Options and Implications of Free Trade Arrangements in Asia

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Content

- Our CGE Model
- China's WTO entry implies smaller world market shares for some ASEAN countries
- Free Trade Arrangement (FTA) involving ASEAN and China
- FTA involving ASEAN plus Japan
- FTA involving ASEAN plus three (China, Japan, and Korea)
- Conclusion: There is a strong economic case for China and Japan to support a more inclusive FTA in Asia

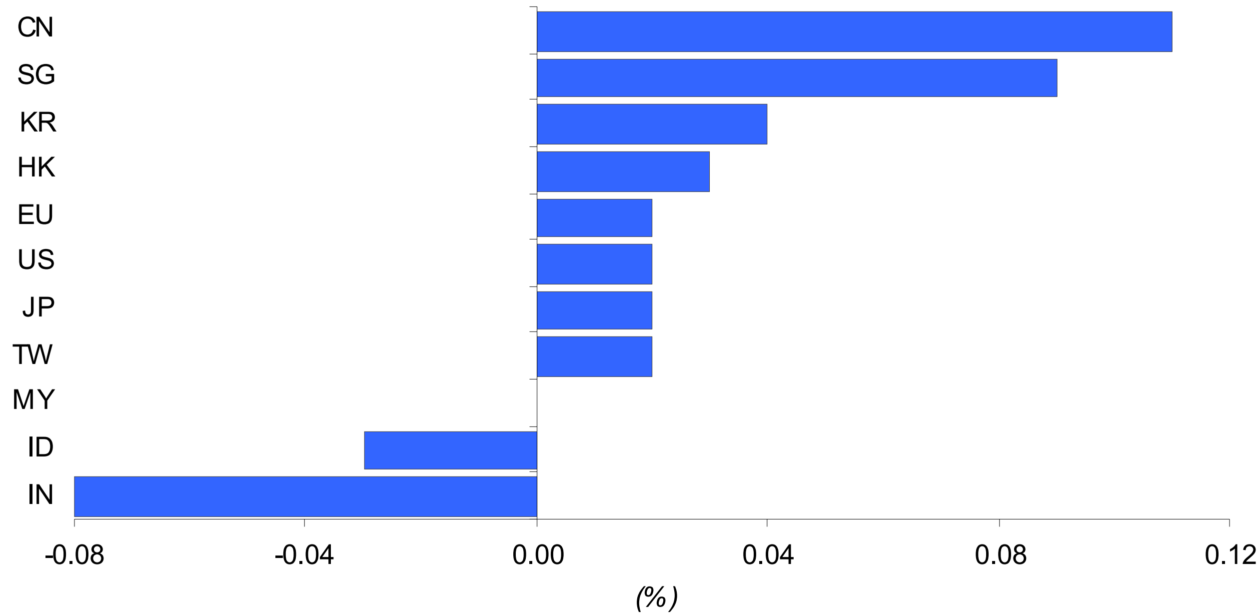
Our Computable General Equilibrium Models

- Model design: 18 region, 26 sector computable general equilibrium model
- Recursive dynamics, solves from 1998-2010 annually
- Linked to a macro-econometric model which provides baseline macroeconomic forecasts
- Capable of forecasting and simulating the impact of policy changes on trade, consumption, investment, employment, output and prices at the aggregate and sectoral levels
- Policy effects are analysed by comparing the baseline scenario and the FTA scenario

Impact of China and Taiwan's WTO Entry

- **China and Taiwan's WTO entry implies smaller market shares for some ASEAN countries**

CHINA: Impact of China and Taiwan's WTO Entry on Annual GDP Growth, 2002-2006

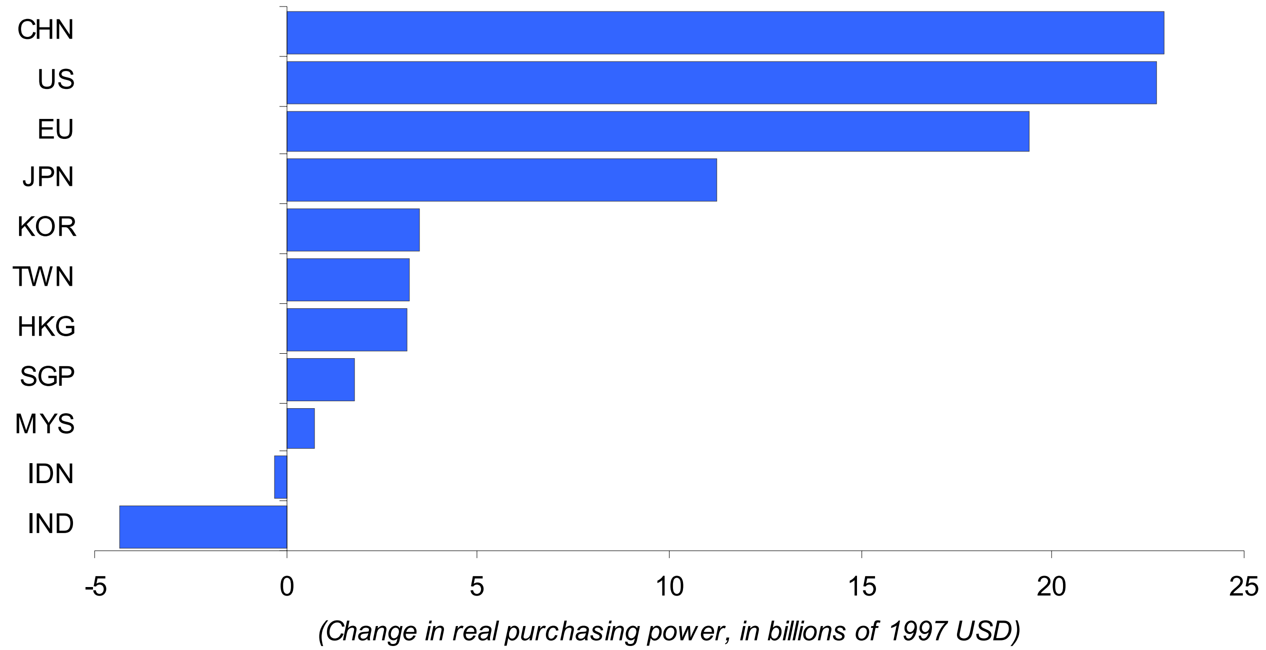


Source: DB Global Markets Research

Impact of China and Taiwan's WTO Entry

- **China and the US are the biggest gainers as a result of China's WTO entry, in terms of real purchasing power**

