



**Asia-Pacific  
Economic Cooperation**

**Advancing** Free Trade  
for Asia-Pacific **Prosperity**

# **Review of External Indicators to Monitor Progress for the APEC Supply-Chain Connectivity Framework Action Plan (SCFAP) II**



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**APEC Policy Support Unit**  
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## EXECUTIVE SUMMARY

This report reviews the potential aspirational targets for the external indicators that are included in the monitoring framework of the APEC Supply-Chain Connectivity Framework Action Plan II 2017-2020 (or SCFAP II). The targets are defined both in terms of ‘APEC rate of improvement by 2020’ (percentage rate of improvement or change) as well as in terms of ‘APEC average level by 2020’ whenever appropriate.

The common principles of target-setting are that the target should be realistic, yet ambitious enough to initiate significant change. Setting the target too low may create the impression of a lack of urgency while having an overly ambitious target may ignore different domestic realities. For SCFAP II, the targets proposed are based on the rate of change from the previous years and considering the respective OECD average levels. A few targets are defined qualitatively as there is not enough data available.

In general, the following approach is taken when considering the appropriate aspirational targets:

- A. If the previous APEC rate of change shows an improvement in performance:
  - I. If the increase in performance or progress is considered good, the new target set will be similar to the previous increase.
  - II. If the increase is very strong (i.e. more than 20%), the new target will be set below the previous increase since it could become more difficult to attain a higher rate of progress.
  - III. If the increase in performance is rather weak or moderate (for example below 10%), the OECD average level can be considered as the benchmark whenever appropriate. Appendix 1 provides the comparison between APEC and OECD figures.
- B. If the previous APEC rate of change shows a decline in performance:
  - I. The new target can be set to match the initial APEC average level.
  - II. Alternatively, the OECD average level could be used as a new target or benchmark whenever appropriate.

The above target-setting mechanism should not be viewed as prescriptive. There could be exceptions; for example, APEC economies set the target of 10% improvement for all external indicators in SCFAP I based on what they thought would be good enough to encourage more efforts. The targets for other APEC initiatives, like the Ease of Doing Business, were set based on what would be attainable without using any particular formula.

The following tables capture the proposed aspirational targets for the five chokepoints in SCFAP II based on the approach earlier described.

1. Chokepoint 1: Lack of Coordinated Border Management and Underdeveloped Border Clearance and Procedures

No.	Indicators	Current	Proposed Target by 2020	
		APEC average 2015/16 or latest	% of improvement (% of change)	APEC average level
A.1	LPI declarations submitted and processed electronically and online (%) Basis: for the APEC figure to be similar to OECD figure of 96.6% (no previous trend or statistics to compare).	92.5%	+3%	95%
A.2	LPI physical inspection (%) Basis: previous APEC % of change: -7% (2011-2015/16). OECD figures have been decreasing at a much faster rate of 35%. Suggest a higher APEC target of 20% so that APEC figures could be around OECD 2011 figures of 6.7%.	9.7%	-20%	7.7%
A.3	LPI multiple inspection (%) Basis: previous APEC % of change: -48.7% (2011-2015/16); strong progress. Suggest a lower APEC target of 25%, considering that further improvement would probably be much slower. With a decrease of 30%, APEC average will be around OECD average 2015/16 figures of 2.6%.	3.6%	-25%	2.7%
A.4	LPI clearance time with physical inspection (days) Basis: previous APEC % of change: +23.5% (2011-2015/16); worsening performance. Suggest an APEC target of -20% to return to initial APEC figures of 2.27 in 2011.	2.8 days	-20%	2.2 days
A.5	LPI clearance time without physical inspection (days) Basis: previous APEC % of change: +38.5% (2011-2015/16); worsening performance. Suggest an APEC target of -20% to return to initial APEC figures of 1.18 in 2011.	1.6 days	-20%	1.3 days
A.6	LPI efficiency of customs clearance process Basis: previous APEC % of change: 2.28% (2011-2015/16); rather weak progress. Suggest	3.2	+5%	3.4

No.	Indicators	Current	Proposed Target by 2020	
		APEC average 2015/16 or latest	% of improvement (% of change)	APEC average level
	an APEC target of 5% to resemble the OECD average level of 3.4 in 2011.			
A.7	ETI efficiency of the clearance process Basis: previous APEC % of change: +1.25% (2011-2015/16); weak progress. Suggest an APEC target of 5% to resemble the OECD average level of 3.5 in 2015/16.	3.2	+5%	3.4
A.8	ETI customs services index Basis: previous APEC % of change: +3.39% (2011-2015/16); moderate increase in performance. Suggest an APEC target of 5% to resemble the OECD average level of 0.78 in 2011.	0.7	+5%	0.8
A.9/A.10	DB Cost to Import (documentary and border compliance) Basis: previous APEC % of change: 0% (2015-2016); weak progress. Suggest an APEC target of 5%.	USD 540.6 (108.9+431.7)	-5%	USD 514
A.11/A.12	DB Time to Import (documentary and border compliance) Basis: previous APEC % of change: -4.9% (2015-2016); good progress. Suggest an APEC target of -10%.	91.7 hours (41.8+49.9)	-10%	82.5 hours
A.13/A.14	DB Cost to Export (documentary and border compliance) Basis: previous APEC % of change: -0.3% (2015-2016); rather weak progress. Suggest an APEC target of -5%.	USD 472.2 (98.6+373.6)	-5%	USD 449
A.15/A.16	DB Time to Export (documentary and border compliance) Basis: previous APEC % of change: -3.6% (2015-2016); good progress. Suggest an APEC target of -10% by 2020.	69.6 hours (30.4+39.2)	-10%	63 hours
A.17	Distance to Frontier Score for Trading Across Borders Basis: previous APEC % of change: +0.47% (2015-2016); good progress. Suggest an APEC target of +5% by 2020.	76.6	+5%	80.4

## 2. Chokepoint 2: Inadequate Quality and Lack of Access to Transportation Infrastructure and Services

No.	Indicators	Current	Proposed Target by 2020	
		APEC average 2015/16 or latest	% of improvement (% of change)	APEC average level
B.1	ETI availability and quality of transport infrastructure Basis: previous APEC % of change: -4% (2011-2015/16); worsening performance. Suggest an APEC target of +6% by 2020 to return to APEC original level of 4.9 in 2011.	4.7	+6%	5
B.2	ETI availability and quality of transport services Basis: previous APEC % of change: +7% (2011-2015/16); good performance. Suggest an APEC target of +6% by 2020 to match OECD average level of 5.2 in 2015.	4.9	+6%	5.2
B.3	LPI quality of trade and transport infrastructure Basis: previous APEC % of change: -0.47% (2011-2015/16); worsening performance. Suggest an APEC target of +6% by 2020.	3.3	+6%	3.5
B.4	RMT Liner Shipping Connectivity Index Basis: previous APEC % of change: +9.4% (2011-2015); good performance (higher than OECD). Suggest an APEC target of +8% by 2020.	60.8	+8%	65.7
B.5	ETI availability and use of ICT Basis: previous APEC % of change: +14% (2011-2015/16); good performance. Suggest an APEC target of +10% by 2020.	5.4	+10%	6
B.6	TI corruption perception index Basis: previous APEC % of change: -1.2% (2011-2015); worsening performance. Suggest an APEC target of +4% by 2020.	54.5	+4%	56.6
B.7	BPP Procurement Life Cycle		To make significant improvement	

## 3. Chokepoint 3: Unreliable Logistics Services and High Logistical Costs

No.	Indicators	Current	Proposed Target by 2020	
		APEC average 2015/16 or latest	% of improvement (% of change)	APEC average level
C.1	LPI Overall Index Basis: previous APEC % of change: +0.6% (2011-2015/16); weak performance. Suggest an APEC target of +5% by 2020 to resemble 2011 OECD average of 3.6.	3.4	+5%	3.6
C.2	DHL Connectedness Index Basis: previous APEC % of change: +2.6% (2012-2015); rather weak performance. Suggest an APEC target of +4% by 2020.	58.9	+4%	61
C.3	LPI ease of arranging competitively priced shipments Basis: previous APEC % of change: +0.49% (2011-2015/16); weak performance. Suggest an APEC target of +5% by 2020 to resemble 2011 OECD average of 3.4.	3.3	+5%	3.5
C.4	LPI competence and quality of logistics services Basis: previous APEC % of change: +1.4% (2011-2015/16); weak performance. Suggest an APEC target of +5% by 2020 to resemble 2011 OECD average of 3.6.	3.4	+5%	3.5
C.5	LPI ability to track and trace consignments Basis: previous APEC % of change: +0.2% (2011-2015/16); weak performance. Suggest an APEC target of +5% by 2020 to resemble 2011 OECD average of 3.64.	3.5	+5%	3.7
C.6	LPI timeliness of shipments in reaching destinations within the scheduled or expected delivery time Basis: previous APEC % of change: -0.1% (2011-2015/16); worsening performance. Suggest an APEC target of +5% by 2020 to resemble 2011 OECD average of 3.87.	3.8	+5%	4
C.7	LPI shipments meeting quality criteria (%) Basis: previous APEC % of change: -2.8% (2011-2015/16); worsening performance. Suggest an APEC target of +5% by 2020 to resemble 2011 OECD average of 84.8.	80.4%	+5%	84.4%

No.	Indicators	Current	Proposed Target by 2020	
		APEC average 2015/16 or latest	% of improvement (% of change)	APEC average level
C.8	LPI lead time to import (days) Basis: previous APEC % of change: +34.88% (2011-2015/16); worsening performance. Suggest an APEC target of -10% by 2020.	3.4 days	-10%	3.1 days
C.9	LPI lead time to export (days) Basis: previous APEC % of change: +13.9% (2011-2015/16); worsening performance. Suggest an APEC target of -10% by 2020 to return to APEC level of 2.12 in 2011.	2.4 days	-10%	2.2 days
C.10	LPI Cost to Import Basis: previous APEC % of change: -3.5% (2011-2013); good performance. Suggest an APEC target of -5% by 2020.	USD 819.1	-5%	N/A
C.11	LPI Cost to Export Basis: previous APEC % of change: +5.8% (2011-2013); worsening performance. Suggest an APEC target of -5% by 2020.	USD 758.3	-5%	N/A

