expensive local supplier simply because of the % value added requirement, with full knowledge that there were cheaper suppliers out there...the effects are in the millions of dollars of savings." - Global CPG
Certification costs driven by proving origination

** See Appendix A for survey questions and summary of responses

*RVC and Value Added/Tariff Change procedures are the most complex categories to administer and appear to be high cost drivers for businesses.*

### Administrative Complexity Drivers

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Value Content</td>
<td>61.5%</td>
</tr>
<tr>
<td>Value Added or Tariff Change is Met</td>
<td>46.2%</td>
</tr>
<tr>
<td>Accumulation Rules</td>
<td>34.6%</td>
</tr>
<tr>
<td>Indirect Costs Used in Production</td>
<td>34.6%</td>
</tr>
<tr>
<td>GAAP Inventory Management Method of...</td>
<td>30.8%</td>
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<tr>
<td>Value of Goods/Services</td>
<td>26.9%</td>
</tr>
<tr>
<td>If a Intermediate Material is Self-Produced</td>
<td>23.1%</td>
</tr>
<tr>
<td>If Set of Goods Are Originating</td>
<td>19.2%</td>
</tr>
<tr>
<td>De Minimis standards</td>
<td>11.5%</td>
</tr>
</tbody>
</table>

*“It is hard to gather information from part suppliers to determine local content of parts. Suppliers have information that they want to keep secret.”*

-- Japan automaker

*“Value added is too much work, it costs a lot of time and money. To prove the tariff change rule we will have to show every HS code even for non originating material.”*

-- Japan electronics manufacturer

Calculating and proving origination are key cost drivers
The added staffing costs are a significant cost of using Rules of Origin. Whether it is developing in-house capabilities or paying for consulting services, these costs add to the burden companies are facing.

**Consulting: Pro and Con**

**Pro**
“We hire consultants to help us on topics in which we do not have expertise or when we don't have time to analyze the RoO for a new product or region.” – Global Agricultural Firm

**Con**
“SMEs don’t have the internal capabilities to deal with customs and RoO complexity; as a result, they hire consultants who are not transparent in what they do and many are actually corrupt.” – ASEAN Chamber of Commerce
Sourcing costs are driven by origination

Ideally, a business would source parts from the low-cost provider... …but when it must consider RoO, suppliers’ locations are a key factor in the decision and can lead to higher costs.

The Effect of RoO on the Cost of Sourcing Decisions

In some cases, in order to benefit from FTA preferences, companies may be forced to make sub-optimal decisions and must work with new/additional suppliers that add costs and can slow down the certification process.
Below are listed the most frequently raised Rules of Origin-related business concerns organized by supply chain complexity and development level of the economy.

### Core Business Concerns by Supply Chain Complexity and Level of Economic Development

- **Developed**
  - Obtaining certificates of origin
  - Cost/benefit of complying with RoO
  - Additional headcount/consulting services
  - Cost/benefit of complying with RoO
  - Certification issues with suppliers
  - Finding suppliers with RoO administration capabilities
  - Cost/benefit of complying with RoO
  - Customs/dispute resolution issues

- **Developing**
  - Obtaining certificates of origin
  - Cost/benefit of complying with RoO
  - Customs/dispute resolution issues

- **Less Complex Supply Chain**
  - Customs/dispute resolution issues
  - Sourcing and plant location decisions

- **More Complex Supply Chain**
  - Obtaining certificates of origin
  - Cost/benefit of complying with RoO
  - Customs/dispute resolution issues

**How different businesses are affected by Rules of Origin**

- Certification issues with suppliers
- Finding suppliers with RoO administration capabilities
- Cost/benefit of complying with RoO
- Customs/dispute resolution issues

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**University of Southern California**
The heart of the matter: worth it or not?

Across our interviews, the crux of the issue for business is whether the efforts and associated costs imposed by using FTAs and their Rules of Origin are worthwhile.

<table>
<thead>
<tr>
<th>Benefits &amp; Advantages</th>
<th>Use Rules of Origin</th>
<th>Pay Full Tariff</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Barrier to entry</strong></td>
<td>• “FTAs provide a competitive advantage for us.” – Global Food Company</td>
<td><strong>Tariffs are not cost prohibitive</strong></td>
</tr>
<tr>
<td><strong>Cost Savings</strong></td>
<td>• “last year we saved 50 million dollars on customs duties.” – Japanese Auto Maker</td>
<td><strong>Tariffs are protecting our industry</strong></td>
</tr>
<tr>
<td><strong>Cost of Doing Business</strong></td>
<td>• “RoO are one of the hidden costs of doing business.” – Canadian Trade Association</td>
<td><strong>Lack capabilities</strong></td>
</tr>
<tr>
<td><strong>Poor Sourcing Decisions</strong></td>
<td>• “To comply with RoO we have to change sourcing of materials, but this increases costs.” – Japanese Electronic Manf.</td>
<td><strong>Overly burdens suppliers</strong></td>
</tr>
<tr>
<td><strong>Unclear on How to Calculate Benefit</strong></td>
<td>• “We tried to quantify the costs of RoO but “they are not reliable. It’s really difficult to quantify.” – Global Auto Maker</td>
<td><strong>Unable to make the business case for compliance</strong></td>
</tr>
</tbody>
</table>
Conclusions

• Business executives cited dispute resolution and administration costs as the most prevalent Rules of Origin cost drivers.
  - These costs manifest themselves through certification, staffing, and sourcing.

• Rules of Origin significantly impact location-centric decisions.
  - Business executives stress that Rules of Origin has the greatest impact on strategic sourcing, manufacturing, and product sales decision-making.

• Rules of Origin–related issues are similar across all economies, industries and company sizes.
  - While we found some differences based on type of industry and size of company, most executives cited the say list of Rules of Origin concerns.

• Rules of Origin administrative and compliance costs can negatively effect market entry decisions.
  - Business executives cited that Rules of Origin costs, when significant, can lead them to change investment decisions. Some executives reported even considering making investments in other regions of the world.
Case Study
Rules of Origin
in the Food Industry
Key findings

1. **Rules of origin issues are relatively less important to food companies when compared to other industries.** Only the largest food companies have the size and capabilities to take advantage of Rules of Origin.

2. **Food companies operate in a highly restrictive and protected industry that dramatically affects their ability to use Rules of Origin.** Food-specific Rules of Origin are structured to enable economies to negotiate for special provisions that protect local food interests. As a result, food companies are restricted in their ability to truly take advantage of free trade preferences across the APEC region.
Food Industry

The food industry is one of the most protected industries worldwide. Beyond restrictive measures such as quotas, food stuff has some of the most product-specific Rules of Origin requirements.

Most food stuff qualifies as originating due to the nature of the industry. For example, raw materials are wholly produced. Processed goods comply with Rules of Origin via a substantial transformation.

Objective

- To examine one of the more restrictive industrial sectors within free trade agreements
- To determine how companies of different size and from different economies cope with Food specific Rules of Origin

Research Approach

- Analyzed industry specific Rules of Origin in the food stuff chapters (16-24) across FTAs
- Interviewed executives from the food industry within APEC region

Caveats

- Interviews conducted in 13 economies (Thailand, Australia, Hong Kong, China, Japan, Korea, Mexico, New Zealand, US, Chile, Canada, Malaysia, and Singapore) out of 21 APEC economies
- Interviews conducted trended toward larger multinational corporations
Insights

Our analysis of the food industry revealed two insights. This report focuses on the critical drivers behind the following findings:

1. Understanding Rules of Origin is *relatively* simple for food companies; however, complying with the restrictiveness of the industry and other non-tariff barriers is more challenging.