Net Benefits of China's WTO Entry in Billions of 1997 USD, 2002-2006

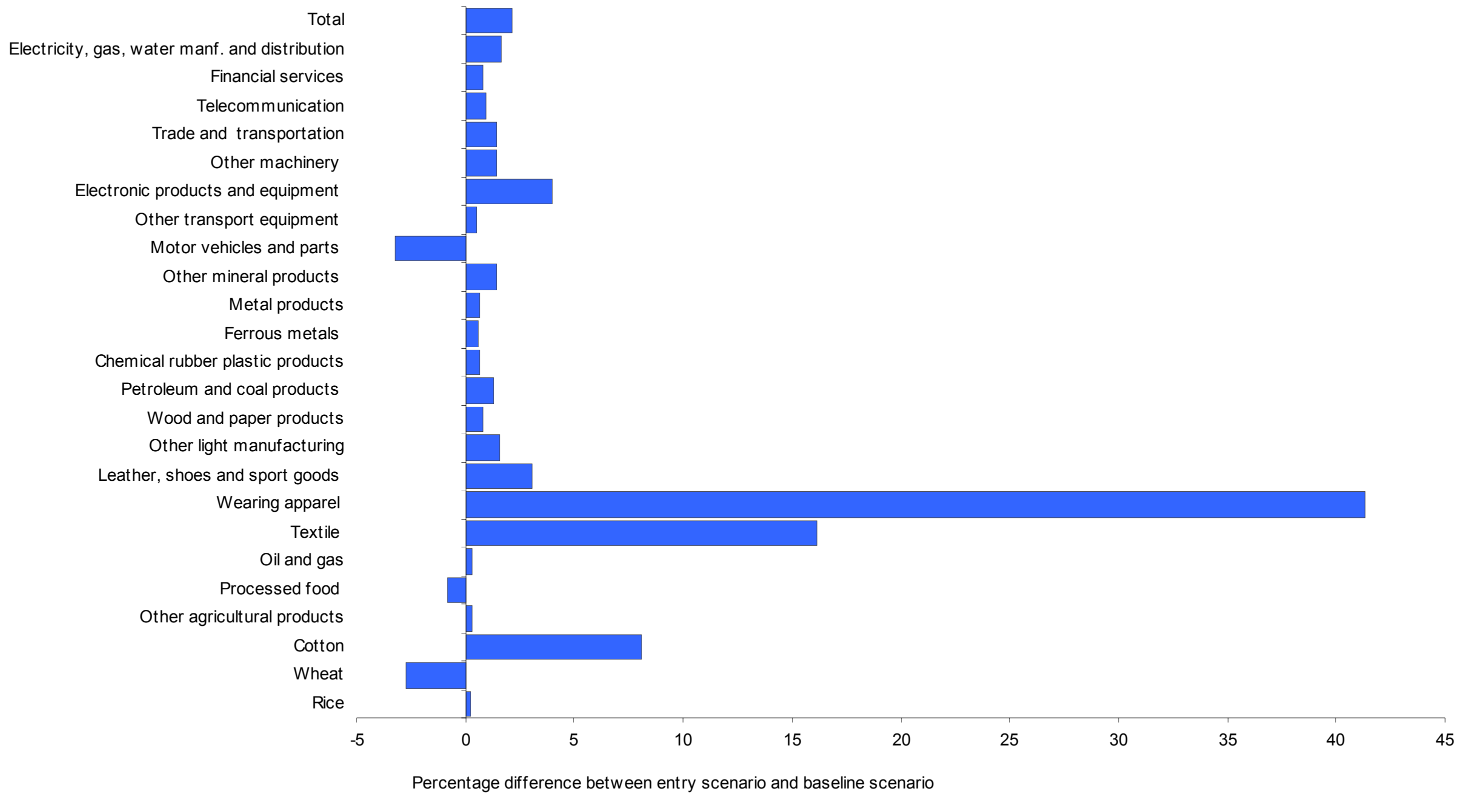


Source: DB Global Markets Research

Impact of China and Taiwan's WTO Entry

Winners and Losers in the Chinese industries

CHINA: Impact of WTO Entry on China's Production, 2006



Source: DB Global Markets Research

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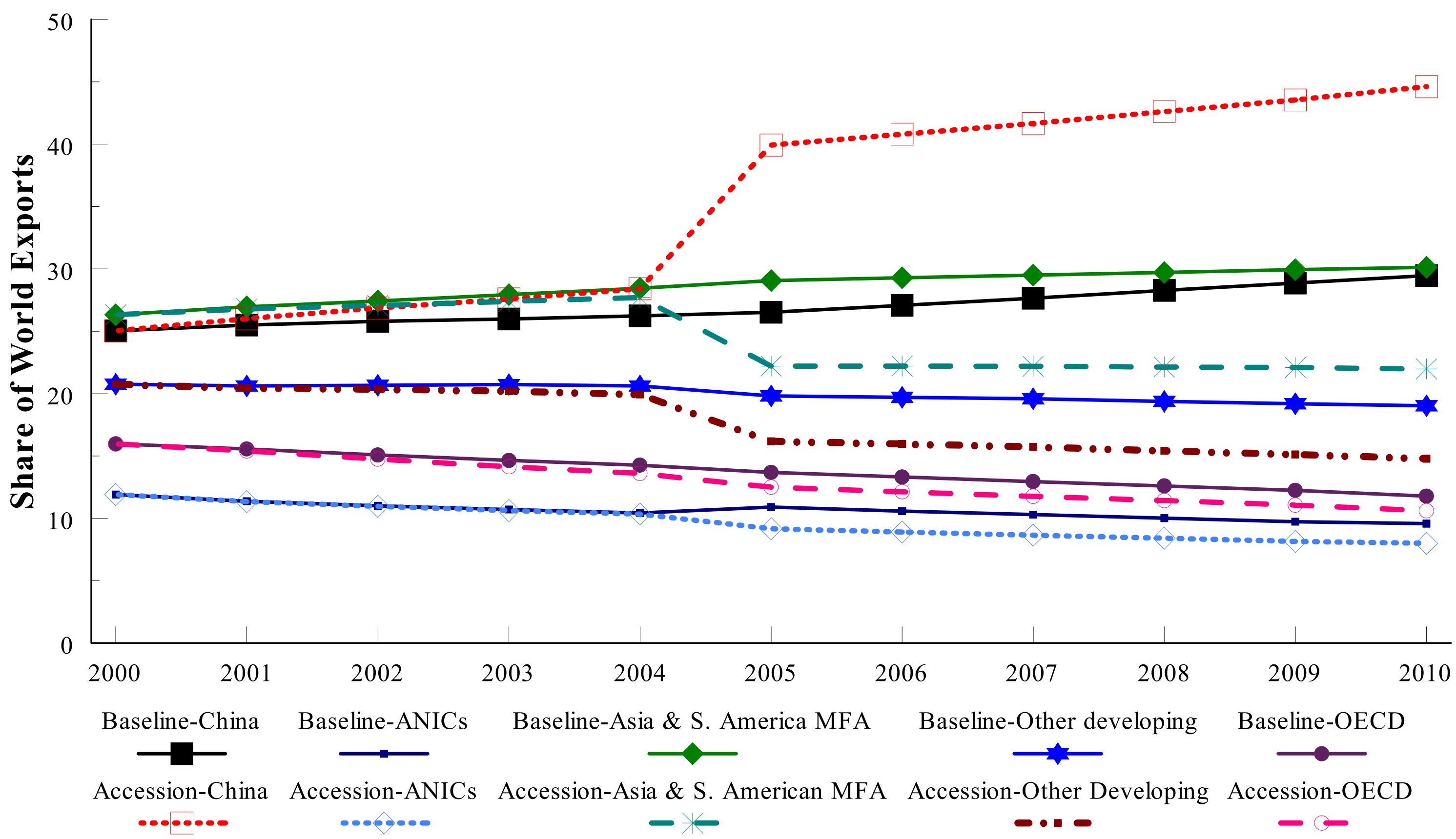
Impact of China and Taiwan's WTO Entry

