

THE POTENTIAL IMPACT OF COVID-19 ON GDP AND TRADE: A PRELIMINARY ASSESSMENT

EE 462 Development Macroeconomics

Semester 1/2021

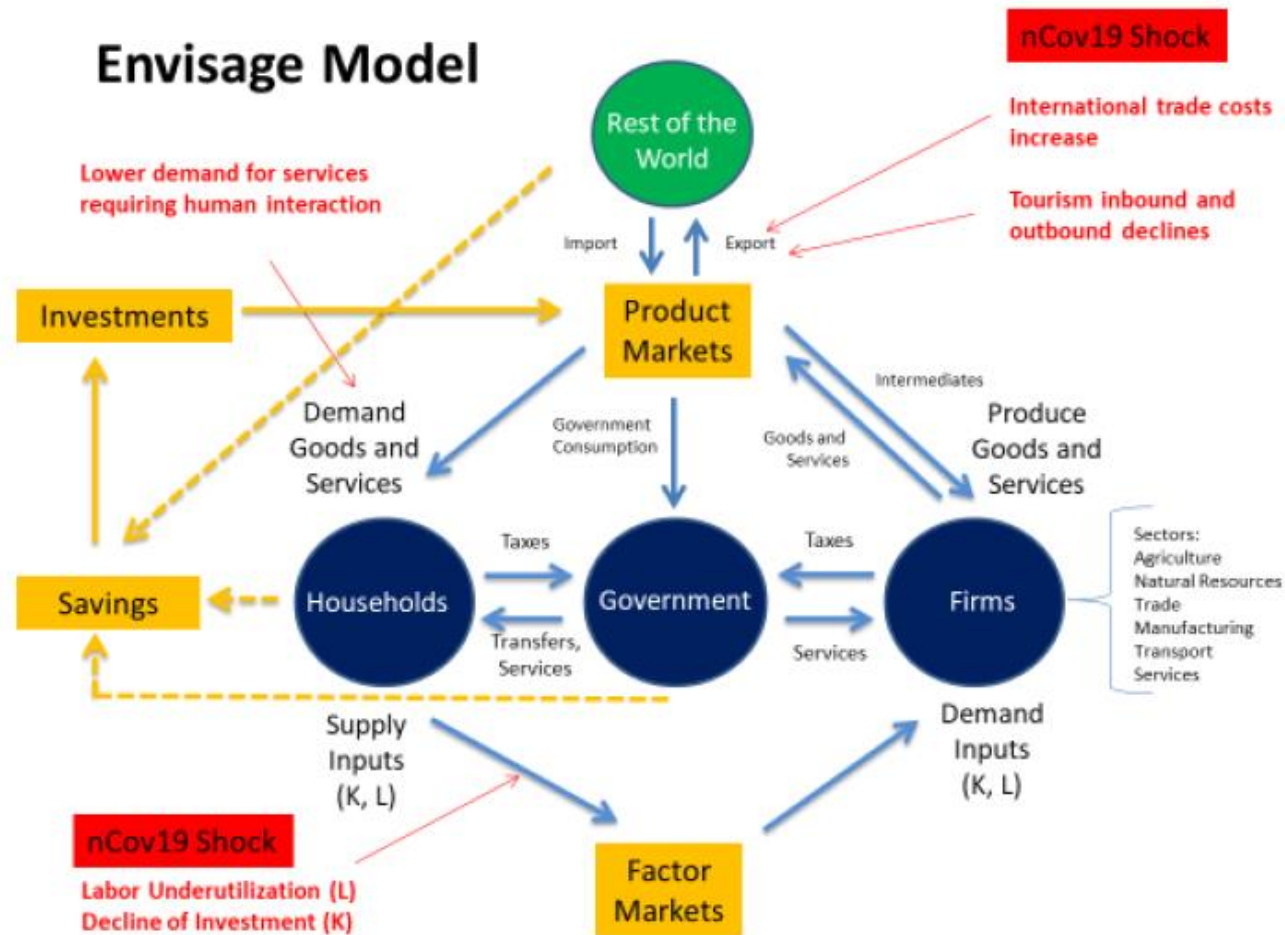
Reference: Maliszewska, M., Mattoo, A., & Van Der Mensbrugge, D. (2020). The potential impact of COVID-19 on GDP and trade: A preliminary assessment. *World Bank Policy Research Working Paper*, (9211).