#### 4. Chokepoint 4: Limited Regulatory Cooperation and Best Practices

No.	Indicators	Current	Proposed Target by 2020	
		APEC average 2015/16 or latest	% of improvement (% of change)	APEC average level
D.1	TFI on information availability Basis: previous APEC % of change: +14.56% (2012-2015); strong performance. Suggest an APEC target of +5% by 2020.	1.7	+5%	1.8
D.2	TFI on involvement of trade community Basis: previous APEC % of change: -8.64% (2012-2015); worsening performance. Suggest an APEC target of +5% by 2020.	1.5	+5%	1.6
D.3	TFI on Internal border agency cooperation	1.6	+5%	1.7

No.	Indicators	Current	Proposed Target by 2020	
		APEC average 2015/16 or latest	% of improvement (% of change)	APEC average level
	Basis: previous APEC % of change: +6.25% (2012-2015); good performance. Suggest an APEC target of +5% by 2020.			
D.4	TFI on External border agency cooperation Basis: previous APEC % of change: +50.4% (2012-2015); strong performance. Suggest an APEC target of +5% by 2020.	1.6	+5%	1.7

#### 5. Chokepoint 5: Underdeveloped Policy and Regulatory Infrastructure for E-Commerce

No.	Indicators	Proposed Target by 2020	
		% of improvement (% of change)	APEC average level
E.1	UPU Integrated Index for Postal Development	To have more economies obtain a score of 75 or higher	
E.2	Availability of legal and regulatory framework	To have all APEC economies equipped with the necessary legal and regulatory frameworks	
E.3	UNCTAD B2C E-Commerce Index (2015)	To make significant improvement by 2020	

## 1. INTRODUCTION

The second phase of the APEC Supply-Chain Connectivity Framework Action Plan (or SCFAP-II) covers the period 2017-2020 and contains five chokepoints:

1. Lack of coordinated border management and underdeveloped border clearance and procedures;
2. Inadequate quality and lack of access to transportation infrastructure and services;
3. Unreliable logistics services and high logistical costs;
4. Limited regulatory cooperation and best practices; and
5. Underdeveloped policy and regulatory infrastructure for e-commerce.

The goal of SCFAP-II is ‘to reduce trade costs across supply chains and to improve supply chain reliability in supporting the competitiveness of business in the Asia Pacific region’. In order to track the progress and achievement of this goal, the APEC Committee on Trade and Investment has developed a monitoring framework for SCFAP-II, outlining the key challenges, stakeholders involved and external indicators from the World Bank, the World Economic Forum, and other international organizations.

The external indicators will serve as performance indicators to measure and benchmark the progress of SCFAP-II. Most of these indicators or metrics are outcome-focused and are meant to describe how well APEC has achieved the goal of SCFAP-II. It is important to note that these indicators should be viewed as proxies for the actual progress of SCFAP-II. They are constructed from the aggregation of complex regulatory realities and dimensions represented in a single number or score based on certain assumptions that may not be universally applicable. The indicators are also not specifically designed to monitor the progress of SCFAP-II.

Whenever possible and appropriate, the APEC Policy Support Unit (PSU) will propose a set of aspirational targets based on the external indicators for APEC member economies’ consideration, which is the main purpose of this report. The targets are defined both in terms of ‘**APEC rate of improvement by 2020**’ (percentage rate of improvement or change) as well as in terms of ‘**APEC average level by 2020**’ whenever appropriate. These two kinds of targets, both in terms of the rate of change and level, will provide easier benchmark and comparison for economies.

The targets however, should be viewed as aspirational for individual economies considering the diverse domestic environment and different stages of development across APEC. The level of progress to achieve the targets will very much depend on the initial starting point of each individual economy. The OECD average figures are provided to give a regional comparison perspective.

For economies with starting points above the targeted APEC average level, the indicative targets should be ‘**APEC rate of improvement by 2020**’ whenever appropriate<sup>1</sup>. It is understandable that as economies reach higher levels of performance, it could become more difficult to attain a higher rate of progress.

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<sup>1</sup> For a few indicators, certain economies may have already attained the maximum level and further improvements may not be possible. In this case, the improvements would need to come from other APEC members.

The common principles of target-setting are that the targets should be realistic, yet ambitious enough to initiate reform. Setting the target too low may create the impression of a lack of urgency while having an overly ambitious target may ignore the different domestic realities. The PSU is proposing a set of targets based on the rate of change from previous years (whenever possible) and by considering the respective OECD average levels whenever appropriate.

In general, the following approach is taken when considering the appropriate targets:

- A. If the previous APEC rate of change shows an improvement in performance:
  - i. If the increase in performance or progress is considered good, the new target set will be similar to the previous increase.
  - ii. If the increase is very strong (i.e. more than 20%), the new target will be set below the previous increase since it could become more difficult to attain a higher rate of progress.
  - iii. If the increase in performance is rather weak or moderate (for example below 10%), the OECD average level can be considered as the benchmark whenever appropriate.
- B. If the previous APEC rate of change shows a decline in performance:
  - i. The new target can be set to match the initial APEC average level.
  - ii. Alternatively, the OECD average level could be used as a new target or benchmark whenever appropriate.

The above target-setting mechanism should not be viewed as prescriptive. There could be exceptions; for example, the target of 10% improvement for all external indicators in SCFAP-I was based on what member economies thought would be good enough to encourage more efforts. The targets for other APEC initiatives, like the Ease of Doing Business, was based on what would be attainable without the use of any particular formula.

The following chapters describe the external indicators that will be used to monitor progress under each chokepoint of SCFAP-II as well as the aspirational targets proposed for each of those indicators. Additional related data are provided in Appendix 1.

## 2. CHOKEPOINT 1: LACK OF COORDINATED BORDER MANAGEMENT AND UNDERDEVELOPED BORDER CLEARANCE AND PROCEDURES

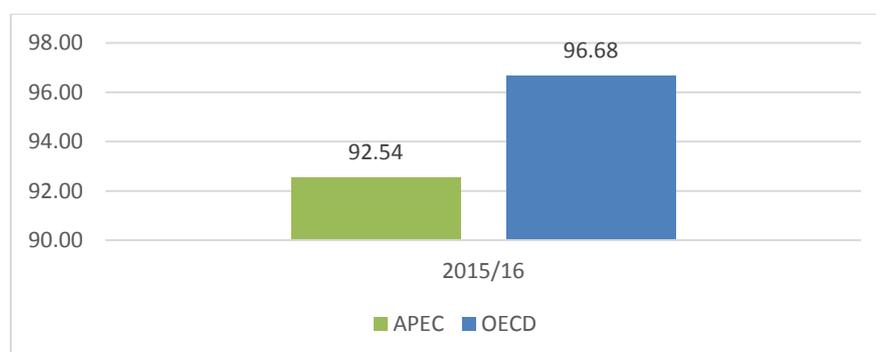
Six World Bank Logistics Performance Indicators (LPIs)<sup>2</sup> are used to monitor progress in this chokepoint. In addition to these, nine Doing Business (DB) indicators and two World Economic Forum Enabling Trade Index (ETI) indicators are proposed. The indicators are grouped based on the following key areas:

- electronic declarations and submission indicator;
- inspection and clearance indicators;
- time and cost to trade indicators.

### 2.1. ELECTRONIC DECLARATIONS AND SUBMISSION INDICATOR

Under this section, there is the LPI on ‘Declarations submitted and processed electronically and online (%)’. This indicator displays the percentage of declarations being submitted and processed electronically and online; a higher percentage indicates better performance. The APEC and OECD averages are provided in the figure below.

*Figure 1 APEC and OECD average on declarations submitted and processed electronically and online (%)*



Source: PSU calculation from LPI 2016 report.

Both APEC and OECD scores are considerably high, standing at above 92.5%. There are currently ten APEC economies with 100% of their declarations submitted electronically and online. **The proposed target is to aim for 95% of declarations submitted and processed electronically and online for APEC economies as a group, or an increase of 3% by 2020.** This will make the APEC figure similar to the OECD figure of 96.6%.

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<sup>2</sup> The 2012 LPI data are based on the 2011 survey, which was administered to nearly 1,000 respondents at international logistics companies in 143 economies (domestic performance indicators). The international LPI covers 155 economies. Meanwhile, the 2016 LPI data are based on a survey conducted between October and December 2015 and between March and April 2016 among 1,051 respondents at international logistics companies in 132 economies.

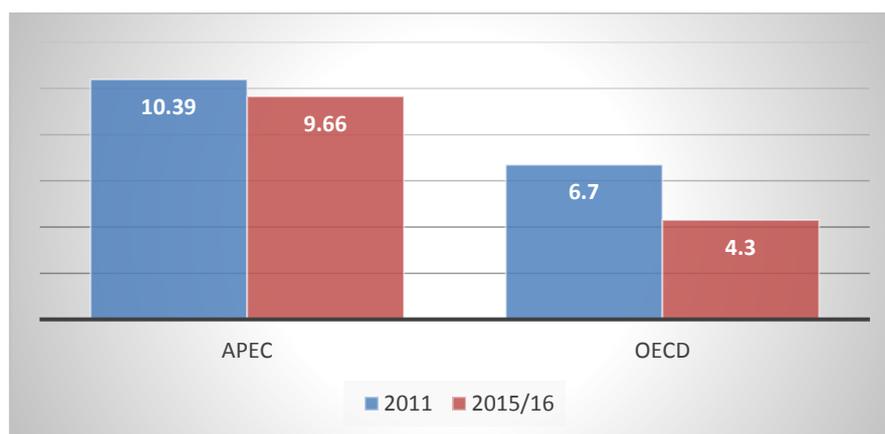
## 2.2. INSPECTION AND CLEARANCE INDICATORS

Four LPI indicators are included under this section, namely: (1) LPI physical inspection; (2) LPI multiple inspection; (3) LPI clearance time with and without physical inspection; and (4) efficiency of customs clearance and services process.

### 1. LPI physical inspection (%)

This indicator shows the percentage of shipment that is being physically inspected by the border agency(ies); lower rate indicates better performance.

*Figure 2 APEC and OECD average on physical inspection (%)*



Source: PSU calculation from LPI 2012 and LPI 2016 reports.