- **Change in share of world apparel market due to China's WTO entry, 2000-2010**



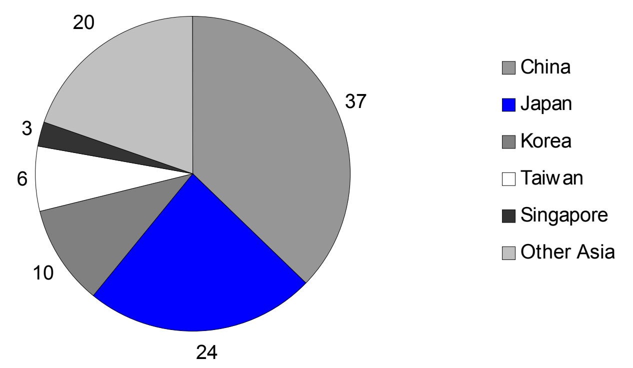
FTA involving ASEAN plus China

- China intends to provide assurance to ASEAN countries that its rapid economic expansion and WTO entry will not be detrimental to the ASEAN region, and China has the willingness to open up its potentially vast market to ASEAN
- ASEAN, with disappointing growth performance within the region, is looking to find additional engine for growth, including import demand and investment opportunities from China
- Singapore, in particular, sees limited prospects from its hinterland and is increasingly interested in sharing the growth in China
- Strategically, further economic integration between ASEAN and China will help increase China's political influence in the region and balance out the traditionally strong US and Japanese presence

New Growth Engine in Asia

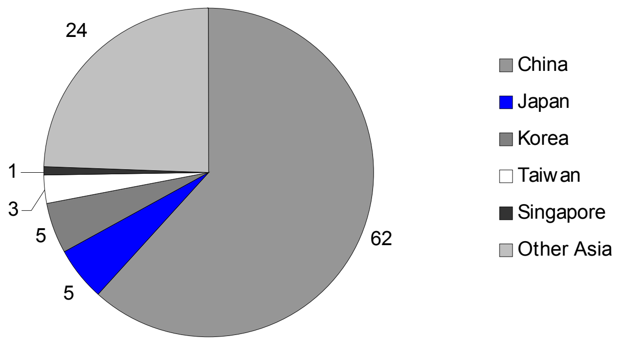
- **China is clearly the single most important engine for Asia growth**

Contribution to GDP growth (1995-2001)-GDP weighted



Source: DB Global Markets Research, CEIC

Contribution to GDP growth (1995-2001)-PPP Weighted



Source: DB Global Markets Research, CEIC

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ASEAN+China FTA Simulation

- **Simulation assumptions**
  - China and Taiwan's WTO entry commitments will be used to construct the baseline scenario
  - In the FTA scenario, all tariff and NTB barriers to trade among China, Hong Kong, and ASEAN countries will be reduced to zero within ten years from 2003;
  - Trade barriers of ASEAN FTA members against other countries will remain the same as today; and
  - China and Taiwan's import barriers against non-FTA members will be based on these WTO commitments
  - Policy implications will be derived from a comparison between the FTA scenario and the baseline scenario.
  - Assume Hong Kong will be part of the China+ASEAN FTA, but Taiwan will be excluded.

