People's Republic of China (PRC): Thailand Economic Relationship After Signing of Free Trade Agreement in 2005

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1 Background

People's Republic of China (PRC) is the third biggest nation globally situated in East Asia with the land area of 9.6 million km^2, population of 1.36 billion people and population density of 139 km^{-2}. PRC's capital is Beijing and comprises of 22 provinces, five autonomous regions, four municipalities and two special administrative regions. Special administrative regions are Hong Kong and Macao. Thailand is the world's 51st largest country situated in Southeast Asia with the land area of 513,000 km^2 and population of 67.1 million people. The population density of Thailand is around 131 km^{-2}. Thailand shares borders with four neighbours: Myanmar in the north, Laos People's Democratic Republic (LPDR) and Cambodia in the east, and Malaysian Peninsula and Malaysia in the south. Myanmar and LPDR are the borders of PRC.

PRC–Thailand bilateral relations in the form of commercial and cultural exchanges were a historical one during the Ming and Qing dynasties and lasted consistently with few interruptions over time.[1] After the Second World War, both countries strengthened their relationship by signing the Siam–PRC treaty. However, mutual suspicion prevailed for two reasons: one is the PRC involvement with

[1] For details, see Thailand China Economic Information—The Long-Stream Friendship, http://www.thailand-china.com/getdoc/3aab868f-0b9e-4b1d-bcf1-e93bb80ec7b8/The-Long-stream.aspx?lang=en-GB, accessed on September 16, 2014.

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Cambodia's conflicts and the other is PRC's support to the communist factions within the Thai political circle. In 1978, PRC offered support to Thailand in resolving Cambodia's internal conflict, and both countries signed the Thailand–China Joint Trade Committee (JTC) agreement. JTC is to promote bilateral trade volume goals and trade expansion. In 1985, both countries signed a contract on 'Promotion and Protection of Mutual Investment'. Since then trade and investment became the dominant theme in bilateral relations. Thailand supports the 'One PRC' Policy and maintains unofficial relations with Taiwan.[2]

PRC had a relatively closed economy prior to 1978; it initiated economic reforms since then and intensified them by joining the World Trade Organization (WTO) in 2002. The 1990s and 2000s perceived a speedy growth performance in the Chinese economy, reflected in reduced trade and investment barriers, improved trade, the quick technology transmission and greatly mobile factors of production such as capital and labour. Special economic zones (SPZs) were formed along the coastal line to invite foreign direct investment (FDI) and lift exports and imports of advance technology-based products. State-owned firms were permitted to function and adopt on free market-based principles, and private firms were promoted and legalised. Such arrangements facilitated Thai investments in China especially in the areas of papermaking, electricity, agroindustries, textiles and garments, auto parts, food beverage, hotels, banking and building materials.

The well-known Charoen Pokphand Group (CP Group) firm, originated in Thailand and owned by Thai Chinese, initiated the operation in PRC in the early 1980s and is currently involved with a range of products that include automotive, petrochemicals, retail distribution, agribusiness and agroindustries. In the early 1990s, more Thai companies such as the Cement Thai group, Saha-Union Group and M-Thai Group started operation in PRC. Other Thai companies operating in China are Thai Farmers Bank (Kasikorn Bank), Kaset Rungrueang Co. Ltd., Kratingdaeng (Red Gore) Group, Krungthai Bank, Bangkok Bank Co. Ltd. and Mitr Phol Group.

Thailand was isolationist and dependent on state-owned enterprises and agricultural exports such as rice, sugar cane and cassava prior to the 1970s. In the early 1980s, Thai economy slumped mainly due to the burden of high oil prices, debt crisis and decline in agricultural prices. This was addressed not only by using fiscal and monetary policies but also promoting exports by providing incentives such as exceptions and declines of tariffs and business taxes on imported intermediate inputs to all export projects. Free market policies steered to the intense development of an immense export-oriented, big-scale manufacturing sector, which in turn stimulated the economy linking the other extraordinary performance economies in Asia. Thailand's population comprised of around 14 % of ethnic Chinese. Thai Chinese are highly influential in Thai economy and control major part of the firms

[2] In 1998, the China–Thailand subcommittee on cooperation in trade, investment and tourism was created to strengthen the cooperation. This committee was terminated in 2001 after the change of governments from Democrats to the Thai Rak Thai Party.

registered on the stock market and the major part of market capitalisation. Thai Chinese entrepreneurs control majority of the sectors including agriculture, banking and finance, real estate and wholesale trade. Such cultural links facilitated Chinese investments in Thailand especially in the areas of agribusiness, textiles, electronics, rubber, chemicals, hotels, restaurants and real estate.