2. The use of Rules of Origin is highly correlated with company size:
   - Large companies have the resources to meet the additional administrative burden.
   - Small & Medium Sized Enterprises (SMEs) may lack the resources and the scale to meet the administrative burden.
Protectionism Measures vs. Trade Liberalization in Food Industry

Illustrative

Rules of Origin requirements are only one of several important considerations food manufacturers must take into account when engaging in cross-border trade.

Protectionism Measures vs. Trade Liberalization in Food Industry

Insights
Food safety standards, labeling requirements, certification, quotas and other non-tariff barriers, along with protective regulations, all compound food producers’ challenges.

Rules of Origin are viewed as a minor roadblock by food executives when compared to other protectionist measures like quotas.
Rules of Origin is not the major issue

Nearly 40% fewer food executives are affected by Rules of Origin related issues compared to those from other industries.

“RoO affect our decisions, however, in the end we decided where to do business depending on overall costs including transportation costs, raw materials, and duties.”
– Large Food Manufacturer

“RoO do affect the way business is managed and the costs--but probably isn't the ultimate determinant of what countries companies do business in.”
– Large Food Company

Both quantitative and qualitative research reveal that Rules of Origin is not a significant management issue for food company executives
Food specific Rules of Origin are more complex when looking across FTAs

** See Appendix B for a detailed analysis of food-specific Rules of Origin for selected FTAs

*There are as many as 11 transformation methods for processed food products across FTAs*

"The food industry is not like electronics where the variation between products is high. Food is relatively simple because the same materials are used for many products. Complying with RoO requirements is relatively less complex until you start using multiple FTAs. Then it gets a bit more challenging."

- Large Food Company

Food Rules of Origin are logical, relatively straightforward and not overly complicated; however, firms with operations and supply chains across multiple FTAs encounter complexity.
Food companies must apply different transformation methods to take advantage of Rules of Origin provisions across FTAs

Processed food manufacturers must manage multiple transformation methods and RVC requirements which increase the complexity of global businesses

Case in Point: Applying RoO for Wine (HS: 2204) by Exporting Countries

<table>
<thead>
<tr>
<th>Exporting Country: Chile</th>
<th>Importing Country</th>
<th>Rule</th>
<th>Value Methodology</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>CTC</td>
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<td>N/A</td>
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<tr>
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<tr>
<td>China</td>
<td>RVC</td>
<td>Transaction Value</td>
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<td>Korea</td>
<td>CTC + RVC</td>
<td>Net Cost or Transaction Value</td>
<td>30%- build up; 45%-build-down</td>
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<tr>
<td>New Zealand</td>
<td>CTC</td>
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<td>N/A</td>
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<table>
<thead>
<tr>
<th>Exporting Country: Australia</th>
<th>Importing Country</th>
<th>Rule</th>
<th>Value Methodology</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>RVC</td>
<td>Net Cost</td>
<td>50%</td>
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<tr>
<td>United States</td>
<td>CTC</td>
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<tr>
<td>Thailand</td>
<td>CTC</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Findings:
1. Most RoO use change in tariff heading and are sometimes accompanied by RVC requirements;
2. When RVC is required, a transaction value and/or net cost method are used to calculate RVC;
3. RVC ranges from 10%-100% for different provisions across FTAs.

Rules of Origin help facilitate protectionism and restrictiveness of the Food Industry

More food chapters allow countries to negotiate for more protectionism…

...that many be advantageous when at the negotiation table

Food and agricultural items are often placed on exempted or sensitive goods list and excluded from FTAs.

Example:
- ASEAN-China FTA: Some items in every chapter are placed on the sensitive good list;
- ASEAN FTA: 4 chapters are excluded.

A change in chapter heading is a more restrictive requirement for substantial transformation.

Rules of Origin restrictiveness effectively limits food companies from taking advantage of global market opportunities.
**Stronger Rules of Origin for selective food items**

Countries use additional special provisions to protect sensitive food products that can effectively eliminate trade.

Chapters Eliminated from De Minimis Provision

- 100% Chile-Korea
- 78% Australia-US
- 56% NAFTA

Elimination of De minimis provision makes Rules of Origin more restrictive.

Examples:
- NAFTA eliminates De minimis provision for 6 food items
- Chile-Korea eliminated De minimis provision for all food & agricultural goods
- Australia-US eliminates De minimis provision for selected food items

Rules of Origin are more restrictive when countries insist on adding provisions

[University of Southern California]
Insights

Our analysis of the food stuff industry revealed two insights. This report focuses on the critical drivers behind the following findings:

1. Understanding Rules of Origin is relatively simple for food companies; however, complying with the restrictiveness of the industry and other non-tariff barriers is more challenging.

2. The use of Rules of Origin is highly correlated with company size:
   - Large Companies have the resources to meet the additional administrative burden.
   - Small & Medium Sized Enterprises (SMEs) may lack the resources and the scale to meet the administrative burden.
Most companies source globally but sell regionally.

Even large multinational companies sell regionally, which is driven by a number of industry-specific factors.

Case in Point: Location of Sale of Final Product

<table>
<thead>
<tr>
<th>North American Food Company</th>
</tr>
</thead>
</table>

Many raw materials are exclusively grown and produced, which forces food companies to source globally.

Drivers of Regional Sales for Food:
- Local tastes and preferences
- Logistics & distribution costs
- Differences in food safety standards, certification, and local labeling requirements
Large companies and SMEs engage FTAs and Rules of Origin differently

*Food companies differ in how they view the benefits and costs of Rules of Origin*

**SME Perspective**
“It is often easier to pay the tariff for smaller companies because the time spent is simply not worth it.”
– Small Condiments Company

**Large Company Perspective**
“RoO is complicated when it comes to new products. Once we identify each item, it is straightforward.”
– Large Confectionary Company

Size and resources determine the usage of Rules of Origin provisions
SMEs tend to use Rules of Origin less frequently than global companies

Global companies apply Rules of Origin proactively, while SMEs apply Rules of Origin passively.

“We always try to find ways to apply RoO. If we can’t, we pay the duty and pass the cost on to consumers.”
– Large Multinational Food Company

“We would like to apply RoO, but we lack the resources to do so effectively.”
– Small Food Company

<table>
<thead>
<tr>
<th>Company Type</th>
<th>Apply RoO</th>
<th>Pay Duty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Small &amp; Medium</td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

Many food companies simply pay tariffs instead of complying with Rules of Origin
Large companies dedicate more resources to FTA related issues

Large companies can dwarf smaller companies with their size and scale

Large companies have dedicated teams, and hire consultants to deal with RoO-related issues.

- “Consultants can cost USD$200,000 for a single case.” – Beverage Company Executive
- “We have dedicated staff to ensure we pay the lowest tariff.” – Consumer Products Goods Executive

Large companies have dedicated staff to deal with Rules of Origin related issues and the resources to hire consultants
Unlike large global companies, SMEs lack the capabilities to manage Rules of Origin-related issues.