Initial trade barriers

Trade Weighted Average Protection Rate by Region, 2002, Percent of c.i.f. Value

	China	Hong Kong	Singapore	Malaysia	Thailand	Philippine	Indonisia	Vietnam	Japan	Korea	USA	Taiwan	India	EU 15	Other OECD	FSU	Latin America	Rest of World
Land-intensive agriculture	23.7	0.0	0.0	2.2	11.3	13.5	1.4	2.2	54.0	81.3	0.3	1.3	1.4	1.0	1.5	13.0	11.9	16.0
Other agriculture	13.9	0.0	3.9	26.1	15.6	9.1	7.4	11.9	4.8	20.9	0.6	10.7	12.0	0.9	0.4	14.7	6.9	18.5
Processed agriculture	27.2	0.0	4.0	10.7	23.5	15.9	7.3	32.1	21.5	23.3	1.4	21.4	31.7	2.5	2.7	21.6	14.5	17.0
Food & agricultural average	24.1	0.0	3.9	13.1	19.3	14.5	4.4	27.0	23.8	45.4	1.1	13.5	18.4	1.9	2.0	19.7	12.5	17.0
Forestry& fishery	3.0	0.0	0.0	0.6	5.2	0.4	1.0	3.4	0.9	2.9	0.0	16.2	1.1	0.1	0.0	5.5	4.7	2.4
Oil and natural gas	0.1	0.0	0.0	2.4	0.0	0.2	2.0	na	0.0	4.5	0.2	6.0	23.3	0.0	0.0	0.6	5.6	2.4
Other mineral products	6.5	0.0	0.0	0.1	3.4	4.0	2.0	2.8	0.0	0.8	0.1	0.1	3.3	0.0	0.0	2.1	2.7	3.4
Paper & wood products	8.4	0.0	0.0	7.8	10.7	9.7	4.3	14.0	0.4	4.8	0.2	2.4	10.1	0.4	0.8	10.0	5.0	5.6
Resource based product average	5.3	0.0	0.0	5.1	2.3	2.7	2.9	13.0	0.2	3.9	0.2	4.1	17.6	0.2	0.5	3.4	5.0	4.0
Textile	16.1	0.0	0.0	13.7	22.5	12.6	13.7	26.5	1.3	6.5	2.3	6.4	26.9	0.9	3.4	11.9	7.6	7.8
Wearing apparel	20.6	0.0	0.0	13.5	20.4	17.1	16.4	19.2	7.3	4.6	7.0	12.4	19.0	5.0	6.9	21.5	7.8	7.9
Leather, shoes & sports goods	7.8	0.0	0.0	8.5	14.5	9.8	4.1	10.1	6.7	4.3	5.8	4.6	9.2	1.5	5.8	13.9	9.8	7.0
Other light manufactures	13.7	0.0	0.0	6.3	8.2	13.8	15.5	13.4	0.6	6.2	0.9	3.6	5.6	0.6	1.1	12.4	9.2	3.3
Labor-intensive product average	15.4	0.0	0.0	11.0	16.4	12.6	12.7	22.1	4.1	5.8	4.1	6.7	9.4	2.1	3.8	14.6	8.2	6.5
Chemical rubber plastic products	12.4	0.0	0.0	5.6	13.9	6.5	6.6	4.2	1.2	6.3	1.2	3.1	20.1	0.4	1.0	8.2	5.4	4.2
Petroleum products	6.9	0.0	0.0	5.5	5.7	2.6	2.0	15.5	0.3	5.4	0.4	6.9	1.4	0.8	0.1	4.9	4.4	9.6
Metals	9.2	0.0	0.0	3.8	8.2	6.1	5.1	2.2	0.6	3.1	1.1	2.5	16.4	0.4	0.6	8.0	6.0	4.9
Other mineral products	12.4	0.0	0.0	7.1	12.4	7.6	3.8	14.4	0.5	4.6	1.6	6.4	17.5	0.6	1.0	10.7	6.0	5.4
Metal products	9.3	0.0	0.0	10.3	18.4	9.7	9.0	10.2	0.5	6.1	1.2	7.1	26.7	0.6	1.7	10.8	6.5	6.0
Motor vehicles and parts	33.2	0.0	0.0	26.2	46.3	14.6	39.4	27.0	0.0	5.8	1.1	22.8	27.0	0.8	2.0	15.7	14.0	5.8
Other transport equipment	11.6	0.0	0.0	2.0	4.8	3.6	2.7	29.2	0.0	0.9	0.4	2.4	6.1	0.2	0.2	7.7	4.3	2.7
Electronic equipment	7.4	0.0	0.0	0.7	5.2	2.4	4.2	5.9	0.0	3.9	0.5	1.9	19.3	0.8	0.8	8.5	5.0	3.0
Other machinery	8.8	0.0	0.0	4.9	9.6	5.5	3.4	4.5	0.3	7.4	0.8	3.9	21.1	0.4	1.3	8.2	6.7	3.4
Capital-intensive product average	10.0	0.0	0.0	4.0	11.1	4.8	7.0	8.9	0.4	5.2	0.9	4.0	16.6	0.6	1.2	9.2	6.9	4.4
Trade & transportation services	14.0	0.0	0.0	5.2	5.2	5.2	6.9	0.0	20.6	8.1	9.0	5.1	13.5	9.4	7.2	20.1	6.2	20.0
Communication services	14.0	0.0	0.0	5.2	5.2	5.2	6.9	0.0	20.6	8.1	9.0	5.1	13.5	9.4	7.2	20.4	6.4	19.7
Financial service	14.0	0.0	0.0	5.2	5.2	5.2	6.9	0.0	20.6	8.1	9.0	5.1	13.5	9.4	7.2	19.9	6.3	19.7
Other traded services	14.0	0.0	0.0	5.2	5.2	5.2	6.9	0.0	20.6	8.5	9.0	5.1	13.5	9.4	7.2	20.1	6.6	19.8
Utility	29.6	0.0	0.0	17.8	17.8	17.8	9.6	0.0	29.9	28.8	9.9	20.5	61.7	18.5	24.5	54.1	26.3	29.3
Housing & construction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Services average	15.0	0.0	0.0	5.2	5.5	5.8	6.9	0.0	21.2	8.3	9.0	5.6	13.9	10.0	7.7	24.2	7.3	20.1
Average	11.9	0.0	0.2	5.7	11.8	6.8	8.0	12.6	8.9	8.7	2.5	5.2	18.0	2.3	2.6	12.9	8.3	10.2

Trade barriers in 2012

Trade Weighted Average Protection Rate Region, 2012, Percent of c.i.f. Value, ASEAN + China FTA