The Agreement on the Mutual Promotion and Protection of Investment was signed in 1985 to promote trade and investment. This agreement facilitated PRC's direct investment in Thailand. Investments prior to 1985 were mainly in the form of trading but not production. The time period fell into initial stage of opening the PRC economy to the rest of the world. PRC's political rationale towards inward FDI could be characterised as selective acceptance. PRC invited only selective investments and allowed big trading companies to go overseas. The Worldbest Group (textiles and garments), TCL Corporation (electronics) and Huawei Technology Corporation (wireless phone and networking equipment) are big investors in Thailand which originated from China right after signing the agreement.

Major breakthrough occurred with the signing of the PRC–ASEAN Free Trade Agreement (CAFTA) in 2002 and subsequent agreements of goods, services and investment within the decade. The bilateral trade and investment between PRC and Thailand have remarkably increased since signing of CAFTA. This shows that there are diversities in comparative advantage between two countries economically in the use of natural resources and the stage of economic development. The changing pattern of comparative advantages between two countries would shape the long-term sustainable economic relationship.

To capture the comparative advantage, the estimates of revealed comparative advantage (RCA) indices are widely applied to find changing pattern of bilateral comparative advantage (Utkulu and Seymen 2004). Such estimate is lacking in PRC–Thailand exports, and therefore, this chapter intends to fill the research gap to show the estimates of PRC's export competitiveness to Thailand. The chapter is structured as follows: the following section describes the bilateral trade agreements and performance between two economies. Section 3 explores the RCA indices. Empirical results of RCA indices and comparisons are presented in Sect. 4. The concluding section draws the findings.

2 Trade and Investment Dependence Between the Two Economies

Economic integration is viewed as an opportunity for more trade and investment. It contributes more jobs, greater demand for consumption and more economic growth. A successful economic integration can occur only if there is evidence of greater bilateral trade between the partner countries. The last decade witnessed massive expansion of PRC–Thailand bilateral trade and investment, and this reflects the existing complementarity of both economies. One can see that

PRC–Thailand economic relationship is successful mainly due to Thailand's greater participation in the Association of Southeast Asian Nations Free Trade Area (ASEANFTA). In 1997, ASEANFTA initiated the process of accommodating ASEAN plus China, Korea and Japan (ASEAN + 3). All these processes facilitated CAFTA formation.

Thailand is one of the prominent members of the ASEANFTA. Studies indicate that there was a significant macroeconomic compatibility among the founder members of ASEAN (Ong and Habibullah 2012).[3] ASEAN countries attempted to integrate PRC in November 2002. A rapid expansion of bilateral economic relations occurred right after signing China (PRC)–ASEAN Free Trade Area (CAFTA) in 2002 with the intension of forming a free trade area by 2010. The consistent steps have been taken by signing three agreements to integrate more: the Agreement on Trade in Goods in 2004, the Agreement on Trade in Services in 2007 and ASEAN–China Investment Agreement in 2009. CAFTA specifies that China and the ASEAN-6 (founders of ASEAN) eliminate tariffs on 90 % of their products by 2010 leaving ASEAN–CLMV (Cambodia, Laos, Myanmar and Vietnam) to achieve the same status by 2015. Tariffs on remaining 10 % of their products will be eliminated by 2018.

In 2012, Regional Comprehensive Economic Partnership (RCEP) was initiated by the ten member states of the ASEAN (Malaysia, the Philippines, Singapore, Thailand, Brunei, Vietnam, Myanmar, Cambodia, Indonesia, Laos) and the six other partners (Australia, China, India, Japan, South Korea and New Zealand). RCEP is not based on a predetermined membership but allows open accession which enables participation of any of the ASEANFTA partners at their convenience. External economic partners, such as Central Asian countries and remaining South Asian countries and Oceania, are also encouraged to join. All member states are expected to cover 28 % of the world's economy by 2015.

Ong and Habibullah (2012) find that ASEAN-5 and PRC integration have been more coordinated than just an ASEAN-5 macroeconomic compatibility using a cointegration analysis. Authors suggested more ASEAN–PRC coordination plan for further success. One should view PRC–Thailand FTA on this foundation of positive regional trade relationship. Under the umbrella of CAFTA, in 2003, the PRC–Thailand FTA attempted 'early harvest' agreement on farm trade enforcing a deal to bring zero tariffs for 188 types of fruits and vegetables. Both countries opened up their farm products before CAFTA came into force in 2010. Although there are few accusations (e.g. small farmers are not benefiting cheaper PRC's fruits in the Thai market) of 'early harvest' agreement, countries formed a joint working group to study the problems and obstacles. The bilateral trade relationship is

[3] In 1967, founder members—Malaysia, Indonesia, Thailand, the Philippines and Singapore—formed the ASEAN-5. By incorporating Brunei, the ASEAN-6 emerged in 1984. The ASEAN-10 countries include new members: Myanmar in 1997, Cambodia in 1999, Laos in 1997 and Vietnam in 1995.

positive and PRC became Thailand's second largest trade partner after Japan in 2011.