As the above figure shows, there has been a decline in the physical inspection rate of shipment in APEC economies<sup>3</sup> in the past four years; a decrease from 10.4% in 2011 to 9.7% in 2015/16, or approximately a 7% decrease on average. Despite the improvement, the physical inspection rate for APEC economies is still comparatively higher than that of OECD<sup>4</sup> by 5.4 percentage points. Hence, there is still significant room for APEC economies to enhance their efficiency in this area.

Although there are a few APEC economies which only impose a 1% physical inspection rate, there are also economies which enforce a rate as high as 35%. **The proposed target is to have an APEC average of 7.7% for physical inspection rate by 2020, or a reduction of 20% by 2020, such that it is similar to the OECD 2011 figure.**

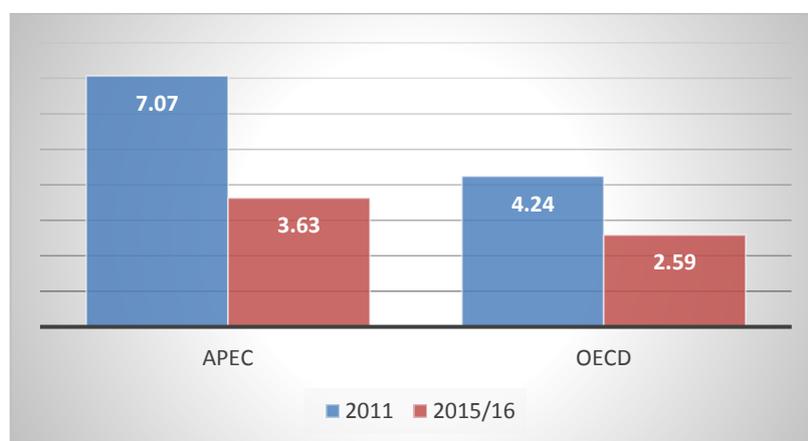
<sup>3</sup> Data for Brunei Darussalam; Chile; Malaysia; New Zealand; and Papua New Guinea are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 16 APEC economies.

<sup>4</sup> Data for Austria, Chile, Czech Republic, Greece, Iceland, Latvia, Luxembourg, New Zealand, Norway, and Slovenia are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 25 OECD economies.

## 2. LPI multiple inspection (%)

This indicator indicates the percentage of shipment subjected to repeated inspections by multiple agencies; lower rate indicates better performance.

Figure 3 APEC and OECD average on multiple inspection (%)



Source: PSU calculation from LPI 2012 and LPI 2016 reports.

Both APEC<sup>5</sup> and OECD<sup>6</sup> economies show the same declining trend throughout 2011-2015/16 for multiple inspection rate; with APEC's rate of reduction being 48.7% and OECD's at 39%.

**The proposed target is to reach an APEC average of 2.7% for multiple inspection rate<sup>7</sup> by 2020, or a reduction of 25% from 2016.** With that reduction, the APEC level will be around the OECD's average 2015/16 figure of 2.6%.

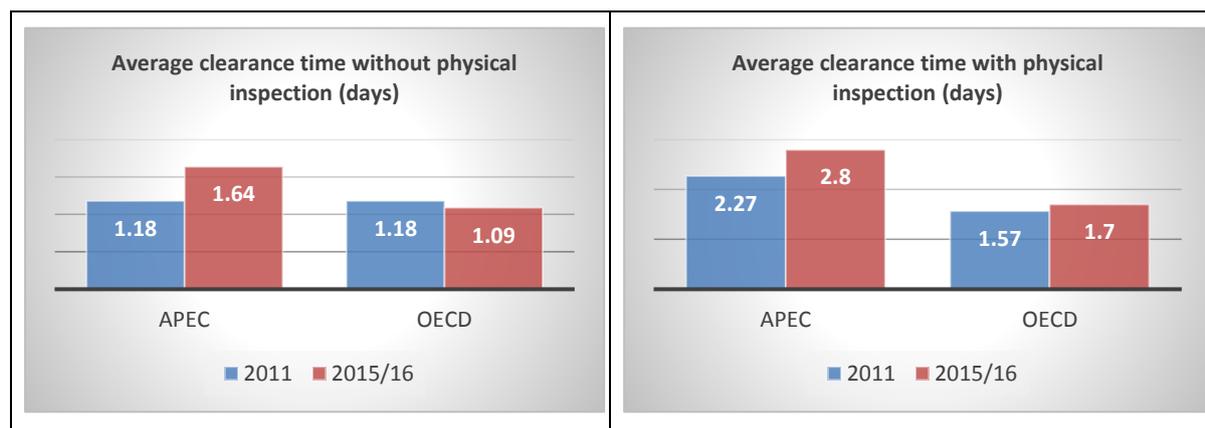
## 3. LPI clearance time with and without physical inspection (days)

These indicators specify the time needed to clear transit goods with and without any physical inspection in an economy; lesser days indicate better performance.

<sup>5</sup> Some data for Brunei Darussalam; Chile; Malaysia; New Zealand; and Papua New Guinea are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 16 APEC economies.

<sup>6</sup> Some data for Austria, Chile, Czech Republic, France, Greece, Iceland, Latvia, Luxembourg, New Zealand, Norway, and Slovenia are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 24 OECD economies.

<sup>7</sup> Thus far, ten APEC economies have surpassed the target level of 2.5%.

*Figure 4 APEC and OECD average on clearance time with and without physical inspection (days)*

Source: PSU calculation from LPI 2012 and 2016 reports.

### *LPI clearance time with physical inspection*

On average, LPI clearance time with physical inspection for APEC economies<sup>8</sup> shows an increase from 2011 to 2015/16, indicating a weakening in performance. The average clearance time with physical inspection has gone up from 2.3 days in 2011 to 2.8 days in 2015/16 or an increase of 25.5%. Meanwhile in 2015/16, OECD economies<sup>9</sup> took 1.7 days on average to get transit goods cleared with physical inspection, an increase of only 8.3% from the 1.6 days in 2011.

In 2015/16, half of the 21 APEC economies still spent more than 2 days to clear transit goods with physical inspection. **The proposed target is to reach an APEC average of 2.2 days for clearance time with physical inspection<sup>10</sup> by 2020, or a reduction of 20% from 2016 so that it can return to the initial 2011 APEC figure.**

### *LPI clearance time without physical inspection*

It is taking longer to clear transit goods without physical inspection as seen in the figure above, and which means a deterioration in the performance of APEC economies in this area.<sup>11</sup> The average clearance time without physical inspection increased from 1.18 days in 2011 to 1.64 days in 2015/16, an increase of 38.5%. Since 2011, no APEC economy has shown an

<sup>8</sup> Data for Brunei Darussalam; Chile; Hong Kong, China; Malaysia; New Zealand; and Papua New Guinea are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 15 APEC economies.

<sup>9</sup> Data for Austria, Chile, Czech Republic, Estonia, Greece, Iceland, Latvia, Luxembourg, New Zealand, Norway, Slovenia, and Switzerland are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 23 OECD economies.

<sup>10</sup> Within APEC, the longest time spent for clearing transit goods with physical inspection is 7 days.

<sup>11</sup> Data for Brunei Darussalam; Canada; Chile; Hong Kong, China; Japan; Malaysia; New Zealand; Papua New Guinea; Singapore, and Chinese Taipei are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 11 APEC economies.

improvement in this indicator. On the other hand, OECD<sup>12</sup> fares better compared to APEC as OECD was spending half-a-day less to clear transit goods.

There are currently five out of 16 economies or 31% of APEC economies whose clearance time without physical inspection in 2015/16 is more than the OECD average of 1 day. **The proposed target is to reach an APEC average of 1.3 days for clearance time without physical inspection by 2020, or a reduction of 20% from 2016 to return to the 2011 APEC figure.**

#### 4. Efficiency of customs clearance and services process (LPI and ETI)

The indicators included here are obtained from the World Bank's LPI International and the World Economic Forum's Enabling Trade Index (ETI) Reports. While the LPI looks at the customs clearance process from an overall logistics environment, the ETI looks at the general competitiveness performance of an economy in its clearance process<sup>13</sup>. Both indicators use a 1-5 scale with 5 being the best. Additionally, the ETI Customs Services Index<sup>14</sup> shows the extent of services provided by customs authorities and related agencies. The higher the score, the more extensive the services provided by the customs authorities or related agencies.

*Table 1 APEC and OECD average on efficiency of clearance process indices*

Indicators	APEC		OECD	
	2011	2015/2016	2011	2015/2016
LPI efficiency of customs clearance process <sup>15</sup>	3.13	3.20	3.38	3.53
ETI efficiency of the clearance process <sup>16</sup>	3.20	3.24	3.37	3.53
ETI customs services index <sup>17</sup>	0.72	0.74	0.78	0.77

Source: PSU calculation from LPI 2012/2016 reports and ETI 2012/2016 reports.

<sup>12</sup> Data for Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, Germany, Greece, Iceland, Ireland, Italy, Japan, Latvia, Luxembourg, Netherlands, New Zealand, Norway, Poland, Slovak Republic, Slovenia, Sweden and Switzerland are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 11 OECD economies.

<sup>13</sup> The ETI's calculation was based on LPI's World Bank in combination with their own survey.

<sup>14</sup> The ETI's calculation was based on data from Global Express Association (GEA) Customs Capabilities database in 2015 or the most recent year.

<sup>15</sup> Data for Brunei Darussalam and Israel are not available. In order to ensure comparability, the averages of the figure for this indicator include only the other 20 APEC economies and 34 OECD economies.

<sup>16</sup> Data for Brunei Darussalam and Papua New Guinea are not available in the database for the year 2012 and/or 2016. In order to ensure comparability, the averages of the figure for this indicator include only the other 19 APEC economies.

<sup>17</sup> Data for Brunei Darussalam and Israel are not available. In order to ensure comparability, the averages of the figure for this indicator include only the other 20 APEC economies and 34 OECD economies.