Summary

- Obj – simulate the potential impact of Covid-19 on GDP and trade using standard computable general equilibrium model
- 4 shocks:
 - Underutilization of labor and capital
 - Increase in international trade costs
 - Drop in trade services
 - Decline in demand
- 2 scenarios:
 - Global pandemic
 - Amplified pandemic

Transmission Channel

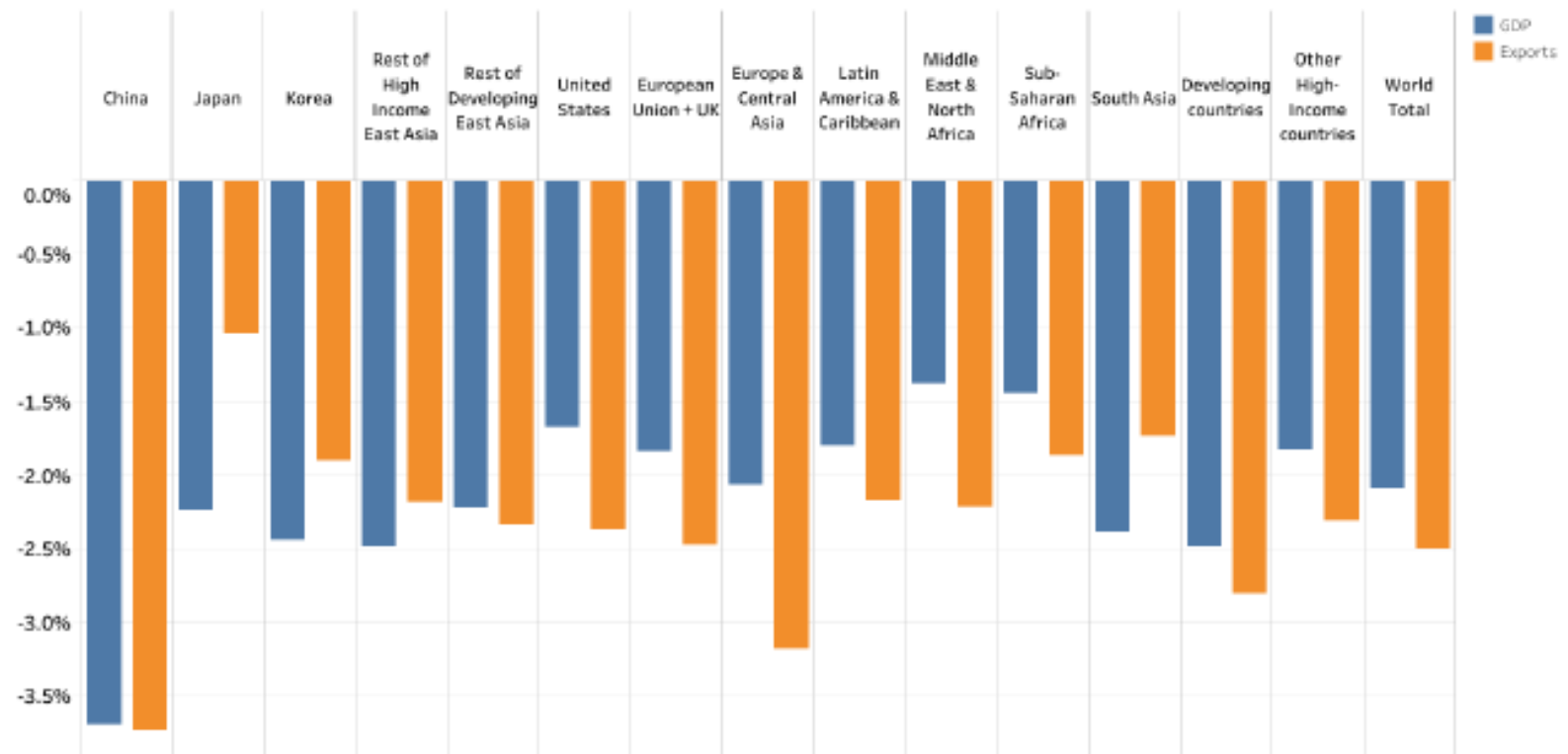
Figure 1. Implications of the COVID-19 as implemented in the Envisage model.