Shen (2013) argues that there are three positive factors in boosting the expansion of PRC–Thailand bilateral economic relations: Thailand is truly committed in the building of PRC and ASEAN FTA; PRC's 'Good Neighbour' diplomacy had wider implications for positive implications of the agreement; and there are existing close contacts of different levels of leadership since the signing up of agreement. Laurenceson (2003) pointed out that goods and services market reforms in PRC–ASEAN-5 countries can be complementary to greater levels of external financial liberalisation, such as regulatory reforms of financial institutions. Regulatory reforms should cater the risk management practices of financial institutions in order to safeguard from financial crisis. Such move has already been initiated by liberalising trade in services, but it is a long way to go to finish the agenda.

An important question is that how the CAFTA and PRC–Thailand FTA impacted the PRC and Thailand as mutual trading and investing partners. Trade between the PRC and Thailand has grown in volume continuously, and both countries remain as major export markets for each other since signing CAFTA. Figure 1 shows importance of PRC market for Thailand's exports and Thailand market for PRC's exports. Thai exports to the PRC increased from 5.2 % in 2002 to 11.9 % in 2013, while PRC's exports to Thailand increased from 15 to 17 % during this period. Figure 1 also shows a remarkable increase of export shares by both countries as soon as 'Investment' agreement is signed in 2009 under CAFTA.

Figure 2 shows the importance of PRC as a source of Thailand's imports and Thailand as a source of PRC's imports. Thai imports to the China increased from 7.6 to 15 % from 2002 to 2013, while PRC's imports to Thailand increased from 12 to 14 % during this period. Both countries benefited by increasing their importance for each other following the signing of CAFTA. Changes in Thai trade structure over the period reflect the impact of PRC's growing economic footprint.

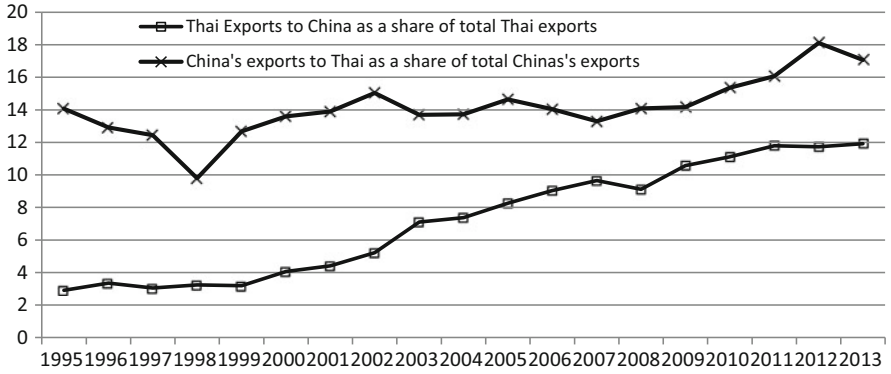

Fig. 1 Relative importance of China and Thailand as exports and imports markets (in %). *Source*: Bank of Thailand (2014)

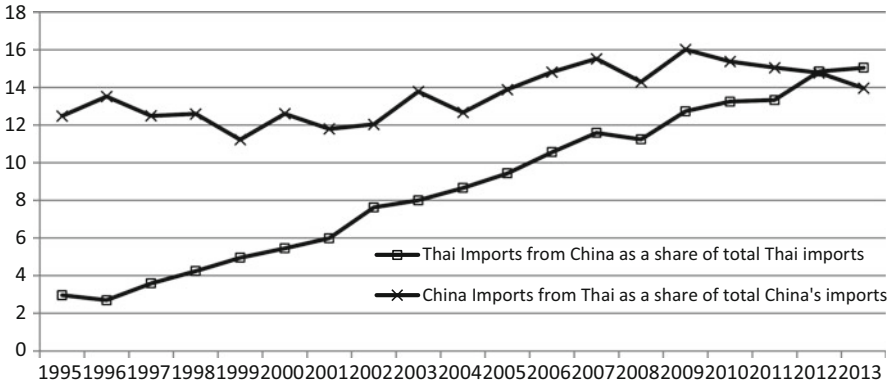

Fig. 2 Relative importance of China and Thailand as exports and imports markets (in %). *Source*: Bank of Thailand (2014)