**Illustrative Comparison of Capabilities:**
Global Multi-National Companies (MNCs) vs. Small & Medium Sized Enterprises (SMEs)

<table>
<thead>
<tr>
<th>Resources</th>
<th>Global MNC</th>
<th>SME</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Systems</td>
<td>![Very high]</td>
<td>![High]</td>
</tr>
<tr>
<td>Subject Matter Experts</td>
<td>![High]</td>
<td>![Very high]</td>
</tr>
<tr>
<td>Investment Capital</td>
<td>![Medium]</td>
<td>![High]</td>
</tr>
<tr>
<td>Training</td>
<td>![Medium]</td>
<td>![High]</td>
</tr>
<tr>
<td>Organizational Flexibility</td>
<td>![Low]</td>
<td>![Medium]</td>
</tr>
</tbody>
</table>

“Many SMEs simply do not have the resources to certify their products legally.”
- Food Executive

SMEs have limited resources of capital, human resources and IT systems. Therefore they source and sell mostly within region.
Understanding Rules of Origin and its effects on the Food Industry

• Rules of Origin are viewed as a minor roadblock by food executives compared to other protectionist measures such as quotas
• Both quantitative and qualitative research reveal that Rules of Origin is not a significant management issue for food company executives
• Food Rules of Origin is logical, relatively straightforward and not overly complicated; however, firms with operations and supply chains across multiple FTAs encounter complexity
• Simple transactions become increasingly complex when applying Rules of Origin across multiple FTAs Small companies simply pay tariffs instead of applying Rules of Origin across FTAs
• Rules of Origin restrictiveness effectively limits food companies from taking advantage of global market opportunities
• Rules of Origin is more restrictive when countries insist on adding provisions

Evaluating how food companies use Rules of Origin

• Many raw materials are exclusively grown and produced (e.g., cocoa in South America) forcing food companies to source globally
• Size and resources determine the use of Rules of Origin provisions
• Many food companies simply pay the tariff instead of complying with Rules of Origin
• SMEs rarely have dedicated staff to deal with Rules of Origin related issues or the resources to hire consultants
• SMEs lack the capabilities to manage the complexity of Rules of Origin related administration issues
Case Study
Rules of Origin
in the Automotive Industry
Key Findings

• **Costs are driven by Rules of Origin administration**
  - Costs are compounded when working with multiple suppliers across multiple trade agreements

• **Administration of Rules of Origin complexity drives costs in the auto industry**
  - Costs are driven by number of FTAs and volume of products

• **Rules of origin administration requires automakers to make significant investments**
  - These investments include human capital, training, IT systems, and documentation efforts

• **Economies of scale on certification efforts are difficult to achieve**
  - Overhead, initial fixed costs, and shipping certificates prevent many companies from applying for preferential tariffs

• **Lack of standard interpretations of HS codes lead to classification disputes**
  - Classification is open to interpretation by automakers, suppliers, and customs officials

• **Suppliers are the bottleneck of certification efforts**
  - Suppliers lack the capabilities to deal with Rules of Origin complexity and have little incentive to comply with certification requests.
Automotive Industry Case Study

Objective
• Create a case study to understand Rules of Origin in the Automotive Industry
  - What are the pain points?
  - What are the drivers?
  - What does the industry say?
• The Automotive industry service as a harbinger for industries which continue to expand their supply networks across economies. With approximately 4,000 parts and suppliers across the globe, the problems the automotive industry faces with navigating Rules of Origin serve as valuable case study for other industries

Research Approach
1. Interviews and survey with executives and trade professionals
2. Survey companies in the automotive industry
3. Detailed analysis of the industry specific automotive sector RoO provisions

Caveats
• Very difficult to get companies to share financial data
Rules of Origin impacts auto companies frequently

56% of the automakers face RoO-related issues on a regular basis...

... that impact critical business decisions

RoO Impact to Businesses
Automotive Industry

RoO is a determining factor when choosing locations for automobile business.

Frequency of RoO-Related Management Issues
Automobile Companies

- Never: 19%
- Once every one year or more: 25%
- At least once every 6 months to one year: 56%
- At least once every 1 to 3 months: 19%
- At least once a month: 19%

We use RoO in our day to day operations. It is important for sourcing. We are constantly looking for better cost and better logistics.”

- Auto Part Manufacturer

Rules of Origin issues impact decision-making on a regular basis in automotive industry
Rules of Origin-related issues cause real costs to Automobile industry

Rules of Origin-related costs can impact the bottom-line from thousands dollars to tens of millions of dollars

Ranged Incremental Costs Associated with RoO-Related Issues
Automobile Industry

One large US Automaker is facing a penalty assessment of over $20 million for inadequate internal control of RoO compliance.

Case-in-Point:
On-Going Costs of RoO-Related Issues

<table>
<thead>
<tr>
<th>DATE</th>
<th>Canadian Duty paid on North American sourced parts</th>
<th>Mexican duty paid on North American Sourced parts</th>
<th>Combined (Mex and CA) duty paid on parts that are potentially NAFTA eligible (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul-05</td>
<td>12,157.07</td>
<td>$6,587.81</td>
<td>$18,744.87</td>
</tr>
<tr>
<td>Aug-05</td>
<td>11,952.67</td>
<td>10,874.54</td>
<td>22,827.21</td>
</tr>
<tr>
<td>Sep-05</td>
<td>18,842.59</td>
<td>4,933.20</td>
<td>23,775.79</td>
</tr>
<tr>
<td>Oct-05</td>
<td>13,547.21</td>
<td>7,600.77</td>
<td>21,147.98</td>
</tr>
<tr>
<td>Nov-05</td>
<td>9,472.89</td>
<td>5,676.98</td>
<td>15,149.86</td>
</tr>
<tr>
<td>Dec-05</td>
<td>14,823.80</td>
<td>6,867.88</td>
<td>21,691.68</td>
</tr>
<tr>
<td>Jan-06</td>
<td>13,322.32</td>
<td>5,666.12</td>
<td>18,988.44</td>
</tr>
<tr>
<td>Feb-06</td>
<td>10,518.77</td>
<td>5,102.13</td>
<td>15,620.90</td>
</tr>
<tr>
<td>Mar-06</td>
<td>16,874.79</td>
<td>8,409.13</td>
<td>25,283.92</td>
</tr>
<tr>
<td>Apr-06</td>
<td>8,365.37</td>
<td>6,482.38</td>
<td>14,847.75</td>
</tr>
<tr>
<td>May-06</td>
<td>9,731.64</td>
<td>11,473.67</td>
<td>21,205.31</td>
</tr>
<tr>
<td>Jun-06</td>
<td>8,591.65</td>
<td>8,544.59</td>
<td>17,136.24</td>
</tr>
<tr>
<td>147,409.96</td>
<td>91,022.36</td>
<td>$238,432.34</td>
<td></td>
</tr>
</tbody>
</table>

"On part shipments alone, we left $238,432.34 on the table last year by not taking advantage of NAFTA because of the complexity of RoO.”
-Auto Executive

$76 K

One Japanese automaker claimed that they spend $76K per car line to audit compliance of RoO

Rules of Origin-related costs can occur from on-going administration of process, disputes over certification and tariffs paid for originating goods due to Rules of Origin complexity.
Rules of Origin impact businesses, economies, and regions equally

Companies of all sizes are impacted equally by Rules of Origin... ...as are countries...

Impact of RoO on Businesses

![Bar chart showing 83% Small vs. 81% Big Companies]

![Bar chart showing 71% Developing vs. 87% Developed Countries]

...which can negatively impact trade and economic development in the APEC region

“Complexity issues of RoO cause a lot of headaches in negotiating Free Trade Agreements. Industries have been complaining about increasing complexity. Although we are making every effort to harmonize the systems, we lost millions of foreign investments because businesses chose to invest in economies with more standardized rules.”

- Government Official in one APEC economy

“If the sourcing costs in ASEAN leads to suboptimal sourcing, we will stop investing in the geography and go to India.”

- Auto Executive

The complexity of Rules of Origin create problems for all stakeholders in foreign trades
Points of pain for Automobile manufacturers

Rules of Origin-related issues are the result of overly burdensome administrative requirements and complex technical requirements.

There is an extensive list of pain points when dealing with Rules of Origin related issues
Administrative Rules of Origin–related challenges

Managing the effort

Problem #1
Administrative

Managing the effort

Root Cause #1
Compliancy Audit

Root Cause #2
No Scale

Root Cause #3
High Overhead

Root Cause #4
No Synergy

“If all the FTAs were the same, adding another FTA would only result in a small marginal increase in cost. However, as it currently stands additional FTAs add almost as much costs as the first FTA.”