Global Pandemic (1)

Figure 2a. GDP and export implications of the global pandemic scenario (% deviation from the benchmark)

Global Pandemic

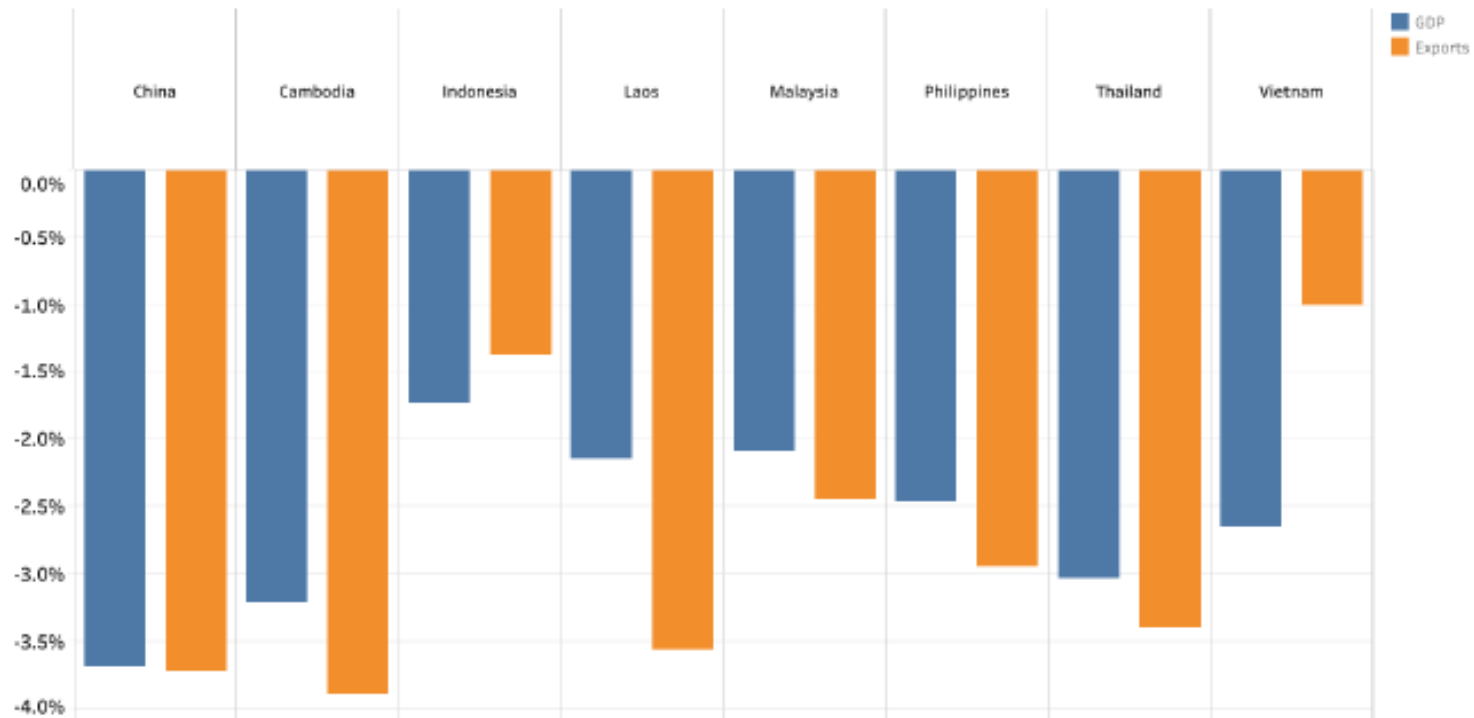


Source: Envisage simulations

Global Pandemic (2)

Figure 2b. GDP and export implications of global pandemic scenario for EAP countries (% deviation from the benchmark)