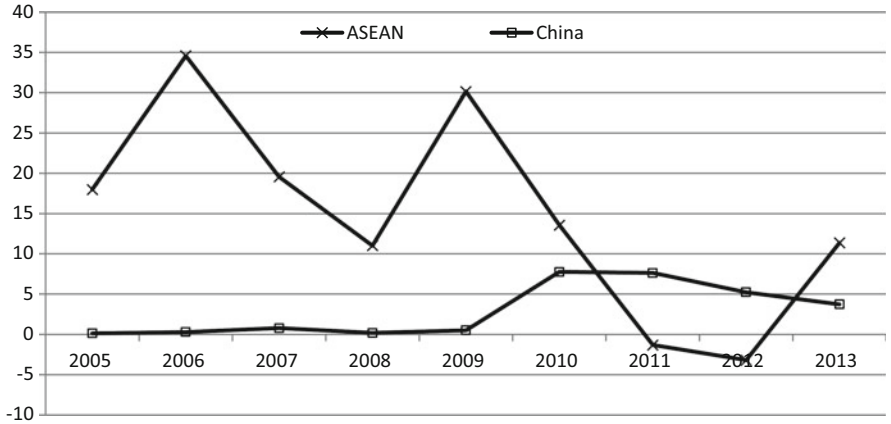

Fig. 3 FDI net flows to Thailand: from ASEAN and China (as a % of overall FDI). *Source*: Bank of Thailand (2014)

Figure 2 indicates a remarkable increase in import share by Thailand as soon as 'Investment' agreement is signed in 2009 under CAFTA.

In recent years, mutual investments between PRC and Thailand have increased considerably. Official net FDI flows from China to Thailand peaked at US$707 million in 2010 and have remained high since then (Fig. 3). FDI net flows as a percentage of overall FDI peaked 7.7 % in both 2010 and 2011 and have remained at a modest 5 %. ASEAN FDI flows to Thailand as a percentage of overall FDI became negative in 2011 and 2012. This shows that FDI from China to the Thailand remains attractive after signing 'PRC–Thailand Investment Agreement' in 2009.

PRC's exchange rate policy contains substantial intervention in the currency market to avert yuan's appreciation against the five major trading partners' currency

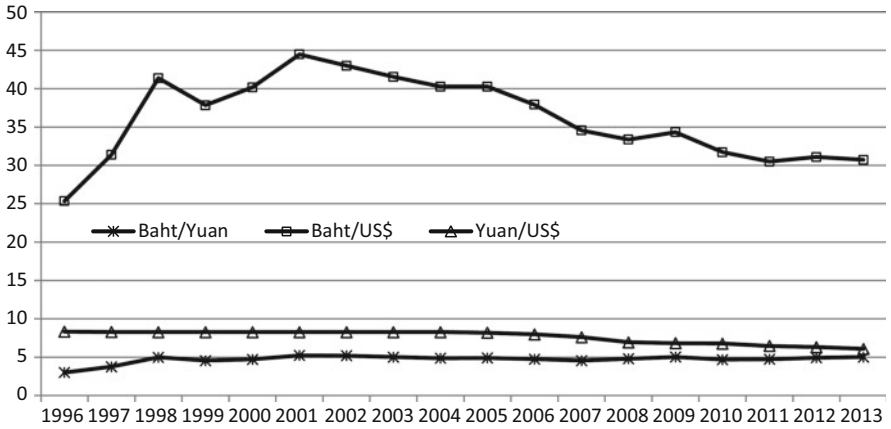

Fig. 4 Exchange rates. *Source*: Bank of Thailand (2014) and IMF (2014)

where Thailand involves with more managed floating regime. PRC's nominal currency rate relative to the US$ was smooth until 2005 (Fig. 4). In 2005, Chinese yuan was fixed with the basket of currencies (the euro, the US dollar, the Japanese yen and the Korean won) and allowed 2 % appreciation. The exchange rate band has remained 0.5 % above and below since mid-2007, when it was increased from 0.3 %. Thailand's nominal exchange rate relative to the Chinese yuan was also flat, while Thai baht against US dollar depreciates and appreciates after the Asian crisis. PRC's interventionist currency policy can encourage PRC's exports to Thailand but not imports. Thus, the Thai current account deficit hit US$10,488 million in 2013 which is −16 % of overall bilateral trade between Thailand and PRC.

