

NOTE ON ALTERNATIVE TPP-TRACK SIMULATIONS

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This note reports on new simulations of alternative configurations of the TPP agreement. The results confirm our earlier findings that the benefits of the TPP are reasonably large, but their scale ultimately depends on whether large economies like Japan, Korea and eventually China participate. A parallel note describes new scenarios calculated for the Asian track.

The scenarios examined are defined in Table 1. The results for the still-wider Free Trade Area of the Asia Pacific are reported in our existing publications. In prior reports we defined the “TPP Track” as a 9-country agreement concluded in 2013 and expanded to 13 countries in 2014 (identified as TPP13 in the Table below). Here that assumption is compared to the current 11-country TPP membership as well as smaller and larger configurations. The results suggest that adding countries increases benefits substantially, although much of the incremental gains accrue to countries added. Detailed results are on our website, www.asiapacifictrade.org while highlights are reported below.

Table 1. Scenario assumptions

Scenario	Membership
TPP9	2013: agreement among the TPP9 (Australia, Brunei, Chile, Malaysia, New Zealand, Peru, Singapore, United States, Vietnam)
TPP11	2013: agreement among the TPP9 plus Canada and Mexico
TPP13*	2013: agreement among the TPP9 2014: enlargement to include Canada, Japan, Korea and Mexico
TPP16	2013: agreement among the TPP9 2014: enlargement to include Canada, Japan, Korea and Mexico, plus Indonesia, the Philippines and Thailand.

* Scenario identified as “TPP Track” in Petri, Plummer and Zhai (2012). The template is assumed in all cases to be an average of recent US FTA templates.

HIGHLIGHTS OF TPP TRACK COMPARISONS

1. Expanding the TPP from 9 to 16 members increases global benefits from \$46 to \$451 billion per year (and from \$20 billion to \$108 billion for the United States). These and other values discussed below are for 2025, expressed in billions of 2007 dollars.
2. Expanding the TPP from 11 to 16 countries benefits every existing and new member country at every stage, suggesting that enlargement is “incentive consistent.”

3. Expanding the TPP benefits especially the countries that are added. For example, when the TPP is expanded from 9 to 11 countries, Canada and Mexico (the entrants) capture \$20.3 billion of total global gains of \$27.8 billion, or 73 percent. Similarly, Japan and Korea gain roughly the same percentage of the incremental gains when they are added in the TPP13, as is also the case with Indonesia, Philippines and Thailand in the TPP16.
4. The largest benefits under the TPP16 accrue to emerging ASEAN economies, with income gains ranging from 4 percent for Indonesia to a 14 percent for Vietnam. Japan, Korea, New Zealand and Singapore are next most positively affected, with income gains in the 2-3 percent range. Latin American members benefit a little less, and Australia, Canada and the United States the least, with income gains below one percent.
5. The jump in benefits from TPP11 to TPP13 is explained, in large part, by the liberalization of Japan's trade and investment with Korea and the United States.
6. Export increases are 45-75 percent higher, in dollar terms, than the corresponding income gains, but follow similar patterns. The largest absolute gains are estimated for Japan in the TPP16 scenario at \$203 billion, slightly more than for the United States. In percentage terms, export gains range from highs of 13-39 percent in Southeast Asia to lows of 3-7 percent in Australia, Canada and the United States.
7. Benefits for all countries would be dominated by a consolidated FTAAP, which would generate global gains of \$1.9 trillion.

Table 1. Income gains under alternative scenarios, 2025

Economy	GDP 2025 (bill. 2007 dollars)	Income gains (bill. 2007 dollars)				Percent change from baseline			
		TPP9	TPP11	TPP13	TPP16	TPP9	TPP11	TPP13	TPP16
TPP track economies	26,502	26.8	54.5	128.7	175.3	0.1	0.2	0.5	0.7
United States	20,273	19.8	23.9	77.5	108.2	0.1	0.1	0.4	0.5
Australia	1,433	1.7	2.8	8.6	9.8	0.1	0.2	0.6	0.7
Canada	1,978	-0.2	7.0	9.9	12.4	0.0	0.4	0.5	0.6
Chile	292	1.2	2.0	2.6	3.5	0.4	0.7	0.9	1.2
Mexico	2,004	0.0	13.1	21.0	31.2	0.0	0.7	1.0	1.6
New Zealand	201	2.6	2.9	4.5	4.7	1.3	1.4	2.2	2.4
Peru	320	1.6	2.8	4.5	5.4	0.5	0.9	1.4	1.7
Asian track economies	20,084	-19.2	-22.8	-55.9	43.1	-0.1	-0.1	-0.3	0.2
China	17,249	-17.0	-20.2	-46.8	-82.4	-0.1	-0.1	-0.3	-0.5
Hong Kong	406	-0.2	-0.3	-0.8	-1.3	-0.1	-0.1	-0.2	-0.3
Indonesia	1,549	-1.0	-1.1	-3.5	62.2	-0.1	-0.1	-0.2	4.0
Philippines	322	-0.4	-0.5	-1.1	22.1	-0.1	-0.1	-0.3	6.9
Thailand	558	-0.5	-0.7	-3.7	42.5	-0.1	-0.1	-0.7	7.6
Two-track economies	8,660	44.2	50.6	245.9	270.5	0.5	0.6	2.8	3.1
Brunei	20	0.1	0.1	0.2	0.4	0.5	0.5	1.1	1.8
Japan	5,338	-0.5	-1.2	119.4	128.8	0.0	0.0	2.2	2.4
Korea	2,117	-0.1	-0.4	45.8	50.2	0.0	0.0	2.2	2.4
Malaysia	431	18.0	20.8	26.3	30.1	4.2	4.8	6.1	7.0
Singapore	415	3.6	5.1	8.1	12.3	0.9	1.2	2.0	3.0
Vietnam	340	23.2	26.2	46.1	48.7	6.8	7.7	13.6	14.3
Others	47,977	-5.1	-7.8	-24.0	-38.0	0.0	0.0	0.0	-0.1
Russia	2,865	-0.2	-0.5	-2.0	-3.0	0.0	0.0	-0.1	-0.1
Chinese Taipei	840	0.2	0.2	-2.9	-6.4	0.0	0.0	-0.3	-0.8
Europe	22,714	-0.4	-1.1	-3.4	-4.9	0.0	0.0	0.0	0.0
India	5,233	-0.9	-1.2	-3.8	-6.9	0.0	0.0	-0.1	-0.1
Other ASEAN	83	-0.2	-0.3	-0.4	-0.5	-0.3	-0.3	-0.5	-0.6
Rest of world	16,241	-3.6	-4.9	-11.4	-16.3	0.0	0.0	-0.1	-0.1
World	103,223	46.7	74.5	294.7	450.9	0.0	0.1	0.3	0.4
<i>Memorandum</i>									
TPP9	23,725	71.0	105.1	374.6	445.8	0.2	0.3	1.1	1.3
ASEAN+3	28,828	24.8	27.5	189.5	313.1	0.1	0.1	0.7	1.1
APEC	58,951	51.8	81.9	313.7	479.5	0.1	0.1	0.5	0.8