Global Pandemic

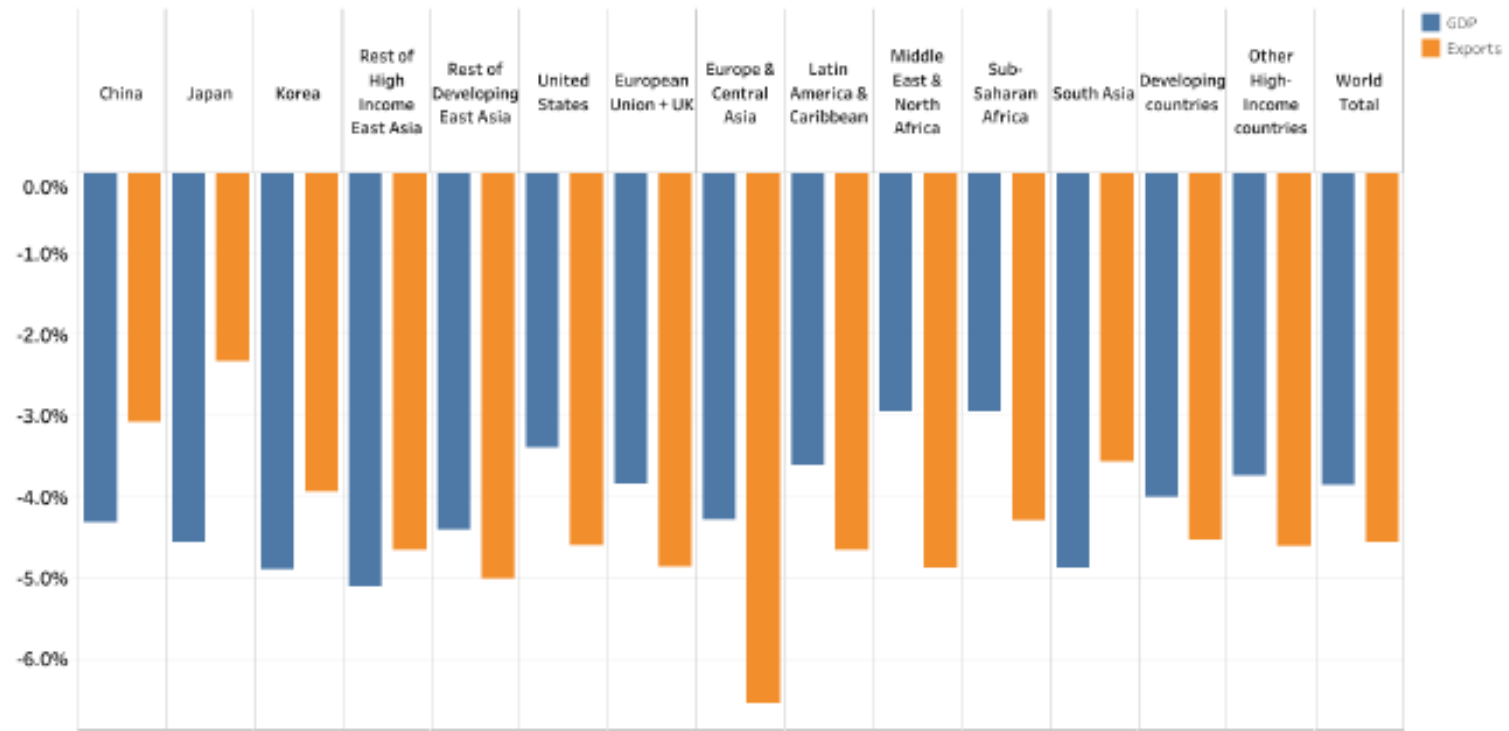


Source: Envisage simulations

Amplified Pandemic (1)

Figure 3a. GDP and export implications of amplified global pandemic scenario (% deviation from the benchmark)