The evidence shows that PRC's trade and investment relations with Thailand have remained robust after signing the CAFTA and a remarkable increase in trade and investment share since 2009. In recent years, more emphasis has been placed on trade in services, and with full opening there will be more service trade relationships.

3 Method of Estimating RCA

A nation which may generate or produce at lower relative cost than other nations can distribute more of its limited resources to the manufacture of that specific good.[4] In the wake of a progressively competitive international environment with accompanied liberalisation of trade and investment, it is appropriate to observe the

[4] Heckscher–Ohlin (H–O) model says that comparative advantage of a country lies on its relative factor scarcity. Balassa (1965) advocates that comparative advantage is revealed by observed trade patterns and reflects through pre-trade relative prices.

changing pattern of comparative advantage. Comparative advantages vary over-time. In this sense, it is dynamic. The estimates of changing pattern of comparative advantages are useful information for policy makers.

Balassa's (1965) measure of RCA is a widely known measure to capture the effect of factor supplies and technology on comparative advantage. This measure can be considered as a comprehensive one to pinpoint whether a country has an RCA rather than to decide the fundamental sources of comparative advantage. The index estimates normalised export shares, considering the same industry exports in a group of observed nations. The measure accommodates comparative advantage for a particular industry for the time period and number of countries and therefore allows comparison. Some research articles evaluate global level RCA (e.g. Vollrath 1991), and remaining others are at a sub-global/regional level or at bilateral trade between countries (e.g. Dimelis and Gatsios 1995; Balassa 1965).

The notion of RCA is well discussed in traditional trade theory. The RCA of a country is estimated by the comparative weight of a percentage of total exports of a particular industry in a country over the percentage of world exports in that industry and expressed as:

$$\text{RCA} = \frac{X_{ij}/X_{ig}}{X_{nj}/X_{ng}} = \frac{X_{ij}/X_{nj}}{X_{ig}/X_{ng}} \tag{1}$$

where X signifies exports, i reflects a nation, j reflects a industry, g shows a set of industries and n reveals a group of nations. It calculates a nation's exports of industries in relations to its overall exports and to the matching exports of a group of nations. If RCA > 1, a comparative advantage is shown; if RAC < 1, the nation is subject to a comparative disadvantage in that industry.

However, Greenaway and Milner (1993) argue that Balassa's RCA is biased due to the exclusion of imports. Based on this argument, another version of RCA can be derived by incorporating imports:

$$\text{RCA} = \frac{X_{ij}/X_{ig}}{M_{ij}/M_{ig}} = \frac{X_{ij}/M_{ij}}{X_{ig}/M_{ig}} \tag{2}$$

where X and M represent exports and imports, respectively, i represents a country, j represents a commodity and g represents a group of commodities (or industries). This RCA index can be measured either in global or bilateral levels.

Following the contributions of Balassa (1965) and Greenaway and Milner (1993), we will calculate the RCA index of PRC over Thailand [RCA_{ct}, Eq. (3)] and Thailand over PRC [RCA_{tc}, Eq. (4)]:

$$\text{RCA}_{ct} = \frac{X_{cjt}/X_{ct}}{M_{tjw}/M_{tw}} \tag{3}$$

$$\mathrm{RCA}_{tc} = \frac{X_{tjc}/X_{tc}}{M_{cjw}/M_{cw}} \tag{4}$$

where

X_{cjt} Total exports of jth commodity by China to Thailand
X_{ct} Total exports by China to Thailand
M_{tjw} Total imports of jth commodity of Thailand from world
M_{tw} Total imports of Thailand from world
X_{tjc} Total exports of jth commodity by Thailand to China
X_{tc} Total exports by Thailand to China
M_{cjw} Total imports of jth commodity of China from world
M_{cw} Total imports of China from world

Under the bilateral trade, if $\mathrm{RCA}_{ct} > \mathrm{RCA}_{tc}$, then China has advantage in that commodity in the market of Thailand; and if $\mathrm{RCA}_{ct} < \mathrm{RCA}_{tc}$, then China has disadvantage in that commodity in the market of Thailand.

In order to calculate the RCA of PRC with reference to Thailand, we use annual 2-digital SITC Revision 3 data covering PRC's exports and imports to Thailand and total imports from the world for the period 2000–2013 from the UN Comtrade database (2014).