- Auto Executive
Audits are necessary but burdensome requirements for Automobile makers

While the costs and effort of random audits seem extreme...

.. the risks of certification errors are enormous

Costs Associated with a Random Audit

NAFTA example

$268,800
2 workers @ 10 suppliers
$76,800
3 Weeks
8 Workers @ $80/hr

Case-in-point: Risk of certificate failure

Ford Faces $20 Million NAFTA Penalty for RoO

While many Asian automakers are pushing for self certification for potential savings, they need to be cognizant of the potential audit costs and penalties
Automobile makers have difficulty realizing scale efficiencies from their certification efforts

Automakers must certify anywhere from 40-70% of their parts in same way (i.e., process and effort) despite significant differences in part complexities and costs

Illustrative analysis of the amount of product that companies must ship annually in order to break even on the certification costs (assuming a 10% tariff rate reduction)

<table>
<thead>
<tr>
<th>Parts / Price</th>
<th>Cost to prove origin (40hrs @ $80/hr)</th>
<th>Cost to certify shipment (Chamber of Commerce)</th>
<th>Annual Breakeven (When shipping parts on a daily basis)</th>
<th>Annual Breakeven (When shipping parts on a weekly basis)</th>
<th>Annual Breakeven (When shipping parts on a monthly basis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muffler $100</td>
<td>$3,200</td>
<td>~$20</td>
<td>1050</td>
<td>424</td>
<td>344</td>
</tr>
<tr>
<td>Wiper motor $25</td>
<td>$3,200</td>
<td>~$20</td>
<td>4200</td>
<td>1696</td>
<td>1376</td>
</tr>
<tr>
<td>Dome light $1</td>
<td>$3,200</td>
<td>~$20</td>
<td>210000</td>
<td>84800</td>
<td>68800</td>
</tr>
<tr>
<td>Tire $250</td>
<td>$3,200</td>
<td>~$20</td>
<td>420</td>
<td>170</td>
<td>138</td>
</tr>
<tr>
<td>Car line $20,000 650/1000 parts</td>
<td>$2,080,000</td>
<td>~$20</td>
<td>1044</td>
<td>1041</td>
<td>1040</td>
</tr>
</tbody>
</table>

Effort is the same regardless of product

“If part cost is small, it will be too expensive to apply FTA.”
- Auto Executive

No Scale

“Automakers must sell more lower priced products to make up for higher relative costs of certification

Automakers must certify anywhere from 40-70% of their parts in same way (i.e., process and effort) despite significant differences in part complexities and costs

Illustrative analysis of the amount of product that companies must ship annually in order to break even on the certification costs (assuming a 10% tariff rate reduction)

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<td>~$20</td>
<td>1044</td>
<td>1041</td>
<td>1040</td>
</tr>
</tbody>
</table>

Due to upfront and per shipment costs, volume is key factor in the profitability of applying rules of origin

University of Southern California
Rules of Origin administrative compliance requires significant internal capabilities

Ongoing Rules of Origin administration requires a great deal of expertise, coordination, and effort to comply with Rules of Origin requirements

<table>
<thead>
<tr>
<th>Essential capabilities for RoO administrative compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capability</td>
</tr>
<tr>
<td>------------------------------------</td>
</tr>
</tbody>
</table>
| Human Capital                      | • Dealing with initial requests  
• Dealing with follow-up compliancy requests  
• Research with own suppliers |
|                                    | • Honda hired 3 employees to exclusively work on exports in Thailand  
• GM’s North and South American FTA group has 100+ people. |
| RoO Administration Training        | • Initial Training of Subject Matter Experts  
• Continued training of recent changes |
|                                    | Many manufactures hire consulting firms such as PricewaterhouseCoopers to provide training |
| IT Systems                         | • Developing systems  
• System maintenance |
|                                    | • Manufactures have received multi-million dollar quotes for enterprise (company wide) systems |
| Documentation                      | • Have to certify shipment by shipment  
• Record keeping  
• Certification itself is relatively cheap |
|                                    | • GM’s Thailand office estimates that it takes 40 hours on average to produce the initial certificate per part. |

“Because of high we have to weigh investment with volume on whether or not to apply the FTA.”
- Auto Executive

“The biggest challenges in assembly operations are that a lot of suppliers don’t have customs expertise.”
- Auto Executive

When all related overhead charges are included with other administrative costs the real financial burden of complying with Rules of Origin is material and significant.
Complexities across Rules of Origin regimes make shared learning difficult

Automakers are rarely able to realize cost savings and administrative synergies across Rules of Origin because FTA-specific knowledge, skills, and systems are required

Areas for potential synergies among FTAs and between manufacturers and suppliers

<table>
<thead>
<tr>
<th>Areas for Potential Synergies</th>
<th>Issues</th>
<th>Actual Synergies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transferring RoO Expertise</td>
<td>• Local content knowledge requirements don’t transfer across FTAs</td>
<td>Low / Med</td>
</tr>
<tr>
<td>Sharing Compliance Systems</td>
<td>• IT systems are often not interoperable to differing compliance requirements</td>
<td>Med</td>
</tr>
<tr>
<td>Consolidating Record Keeping</td>
<td>• Record keeping requirements differ across FTAs and manufacturers</td>
<td>Low</td>
</tr>
</tbody>
</table>

Best Practice

“We have a 3 man team focused on duty optimization. There are 30,000 parts, a big number. Up until recently, we didn’t have IT system to match part numbers with HS code. We brought over an American from our North America operations, who had experience with creating an IT system for NAFTA.”

- Japanese Auto Executive

Businesses will realize significant cost savings and operational efficiencies with increased harmonization of Rules of Origin
Administrative Rules of Origin–related challenges

Lack of Incentive (will)

Getting info from suppliers

Lack of incentive (will)

Root Cause #1
No tangible benefit (for suppliers)

Root Cause #2
Unequal Administration (Burden)

“Getting info from suppliers is like extracting a molar from someone with perfectly good teeth.”
- Auto Executive
Auto makers provide little incentive for suppliers to comply with certification request

Automakers struggle with getting necessary information from suppliers for certification because there is little benefit and increased costs for suppliers. The uneven balance of manufacturer and supplier costs is made less equitable by the influence of tariff savings.

People didn’t know how to handle supplier relations in the beginning of NAFTA. We have the same situation in modern day Japan...”

- Auto Executive

Suppliers face more burdens than the manufacturer, yet they receive little benefit. Additionally, manufacturers have more leverage due to their size.
Administrative Rules of Origin–related challenges

Lack of capabilities

- Getting info from suppliers
- Root Cause #1: No Systems
- Root Cause #2: No Knowledge
- Root Cause #3: No Standard Cert Across RoO

“We sent initial letters to all of our suppliers notifying them that we would like their cooperation, almost everyone acknowledged our requests. But, after we sent detailed requests, most responded that they lacked the capabilities to fulfill our request.”

- Auto Executive

“The biggest challenges in assembly operations are that a lot of suppliers don’t have customs expertise.”

- Auto Executive
Suppliers often lack the capabilities to comply with certification request from Automakers

Suppliers that are willing to provide certification information to automakers often lack the ability to do so in a timely manner

Capability comparison of manufactures and suppliers

<table>
<thead>
<tr>
<th>Resources</th>
<th>Manufacturers</th>
<th>Suppliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject Matter Experts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment Capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Flexibility</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

“Many of our suppliers simply do not have the resources to certify their products and legally we cannot provide consultation to directly help them to certify their products.”
- Auto Executive

Suppliers often receive conflicting advice on how to certify their products from different automakers
Problem #2: Technical

Interpreting inconsistent HS Codes

Managing lack of consolidation across FTAs

“Instead of standardizing RoO, they should start to teach people on how to standardize the interpretation.”
- Auto Executive

“RoO is different country by country. One country may accept a part while another may deny it. It’s difficult to follow all of the agreements. If every country had a FTA, there could be as many as 78 agreements each company would have to follow if they had operations in each economy.”
- Auto Executive
Product classification can be misinterpreted

Illustrative example: Different countries and even different ports interpret products differently

We have two brokers in Mexico. One to handle air shipments and the other to handle land shipments. If they don’t agree then certification is lost on one method of shipment.”