Amplified Global Pandemic

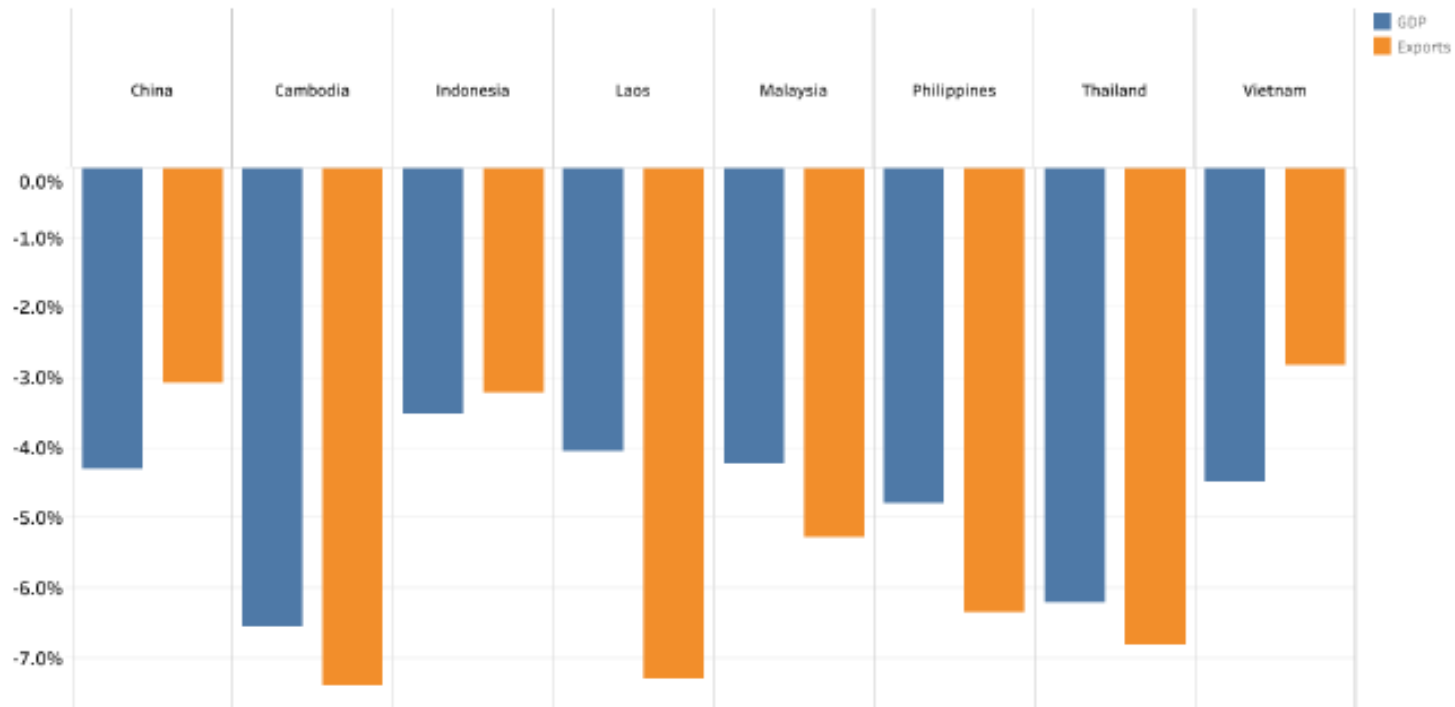


Source: Envisage simulations

Amplified Pandemic (2)

Figure 3b. GDP and export implications of amplified global pandemic scenario (% deviation from the benchmark)