	China	Hong Kong	Singapore	Malaysia	Thailand	Philippine	Indonisia	Vietnam	Japan	Korea	USA	Taiwan	India	EU 15	Other OECD	FSU	Latin America	Rest of World
Land-intensive agriculture	19.05	0.00	0.00	1.84	8.50	10.96	0.51	2.10	54.65	8.26	0.35	0.75	1.38	1.06	1.60	12.85	11.95	9.51
Other agriculture	4.32	0.00	2.46	3.14	8.15	5.29	3.99	3.98	4.74	9.23	0.61	6.65	5.17	0.89	0.36	14.76	4.68	6.37
Processed agriculture	6.13	0.00	2.40	4.79	14.06	9.13	2.83	17.91	20.73	16.00	1.39	12.07	29.09	2.44	2.62	21.63	12.17	2.98
Food & agricultural average	10.17	0.00	2.33	3.58	11.67	9.01	1.88	14.47	23.35	10.99	1.08	7.88	12.81	1.86	1.90	19.56	10.40	5.54
Forestry& fishery	1.31	0.00	0.00	0.17	0.57	0.18	0.52	1.58	0.91	2.16	0.03	7.89	0.20	0.13	0.01	5.79	3.17	0.83
Oil and natural gas	0.06	0.00	0.00	2.41	0.00	0.00	1.58	na	0.00	4.48	0.19	5.73	22.77	0.00	0.02	0.65	5.54	2.11
Other mineral products	0.49	0.00	0.00	0.10	2.34	1.75	0.78	2.02	0.00	0.63	0.09	0.05	2.75	0.00	0.01	2.04	2.40	2.15
Paper & wood products	1.08	0.00	0.00	3.83	6.24	6.01	2.88	6.74	0.35	4.61	0.22	0.75	8.41	0.42	0.88	10.00	3.89	2.26
Resource based product average	0.68	0.00	0.00	2.53	1.11	1.41	1.91	6.32	0.16	3.79	0.20	3.06	17.54	0.18	0.51	3.29	4.47	2.42
Textile	0.29	0.00	0.00	6.34	13.37	8.25	10.42	18.63	1.26	5.73	2.37	5.43	23.06	0.97	3.40	11.94	5.55	3.15
Wearing apparel	0.28	0.00	0.00	2.77	4.49	5.58	7.29	0.99	7.59	3.72	8.24	11.27	13.42	5.34	8.03	21.46	4.24	1.27
Leather, shoes & sports goods	0.13	0.00	0.00	1.45	6.56	3.94	3.12	6.94	6.59	3.29	5.79	3.67	8.64	1.60	6.30	14.17	7.13	0.92
Other light manufactures	1.01	0.00	0.00	2.93	4.26	5.43	6.05	5.62	0.63	5.81	0.90	2.07	2.91	0.60	1.23	12.55	7.52	0.93
Labor-intensive product average	0.34	0.00	0.00	4.33	8.60	6.98	8.72	13.89	4.30	5.06	4.53	5.39	6.77	2.15	4.25	14.80	6.05	2.27
Chemical rubber plastic products	2.05	0.00	0.00	2.62	9.90	4.68	4.18	1.86	1.19	5.72	1.20	2.35	16.60	0.43	1.04	8.18	4.54	1.61
Petroleum products	2.21	0.00	0.00	0.23	3.02	1.48	0.19	4.05	0.30	5.28	0.39	5.97	0.22	0.81	0.15	4.86	3.77	6.97
Metals	1.33	0.00	0.00	2.75	6.59	4.78	3.85	1.31	0.61	2.13	1.05	0.63	7.32	0.38	0.62	8.00	5.35	2.70
Other mineral products	2.57	0.00	0.00	3.48	6.53	3.15	1.49	1.78	0.53	3.24	1.58	4.95	7.12	0.56	1.10	10.77	4.20	1.69
Metal products	1.96	0.00	0.00	5.20	11.75	5.83	5.01	4.67	0.38	5.28	1.16	5.55	24.50	0.60	1.95	10.88	5.19	1.65
Motor vehicles and parts	10.46	0.00	0.00	17.71	39.46	11.62	5.25	19.70	0.00	3.66	1.00	14.53	19.42	0.88	2.22	15.73	12.46	1.06
Other transport equipment	2.93	0.00	0.00	0.63	2.94	2.17	1.15	10.97	0.00	0.60	0.50	1.16	5.15	0.18	0.21	7.80	1.73	0.54
Electronic equipment	0.55	0.00	0.00	0.25	1.39	1.49	2.27	2.29	0.00	2.27	0.51	0.21	17.51	0.85	0.89	8.75	4.17	0.76
Other machinery	1.84	0.00	0.00	2.78	6.71	3.91	2.59	1.18	0.33	7.21	0.73	2.39	20.26	0.42	1.36	8.24	5.56	0.86
Capital-intensive product average	1.83	0.00	0.00	2.18	7.21	3.31	2.97	3.52	0.39	4.31	0.83	2.30	11.53	0.57	1.29	9.29	5.90	1.94
Trade & transportation services	5.44	0.00	0.00	4.23	4.41	4.35	5.49	0.00	20.60	8.10	9.00	2.27	13.50	9.40	7.23	20.12	6.22	19.98
Communication services	6.04	0.00	0.00	4.74	4.97	4.77	6.52	0.00	20.60	8.10	9.00	2.27	13.50	9.40	7.20	20.40	6.36	19.74
Financial service	6.06	0.00	0.00	4.72	4.97	4.87	6.56	0.00	20.60	8.10	9.00	2.27	13.50	9.40	7.20	19.87	6.29	19.74
Other traded services	5.92	0.00	0.00	4.43	4.48	4.56	5.79	0.00	20.60	8.49	9.00	2.27	13.50	9.40	7.21	20.11	6.63	19.80
Utility	12.72	0.00	0.00	17.23	17.52	16.89	9.10	0.00	29.90	28.80	9.90	9.12	61.70	18.50	24.50	54.00	26.30	29.33
Housing & construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Services average	6.17	0.00	0.00	4.39	4.80	5.09	5.73	0.00	21.13	8.34	9.02	2.50	13.88	9.95	7.63	24.54	7.25	20.07
Average	2.69	0.00	0.08	2.89	7.38	4.53	4.13	6.11	8.56	5.64	2.47	3.11	14.23	2.26	2.71	12.46	6.97	5.71

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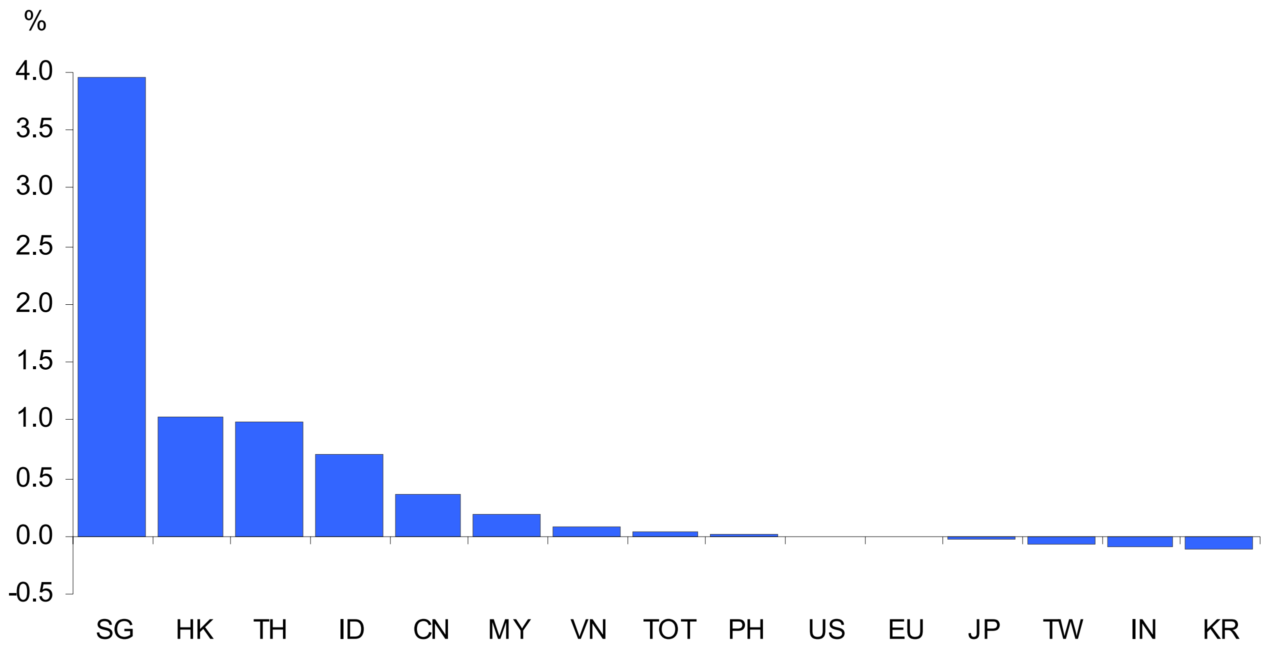
Impact of FTA (ASEAN+China) on growth