The LPI indicator on customs efficiency and the ETI clearance indicator for APEC show a 2.3% and a 1.25% improvement from 2011 to 2015/16 respectively. **The proposed 2020 targets for these two indicators are an increase of 5% for the ETI clearance efficiency (an APEC average of 3.4) and the LPI efficiency of customs clearance process (an APEC average of 3.4), to resemble OECD average levels in 2011.**

The APEC average score for ETI Customs Services Index indicator only differs slightly from OECD. APEC average for 2015/16 was 0.74, a 3.4% improvement from 2011. **The proposed target for this indicator is an increase of 5% by 2020 from 2015/16 (an APEC average of 0.78), hence resembling the OECD 2011 figure of 0.78.**

## 2.3. TIME AND COST TO TRADE INDICATORS

### 1. DB Cost and Time to Import (documentary and border compliance)

The Doing Business (DB) indicators under this section measure the time and cost it takes for an economy to import goods based on the cost of documentary and border compliance in USD. The lower the cost and the shorter the time the better as it promotes further efficiency in importing processes.

*Table 2 APEC and OECD average on DB cost to import (in USD)*

Cost to Import	APEC		OECD	
	2015	2016	2015	2016
Documentary Compliance	108.86	108.86	30.91	30.91
Border Compliance	431.76	431.76	136.83	136.83
Total	540.62	540.62	167.74	167.74

Source: PSU calculation from Doing Business 2016 and 2017 Reports.

As shown in table 2, in 2016 (and 2015), it costs USD 541 on average to import goods in APEC, which is significantly higher than the OECD average of USD 168; the highest cost to import in APEC is USD 1,278 in 2016. Given the wide difference in the costs to import in the APEC region and the unchanged import cost figures, **the proposed 2020 target for cost to import is to reach an APEC average of USD 514, or a reduction of 5% by 2020.**

Table 3 APEC and OECD average on DB time to import (in hours)

Time to Import	APEC		OECD	
	2015	2016	2015	2016
Documentary Compliance	43.90	41.76	4.49	4.49
Border Compliance	50.00	49.90	10.69	10.69
<b>Total</b>	93.90	91.67	15.17	15.17

Source: PSU calculation from Doing Business 2016 and 2017 Reports.

Time-wise, it takes longer in APEC on average compared with OECD economies to import goods. In 2016, the average time to import in APEC of 92 hours was 77 hours longer than that in OECD, which represents an a 2.4 % decrease from 2015. The longest time recorded in APEC to import goods was 232 hours in 2016. **The proposed 2020 target is to reach an APEC average of 82.5 hours for time to import which represents a 10% reduction from the 2016 figure.**

## 2. DB Cost and Time to Export (documentary and border compliance)

These DB indicators measure the time and cost it takes for an economy to export goods based on the cost of documentary and border compliance in USD. The lower the cost and the shorter the time the better as it promotes further efficiency in exporting processes, thus putting less burden on the traders.

Table 4 APEC and OECD average on DB cost to export (in USD)

Cost to Export	APEC		OECD	
	2015	2016	2015	2016
Documentary Compliance	100.10	98.62	37.80	37.80
Border Compliance	373.57	373.57	163.51	163.51
<b>Total</b>	473.67	472.19	201.31	201.31

Source: PSU calculation from Doing Business 2016 and 2017 Reports.

The average cost to export in APEC economies was USD 472 in 2016 (a reduction of 0.31% from 2015), which is more than twice of OECD economies. The highest cost to export recorded in the APEC region was USD 1,050 in 2016. **In view of the variations in cost in the APEC region and the stagnant progress from 2015-16, the proposed 2020 target is to reduce cost to export by 5% (an APEC average of USD 449).**

*Table 5 APEC and OECD average on DB time to export (in hours)*

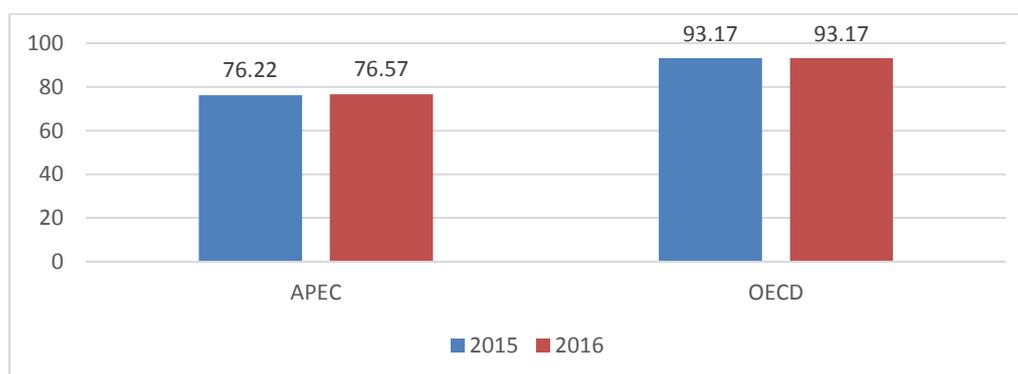
Time to Export	APEC		OECD	
	2015	2016	2015	2016
Documentary Compliance	32.76	30.43	2.83	2.83
Border Compliance	39.43	39.19	13.06	13.06
Total	72.19	69.62	15.89	15.89

Source: PSU calculation from Doing Business 2016 and 2017 Reports

In 2016, the time it took to export for APEC was approximately 70 hours, or 54 hours longer than the OECD figure of 16 hours. Nonetheless, the time to export in APEC in 2016 has become shorter compared to 2015, with a reduction of 3.6%. The longest time taken to export goods in APEC stood at 280 hours in 2016. **The proposed 2020 target is to reduce time to export by 10% (an APEC average of 63 hours).**

### 3. DB Distance to Frontier Score for Trading Across Borders (0-100)

The Distance to Frontier (DTF) score is developed by World Bank's Doing Business to determine the distance of an economy to the best performer or frontier. A higher score indicates that the economy is moving closer to the best performance observed under the 'Trading Across Borders' category.

*Figure 5 Average DB DTF score for trading across borders*

Source: PSU calculation from Doing Business 2016 and 2017 Reports

Over the course of two years (2015-2016), APEC economies' average DTF score has increased by 1.8% from 76.2 to 76.6<sup>18</sup>. Despite so, this score is relatively distant compared to OECD which is only 6.83 percentage points away from the frontier. Taking this and also the slow rate of change from 2015-16 into consideration, **the proposed target is to reach an APEC average score of 80.4 by 2020, or an increase of 5% from 2016.**

<sup>18</sup> The lowest DTF score of APEC in the 'Trading Across Borders' category is 44.64.

### **3. CHOKEPOINT 2: INADEQUATE QUALITY AND LACK OF ACCESS TO TRANSPORTATION INFRASTRUCTURE AND SERVICES**

The indicators used to monitor progress under this chokepoint are namely: 1) three indicators from the Enabling Trade Index (ETI); 2) one indicator from the Logistics Performance Indicator (LPI); 3) RMT Liner Shipping Connectivity Index (LSCI); 4) Transparency International (TI) Corruption Perception Index; and 5) Benchmarking Public Procurement (BPP) Procurement Life Cycle. These indicators provide an assessment of the following key areas:

- availability and quality of transportation infrastructure and services;
- availability and use of ICT; and
- procurement and transparency.

#### **3.1. AVAILABILITY AND QUALITY OF TRANSPORTATION INFRASTRUCTURE AND SERVICES**

Indicators in this section cover the following statistics:

1. ETI Availability and Quality of Transport Infrastructure: measures the state of transport infrastructure across all modes of transport in each economy, as well as the quality of all types of transport infrastructure, including air, rail, roads, and ports. The score stretches from “very low” (1) to “very high” (7).

2. ETI Availability and Quality of Transport Services: measures the availability and the quality of services available for shipment, including the quantity of services provided by liner companies, the ability to track and trace international shipments, the timeliness of shipments in reaching destinations, general postal efficiency, and the overall competence of the local logistics industry. The score stretches from “very low” (1) to “very high” (7).

3. LPI Quality of Trade and Transport Infrastructure: assesses the quality of trade and transport infrastructure, such as ports, railroads, roads, information technology, rated from “very low” (1) to “very high” (5).

4. The Liner Shipping Connectivity Index: measures the average of five components of the maritime transport sector: number of ships, their container-carrying capacity, maximum vessel size, number of services, and number of companies that deploy container ships in an economy’s ports.

The figures for 2011 and 2015/2016 of the above indicators are provided in Table 6.

*Table 6 ETI and LPI indicators for availability and quality of transportation infrastructure and services, APEC and OECD average*

Indicators	APEC			OECD		
	2011	2015/16	% of change	2011	2015/16	% of change
ETI availability and quality of transport infrastructure <sup>19</sup>	4.92	4.72	-4.01	5.29	4.71	-10.93
ETI availability and quality of transport services <sup>20</sup>	4.54	4.87	7.20	4.61	5.19	12.52
LPI quality of trade and transport infrastructure <sup>21</sup>	3.35	3.33	-0.47	3.61	3.70	2.46

Source: PSU calculation from LPI 2012/2016 reports and ETI 2012/2016 reports.

### 1. ETI Availability and Quality of Transport Infrastructure

APEC average score for this indicator declined from 4.92 in 2011 to 4.72 in 2015/16, at the rate of 4%. Likewise, OECD was experiencing a decline, such that the APEC average and the OECD average was similar in 2015/16. **APEC could set a target of 6% increase by 2020, implying an APEC average score of 5 by 2020, returning to its original level in 2011.**

### 2. ETI Availability and Quality of Transport Services

For this indicator, APEC shows a strong improvement of 7%. If the trend continues, APEC average would be able to reach the OECD score in 2015/16 of 5.19. **The proposed 2020 target for this indicator is to have a rate of increase of 6% (an APEC average score of 5.2) to match the OECD average level in 2015/16.**

### 3. LPI Quality of Trade and Transport Infrastructure

The LPI indicator shows a slight decrease (-0.47%) in APEC's average score and a progress of 2.5% for OECD in terms of their quality of trade and transport infrastructure from 2011 to 2015/16. **The proposed 2020 target is a 6% increase from 2015/16 or an APEC average score of 3.5 to resemble OECD's average level in 2011.**

### 4. Liner Shipping Connectivity Index (LSCI)

When it comes to shipping connectivity, APEC outperforms OECD economies, signifying the strong connectedness of ports in APEC economies to the global shipping networks. APEC average score for LSCI increased by 9.4% from 2012 to 2016, while OECD grew by 11.8%.