Amplified Global Pandemic

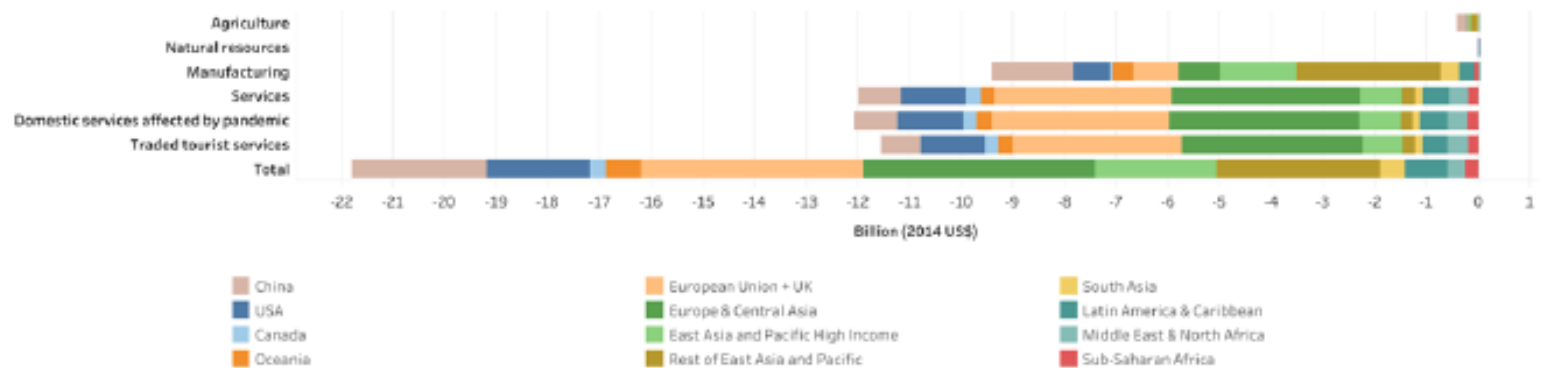


Source: Envisage simulations

Trade Impacts

Figure 4c. Impacts on Thai exports in the amplified global pandemic scenario (difference from the benchmark)

Thailand



Sectoral Impacts

Figure 5. Output implications of Amplified Global pandemic scenario for Thailand (difference and % deviation from the benchmark)