4 Results

The aim is to explore the micro-level comparative advantages using RCA indices on exports at SITC-2 digit level between PRC and Thailand from the perspective of CAFTA in order to show that there is a catching up/diverging process between the two countries with the convergence towards a more competitive structure of RCA in exports. The analysis has been done by splitting the sample into 2000–2009 and 2010–2013 reflecting both the 'Investment' agreement in 2009 and subsequent increased in bilateral trade and investment. Presented is RCA of PRC with respect to Thailand. This is mainly to show that the shifting pattern of comparative advantage of PRC as PRC is the determining force as a big country.

Summary statistics (mean and coefficient of variation) are displayed in Table 1 (see Appendix Table 5 for annual detail). The industries for which China holds advantage reveal approximately the similar between the periods 2000–2009 and 2010–2013. In 2000–2009 China had advantage in 37 industries and in 2010–2013 in 39 industries. While 33 out of the 37 industries preserve their comparative advantage in 2010–2013, four industries drop their advantage: dairy products and birds' eggs (02), feeding stuff for animals (07), miscellaneous edible products (09) and chemical materials and products (59). Six new industries have gained comparative advantage in 2010–2013: pulp and waste paper (25); textile fibres and their wastes (26); metalliferous ores and metal scrap (28); cork and wood

Table 1 RCA of PRC with respect to Thailand (product group, 2000–2009 and 2010–2013)

		Mean		Coefficient of variation (%)	
		2000–2009	2010–2013	2000–2009	2010–2013
00	Live animals	−0.75	−0.18	−166	−32
01	Meat and meat preparations	0.18	0.02	208	51
02	Dairy products and bird's eggs	0.11	−0.01	181	−75
03	Fish crustaceans, molluscs	−1.06	−0.29	−147	−104
04	Cereals and cereal preparations	−8.95	−3.45	−36	−59
05	Vegetables and fruit	−8.89	−8.55	−28	−31
06	Sugars, sugar preparations and honey	−4.61	−1.20	−78	−391
07	Coffee, tea, cocoa, spices	0.10	0.68	777	17
08	Feeding stuff for animals	0.14	−0.68	536	−41
09	Miscellaneous edible products	0.12	−0.27	243	−139
11	Beverages	0.18	0.01	48	1105
12	Tobacco and tobacco manufactures	0.64	0.41	61	35
22	Oil seeds and oleaginous fruits	0.11	0.26	73	34
23	Crude rubber	−11.98	−14.13	−14	−18
24	Cork and wood	−1.54	−2.75	−23	−17
25	Pulp and waste paper	−0.33	0.02	−63	347
26	Textile fibres and their wastes	−0.25	0.08	−169	134
27	Crude fertilisers and crude minerals	1.96	1.59	31	6
28	Metalliferous ores and metal scrap	−0.03	0.09	−202	41
29	Crude animal and vegetable materials	2.05	2.18	30	12
33	Petroleum, petroleum products	−0.60	−0.44	−26	−40
34	Gas, natural and manufactured	n.a.	−0.16	n.a.	−67
41	Animal oils and fats	n.a.	n.a.	n.a.	n.a.
42	Fixed vegetable fats and oils	0.46	0.16	47	79
43	Animal or vegetable fats and oil, waxes	0.09	0.52	405	23
51	Organic chemicals	−0.04	−0.68	−1057	−63
52	Inorganic chemicals	3.84	2.84	25	6
53	Dyeing, tanning and colouring materials	0.91	0.44	13	35
54	Medicinal and pharmaceutical products	0.65	0.74	21	12
55	Essential oils, perfume materials, cosmetic	−0.19	−0.67	−107	−7
56	Fertilisers	1.00	0.82	38	33
57	Plastics in primary forms	−1.98	−2.02	−24	−17
58	Plastics in non-primary forms	0.22	0.72	135	29
59	Chemical materials and products	0.71	−0.11	35	−227

(continued)

Table 1 (continued)