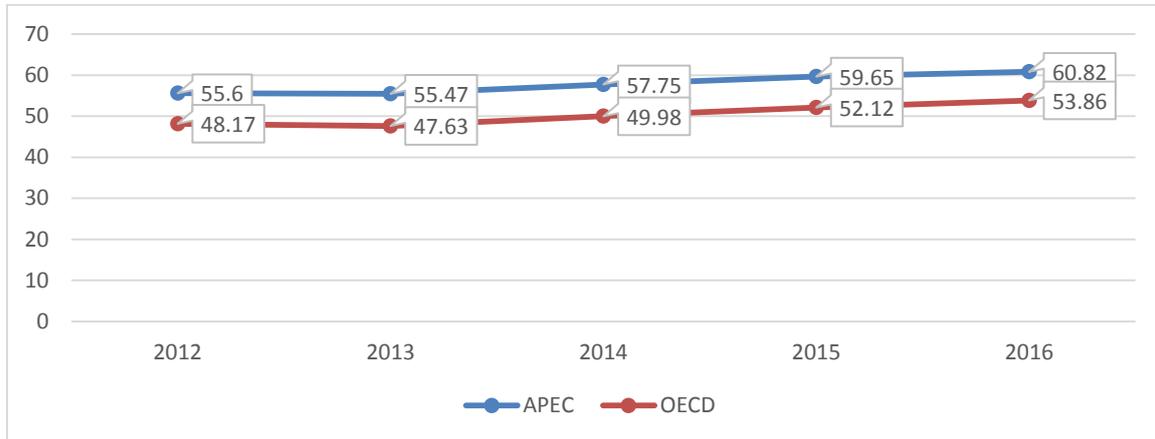
<sup>19</sup> Data for Brunei Darussalam and Papua New Guinea are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 19 APEC economies.

<sup>20</sup> Ibid.

<sup>21</sup> Data for Brunei Darussalam and Israel are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 20 APEC economies and 34 OECD economies.

The proposed 2020 target is to increase APEC LSCI score by 8%, reaching an average score of 65.7.

Figure 6 Liner Shipping Connectivity Index

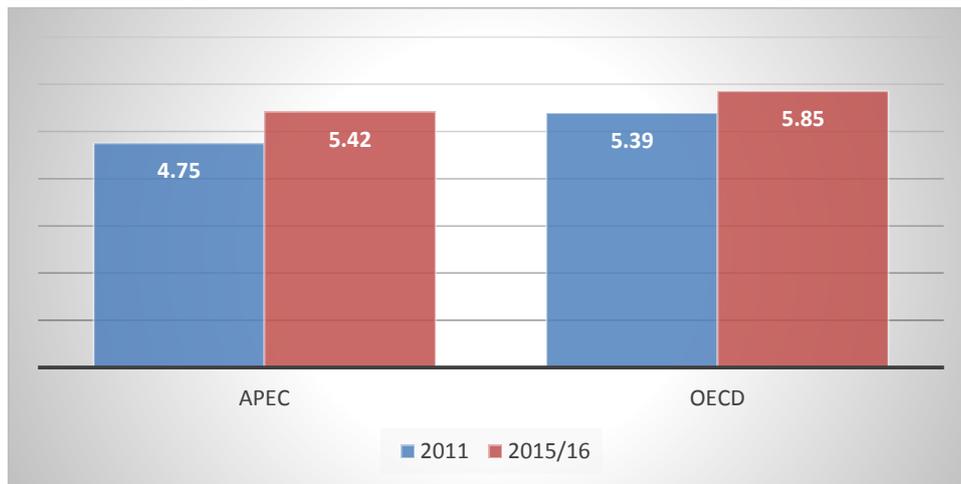


Source: PSU calculation based on data from <http://data.worldbank.org/indicator/IS.SHP.GCNW.XQ>.

### 3.2. AVAILABILITY AND USE OF ICT

The indicator for this section is the ETI availability and use of information and communication technologies (ICT). This indicator looks at the availability and quality of ICT as measured by the use and quality of internet and mobile phones. The score ranges from “very low” (1) to “very high” (7).

Figure 7 Average availability and use of ICT



Source: PSU calculation from WEF’s Enabling Trade Reports<sup>22</sup>

<sup>22</sup> Data for Brunei Darussalam and Papua New Guinea are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 19 APEC economies.

APEC shows a strong improvement in performance of 14% from 2011 to 2015/16. If APEC can maintain this rate of improvement, in 2020 the APEC average score would reach 6, higher than the OECD average for 2015/16. **The proposed 2020 target is for APEC to reach an increase of 10% from 2016, reaching an APEC average score of 6.**

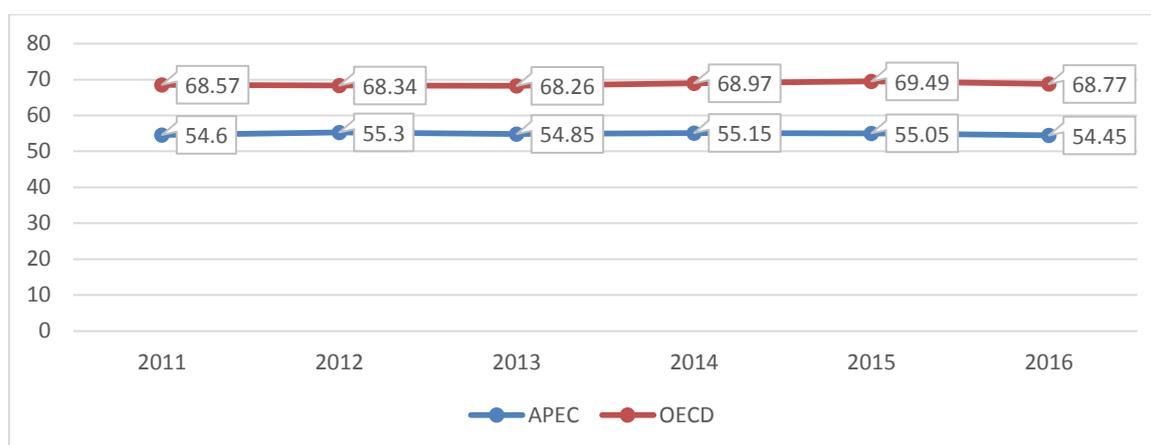
### 3.3. PROCUREMENT AND TRANSPARENCY

There are two indicators under this section: Transparency International (TI) Corruption Perception Index and BPP Procurement Life Cycle.

#### 1. Transparency International (TI) Corruption Perception Index

This index is created by TI based on expert assessments and opinion surveys of economies by their perceived levels of corruption. The scale ranges from 0 (corrupt) to 100 (less corrupt).

*Figure 8 Corruption Perception Index for APEC and OECD*



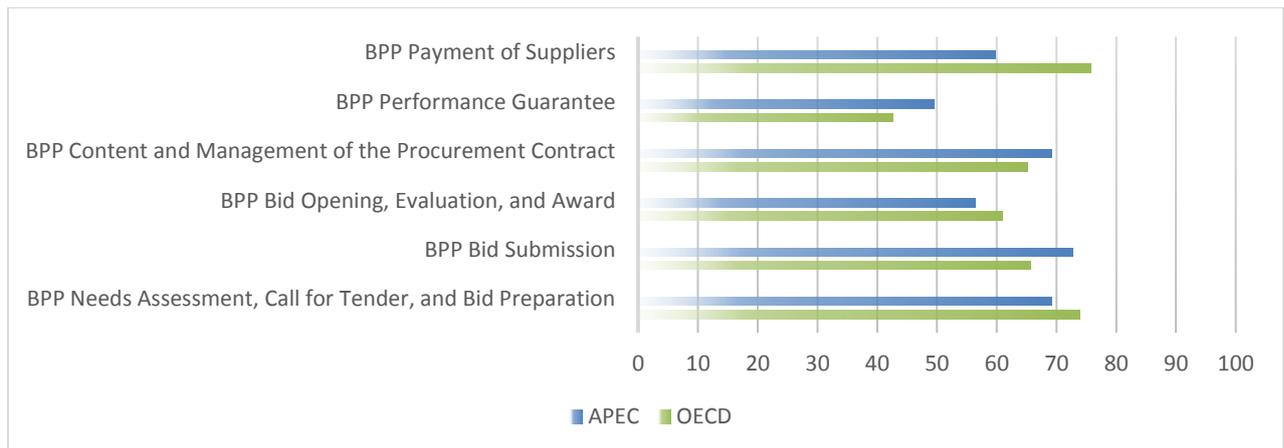
Source: PSU calculation based on data from <https://www.transparency.org/research/cpi/>

APEC shows slight progress over the past six years from 2011 to 2016 with a slight decrease of -0.3% from 54.6 to 54.5. On the other hand, the OECD score increased slightly by 0.3% (from 68.6 to 68.8) in the same period. The average point for APEC as a group stood at 54.5 in 2016, and 9 of the 21 APEC economies surpassed it. The highest and lowest score in APEC was 90 and 28, respectively. Noting the broad range of scores in APEC, **the proposed target is to reach an average score of 56.6 by 2020 (an increase of 4% from 2016).**

#### 2. Benchmarking Public Procurement (BPP) Procurement Life Cycle

This indicator captures elements that matter to private suppliers on six key areas of the public procurement process, namely (i) needs assessment, call for tender and bid preparation; (ii) bid submission; (iii) bid opening, evaluation, and awarding; (iv) content and management of the procuring contract; (v) performance guarantee; and (vi) payment of suppliers. The scale is 0-100 with higher scores representing better performance.

Figure 9 BPP Procurement Life Cycle, APEC and OECD Average (2016)



Source: PSU calculation based on data from <http://bpp.worldbank.org/>.

According to the figure, there are three areas where APEC is performing better than OECD, namely in performance guarantee; content and management of the procurement contract; and bid submission. Meanwhile, OECD is excelling in the areas of payment of suppliers; bid opening, evaluation, and award as well as needs assessment, call for tenders, and bid preparation. In the area of payment of suppliers, APEC is far behind OECD.

APEC’s average score for BPP for 2016 is 61.5, slightly below the OECD’s average of 62. The highest APEC average score for BPP is 72.7 in the area of bid submission, and the lowest is in the area of performance guarantee with a score of 49.6<sup>23</sup>.

Setting a quantitative target is difficult based on this indicator since only one year of data is available. **One possible target is for APEC economies to make significant improvement by 2020.**

<sup>23</sup> The reason for a low APEC score in performance guarantee is due to zero score for three economies.