- Auto Executive

Lack of standardization coupled with limited subject matter expertise in some certification agencies can result in misinterpretations, additional costs, and potential compliance problems
Lack of consistency across FTAs may cause additional complexity

Shipping products from Chile to economic partners requires different origination rules, valuation methods, and content percentage

Comparison of origination rules, valuation methods, and content percentages of Chile’s FTAs

<table>
<thead>
<tr>
<th>Originating Country: Chile</th>
<th>FTA Country*</th>
<th>Rule</th>
<th>Value Methodology</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Canada</td>
<td>CTC + RVC</td>
<td>Net Cost</td>
<td>20%-30%</td>
</tr>
<tr>
<td></td>
<td>United States</td>
<td>CTC + RVC</td>
<td>Net Cost or Transaction Value</td>
<td>30%-50%</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>RVC</td>
<td>Transaction Value</td>
<td>40%-50%</td>
</tr>
<tr>
<td></td>
<td>Korea</td>
<td>CTC + RVC</td>
<td>Net Cost or Transaction Value</td>
<td>30%-45%</td>
</tr>
</tbody>
</table>

A Chilean firm must manage 2 different origination rules, 3 different valuation methods and 4 different content percentages to take full advantage of Rules of Origin

*Select FTAs and Auto Products

Lack of Consolidation across FTAs
Lack of consistency across FTAs may cause additional complexity

Shipping products from Thailand to economic partners requires different origination rules, valuation methods, and content percentage

**Appendix C provides similar analyses for all FTA**

Comparison of origination rules, valuation methods, and content percentages

<table>
<thead>
<tr>
<th>Originating Country: Thailand</th>
<th>FTA Country*</th>
<th>Rule</th>
<th>Value Methodology</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFTA</td>
<td>RVC</td>
<td>Transaction Value</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>New Zealand</td>
<td>CTC</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>CTC + RVC</td>
<td>Transaction Value</td>
<td>40%</td>
<td></td>
</tr>
</tbody>
</table>

Thai automakers must follow a different origination rule per FTA to qualify for preferential treatment

*Select FTAs and Auto Products
Rules of Origin are complex on part basis across FTAs

Mr. Walter Goode evaluated number of automotive parts and compared Rules of Origin for those parts within 10 different FTAs

Even within a small sample of parts and FTAs, there is tremendous variability in the RoO methods

“You can know the bible in and out, but you can never know the rules of origin in and out. I have known NAFTA for eleven years but I am still learning it. You can never be master of rules of origin.”

- Trade Expert
 Preferential Rules of Origin for Automotive products summary

Analysis of Transformation Alternatives for Automotive Product HS Headings 8702-8708*

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AFTA</td>
<td>40%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHL-CHN</td>
<td>40%/50%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>CHL-KOR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30%/40%</td>
<td></td>
</tr>
<tr>
<td>USA-SGP</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>30%</td>
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</tr>
<tr>
<td>NZL-SGP</td>
<td>40%/50%</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>JPN-MEX</td>
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</tr>
<tr>
<td>CAN-CHL</td>
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<td></td>
<td>20%/30%</td>
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<td>25%/35%</td>
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<tr>
<td>AUS-NZL</td>
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<tr>
<td>CHL-USA</td>
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<td>30%/50%</td>
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<tr>
<td>AUS-USA</td>
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<tr>
<td>NZL-THA</td>
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<td></td>
<td></td>
<td>40%</td>
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</tr>
<tr>
<td>NAFTA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50%</td>
<td></td>
</tr>
</tbody>
</table>

The analysis of transformation alternatives shows the complexity involved in Rules of Origin

*Excludes tires, headlights, windows, seat covers, rear vision mirrors, etc.
Three types of Auto product valuation methods

*Select FTAs and Auto Products

Auto product value is calculated most often on a net cost basis
Two types of Auto product valuation methods

Calculation Methods Used by FTAs with RVC-only Requirements*

- **RVC-only**: 29%
- **CTC-only**: 7%
- **CTC & RVC**: 64%

There is no consensus on which value calculation method is standard for FTAs using a RVC-only requirement.

*Select FTAs and Auto Products
Two times more transformation alternatives than Automotive parts

Automotive parts have many valuation alternatives but few with RVC requirements

*Select FTAs and Auto Products
Basic Automotive products have at least 3 different transformation alternatives to choose across FTAs.

- Glass Mirrors
  - # of Transformation Alternatives: 3

- Safety Glass
  - # of Transformation Alternatives: 3

- External Lighting
  - # of Transformation Alternatives: 5

- Body
  - # of Transformation Alternatives: 3

- Chassis with Engine
  - # of Transformation Alternatives: 3

- Rubber Tires
  - # of Transformation Alternatives: 3

Some auto products have as many as 5 different transformation alternatives.

*Select FTAs and Auto Products
Conclusions and Key Findings
Conclusions and Key Findings

• **Rules of Origin are unnecessarily difficult to understand and interpret.** Significant variances exist among Rules of Origin provisions across APEC region. These differences coupled with a no standard interpretation of HS codes make Rules of Origin certification challenging and costly for business. On more than a few occasions companies will actually forfeit the benefits of free trade preferences, and pay the tariff, because the origination process is too burdensome.

• **Applying Rules of Origin can be a huge expense for businesses.** Companies that apply Rules of Origin must invest in and develop significant capabilities to do so. Businesses must make significant investments in IT infrastructure and human capital just to prove origination. Additional expenses are incurred by companies that must assist their suppliers in the product certification effort (e.g., record keeping and reporting).

• **Rules of Origin complexity (and costs) are compounded when companies operate across multiple Free Trade Agreements or within overlapping agreements.** No two Rules of Origin regimes are alike within the region. These differences across free trade agreements make it all but impossible for businesses to realize synergies from IT systems, administrative procedures, and subject matter expertise.

For trade officials…

• **Expand the proposed model measures to include the remaining most commonly used measures.** The proposed standard needs to be more consistent with the current FTAs across APEC to truly be a “model” standard.

• **Provide additional training to customs officials and SMEs on HS code interpretation as needed.** Certification issues will persist across the region as long as product certification is open to interpretation. Small and medium-sized businesses and organizations either lack the knowledge, experience, and/or size to administer the process effectively.
Conclusions and Key Findings

For trade officials… (continued)

• Include the commonly used measures and keep them consistent with the proposed model measures standard in free trade agreements. This will ensure that all future free trade agreements will be consistent with all other agreements in the APEC region.

• Communicate effectively all existing, changed, or new trade initiatives to all businesses, particularly to SMEs. Ongoing trade initiatives or the benefits of using them are not common knowledge, especially for SMEs. Developing effective communication channels that can get information to all business through each economy is critical, if the intended benefits of free trade initiatives are to be realized.

• Simpler is better, from a business viewpoint and should be regionally as well. Businesses prefer simpler Rules of Origin provisions such as tariff change rather RVC to prove origination. Where provisions are complex, they reward those businesses with the resources to hire specialists or consultants to exploit the intended benefits, and disadvantage those without. This unintentional fact seems to reward the large and established, and punish the small and emerging. Overall, it limits the total number of companies using Rules of Origin. Which negatively impacts investment in the region.