		Mean		Coefficient of variation (%)	
		2000–2009	2010–2013	2000–2009	2010–2013
61	Leather and manufactures	−0.47	−1.50	−164	−13
62	Rubber manufactures	−3.83	−10.32	−43	−16
63	Cork and wood manufactures	−0.76	2.29	−129	38
64	Paper, paperboard and articles thereof	−0.32	0.70	−158	11
65	Textile yarn, fabrics, made-up articles	3.18	3.44	11	2
66	Nonmetallic mineral manufactures	−0.29	0.28	−117	187
67	Iron and steel	0.86	1.08	72	16
68	Non-ferrous metal	0.92	0.69	39	15
69	Manufactures of metals	0.44	0.55	22	16
71	Power-generating machinery and equipment	0.33	0.29	91	88
72	Machinery specialised for particular industries	0.93	1.29	27	12
73	Metalworking machinery	0.31	0.49	54	18
74	General industrial machinery and equipment	0.68	1.04	69	12
75	Office machinery and computers	−2.28	−4.40	−90	−13
76	Telecommunication, sound, TV, video	2.16	1.07	27	26
77	Electrical machinery, apparatus and appliances	−0.32	−0.01	−21	−1620
78	Road vehicles	0.43	0.64	43	21
79	Other transport equipment	0.46	0.30	147	72
81	Prefabricated buildings, sanitary, heating, lighting	5.10	4.46	22	50
82	Furniture and parts thereof, bedding, mattresses	2.79	9.19	105	29
83	Travel goods, handbags	2.50	3.91	19	13
84	Articles of apparel and clothing accessories	3.59	3.88	35	14
85	Footwear	3.70	6.92	30	23
87	Professional, scientific and controlling instruments	1.35	2.52	61	20
88	Photographic apparatus, equipment and supplies	0.22	0.27	226	21
89	Miscellaneous manufactured articles	0.72	0.76	29	61

Source: Authors' estimated using SITC Rev. 3 data (UN Comtrade Database, 2014)
Note: Revealed comparative advantages are shown if index is greater than 1

manufactures (63); paper, paperboard and articles thereof (64); and nonmetallic mineral manufactures (66). Four industries each gained or lost more than 10 ranks during this time as shown in Table 2.

Of the 10 greatest competitive sectors for PRC in 2000–2009, eight hold their advantage in 2010–2013 (Table 3). While industries like telecommunication, sound, TV, video (SITC-76) and crude fertilisers and crude minerals (SITC-27) fail to keep the top ten set, industries like professional, scientific and controlling instruments (SITC-87) and cork and wood manufactures (SITC-63) join as China's best competitive sectors in 2010–2013. Industries that revealed a loss of 10 or greater in their rank are chemical materials and products (from rank 19 to 43); dyeing, tanning and colouring materials (from rank 16 to 28); fixed vegetable fats and oils (from rank 23 to 35); and miscellaneous edible products (from rank 34 to 45). There are four industries which have shown an increase in their rank by 10 or more: animal or vegetable fats and oils move from 38 to 26; cork and wood manufactures from 50 to 10; paper, paperboard and articles thereof from 46 to 21; and nonmetallic mineral manufactures from 44 to 32 (Table 2).

Table 2 Inter-temporal shift of PRC's RCA in Thai market

Industries for which PRC holds advantage: 37 in 2000–2009, 39 in 2010–2013
Industries that have retained advantage: 33
Industries that have gained advantage: 6 (SITC Codes: 25, 26, 28, 63, 64 and 66)
Industries that cannot hold advantage: 4 (SITC Codes: 02, 07, 09 and 59)
Industries that have gained/lost more than 10 ranks
Industries that have gained: 4 (SITC Codes: 43, 63, 64 and 66)
Industries that have lost: 4 (SITC Codes: 09, 42, 53 and 59)

Note: SITC Codes details are as in Table 1

Table 3 PRC's top ten industries with a comparative advantage in Thai market

Rank	2000–2009	2010–2013
1	Prefabricated buildings, sanitary, heating, lighting (81)	Furniture and parts thereof, bedding, mattresses (82)
2	Inorganic chemicals (52)	Footwear (85)
3	Footwear (85)	Prefabricated buildings, sanitary, heating, lighting (81)
4	Articles of apparel and clothing accessories (84)	Travel goods, handbags (83)
5	Textile yarn, fabrics, made-up articles (65)	Articles of apparel and clothing accessories (84)
6	Furniture and parts thereof, bedding, mattresses (82)	Textile yarn, fabrics, made-up articles (65)
7	Travel goods, handbags (83)	Inorganic chemicals (52)
8	Telecommunication, sound, TV, video (76)	Professional, scientific and controlling instruments (87)
9	Crude animal and vegetable materials (29)	Cork and wood manufactures (63)
10	Crude fertilisers and crude minerals (27)	Crude animal and vegetable materials (29)

Note: SICT Codes in parentheses

Table 4 Stability of RCA

	Percentage share of product groups where			
2000–2009	RCA_{2000}	RCD_{2009}	RCD_{2000}	RCA_{2009}
	5.3	4.5	1.7	3.4
2010–2013	RCA_{2010}	RCD_{2013}	RCD_{2010}	RCA_{2013}
	3.3	2.1	10.6	11.4
2000–2013	RCA_{2000}	RCD_{2013}	RCD_{2000}	RCA_{2013}
	3.5	2.8	14.8	13.6

Source: Authors used SITC Rev. 3 data for calculations

5 Stability of RCA

Table 1 shows the mean and the coefficients of variation. The coefficients of variation which appeared in Table 1 advocate that the RCA is reasonably steady and stable over the periods 2000–2009 and 2010–2013, respectively. To examine this further, the relative importance of certain product group can be used as a simple indicator of stability (Hoekman and Djankov 1997; Fertö and Hubbard 2003; Utkulu and Seymen 2004). The set product group can indicate an RCA at time period t while a revealed comparative disadvantage (RCD) at time period $t+1$ or vice versa.