## 4. CHOKEPOINT 3: UNRELIABLE LOGISTICS SERVICES AND HIGH LOGISTICAL COSTS

Seven Logistics Performance Indicators (LPI) are proposed to monitor progress in this chokepoint. In addition to LPI, the DHL Connectedness Index is included. The following key issues are covered by the respective indicators:

- overall logistics and connectivity performance;
- reliability and quality of logistics services; and
- logistics costs.

### 4.1. OVERALL LOGISTICS AND CONNECTIVITY PERFORMANCE

#### 1. Logistics Performance Index (LPI)

The World Bank LPI measure the overall logistics performance by looking at the average in the six dimensions of logistics, including border clearance efficiency, ease of arranging shipments, quality of logistics services, tracking and tracing and timeliness. A higher score means better performance.

*Table 7 Logistics Performance Index, APEC and OECD average values*

	2011	2013	2015/16	% of change 2011-13	% of change 2013-15/16
APEC	3.39	3.03	3.41	-12.03%	12.69%
OECD	3.57	3.34	3.71	-6.59%	11.06%
Highest LPI Score	4.13	4.05	4.14		

Source: PSU calculation from World Bank LPI 2012/2014/2016 reports.<sup>24</sup>

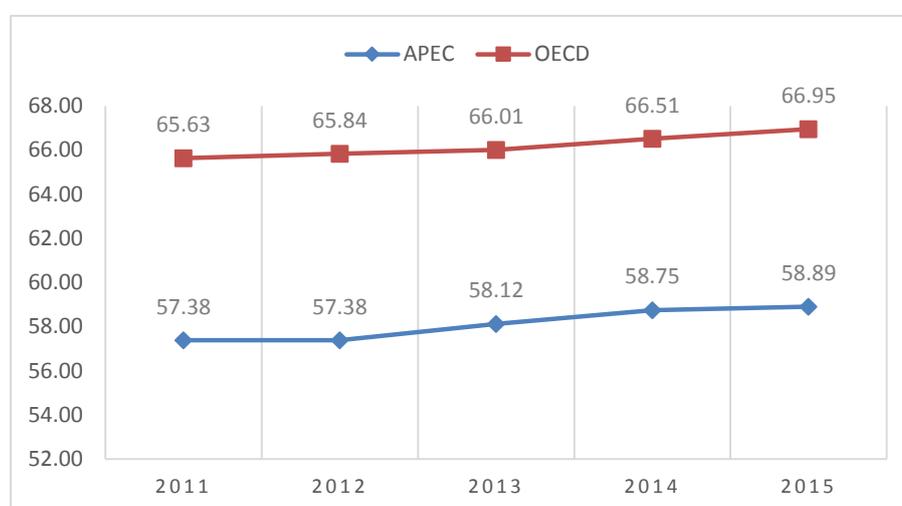
The overall logistics performance in APEC shows an improvement with the average value increasing by 13% from 3.03 in 2013 to 3.41 in 2015/16, while OECD recorded an increase of 11% from 3.34 in 2013 to 3.71 in 2015/16. It should be noted however, that the LPI score in 2013 was a marked decrease from the 2011 figures: from 3.39 to 3.03 (-12%) for APEC and from 3.57 to 3.34 for OECD (-7%). This means the year that is being used as a benchmark will make a significant difference. It could also be expected that as the score moves higher, the magnitude of improvement will become smaller. Bearing this in mind, **the proposed target is an increase of 5 % by 2020 (an APEC average score of 3.6), resembling the 2011 OECD average of 3.6.**

<sup>24</sup> Some data for Brunei Darussalam and Israel are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 20 APEC economies and 34 OECD economies.

## 2. DHL Connectedness Index

Global connectedness, as being defined in the DHL Connectedness Index Report, refers to the depth and breadth of an economy's integration globally as measured by the degree of participation in international flows of products and services, capital, information, and people. A higher score means that the economy is more integrated to the world economy.

Figure 10 DHL Connectedness Index, APEC and OECD average



Source: PSU calculation based on data from DHL Connectedness Index Report 2016.<sup>25</sup>

Comparatively, OECD is more integrated to the world economy compared to APEC as a group. OECD's connectedness index has increased by 2% during 2011-2015, from 65.63 to 66.95. APEC economies, in the same period, have progressed by 2.6% from 57.38 in 2011 to 58.89 in 2015. Considering this trend, **the proposed target is for the DHL connectedness index to increase by 4% (or an APEC average score of 61) by 2020 for APEC economies as a group.**

### 4.2. RELIABILITY AND QUALITY OF LOGISTICS SERVICES

Indicators under this section cover the following statistics:

1. LPI Ease of Arranging Competitively Priced Shipments: this international LPI index assesses an economy's ease of arranging competitively priced shipments. It is rated from "very low" (1) to "very high" (5).
2. LPI Competence and Quality of Logistics Services: this indicator assesses an economy's competence and quality of logistics services – trucking, forwarding, and customs brokerage. It is rated from "very low" (1) to "very high" (5).
3. LPI Ability to Track and Trace Consignments: this indicator assesses an economy's ability to track and trace consignments. It is rated from "very low" (1) to "very high" (5).
4. LPI Timeliness of Shipments: this indicator assesses an economy's timeliness of shipments in reaching destinations within the scheduled or expected delivery time. It is rated from "very low" (1) to "very high" (5).

<sup>25</sup>No data is available for Papua New Guinea.

5. LPI % Shipments Meeting Quality Criteria: this indicator looks at the number of shipments that meet quality criteria in an economy; a higher rating indicates better performance.

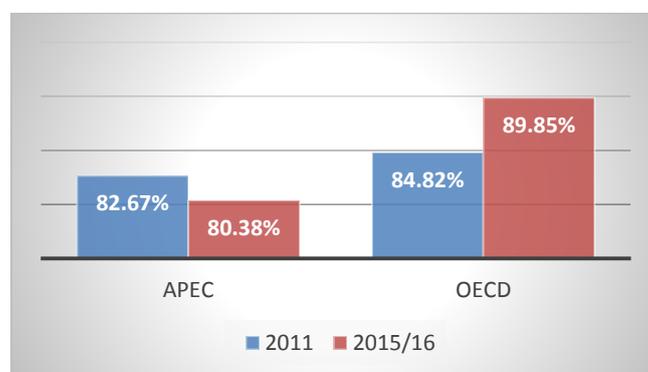
*Table 8 LPI for reliability and quality of logistics services, APEC and OECD average*

	APEC			OECD		
	2011	2015 /16	% of change	2011	2015/16	% of change
LPI ease of arranging competitively priced shipments	3.29	3.31	0.5	3.42	3.55	4.0
LPI competence and quality of logistics services	3.33	3.37	1.4	3.60	3.67	1.9
LPI ability to track and trace consignments	3.47	3.48	0.2	3.66	3.81	4.3
LPI timeliness of shipments in reaching destinations within the scheduled or expected delivery time	3.77	3.76	-0.1	3.90	4.05	4.0

Source: PSU calculation from World Bank LPI 2012/2014/2016 reports<sup>26</sup>

APEC average score for ease of arranging competitively priced shipments shows very modest improvement from 2011 to 2015/16 (0.5%). Similar modest improvement is also seen in the APEC score for tracking and tracing (0.2%) and timeliness (-0.1%). Regarding the competence and quality of logistics services, APEC's score from 2011 to 2015/16 increased by 1.4%. On the other hand, OECD averages for the same indicators show significant improvements by 4% except for competence and quality of logistics services. As such, **the proposed target for the four LPI indicators is a 5% increase by 2020, such that they resemble the respective 2011 OECD averages.**

*Figure 11 APEC and OECD average shipments meeting quality criteria (%)*



Source: PSU calculation from LPI 2012 and 2016 reports.

<sup>26</sup> Data for Brunei Darussalam and Israel are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 20 APEC economies and 34 OECD economies.

With regard to LPI % shipments meeting quality criteria, APEC<sup>27</sup> and OECD<sup>28</sup> economies show contrasting results- an improvement of 6% for OECD but a decline of 3% for APEC throughout 2011-2015/16. **The proposed target is to reach an APEC average of 84% for % shipments meeting quality criteria<sup>29</sup> by 2020, or an increase of 5% from 2015/16 such that it is similar to the 2011 OECD average of 84.8%.**

### 4.3. LOGISTICS COSTS

For this section, the available external indicators are:

1. LPI Lead Time to Import (days): measures the median time (days) from port of discharge (port or airport supply chain) to arrival at the consignee. The shorter the time, the better as it indicates efficiency.
2. LPI Lead Time to Export (days): measures the median time (days) from shipment point to port of loading (port or airport supply chain). The shorter the time, the better as it indicates efficiency.
3. LPI Cost to Import and Export (USD): measures the typical charge for a 40-foot dry container or a semi-trailer (total freight including agent fees, port, airport and other charges).

Table 9 LPI for logistics costs, APEC and OECD average

	APEC			OECD		
Indicators	2011	2015/16	% of change	2011	2015/16	% of change
LPI lead time to import (days) <sup>30</sup>	2.53	3.41	34.88	2.71	2.71	0
LPI lead time to export (days) <sup>31</sup>	2.12	2.41	13.89	2.38	2.00	-16
Indicators	2011	2013	% of change	2011	2013	% of change

<sup>27</sup> Data for Brunei Darussalam; Chile; New Zealand; and Papua New Guinea are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 17 APEC economies.

<sup>28</sup> Data for Austria, Chile, Czech Republic, France, Iceland, Latvia, Luxembourg, New Zealand, Norway, and Slovenia are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 25 OECD economies.

<sup>29</sup> Thus far, only six APEC economies have surpassed the target level of 84%.

<sup>30</sup> Data for Brunei Darussalam, Chile, New Zealand, Papua New Guinea, Austria, Czech Republic, Estonia, France, Hungary, Iceland, Latvia, Luxembourg, Norway, Slovak Republic, Slovenia, and Sweden are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 17 APEC economies and 21 OECD economies.

<sup>31</sup> Ibid.

<b>LPI Cost to Import<sup>32</sup></b>	848.72	819.06	-3.50	957.08	793.04	-17.14
<b>LPI Cost to Export<sup>33</sup></b>	716.83	758.28	5.78	836.59	820.82	-1.89

Source: PSU calculation from LPI 2012 and LPI 2016 reports.