• Improve the role customs plays in the Rules of Origin part of the process. Increased transparency, consistency, and clearance speed are sought by business.
Conclusions and Key Findings

For business executives...

- **Provide your suppliers with free advice and expertise on product certification and documentation.** Suppliers bear most of the costs and little of the benefit of the origination process. Educating suppliers on how to certify their products can help improve the efficiency of the certification process, reduce disputes, and lower additional costs in the long-run.

- **Make Rules of Origin optimization someone's job.** As companies grow, global sourcing and sales will become more and more important. Companies must start developing subject matter expertise now in order to stay competitive in the APEC region.
Conclusions and Key Findings

For the APEC Region…

• **Rules of Origin are being used as a barrier to entry in some industries… potentially stalling economic development in the region.** Rules of Origin can effectively blocks new entrants from entering a market because of its complexity. As a result, some companies that have “figured out” Rules of Origin do not want a more transparent and harmonized system. They are benefiting from the complexity of the system which enabling competitive advantages.

• **Complex Rules of Origin can increase company costs to a point where they can not justify the expense… potentially further stalling economic development in some industries.** Companies do not apply Rules of Origin because there is little to no benefit from doing so. In many cases, companies (both large and small) can not justify the costs associated with meeting Rules of Origin requirements. As a result, the benefits of Free Trade Agreements within the APEC region are not used. In these cases, companies either do not enter the market (i.e., invest) or simply pay the tariff.

• **The proliferation of Free Trade Agreements, and the increasing global expansion of business supply chains, connect in a way that makes standardization and harmonization of Rules of Origin regimes a priority.** Businesses will seek economic solutions which maximize their short and long-term profits regardless of the intended goals of FTAs. Where both overlap, economic growth results. Where they do not, numerous unintended consequences, for both business and economies, result.
APPENDICES

Appendix A: Survey Summary Statistics
Appendix B: Food Industry: Detailed Analysis of Food-Specific Rules of Origin Provisions for Selected FTAs
Appendix C: Automotive Industry: Comparison of Origination Rules, Valuation Methods, and Content Percentages
Appendix D: University of Southern California Marshall School of Business MBA Research Team Bios
APPENDIX A

Survey Summary Statistics
## Survey responses

### Origin impact your business.

<table>
<thead>
<tr>
<th>N/A</th>
<th>Rules of Origin do not impact my business</th>
<th># Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>2</td>
<td>5.3%</td>
<td>0 2 1 1</td>
</tr>
<tr>
<td>1h</td>
<td>8</td>
<td>21.1%</td>
<td>7 1 1 7</td>
</tr>
<tr>
<td>Product Design</td>
<td>1e</td>
<td>11</td>
<td>28.9%</td>
</tr>
<tr>
<td>Budget Planning</td>
<td>1d</td>
<td>13</td>
<td>34.2%</td>
</tr>
<tr>
<td>Product Pricing</td>
<td>1f</td>
<td>16</td>
<td>42.1%</td>
</tr>
<tr>
<td>Facilities location</td>
<td>1g</td>
<td>18</td>
<td>47.4%</td>
</tr>
<tr>
<td>Product Sales Countries</td>
<td>1c</td>
<td>23</td>
<td>60.5%</td>
</tr>
<tr>
<td>Sourcing</td>
<td>1b</td>
<td>24</td>
<td>63.2%</td>
</tr>
</tbody>
</table>

**ANSWERED QUESTION, YES/NO**

| At least once a month | Developed | 2a | 6 | 15.0% <=1 year | 47.8% 28.6% 5 1 3 3 |
| At least once every 1 to 3 months | Developed | 2b | 3 | 7.5% > 1 year | 52.2% 71.4% 3 0 1 2 |
| At least once every 3 to 6 months | Developed | 2c | 2 | 5.0% | 1 1 1 1 |
| At least once every 6 months to 1 year | Developed | 2d | 5 | 12.5% | 2 2 0 4 |
| Less than once a year | Developed | 2e | 17 | 42.5% | 9 6 7 8 |
| Never | Developed | 2f | 7 | 17.5% | 3 4 4 3 |

| Overall, how often do Rules of Origin-related disputes (e.g., legal or customs issues) arise within your organization? |
| At least once a month | Developed | 3a | 6 | 16.7% <=1 year | 61.1% 5 1 3 3 |
| At least once every 1 to 3 months | Developed | 3b | 1 | 2.8% > 1 year | 38.9% 0 1 1 0 |
| At least once every 3 to 6 months | Developed | 3c | 4 | 11.1% | 4 1 1 2 |
| At least once every 6 months to 1 year | Developed | 3d | 11 | 30.6% | 7 3 4 6 |
| Once every 1 year or more | Developed | 3e | 7 | 19.4% | 5 2 4 3 |
| Never | Developed | 3f | 7 | 19.4% | 2 5 3 4 |

### Please force rank the following based on the additional costs associated with Rules of Origin compliance/administration.

<table>
<thead>
<tr>
<th>#1</th>
<th>#2</th>
<th>#3</th>
<th>Developed Total</th>
<th>Developed Total</th>
<th>Auto Total</th>
<th>Non Auto Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>4n</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Employee Education/Training</td>
<td>4h</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Additional Storage Expenses</td>
<td>4i</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Time to Market Delays</td>
<td>4l</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Customs Fines</td>
<td>4j</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Legal Fees</td>
<td>4k</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>3rd Party Audit</td>
<td>4m</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>4b</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Product Development</td>
<td>4a</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>IT-Related Costs</td>
<td>4e</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Additional Headcount</td>
<td>4f</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Consultation</td>
<td>4g</td>
<td>2</td>
<td>7</td>
<td>4</td>
<td>8</td>
<td>5</td>
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<tr>
<td>Sourcing</td>
<td>4c</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>9</td>
<td>6</td>
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<tr>
<td>Certification</td>
<td>4d</td>
<td>11</td>
<td>4</td>
<td>7</td>
<td>12</td>
<td>8</td>
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</table>

**Total:** 34
Survey responses

Based upon your answers to the question above, please indicate the impact these additional costs have on your organization by allocating a total of 100 points.

<table>
<thead>
<tr>
<th>Category</th>
<th>Average Percentage</th>
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</thead>
<tbody>
<tr>
<td>Other:</td>
<td>5n 78.3%</td>
</tr>
<tr>
<td>Sourcing</td>
<td>5c 43.1%</td>
</tr>
<tr>
<td>IT-Related Costs (e.g., investment, upkeep)</td>
<td>5e 40.7%</td>
</tr>
<tr>
<td>Time to Market Delays</td>
<td>5l 40.0%</td>
</tr>
<tr>
<td>Customs Fines</td>
<td>5j 38.3%</td>
</tr>
<tr>
<td>Certification</td>
<td>5d 33.9%</td>
</tr>
<tr>
<td>Additional Headcount (both permanent and temporary)</td>
<td>5f 33.6%</td>
</tr>
<tr>
<td>Product Development</td>
<td>5a 33.4%</td>
</tr>
<tr>
<td>Legal Fees</td>
<td>5k 33.3%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>5b 27.3%</td>
</tr>
<tr>
<td>Additional Storage Expenses</td>
<td>5i 25.0%</td>
</tr>
<tr>
<td>Consultation (e.g., customs clearance agency, consulting)</td>
<td>5g 23.3%</td>
</tr>
<tr>
<td>Employee Education/Training</td>
<td>5h 9.3%</td>
</tr>
<tr>
<td>3rd Party Audit</td>
<td>5m 37.3%</td>
</tr>
</tbody>
</table>

Lastly, based upon your answers to question #3, please indicate how frequently these additional costs arise within your organization.

