Policy Analysis Focus 23-4
Economic Impact of the US and/or China joining CPTPP[1]

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I. Introduction

After the signing of the Trans-Pacific Partnership (TPP) Agreement in 2016, the United States (US) withdrew from TPP, and the remaining eleven members concluded the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), entered in force in 2018. In the meantime, China, Chinese Taipei and another few economies have applied to join CPTPP. The United Kingdom (UK) signed its accession to CPTPP in July 2023 among others.

That said, a few major economies have been lagging behind the steady implementation of bilateral and multilateral free trade agreements (FTAs) and economic partnership agreements (EPAs) in the Asia-Pacific. This article investigates quantitatively the relative significance of the economic impact of alternative scenarios of the US and/or China joining CPTPP, by means of simulation studies using a Computable General Equilibrium (CGE) model based on the most recent trade database and tariff data.[2]

II. Macroeconomic impact

The economic impact of tariff reductions and removals will be compared here among the following scenarios, assuming that the UK would be the twelfth member of CPTPP.

CPTPP: reductions among eleven CPTPP members

[1] This is a non-technical summary of Kawasaki, K. (2023), "Review of Economic Impact of CPTPP," GRIPS Discussion Paper 23-10, GRIPS, October 2023. The views expressed in this article are the author's own and do not represent those of GRIPS Alliance or other organizations to which the author belongs.

[2] It is based on the Global Trade Analysis Project (GTAP) 11a Data Base, which was released in August 2023, and the GTAP 7 Model is solved using GEMPACK software referred to in Horridge, Jerie, Mustakinov & Schiffmann (2018), GEMPACK Manual, ISBN 978-1-921654-34-3, incorporating dynamic effects of capital accumulation, endogenous labor supply and productivity improvement. Tariff data is updated based on the Market Access Map, International Trade Centre.

US: removals between twelve CPTPP members and the US
China: removals between twelve CPTPP members and China
US and China: removals among twelve CPTT members, the US and China

The possible impact of other policy measures, including reduction of non-tariff measures and service and investment liberalization, are not considered here.

The estimated real GDP impact of the alternative scenarios is shown in Table 1. If the US joined CPTPP, US real GDP would increase. It is striking that a few CPTPP members would be indicated to lose rather than gain as far as the impact of tariff removals are concerned. This is due to possible adverse trade diversion effects, i.e. the trade of those economies who have already implemented FTAs/EPAs with the US would largely be replaced by the trade of the other CPTPP members who have not implemented any agreements with the US.

It is estimated that, If China joined CPTPP, China's real GDP would increase. Meanwhile, the real GDP of the eleven CPTPP members on average and that of the UK would increase more than that under the US joining CPTPP, as far as the impact of full tariff removals is concerned. Moreover, the real GDP of the individual CPTPP members would increase across the board except for Singapore, which would experience decrease of a negligible magnitude.

The impact of the US and China both joining CPTPP would not necessarily be a

Table 1 Real GDP impact of alternative CPTPP

(%)

	CPTPP	US	China	US and China
Austlaria	0.67	-0.10	0.05	-0.10
New Zealand	0.86	0.24	0.01	0.02
Japan	0.65	0.59	0.80	0.98
Brunei	0.03	-0.04	0.11	-0.05
Malaysia	0.50	0.40	0.26	0.26
Singapore	0.16	-0.11	-0.01	-0.45
Viet Nam	1.35	3.71	0.58	2.66
Canada	0.21	0.04	0.50	0.44
Mexico	0.16	-0.49	1.63	0.61
Chile	0.14	-0.27	0.13	-0.41
Peru	0.09	-0.14	0.31	-0.02
CPTPP above	0.50	0.29	0.66	0.62
UK	-0.02	0.24	0.95	1.00
US	-0.04	0.33	-0.04	1.27
China	-0.03	-0.13	1.28	2.78

Source: Based on Kawasaki (2023).

simple combination of the effects of the US and China joining CPTPP separately (as discussed above), resulting from additional tariff removals between the US and China. Real GDP would increase more in the US and in China than the simple sum of the two impacts, due to significant trade creation effects between the US and China. On the other hand, real GDP in the eleven CPTPP members and the UK would increase less or turn to decrease and even decrease more than the simple sum of the two impacts, due once again to trade diversion effects as discussed above. From the perspective of third party interest, the decoupling of the US and China is suggested to be more beneficial than the coupling of the two economies in this regard.

Another useful policy implication could be derived by comparing the impact on individual economies across the alternative scenarios. Australia, New Zealand and Brunei would not gain significantly from the US and/or China joining CPTPP. Japan would still gain equally from the US and/or China joining CPTPP. Singapore and Chile would lose from the US joining CPTPP, and would lose even more from both the US and China joining CPTPP. Malaysia, and Viet Nam even more so, would gain more from the US joining CPTPP than from China joining. Canada, Mexico and Peru would lose, or gain little, from the US joining CPTPP, but would gain from China joining CPTPP. The variation in significance of those economic impacts among alternative scenarios would be worth considering from the perspective of policy priorities among the CPTPP members.

III. Impact by sector

The impact of trade liberalization and structural reforms would be much larger at the sector level than at the macro level. Winners and losers among sectors would emerge as the result of implementation of FTAs/EPAs, in line with the comparative advantage of each economy. Moreover, actual impact would be affected by the level of trade protection prior to liberalization. The estimated impact on production of selected key sectors is summarized below. The following three sectors represent intensive users of land, labor and capital as production factors.

- In the agriculture, forestry and fisheries sector, production would increase in Australia, New Zealand and Canada under CPTPP and in the US if the US joined CPTPP, as well as in China if China joined CPTPP. Japan would be a loser in this sector under CPTPP, and if the US joined CPTPP, but not necessarily if China joined CPTPP.

- In the textiles and apparel sector, production would significantly increase in Brunei and Malaysia and notably in Viet Nam if the US joined CPTPP. On the

other hand, it would decrease to a large extent in Canada, Mexico and the US if the US and China both joined CPTPP.

- In the motor vehicles sector, production would increase in Japan under all of the alternative scenarios studied here. It would significantly increase in the UK if China joined CPTPP, and to a lesser extent in the US if both the US and China joined CPTPP. On the other hand, it would decrease in Australia, New Zealand and Singapore under CPTPP.

A sensitivity analysis of the model simulations indicates that the magnitudes of macroeconomic impacts of tariff reductions and removals would be proportional to the substitution effects of commodities among economies. The key driver of macroeconomic benefits would be suggested to be structural reforms of economies among sectors. The more structural reforms are promoted at the sector level, the larger the economic benefits at the macro level. The protection of certain sectors from trade liberalization would result in smaller macroeconomic benefits than for those with no exemptions.

IV. Concluding remarks

The macroeconomic impact of alternative CPTPP scenarios would be suggested to vary in both magnitude and direction among the CPTPP members, depending on the US and/or China joining CPTPP. Variation in the impact of those alternative scenarios is also indicated at the sector level. That said, the impact estimated by model simulations would depend on the policy scenario and the structure of the models used. The impact of EPAs would be studied quantitatively, with recognition of the possible range of estimates. It would not be productive to seek to determine the likely magnitude of the impact of individual policy scenarios among the different versions of model simulations, but it would still be useful to compare the relative significance of impact among the alternative policy scenarios, by means of simulations using the same model version.