- **All FTA members gain in terms of GDP growth from the FTA with Singapore benefit the most, but Japan & Korea are a small losers**

Impact of FTA (ASEAN+China) on GDP Growth, Cumulative 2003-2012

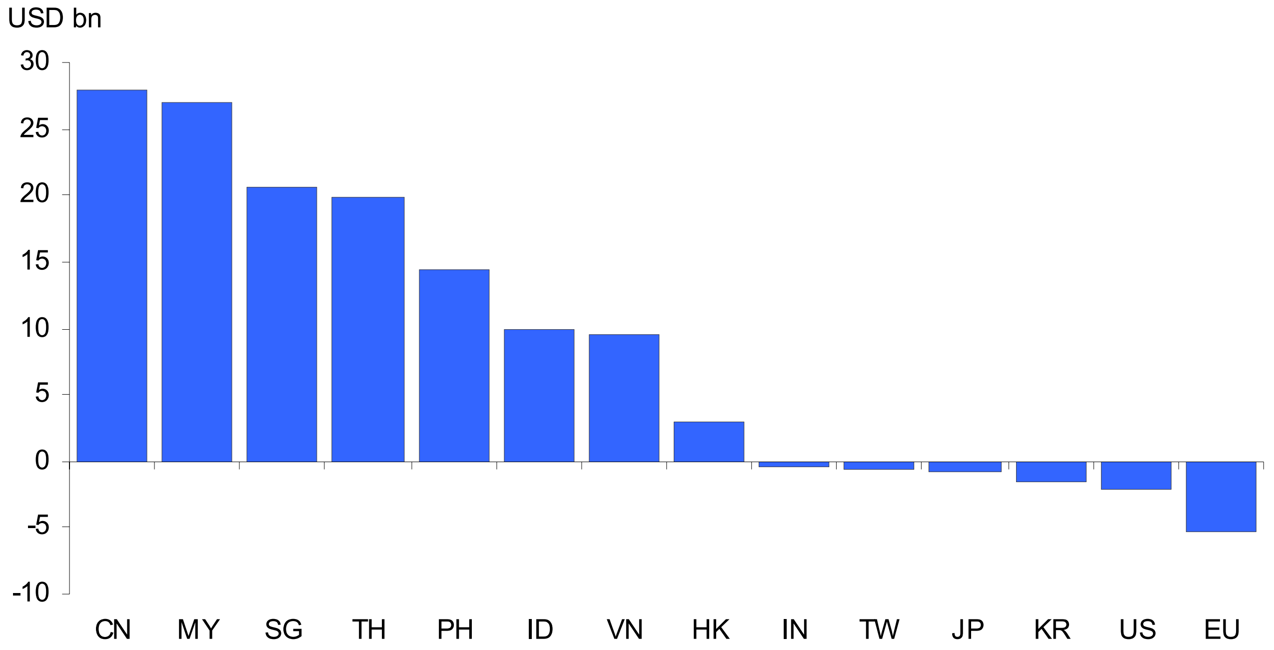


Source: DB Global Markets Research

Welfare gains and losses due to FTA (ASEAN+China)

- **Must of these gains can be explained by the increase in exports to member countries**

Increase in Exports due to FTA, Cumulative 2002-2012



Source: DB Global Markets Research

Sectoral Implications of ASEAN+China FTA

Impact of ASEAN + China FTA: Percentage Changes of Production in Final Year, 2012