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<tr>
<th>Category</th>
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<th>#2</th>
<th>#3</th>
<th>Developed T</th>
<th>Develo</th>
<th>Auto Total</th>
<th>Non Auto Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certification</td>
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<td>Sourcing</td>
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<td>4</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>5</td>
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<tr>
<td>Consultation (e.g., customs clearance agency, consulting)</td>
<td>6g</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>8</td>
<td>4</td>
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<td>3</td>
<td>6</td>
<td>2</td>
<td>1</td>
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<td>2</td>
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<td>4</td>
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<td>1</td>
<td>4</td>
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<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Employee Education/Training</td>
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<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>2</td>
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<td>2</td>
</tr>
<tr>
<td>Customs Fines</td>
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<td>0</td>
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<td>1</td>
<td>2</td>
<td>0</td>
</tr>
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<td>2</td>
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Please assess the following Rules of Origin categories by administrative complexity

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<th>Non Auto total</th>
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<tr>
<td>De Minimis standards</td>
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<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
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<td>If Set of Goods Are Originating</td>
<td>7e</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
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<tr>
<td>If a Intermediate Material is Self-Produced</td>
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<td>0</td>
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<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Value of Goods/Services</td>
<td>7d</td>
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<td>4</td>
<td>2</td>
<td>3</td>
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<td>5</td>
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<td>Indirect Costs Used in Production</td>
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<td>3</td>
<td>5</td>
</tr>
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<td>GAAP Inventory Management Method</td>
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<td>4</td>
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<td>5</td>
</tr>
<tr>
<td>Fungible/Interchangeable Goods</td>
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<td>5</td>
<td>0</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Accumulation Rules</td>
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<td>2</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Value Added or Tariff Change is Met</td>
<td>7a</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Regional Value Content</td>
<td>7b</td>
<td>9</td>
<td>4</td>
<td>3</td>
<td>8</td>
<td>7</td>
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</tr>
</tbody>
</table>
APPENDIX B

Food Industry

Detailed Analysis of Food-Specific Rules of Origin Provisions for Selected FTAs
# Comparison of Specific Rules of Origins for food industry (Chapter 16-19) for selected FTAs

<table>
<thead>
<tr>
<th>Description</th>
<th>HS Code</th>
<th>NZ-Thailand</th>
<th>Aus-Thailand</th>
<th>US-Singapore</th>
<th>Aus-US</th>
<th>NAFTA</th>
<th>Japan-Mexico</th>
<th>Korea-Chile</th>
<th>Canada-Chile</th>
<th>US-Chile</th>
<th>ASEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparations of Meat, of Fish or of Crustaceans, Molluscs or Other Aquatic Invertebrates</td>
<td>1601-1605</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Sugars and Sugar Confectionery</td>
<td>1701-1703</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>1704</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocoa and Cocoa Preparations</td>
<td>1801</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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- change to heading & meet % volume of the goods
- change to tariff item
- change to tariff & meet % volume of the goods
- change to subheading
- change to subheading & meet RVC
- change to subheading & meet % volume of the goods
- change to subheading & meet % volume of the good
- No required change in tariff classification & meet % volume of the good
- Wholly obtained
- RV C
Comparison of Specific Rules of Origins for food industry (Chapter 20-21) for selected FTAs

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- **change to heading & meet % volume of the goods**
- **change to tariff item**
- **change to tariff & meet % volume of the good**
- **change to subheading**
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- **No required change in tariff classification & meet % volume of the good**
- **Wholly obtained**
- **RVC**
Comparison of Specific Rules of Origins for food industry (Chapter 22-24) for selected FTAs

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- **change to tariff item**
- **change to tariff & meet % volume of the good**
- **change to subheading**
- **change to subheading & meet RVC**
- **change to subheading & meet % volume of the good**
- **No required change in tariff classification & meet % volume of the good**
- **Wholly obtained RV C**
## Sample of Rules of Origin for Food Products

### Comparative Analysis of Selected Processed Food (Chapter 16-24) Specific Rules of Origin

Comparisons are made based upon the transformation criteria.

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<td>NAFTA</td>
<td>16-25</td>
<td>18.06.10: 65%, 20.09.90: 60% of TV or 50% of NC; 2202.90: 40% of volume</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Findings:

1. Comparing the General RoO rules for food chapters from 16-24 under selected FTAs, there are complex rules using RVC and CTC.
2. Countries use exceptions to protective food products.
APPENDIX C

Automotive Industry
Comparison of Origination Rules, Valuation Methods, and Content Percentages

University of Southern California
### Lack of Consistency Across Free Trade Agreements Results in Additional Complexity

**Originating Country:** Chile

<table>
<thead>
<tr>
<th>FTA Country*</th>
<th>Rule</th>
<th>Value Methodology</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>CTC + RVC</td>
<td>Net Cost</td>
<td>20%-30%</td>
</tr>
<tr>
<td>United States</td>
<td>CTC + RVC</td>
<td>Net Cost or Transaction Value</td>
<td>30%-50%</td>
</tr>
<tr>
<td>China</td>
<td>RVC</td>
<td>Transaction Value</td>
<td>40%-50%</td>
</tr>
<tr>
<td>Korea</td>
<td>CTC + RVC</td>
<td>Net Cost or Transaction Value</td>
<td>30%-45%</td>
</tr>
</tbody>
</table>

*Select FTAs and Auto Products
**Preferential RoO for Automotive Products by Originating Country**

**Originating Country:** Korea

<table>
<thead>
<tr>
<th>FTA Country*</th>
<th>Rule</th>
<th>Value Methodology</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>CTC + RVC</td>
<td>Net Cost or Transaction Value</td>
<td>30%-45%</td>
</tr>
</tbody>
</table>

*Select FTAs and Auto Products*
Preferential RoO for Automotive Products by Originating Country

<table>
<thead>
<tr>
<th>Originating Country: China</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FTA Country*</th>
<th>Rule</th>
<th>Value Methodology</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>RVC</td>
<td>Transaction Value</td>
<td>40%-50%</td>
</tr>
</tbody>
</table>

*Select FTAs and Auto Products
# Preferential RoO for Automotive Products by Originating Country

<table>
<thead>
<tr>
<th>FTA Country*</th>
<th>Rule</th>
<th>Value Methodology</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAFTA</td>
<td>CTC + RVC</td>
<td>Net Cost</td>
<td>50%</td>
</tr>
<tr>
<td>Chile</td>
<td>CTC + RVC</td>
<td>Net Cost or Transaction Value</td>
<td>30%-50%</td>
</tr>
<tr>
<td>Australia</td>
<td>CTC + RVC</td>
<td>Net Cost</td>
<td>50%</td>
</tr>
<tr>
<td>Singapore</td>
<td>CTC + RVC</td>
<td>Net Cost</td>
<td>30%</td>
</tr>
</tbody>
</table>

*Select FTAs and Auto Products

[Originating Country: United States]
### Preferential RoO for Automotive Products by Originating Country

**Originating Country: Canada**

<table>
<thead>
<tr>
<th>FTA Country*</th>
<th>Rule</th>
<th>Value Methodology</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAFTA</td>
<td>CTC + RVC</td>
<td>Net Cost</td>
<td>50%</td>
</tr>
<tr>
<td>Chile</td>
<td>CTC + RVC</td>
<td>Net Cost</td>
<td>20%-30%</td>
</tr>
</tbody>
</table>

*Select FTAs and Auto Products*
### Preferential RoO for Automotive Products by Originating Country