### 1. LPI Lead Time to Import (days)

From 2011 to 2015/16, the lead time to import in APEC increased to 3.4 days (an increase of 34.9%) while it was status quo for OECD (at 2.7 days). The reason for the rather high APEC average value in 2015/16 is that some economies required between 5 and 7 days of lead time to import. This could be a serious hurdle for importers as it will add costs and uncertainty to their shipments. **The proposed target for this indicator is to reduce the time to import by 10% by 2020 (an APEC average of 3.1 days).**

### 2. LPI Lead Time to Export (days)

The lead time to export for APEC also shows an increase of 13.9%, from 2.1 days in 2011 to 2.4 days in 2015/16. OECD, on the other hand, managed to shorten the lead time to export by 16%, from 2.4 days to 2 days. In 2016, there were nine APEC economies with lead time to export of two days or less; this should be the aim for the remaining economies. **The proposed target for this indicator is to reduce the time to export by 10% by 2020 (an APEC average of 2.2 days) to return to the 2011 APEC level.**

### 3. LPI Cost to Import and Export

The latest data available for these indicators are from the LPI 2014 report. From 2011 to 2013, the cost to import had fallen by 3.5% in APEC economies. On the other hand, the cost to export increased at the rate of 5.8%. OECD has achieved a remarkable progress in reducing the cost to import by 17% from 2011 to 2013, such that the level of cost to import is lower than the cost to export in 2013. **The proposed target for these indicators is to reduce the cost to import and export each by 5% by 2020.**

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<sup>32</sup> Data for Brunei Darussalam, New Zealand, Papua New Guinea, Austria, Czech Republic, Iceland, Ireland, Israel, Latvia, Luxembourg, Norway, Slovenia, and Sweden are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 18 APEC economies and 24 OECD economies.

<sup>33</sup> Data for Brunei Darussalam, New Zealand, Papua New Guinea, Austria, Czech Republic, Hungary, Iceland, Ireland, Israel, Latvia, Luxembourg, Norway, Poland, Slovenia, and Sweden are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 18 APEC economies and 22 OECD economies.

## 5. CHOKEPOINT 4: LIMITED REGULATORY COOPERATION AND BEST PRACTICES

The following OECD Trade Facilitation Indicators (TFIs) could be used to guide the measurement of progress for this chokepoint:

- TFI on information availability;
- TFI on involvement of trade community;
- TFI on Internal border agency cooperation; and
- TFI on External border agency cooperation.

The TFIs measure the actual extent to which economies have introduced and implemented trade facilitation measures in absolute and relative terms. The TFIs take the values from 0 to 2, where 2 represents the best performance that can be achieved.

APEC has achieved significant progress in three out of the four above-mentioned areas as shown in table 10 below. The strongest progress is in the area of external border agency cooperation (50% improvement), followed by information availability (15%) and internal border agency cooperation (6.3%). On the other hand, APEC's performance in the involvement of trade community is lagging behind, with a score reduction of 8.6%. Taken together, APEC's level of performance in the four TFI indicators are on par with OECD. In fact, APEC performs better in the indicators for information availability and internal border agency cooperation. **Based on past performances, the 2020 proposed target for TFIs is an increase of 5% by 2020.**

Table 10 OECD Trade Facilitation Indicators (TFIs), APEC and OECD average

Indicators	APEC		% of change	OECD		% of change
	2012	2015		2012	2015	
TFI information availability <sup>34</sup>	1.47	1.68	14.56%	1.49	1.52	1.62%
TFI involvement of trade community <sup>35</sup>	1.62	1.48	-8.64%	1.60	1.56	-2.43%

<sup>34</sup> Enquiry points; publication of trade information, including on internet. Data for Chile; Hong Kong, China; Chinese Taipei; Austria; Estonia; Finland; Iceland; Ireland; Israel; Luxembourg and Slovenia are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 18 APEC economies and 27 OECD economies.

<sup>35</sup> Consultations with traders. Data for Chile; Hong Kong, China; Chinese Taipei; Austria; Estonia; Finland; Iceland; Ireland; Israel; Luxembourg and Slovenia are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 18 APEC economies and 27 OECD economies.

<b>TFI Internal border agency cooperation<sup>36</sup></b>	1.49	1.58	6.25%	1.15	1.53	33.35%
<b>TFI External border agency cooperation<sup>37</sup></b>	1.05	1.58	50.4%	0.98	1.62	64.71%

Source: PSU calculation based on OECD TFIs database.

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<sup>36</sup> Control delegation to Customs authorities; cooperation between various border agencies of the economy. Data for Canada; Chile; Hong Kong, China; Papua New Guinea; Chinese Taipei; Austria; Belgium; Estonia; Finland; Iceland; Ireland; Israel; Luxembourg and Slovenia are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 16 APEC economies and 25 OECD economies.

<sup>37</sup> Cooperation with neighboring and third economies. Data for Brunei Darussalam; Chile; China; Hong Kong, China; Indonesia; Papua New Guinea; the Philippines; Chinese Taipei; Viet Nam; Austria; Estonia; Finland; Iceland; Ireland; Israel; Luxembourg; and Slovenia are either not available/applicable. In order to ensure comparability, the averages of the figure for this indicator include only the other 12 APEC economies and 27 OECD economies.

## 6. CHOKEPOINT 5: UNDERDEVELOPED POLICY AND REGULATORY INFRASTRUCTURE FOR E-COMMERCE

The external indicators included under this chokepoint include the following:

1. Universal Postal Union (UPU) Integrated Index for Postal Development: a composite index providing an overview of postal development and performance along four key dimensions: reliability, reach, relevance and resilience. The index is a score from 0 to 100. A higher score shows better performance of postal service along the four key dimensions.
2. Cyber Law Tracker Legal and Regulatory Framework: shows whether an economy is equipped with the necessary legal and regulatory framework for conducting e-commerce.
3. UNCTAD Business-to-Consumer (B2C) E-Commerce Index: measures the readiness of economies to engage in online commerce.

Table 11 External Indicators for Chokepoint 5, APEC and OECD figures

	APEC	OECD
UPU Integrated Index for Postal Development (2015/16) <sup>38</sup>	56.89	68.12
Availability of legal and regulatory framework	16 out of 19 (84%)	33 out of 35 (94%)
UNCTAD B2C E-Commerce Index (2015) <sup>39</sup>	63.27	74.96

Source: PSU calculation from UPU, Cyber Law Tracker and UNCTAD data.

### 1. Universal Postal Union (UPU) integrated index for portal development

The average APEC score for this indicator is 56.89, which is 11.23 points below the OECD average of 68.12 in 2015/16. The UPU report (2016) highlighted the need for modernization in postal services to improve operational efficiency, to be better connected with global supply chains and to diversify and adapt their business models. The UPU report also mentioned that only a few economies (11 out of 170) obtained scores of 75 or higher; and four of these economies are APEC economies. Since only one year of data is available for this indicator, it is difficult to set a firm target. One possible target is **to have more APEC economies obtain a score of 75 or higher by 2020.**

<sup>38</sup> No data for Hong Kong, China; and Chinese Taipei.

<sup>39</sup> Data for Brunei Darussalam; Papua New Guinea; and Chinese Taipei are not available in the database. In order to ensure comparability, the averages of the figure for this indicator include only the other 18 APEC economies.

## **2. Cyber Law Tracker Legal and Regulatory Framework**

Almost all APEC economies are fully equipped with the necessary legal and regulatory frameworks to conduct e-commerce, such as cybercrime prevention, consumer protection when purchasing online, electronic transaction/e-signature, and data protection/privacy online. Only three out of 19 APEC economies for which data are available have yet to adopt all the necessary legal and regulatory frameworks according to the Cyber Law Tracker database. **The proposed 2020 target is to have all APEC economies equipped with the necessary legal and regulatory frameworks.**

## **3. UNCTAD Business-to-Consumer (B2C) E-Commerce Index**

The B2C e-commerce index for APEC stands at 63.27 points. The highest score in APEC is 86.30, while the lowest score is 33. **Since there are no past comparable figures available for this indicator, the possible target is for APEC economies to make significant improvement by 2020.**

## 7. CONCLUSION

This report presents the possible aspirational targets for the five chokepoints in the SCFAP-II. The targets range from 4% to 25% rate of change or improvement by 2020. Corresponding APEC averages are provided.

The aspirational targets proposed take into consideration the past trends as well as the variations within APEC whenever appropriate. OECD figures are provided for comparative purpose.

Inputs from APEC economies on these proposed targets would be very useful in arriving at a set of targets that is both realistic, yet ambitious to drive change and reform across APEC so that by 2020 the goals of SCFAP-II could be achieved.

## APPENDIX 1: COMPARISON OF APEC AND OECD FIGURES FOR SCFAP II EXTERNAL INDICATORS

No.	Indicators	APEC		% of change	OECD		% of change	Number of APEC economies
		2011	2015/16		2011	2015/16		
<b>A. Chokepoint 1: Lack of Coordinated Border Management and Underdeveloped Border Clearance and Procedures</b>								
A.1	LPI declarations submitted and processed electronically and on-line (%)	-	92.5	-	-	96.7	-	16
A.2	LPI physical inspection (%)	10.4	9.7	-7%	6.7	4.3	-34.7%	16
A.3	LPI multiple inspection (%)	7.1	3.6	-48.7%	4.2	2.6	-39%	16
A.4	LPI clearance time with physical inspection (days)	2.3	2.8	23.5%	1.6	1.7	8.3%	15
A.5	LPI clearance time without physical inspection (days)	1.2	1.6	38.5%	1.2	1.1	-7.7%	11
A.6	LPI efficiency of customs clearance process	3.1	3.2	2.3%	3.4	3.5	4.3%	20
A.7	ETI efficiency of the clearance process	3.2	3.2	1.3%	3.4	3.5	4.5%	19
A.8	ETI customs services index	0.7	0.7	3.4%	0.8	0.8	-1.1%	19
No.	Indicators	2015	2016	% of change	2015	2016	% of change	Number of APEC economies
A.9	DB Cost to Import (documentary compliance in USD)	108.9	108.9	0	30.9	30.9	0	21