Note: Solutions include both trade and FDI effects. The table follows definitions explained in Petri, Plummer and Zhai (2012).

Table 2. Export increases under alternative scenarios, 2025

Economy	Exports, 2025 (bill. 2007 dollars)	Export increase (billions of 2007 dollars)				Percent change from baseline			
		TPP9	TPP11	TPP13	TPP16	TPP9	TPP11	TPP13	TPP16
TPP track economies	4,555	48.7	101.7	201.5	280.6	1.1	2.2	4.4	6.2
United States	2,813	41.7	54.8	124.2	190.5	1.5	1.9	4.4	6.8
Australia	332	1.9	3.2	14.9	15.7	0.6	1.0	4.5	4.7
Canada	597	-1.1	14.1	15.7	17.7	-0.2	2.4	2.6	3.0
Chile	151	2.1	3.1	3.8	4.5	1.4	2.0	2.5	3.0
Mexico	507	-1.2	19.8	31.5	40.1	-0.2	3.9	6.2	7.9
New Zealand	60	2.5	2.9	4.7	4.7	4.1	4.7	7.8	7.8
Peru	95	2.8	3.9	6.7	7.4	3.0	4.1	7.1	7.8
Asian track economies	5,971	-22.5	-30.9	-73.8	103.1	-0.4	-0.5	-1.2	1.7
China	4,597	-18.1	-24.9	-57.4	-107.8	-0.4	-0.5	-1.2	-2.3
Hong Kong	235	-0.5	-0.8	-1.8	-3.6	-0.2	-0.4	-0.8	-1.5
Indonesia	501	-1.7	-2.2	-5.6	98.3	-0.3	-0.4	-1.1	19.6
Philippines	163	-0.8	-0.9	-1.9	33.5	-0.5	-0.6	-1.2	20.6
Thailand	476	-1.4	-2.0	-7.2	82.7	-0.3	-0.4	-1.5	17.4
Two-track economies	2,817	75.5	84.9	406.4	446.9	2.7	3.0	14.4	15.9
Brunei	9	0.1	0.2	0.3	0.3	1.7	1.8	2.8	3.8
Japan	1,252	-1.8	-3.8	175.7	202.5	-0.1	-0.3	14.0	16.2
Korea	718	-1.2	-2.4	88.7	94.5	-0.2	-0.3	12.4	13.2
Malaysia	336	29.6	34.4	41.7	44.2	8.8	10.2	12.4	13.2
Singapore	263	7.0	9.4	11.0	13.3	2.7	3.6	4.2	5.1
Vietnam	239	41.8	47.2	89.1	92.1	17.5	19.8	37.3	38.6
Others	15,072	-24.7	-42.5	-90.4	-175.9	-0.2	-0.3	-0.6	-1.2
Russia	1,071	-1.0	-2.2	-4.4	-9.3	-0.1	-0.2	-0.4	-0.9
Chinese Taipei	712	-0.7	-1.3	-7.4	-17.5	-0.1	-0.2	-1.0	-2.5
Europe	7,431	-10.1	-18.8	-38.3	-75.6	-0.1	-0.3	-0.5	-1.0
India	869	-1.8	-2.9	-6.7	-13.2	-0.2	-0.3	-0.8	-1.5
Other ASEAN	34	-0.6	-0.7	-1.1	-1.6	-1.8	-2.0	-3.2	-4.6
Rest of world	4,955	-10.5	-16.7	-32.4	-58.8	-0.2	-0.3	-0.7	-1.2
World	28,415	77.0	113.1	443.7	654.7	0.3	0.4	1.6	2.3
<i>Memorandum</i>									
TPP9	4,298	124.2	186.6	608.0	727.5	1.7	2.5	8.2	9.9
ASEAN+3	8,822	52.4	53.3	331.5	548.4	0.6	0.6	3.8	6.2
APEC	15,126	100.0	152.1	522.3	803.8	0.7	1.0	3.5	5.3

Note: The table follows definitions explained in Petri, Plummer and Zhai (2012).