<table>
<thead>
<tr>
<th>FTA Country*</th>
<th>Rule</th>
<th>Value Methodology</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFTA</td>
<td>RVC</td>
<td>Transaction Value</td>
<td>40%</td>
</tr>
<tr>
<td>New Zealand</td>
<td>CTC</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Australia</td>
<td>CTC + RVC</td>
<td>Transaction Value</td>
<td>40%</td>
</tr>
</tbody>
</table>

*Select FTAs and Auto Products
Preferential RoO for Automotive Products by Originating Country

<table>
<thead>
<tr>
<th>Originating Country: Australia</th>
<th>FTA Country*</th>
<th>Rule</th>
<th>Value Methodology</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand</td>
<td>RVC</td>
<td>Net Cost</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>CTC + RVC</td>
<td>Net Cost</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>CTC + RVC</td>
<td>Transaction Value</td>
<td>40%</td>
<td></td>
</tr>
</tbody>
</table>

*Select FTAs and Auto Products
## Preferential RoO for Automotive Products by Originating Country

### Originating Country: New Zealand

<table>
<thead>
<tr>
<th>FTA Country*</th>
<th>Rule</th>
<th>Value Methodology</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>RVC</td>
<td>Net Cost</td>
<td>50%</td>
</tr>
<tr>
<td>Singapore</td>
<td>RVC</td>
<td>Net Cost</td>
<td>40%-50%</td>
</tr>
<tr>
<td>Thailand</td>
<td>CTC</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Select FTAs and Auto Products
### Preferential RoO for Automotive Products by Originating Country

<table>
<thead>
<tr>
<th>Originating Country: Singapore</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>FTA Country*</th>
<th>Rule</th>
<th>Value Methodology</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFTA</td>
<td>RVC</td>
<td>Transaction Value</td>
<td>40%</td>
</tr>
<tr>
<td>New Zealand</td>
<td>RVC</td>
<td>Net Cost</td>
<td>40%-50%</td>
</tr>
<tr>
<td>United States</td>
<td>CTC + RVC</td>
<td>Net Cost</td>
<td>30%</td>
</tr>
</tbody>
</table>

*Select FTAs and Auto Products*
University of Southern California
MBA Research Team

- **Sean Haran**, *team lead*, joins the ABAC research team with six years of work experience including two years of statistical research at the Federal Reserve and four years of management/strategy consulting experience. Most recently, he managed and wrote best-practice research studies for Chief Financial Officers of the largest corporations in the world while at the Corporate Executive Board in Washington, DC. Mr. Haran completed his Bachelor of Arts in Economics at James Madison University.

- **Crystal Ban** joins the ABAC research team with three years of work experience at largest advertising network, Ogilvy & Mather Advertising Agency where she managed both international and local accounts for the company. She also has research experience as a Product Planner at RealNetworks, Inc. working on next generation products for the mobile space in the U.S and Europe market. Ms. Ban earned her Bachelor of Arts in Business Administration from National Chengchi University. Originally from Taiwan, she is also fluent in Mandarin.

- **Justin Campbell** joins the ABAC research team with extensive experience in regulatory and administrative law with the United States government. While with the U.S. government, he developed policy related to wholesale electricity markets and worked to help industry companies operate within those laws. In addition, he advised Ford Motor Company on Vietnam’s accession to the WTO and worked to open a high-quality international school in Gaborone, Botswana. Mr. Campbell completed his Bachelor of Science in Engineering Science and Economics at Vanderbilt University.

- **Joe DiFilippo** joins the ABAC research team after serving for six years as a Captain in Military Intelligence for the United States Army. During his time in service, he served on three different continents while conducting strategic and tactical predictive intelligence and analysis with other officers and civilians from over ten separate countries. Mr. DiFilippo earned a Bachelor of Science in Systems Engineering from the United States Military Academy at West Point, as well as a number of certifications from various U.S. Army intelligence and analysis programs.

- **Danielle Evans** joins the ABAC research team with three years of general management experience in the retail industry as a buyer for Macy’s Department Stores, a $14 billion global retailer. She managed the profit and loss of the $25 million women’s accessories business for the West Coast division. In that capacity, she also engaged in strategic financial planning and product development in numerous international markets within the APEC region. Ms. Evans completed a Bachelor of Arts in Communication from Stanford University and also speaks Spanish.
Yue Hu joins the ABAC research team with eight years of academic research experience at a leading university in Shanghai where she specialized in the studies of international business environments and business communications in international trade. Moreover, she conducted many strategic planning projects for the Chinese government, for example, strategic planning for recycling industry in China. In addition, she led consulting projects for tourism development in China. Ms. Hu earned a Bachelor of Arts in Economics from University of International Business and Economics. Originally from China, she is also fluent in Mandarin.

Su Lee joins the ABAC research team with five years of experience including two years of scientific research experience for the University of Michigan Department of Emergency Medicine and three years of strategic sales and marketing experience for Eli Lilly & Company. He has worked on international engagements for organizations in Vietnam, Thailand, and South Korea. Mr. Lee completed a Bachelor of Science in Microbiology from the University of Michigan. Originally from Korea, he is also fluent in Korean and Spanish.

May (Wei) Li joins the ABAC research team with four years management experience in the financial service industry managing a retail branch of a bank with over $20MM in deposits in the United States. She was also actively engaged in international business development of her family business between China and the U.S. Ms. Li earned a Bachelor of Science in Economics from the University of Washington. She is also fluent in both Mandarin and Cantonese.

Julie Mulkerin joins the ABAC research team with five years work experience in various positions including logistics, origination and sales in a billion dollar agribusiness trading/shipping company in the United States and Latin America. In her roles, she worked collaborated on international trade issues with companies from Canada, the United States, and Latin America. Ms. Mulkerin completed her Bachelor of Arts in Spanish with minors in Economics, History, and Political Science from University of California - Davis. Having lived extensively in Costa Rica, she is also fluent in Spanish.

Sahil Parmar joins the ABAC research team with five years of work experience in the IT and telecommunications industries in India and the United Kingdom. He started as a software programmer in the telecom industry and has worked on a variety of telecommunications implementation projects including the largest telecom project for British Telecom and leading a cross functional team of 35 members. He has also written and presented technical papers related to chemical engineering. Mr. Parmar earned a Bachelor of Science in Chemical Engineering from Gujarat University. Originally from India, he is also fluent in Hindi and Guajarati.
University of Southern California
MBA Research Team

• **Aaron Seligman** joins the ABAC research team with seven years of experience in the field of IT for research institutions. He previously served as the Director of Computing Services at the California Center for Population Research. In this role, he supported several groundbreaking longitudinal surveys and applied demographic research in countries such as China, Kenya, Mexico, and Indonesia. He has also worked at Niwakagaku, a Japanese manufacturing company in Japan, and at Toyota Motor Sales in California. Mr. Seligman completed his Bachelor of Arts Degree in East Asian Languages and Cultures from the University of California – Los Angeles. Having lived extensively in Japan, he also speaks Japanese.

• **Andrew Schulman** joins the ABAC team with seven years of international business experience. Living in New York City, he developed marketing and communications strategies for sports, healthcare and packaged goods clients on five continents. He has worked on projects for three of the past four Olympic Games and in 2005 he spent the fall in China, helping his firm prepare for the 2008 Games in Beijing. Mr. Schulman earned a Bachelor of Science in Communication Studies and Psychology from Northwestern University.

• **Shengsheng (Sylvia) Zhang** joins the ABAC research team with seven years of extensive experience in the marketing field for Fortune 500 companies in China. Working for China Hewlett-Packard Co. and Johnson & Johnson Medical China, she engaged in the area of market development and penetration. She has led many important product launch plans into the Chinese market and has a deep understanding of rules and regulations compliance in international trade. Ms. Zhang completed a Bachelor of Economics with an emphasis on international trade at the Beijing Second Foreign Language University. Originally from China, she is also fluent in Mandarin.