No.	Indicators	APEC		% of change	OECD		% of change	Number of APEC economies
		2015	2016		2015	2016		
A.10	DB Cost to Import (border compliance in USD)	431.8	431.8	0	136.8	136.8	0	21
A.11	DB Time to Import (documentary compliance in hours)	43.9	41.8	-4.9%	4.5	4.5	0	21
A.12	DB Time to Import (border compliance in hours)	50.0	49.9	-0.2%	10.7	10.7	0	21
A.13	DB Cost to Export (documentary compliance in USD)	100.1	98.6	-1.5%	37.8	37.8	0	21
A.14	DB Cost to Export (border compliance in USD)	373.6	373.6	0	163.5	163.5	0	21
A.15	DB Time to Export (documentary compliance in hours)	32.8	30.4	-7.1%	2.8	2.8	0	21
A.16	DB Time to Export (border compliance in hours)	39.4	39.2	-0.6%	13.1	13.1	0	21
A.17	DB DTF score for trading across borders (0-100)	76.2	76.6	0.5%	93.2	93.2	0	21
No.	Indicators	2011	2015/16	% of change	2011	2015/16	% of change	Number of APEC economies
<b>B. Chokepoint 2: Inadequate Quality and Lack of Access to Transportation Infrastructure and Services</b>								
B.1	ETI availability and quality of transport infrastructure	4.9	4.7	-4.0%	5.3	4.7	-10.9%	19
No.	Indicators	APEC		% of change	OECD		% of change	Number of APEC economies
		2011	2015/16		2011	2015/16		
B.2	ETI availability and quality of transport services	4.5	4.9	7.2%	4.6	5.2	12.5%	19

B.3	LPI quality of trade and transport infrastructure	3.4	3.3	-0.5%	3.6	3.7	2.5%	20
B.4	RMT Liner Shipping Connectivity Index	55.6 (2012)	60.8 (2016)	9.4%	48.2 (2012)	53.9 (2016)	11.8%	20
B.5	ETI availability and quality of ICT	4.8	5.4	13.9%	5.4	5.9	8.5%	19
B.6	TI corruption perception index	55.3	54.6	-1.2%	68.3	68.8	0.6%	21
B.7	BPP Procurement Life Cycle (2016)							
	- Needs Assessment, Call for Tender, and Bid Preparation	-	69.3	-		73.9		20
	- Bid Submission	-	72.7	-		65.6		20
	- Bid Opening, Evaluation, and Award	-	56.4	-		60.9		20
	- Content and Management of the Procurement Contract	-	69.2	-		65.2		20
	- Performance Guarantee	-	49.6	-		42.7		19
	- Payment of Suppliers	-	59.9	-		75.7		20
<b>C. Chokepoint 3: Unreliable Logistics Services and High Logistical Costs</b>								
C.1	LPI Overall Index	3.4	3.4	0.6	3.6	3.7	3.7	20

No.	Indicators	APEC		% of change	OECD		% of change	Number of APEC economies
		2011	2015		2011	2015		
C.2	DHL Connectedness Index	57.4	58.9	2.6%	65.6	67	2%	20
No.	Indicators	2011	2015/16	% of change	2011	2015/16	% of change	Number of APEC economies
C.3	LPI ease of arranging competitively priced shipments	3.3	3.3	0.5%	3.4	3.5	4.4%	20

No.	Indicators	APEC		% of change	OECD		% of change	Number of APEC economies
		2011	2015		2011	2015		
C.4	LPI competence and quality of logistics services	3.3	3.4	1.4%	3.6	3.7	2.4%	20
C.5	LPI ability to track and trace consignments	3.5	3.5	0.2%	3.6	3.8	4.6%	20
C.6	LPI timeliness of shipments in reaching destinations within the scheduled or expected delivery time	3.8	3.8	-0.1%	3.8	4.0	4.3%	20
C.7	LPI % shipments meeting quality criteria	82.7	80.4	-2.8%	84.8	89.9	5.9%	17
C.8	LPI lead time to import (days)	2.5	3.4	34.9%	2.7	2.7	0%	17
C.9	LPI lead time to export (days)	2.1	2.4	13.9%	2.4	2.0	-16%	17
C.10	LPI Cost to Import	848.7	819.1 (2013)	-3.5%	957.1	793.0	-17.1%	18
C.11	LPI Cost to Export	716.8	758.3 (2013)	5.8%	836.6	820.8	-1.9%	18

#### D. Chokepoint 4: Limited Regulatory Cooperation and Best Practices

No.	Indicators	2012	2015	% of change	2012	2015	% of change	Number of economies
D.1	TFI information availability	1.5	1.7	14.6%	1.5	1.5	1.6%	18

No.	Indicators	APEC		% of change	OECD		% of change	Number of APEC economies
		2012	2015		2012	2015		
D.2	TFI involvement of trade community	1.6	1.5	-8.6%	1.6	1.6	-2.4%	18
D.3	TFI Internal border agency cooperation	1.5	1.6	6.3%	1.2	1.5	33.4%	16

D.4	TFI External border agency cooperation	1.1	1.6	50.4%	1.0	1.6	64.7%	12
<b>E. Chokepoint 5: Underdeveloped Policy and Regulatory Infrastructure for E-Commerce</b>								
E.1	UPU Integrated Index for Postal Development (2015/16)		56.9			68.1		19
E.2	UNCTAD B2C E-Commerce Index (2015)		63.3			75		18

## GLOSSARY

APEC	Asia Pacific Economic Co-operation
BPP	Benchmarking Public Procurement
B2C	Business-to-Consumer
CPI	Corruption Perception Index developed by Transparency International
DB	Doing Business Report developed by the World Bank
DHL	Deutsche Post AG
DTF	Distance to Frontier
ETI	The Global Enabling Trade Index developed by the World Economic Forum
LPI	The Logistics Performance Index developed by the World Bank
LSCI	Liner Shipping Connectivity Index
MF	Monitoring Framework of the SCFAP-II
OECD	Organisation for Economic Co-operation and Development
RMT	Review of Maritime Transport developed by the United Nations Conference on Trade and Development
SCFAP-II	Supply-Chain Connectivity Framework Action Plan Phase II
TFI	Trade Facilitation Indicator developed by the Organisation for Economic Co-operation and Development
TI	Transparency International
UNCTAD	United Nations Conference on Trade and Development
UPU	Universal Postal Union

## REFERENCES

Ghemawat, P. & Altman, S.A. (2016). *DHL Global Connectedness Index: The State of Globalization in an Age of Ambiguity*. Bonn: Deutsche Post DHL Group. [http://www.dhl.com/content/dam/downloads/g0/about\\_us/logistics\\_insights/gci\\_2016/DHL\\_GCI\\_2016\\_full\\_study.pdf](http://www.dhl.com/content/dam/downloads/g0/about_us/logistics_insights/gci_2016/DHL_GCI_2016_full_study.pdf)

OECD Trade Facilitation Indicators database. <http://www.oecd.org/trade/facilitation/indicators.htm>

Transparency International: Corruption Perceptions Index database. <https://www.transparency.org/research/cpi>

World Economic Forum (2012). *The Global Enabling Trade Report 2012: Reducing Supply Chain Barriers*. Geneva: World Economic Forum. [http://www3.weforum.org/docs/GETR/2012/GlobalEnablingTrade\\_Report.pdf](http://www3.weforum.org/docs/GETR/2012/GlobalEnablingTrade_Report.pdf)

World Economic Forum & Global Alliance for Trade Facilitation (2016). *The Global Enabling Trade Report 2016*. Geneva: World Economic Forum. [http://www3.weforum.org/docs/WEF\\_GETR\\_2016\\_report.pdf](http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf)

World Bank (2012). *Connecting to Compete 2012: Trade Logistics in the Global Economy*. Washington D.C.: The International Bank for Reconstruction and Development/The World Bank. [http://siteresources.worldbank.org/TRADE/Resources/239070-1336654966193/LPI\\_2012\\_final.pdf](http://siteresources.worldbank.org/TRADE/Resources/239070-1336654966193/LPI_2012_final.pdf)

World Bank (2014). *Connecting to Compete 2014: Trade Logistics in the Global Economy*. Washington D.C.: The International Bank for Reconstruction and Development/The World Bank. [https://lpi.worldbank.org/sites/default/files/LPI\\_Report\\_2014.pdf](https://lpi.worldbank.org/sites/default/files/LPI_Report_2014.pdf)

World Bank (2016). *Connecting to Compete 2016: Trade Logistics in the Global Economy*. Washington D.C.: The International Bank for Reconstruction and Development/The World Bank. [https://wb-lpi-media.s3.amazonaws.com/LPI\\_Report\\_2016.pdf](https://wb-lpi-media.s3.amazonaws.com/LPI_Report_2016.pdf)

World Bank (2016). *Doing Business 2016: Measuring Regulatory Quality and Efficiency*. Washington D.C.: International Bank for Reconstruction and Development / The World Bank. <http://www.doingbusiness.org/~media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB16-Full-Report.pdf>

World Bank (2017). *Doing Business 2017: Equal Opportunity for All*. Washington D.C.: International Bank for Reconstruction and Development / The World Bank. <http://www.doingbusiness.org/~media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB17-Report.pdf>

World Bank Open Data database. <https://data.worldbank.org/>

World Bank Benchmarking public Procurement. <http://bpp.worldbank.org/>

UNCTAD (2016). *B2C E-commerce Index 2016*. UNCTAD. [http://unctad.org/en/PublicationsLibrary/tn\\_unctad\\_ict4d07\\_en.pdf](http://unctad.org/en/PublicationsLibrary/tn_unctad_ict4d07_en.pdf)

UNCTAD Global Cyberlaw Tracker database. [http://unctad.org/en/Pages/DTL/STI\\_and\\_ICTs/ICT4D-Legislation/eCom-Global-Legislation.aspx](http://unctad.org/en/Pages/DTL/STI_and_ICTs/ICT4D-Legislation/eCom-Global-Legislation.aspx)

Universal Postal Union (2016). *Integrated Index for Postal Development (2IPD)*. Berne: Universal Postal Union. [http://www.upu.int/uploads/tx\\_sbdownloader/integratedIndexForPostalDevelopmentEn.pdf](http://www.upu.int/uploads/tx_sbdownloader/integratedIndexForPostalDevelopmentEn.pdf)

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