	China	Hong Kong	Singapore	Malaysia	Thailand	Philippine	Indonisia	Vietnam	Japan	Korea	USA	Taiwan	India	EU 15	Other OECD	FSU	Latin America	Rest of World
Lnad-intensive agriculture	0.15	-0.47	-4.24	0.85	-0.06	-0.54	0.10	1.63	0.08	0.21	0.05	0.03	-0.02	0.02	0.15	0.00	0.02	-0.02
Other agriculture	0.10	-0.13	1.45	-0.32	0.77	0.31	0.05	0.51	0.03	-0.07	-0.03	-0.01	-0.02	0.00	-0.12	-0.02	-0.01	-0.02
Prpcessed agriculture	0.00	4.16	5.02	1.83	1.19	-0.59	0.19	0.90	0.02	-0.09	-0.02	-0.04	-0.12	-0.03	-0.11	-0.03	-0.03	-0.02
Forestry& fishery	0.14	-0.10	-0.13	0.12	0.03	0.07	0.26	1.26	0.04	0.01	0.04	0.07	0.00	0.02	0.02	0.01	0.00	0.01
Oil and Natral Gas	0.02	0.56	0.67	0.15	0.10	0.78	0.09	0.85	0.11	0.07	0.07	0.01	0.02	0.07	0.08	0.03	0.05	0.07
Other mineral products	0.33	0.61	0.43	0.42	0.24	0.32	0.34	1.83	0.10	0.06	0.02	0.10	0.03	0.04	0.04	-0.02	0.04	-0.03
Paper & wood products	0.20	0.57	1.70	-0.08	-0.05	0.23	0.32	2.37	0.01	-0.04	0.01	0.00	-0.01	0.02	0.00	-0.01	0.00	0.00
Textile	0.45	0.07	5.07	2.64	0.35	2.75	2.49	9.97	-0.09	-0.17	-0.02	-0.32	-0.04	-0.07	-0.23	-0.06	0.00	-0.12
Wearing apparel	-0.27	-1.79	-0.55	2.97	1.73	7.38	2.19	19.55	-0.03	-0.07	-0.02	-0.19	-0.01	-0.16	-0.08	-0.10	0.00	-0.21
Leather, shoes & sports goods	-0.32	-0.72	3.36	33.38	-0.57	5.22	2.75	11.25	-0.07	-0.36	-0.17	-0.11	-0.43	-0.44	-0.38	-0.38	-0.17	-0.11
Other light manufactures	0.29	0.93	-0.30	0.82	-0.55	-0.11	-1.97	3.00	0.01	-0.23	0.05	0.06	-0.04	0.01	0.04	0.00	0.02	-0.07
Chemical rubber plastic products	0.33	1.59	4.26	1.31	0.25	1.13	1.06	4.39	0.00	-0.12	0.00	-0.03	-0.05	-0.01	-0.04	-0.05	-0.01	-0.05
Petroleum products	-0.15	4.92	4.75	0.56	0.28	1.07	0.33	0.27	-0.05	-0.24	-0.01	-0.13	-0.08	0.01	0.00	-0.03	0.00	-0.06
Metals	0.42	1.45	0.59	1.38	0.02	2.63	1.41	2.83	0.09	0.17	0.01	0.19	0.00	0.02	0.00	-0.03	0.01	-0.08
Other mineral products	0.28	0.25	0.42	-0.36	0.70	0.21	1.05	-2.46	-0.01	-0.11	0.01	-0.07	-0.02	0.00	-0.03	-0.02	0.00	-0.02
Metal products	0.40	2.10	5.71	-0.12	-0.30	-0.16	0.01	2.23	-0.04	-0.19	-0.02	-0.05	-0.14	-0.03	-0.05	-0.04	-0.01	-0.03
Motor vehicles and parts	0.59	-0.98	3.78	1.52	-0.10	47.10	7.64	0.90	0.02	0.11	-0.01	0.13	-0.06	-0.03	-0.07	-0.08	-0.03	-0.09
Other transport equipment	0.16	-1.02	1.29	1.86	8.61	0.93	6.88	-11.42	0.06	-0.02	0.01	0.10	-0.05	-0.11	-0.04	-0.06	0.00	-0.13
Electronic equipment	0.37	-0.39	0.48	2.93	3.22	3.57	0.75	3.39	-0.12	-0.27	-0.18	-0.16	-0.16	-0.19	-0.31	-0.14	-0.25	-0.20
Other machinery	0.41	1.51	2.87	2.69	2.90	4.11	2.56	2.70	-0.06	-0.17	-0.02	-0.12	-0.10	-0.05	-0.11	-0.07	-0.03	-0.09
Trade & transpotation services	0.23	0.20	0.68	0.64	0.30	0.19	0.40	3.79	0.00	0.04	0.01	0.00	-0.03	0.03	0.02	0.03	0.01	0.02
Comunication services	0.23	0.29	0.88	0.46	0.36	0.14	0.14	2.70	-0.01	-0.02	0.00	-0.02	-0.04	0.00	0.01	0.00	0.01	0.01
Financial service	0.23	0.25	0.67	0.63	0.36	-0.09	0.27	1.64	0.00	-0.05	0.00	-0.03	-0.03	0.01	0.01	0.01	0.01	0.01
Other traded services	0.19	0.22	-0.13	0.10	0.42	1.09	0.07	-0.04	-0.01	-0.04	0.00	-0.03	-0.04	0.00	0.02	0.01	0.01	0.00
Utility	0.31	0.24	1.70	1.18	0.78	1.28	0.76	1.81	0.00	-0.05	0.00	-0.05	-0.04	0.00	0.00	-0.02	0.00	-0.02
Housing & construction	0.18	0.44	1.73	0.10	0.41	-0.15	0.68	-0.38	-0.01	-0.05	0.00	-0.05	-0.04	0.00	0.01	0.01	0.00	0.01
Total	0.24	0.32	1.31	1.28	0.94	1.15	0.63	2.22	-0.01	-0.06	0.00	-0.04	-0.04	-0.01	-0.01	-0.01	-0.01	-0.01

Sectoral Implications of ASEAN+China FTA

Impact of ASEAN + China FTA: Changes in Net Trade in Billion 1997 US dollar, 2003-2012