Thailand

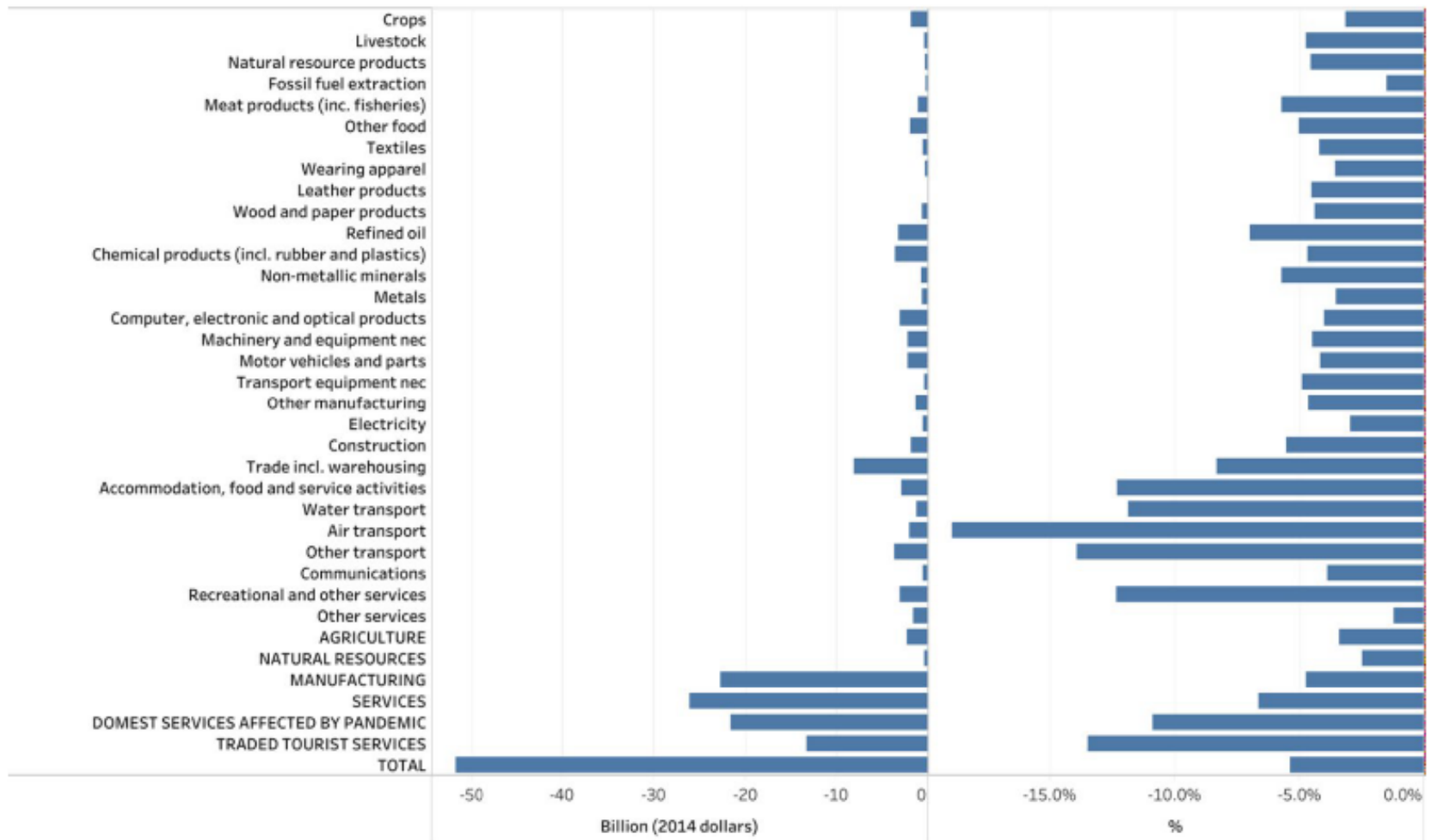


Table 3. Output implications of amplified global pandemic – cumulative impacts (% deviations from the benchmark)

	Agriculture	Natural resources	Manufacturing	Services	Domestic services affected by pandemic	Traded tourist services	Total
China	-3.12	-1.08	-3.61	-3.67	-4.85	-4.64	-3.54
Developing EAP excluding China	-2.70	-1.04	-3.21	-5.40	-9.45	-11.28	-4.12
Cambodia	-2.87	-3.98	-2.69	-9.66	-14.96	-19.00	-5.11
Lao PDR	-2.41	-3.89	-2.60	-5.85	-12.18	-15.02	-3.57
Malaysia	-4.19	-0.79	-4.11	-4.34	-7.30	-9.73	-4.03
Thailand	-3.06	-2.91	-4.43	-6.84	-11.53	-14.64	-5.29
Vietnam	-3.06	-0.72	-3.34	-3.93	-8.52	-8.99	-3.37
Philippines	-2.51	-2.65	-3.93	-5.16	-11.10	-13.30	-4.44
Indonesia	-2.70	-0.61	-3.03	-3.67	-7.65	-8.84	-3.15
Hong Kong SAR, China	-1.29	-3.24	-1.33	-6.06	-8.46	-9.23	-5.35
Korea, Rep.	-3.91	-4.25	-3.68	-4.53	-6.87	-6.15	-4.10
Singapore	-2.61	-3.47	-4.32	-4.01	-7.18	-6.28	-4.11
Taiwan, China	-1.04	-7.75	-1.80	-6.84	-7.82	-7.17	-4.15
Canada	-4.30	-1.10	-3.25	-3.02	-8.95	-9.16	-2.96
Europe	-3.00	-1.02	-2.89	-4.02	-9.04	-9.06	-3.65
Japan	-4.71	-2.85	-2.77	-4.62	-8.75	-8.35	-3.98
United States	-3.60	-0.21	-2.45	-3.80	-9.99	-11.27	-3.38
Middle East & North Africa	-2.76	-1.65	-2.67	-3.02	-9.11	-10.03	-2.65
Sub-Saharan Africa	-2.51	-1.72	-2.95	-3.02	-6.35	-8.13	-2.79
Brazil	-3.40	-1.20	-2.86	-3.14	-8.55	-9.28	-2.99
Rest of Latin America & Caribbean	-2.64	-1.21	-2.94	-4.05	-10.51	-11.87	-3.49
Russian Federation	-3.00	-2.19	-3.73	-3.86	-8.72	-9.62	-3.58
Rest of Europe & Central Asia	-2.20	-0.59	-3.53	-5.07	-10.20	-11.36	-4.20
India	-3.36	-0.84	-3.98	-4.35	-8.23	-8.76	-4.03
Rest of South Asia	-2.62	-2.64	-3.25	-5.23	-8.04	-9.28	-4.14
Oceania	-3.93	-1.89	-3.10	-3.20	-8.21	-8.07	-3.11
Developing countries	-2.90	-1.42	-3.47	-3.87	-7.98	-8.63	-3.51
High-income countries	-3.49	-0.95	-2.78	-4.00	-9.20	-9.60	-3.59
World Total	-3.04	-1.29	-3.13	-3.95	-8.77	-9.26	-3.56