	China	Hong Kong	Singapore	Malaysia	Thailand	Philippine	Indonisia	Vietnam	Japan	Korea	USA	Taiwan	India	EU 15	Other OECD	FSU	Latin America	Rest of World
Land-intensive agriculture	-0.23	-0.01	-0.06	-0.27	-0.35	-0.01	-0.28	0.06	0.04	0.11	0.26	0.02	0.05	0.09	0.35	0.03	0.31	-0.12
Other agriculture	0.31	-0.07	0.17	-0.66	0.12	0.34	-0.12	0.05	0.06	0.02	-0.24	0.01	0.08	0.18	-0.15	-0.01	0.35	-0.44
Processed agriculture	-2.02	1.58	1.65	1.28	1.63	-0.91	0.24	0.13	0.32	-0.12	-0.55	-0.02	-0.28	-1.11	-0.73	-0.14	-0.05	-0.89
Food & agricultural total	-1.94	1.50	1.76	0.35	1.40	-0.58	-0.16	0.24	0.42	0.01	-0.53	0.01	-0.15	-0.84	-0.53	-0.12	0.61	-1.45
Forestry& fishery	-0.12	-0.03	-0.02	-0.08	-0.06	0.01	-0.01	0.02	0.03	0.02	0.04	0.01	0.04	0.06	0.04	0.02	0.02	-0.01
Oil and natural gas	0.29	-0.04	-3.00	-0.20	-0.12	-0.16	-0.10	0.07	0.11	0.39	0.37	0.05	0.09	0.11	0.38	0.37	0.31	1.09
Other mineral products	-0.21	-0.06	-0.07	-0.07	-0.04	-0.11	-0.05	0.15	0.04	0.03	0.06	0.02	0.03	0.08	0.09	0.02	0.15	-0.06
Paper & wood products	-0.51	0.08	0.00	-0.58	-0.40	-0.16	0.18	0.06	0.27	0.09	0.27	0.05	0.04	0.49	0.00	-0.01	0.28	-0.14
Resource based product total	-0.55	-0.05	-3.09	-0.93	-0.62	-0.42	0.02	0.30	0.45	0.53	0.74	0.13	0.20	0.74	0.51	0.40	0.76	0.88
Textile	3.80	1.02	0.46	0.07	-0.45	-0.47	0.51	-1.88	-0.11	-0.21	-1.33	-0.04	-0.04	-0.88	-1.10	0.10	0.90	-0.36
Wearing apparel	-0.22	-1.20	-0.12	0.32	0.95	1.38	0.89	2.53	-0.14	-0.06	-3.95	0.00	0.07	-1.36	-0.41	-0.02	0.21	1.12
Leather, shoes & sports goods	-1.18	-0.12	-0.05	0.25	-0.31	0.30	1.25	2.85	-0.05	-0.17	-0.37	-0.01	-0.13	-1.46	-0.14	-0.18	-0.11	-0.37
Other light manufactures	0.65	0.23	-0.20	-0.26	-0.42	-0.11	-0.33	-0.02	0.13	-0.12	0.15	0.04	0.00	0.33	0.05	0.01	0.17	-0.28
Labor-intensive product total	3.05	-0.07	0.09	0.38	-0.23	1.10	2.32	3.48	-0.17	-0.56	-5.50	-0.01	-0.10	-3.37	-1.60	-0.09	1.17	0.11
Chemical rubber plastic products	-0.12	0.52	1.79	-0.49	-0.94	-0.33	-0.05	-0.73	0.22	-0.03	0.14	0.17	0.02	0.25	-0.13	-0.10	0.48	-0.67
Petroleum products	-1.49	-0.05	2.64	-0.16	-0.09	-0.01	-0.23	-0.15	-0.04	-0.35	0.16	-0.03	0.03	0.11	0.03	-0.05	0.09	-0.41
Metals	0.24	-0.75	-1.73	-0.58	-0.66	-0.25	0.03	-0.01	0.92	0.96	0.27	0.36	0.16	0.70	0.18	-0.05	0.55	-0.34
Other mineral products	0.67	-0.04	-0.30	-0.22	0.09	-0.08	0.11	-0.32	0.02	-0.03	0.06	0.01	0.02	0.09	-0.03	-0.01	0.13	-0.16
Metal products	1.00	0.32	0.97	-0.51	-0.54	-0.14	-0.22	-0.11	-0.15	-0.19	-0.13	0.00	-0.06	-0.11	-0.05	-0.03	0.12	-0.18
Motor vehicles and parts	0.80	-0.32	0.08	0.02	-1.40	1.02	0.70	-0.17	0.51	0.78	-0.39	0.10	-0.03	-1.04	-0.50	-0.19	0.73	-0.70
Other transport equipment	-0.12	-0.10	-0.47	0.13	1.24	-0.09	0.31	-0.36	0.11	0.05	0.12	0.07	-0.01	-0.56	-0.06	-0.05	0.14	-0.37
Electronic equipment	0.94	-0.92	-0.83	9.40	3.07	2.38	0.10	0.06	-1.98	-1.12	-4.03	-0.60	-0.07	-4.32	-0.66	-0.23	-0.40	-0.78
Other machinery	2.82	1.22	3.54	-1.58	0.07	-0.57	-0.54	-0.24	-0.59	-0.30	-0.71	-0.05	-0.13	-1.99	-0.48	-0.28	0.86	-1.07
Capital-intensive product total	4.74	-0.12	5.69	6.01	0.84	1.93	0.21	-2.03	-0.98	-0.23	-4.51	0.03	-0.07	-6.87	-1.70	-0.99	2.70	-4.68
Trade & transportation services	-0.89	-3.30	-3.01	-0.88	-0.44	-0.06	-0.46	0.26	1.12	0.39	2.05	0.18	0.16	2.60	0.43	0.21	0.98	0.66
Communication services	-0.05	-0.04	-0.04	-0.01	-0.01	0.00	-0.02	0.00	0.04	0.03	0.06	0.01	0.00	0.02	0.00	-0.01	0.05	-0.05
Financial service	-0.12	-0.13	-0.63	-0.03	-0.08	-0.01	-0.05	0.00	0.17	0.06	0.22	0.03	0.02	0.39	0.04	0.02	0.17	-0.09
Other traded services	-0.41	-0.56	-4.97	-1.14	-0.05	1.48	-1.13	0.14	0.59	0.50	1.75	0.18	0.14	3.12	0.49	0.17	0.56	-0.87
Utility	0.01	-0.03	-0.05	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.05	0.01	-0.01	0.04	-0.03
Housing & construction	-0.05	-0.01	-0.01	0.00	0.00	0.00	0.00	0.03	0.09	0.00	0.01	0.01	0.00	-0.02	0.00	-0.01	0.01	-0.06
Services total	-1.51	-4.07	-8.71	-2.06	-0.59	1.41	-1.66	0.43	2.01	0.98	4.11	0.41	0.32	6.16	0.97	0.37	1.81	-0.44
Total	3.81	-2.80	-4.28	3.74	0.80	3.42	0.73	2.42	1.76	0.72	-5.66	0.56	0.21	-4.16	-2.33	-0.43	7.07	-5.58

Comparison of Three FTA proposals

Welfare Changes due to FTAs

	China	Japan	Korea
Additional GDP Growth, 2002-2012, Accumulated			
China-ASEAN FTA	0.37	-0.02	-0.11
Japan-ASEAN FTA	-0.06	0.08	-0.17
ASEAN + China, Japan & Korea	0.66	0.11	0.93
ASEAN + China, Japan & Korea + USA	0.85	0.16	0.93
Additional Real Export Growth Rate, %, 2002-2012, Accumulated			
China-ASEAN FTA	1.58	-0.03	-0.18
Japan-ASEAN FTA	-0.17	1.13	-0.22
ASEAN + China, Japan & Korea	3.56	2.66	5.38
ASEAN + China, Japan & Korea + USA	5.94	5.31	7.21
Changes of Real Purchasing Power (EV) from Baseline, Billion US dollars, 2003-2012			
China-ASEAN FTA	**36.64**	**-4.77**	**-2.60**
Japan-ASEAN FTA	**-3.08**	**22.94**	**-4.14**
ASEAN + China, Japan & Korea	**37.93**	**38.97**	**29.51**
ASEAN + China, Japan & Korea + USA	73.89	83.00	46.47

Conclusions

- ASEAN+China benefits all its members but Japan and Korea are losers
- ASEAN+Japan benefits Japan at the expense of China and Korea
- Under ASEAN+Three FTA, all members gain more than the FTA proposals with more limited memberships, as it offers a substantially larger market for all members. In other words, ASEAN plus three should be a Pareto improvement for China, Japan, and Korea
- These FTAs will lead to an increase in intra-regional trade and reduced inter-regional trade, but total world trade and welfare will rise
- At the sectoral level, China will import more capital and land intensive products and export more labor intensive goods to its FTA partners