The set of products in which PRC ensures RCA in 2000 but turned to RCD in 2009 account for 5.3 % of the overall exports value to Thailand in 2000 and 4.5 % in 2009. A movement in the opposite ways occurred as follows, i.e. an RCD in 2000 but an RCA in 2009 accounted for 1.7 % in 2000 and 3.4 % in 2009 (Table 4). These results tend to give the assessment that the structure of PRC's RCA in Thailand market has not had substantial change during the period 2000–2009.

However, the set of product reveal slightly less stable pattern during the period 2010–2013. Even in those cases, China ensures an RCA in 2010, but an RCD in 2013 constitutes 3.3 % of the overall exports in 2010 and 2.1 % in 2013. The set of products for which there is a switch in opposite ways—an RCD in 2010 but an RCA in 2013—are more noticeable but only constitute 10.6 % in 2010 and 11.4 % in 2013 (Table 4). This would tend to support our argument that the structure of PRC's RCA in Thailand market has not changed radically from 2010 to 2013.

For the whole period 2000–2013, the test still supports that the structure of China's reveal comparative advantage in Thailand market does not change remarkably, although the product groups are slightly more prevalent.

6 Conclusions

Both PRC and Thailand experienced increased trade and investment after signing CAFTA. This paper intends to fill the research gap by finding the competitiveness and stability of PRC's exports to Thailand and vice versa. The findings of the competitiveness of PRC in relations to Thailand have been shown, based on the RCA, and computed for the period 2000–2013 splitting the sample into 2000–2009 and 2010–2013 reflecting both the 'Investment' agreement in 2009 and subsequent increase in bilateral trade and investment in the later period.

Our results show that China had an advantage in 39 industries in 2010–2013. While 33 out of the 37 industries preserve their comparative advantage in 2010–2013, four industries drop their advantage: dairy products and birds' eggs (02), feeding stuff for animals (07), miscellaneous edible products (09) and chemical materials and products (59). Six new industries have gained comparative advantage in 2010–2013: pulp and waste paper (25); textile fibres and their wastes (26); metalliferous ores and metal scrap (28); cork and wood manufactures (63); paper, paperboard and articles thereof (64); and nonmetallic mineral manufactures (66). This can be considered as shifting comparative advantage to Thailand. The structure of PRC's RCA in Thailand market has not changed remarkably during the whole period 2000–2013. Our findings of stability test confirm that results obtained are reasonably stable.

CAFTA is still in its infancy and can be considered as an 'unfinished agenda'. PRC's currency policy focuses more on its own economic stability, and this needs to be more flexible to enhance more trade integration. Our results on positive trade performances in the light of comparative advantages are an encouraging sign for further integration. PRC as a rising power will maintain stable, harmonious relations with its neighbouring countries including Thailand, and one would expect that PRC will commit deeper integration.

The RCA export performance indices are useful measure for policymakers if this is estimated over time to find the shift in comparative advantages. Our RCA export performance indices are purely calculated from observed trade data and are not accommodated potential effects of remaining government interventions and price distortions due to that. Factors like transport, storage, distribution, communication and quality are also not taken into account in this calculation. The above limitations will be taken into account in future studies.

CAFTA laid the foundation for initiating not only PRC and Thailand FTA but also wider RCEP agreement. Given that ASEAN-10 have the target of zero tariffs by 2018 (both 'Normal Track' and 'Sensitive Track'), negotiation should emphasise to reach a 'credible agreement' going beyond tariff reduction. The main stumbling block is that there are no FTAs among non-ASEAN partners to date, and this could delay credible negotiations. For example, China and India have no such pact regarding tariff reduction so far. Zero-tariff target of 2015 ('Normal Track') has not yet been met even among ASEAN-10. For example, Indonesia is still struggling to achieve a 65 % of around 10,000 tariff lines of goods target.[5] In the absence of proposed tariff reduction within the timeline, reaching 'credible agreement' on other issues may not happen soon. This provides some breathing space for ASEAN-10 to learn new knowledge to survive in a full-fledged wider RCEP in the future. In the interim, PRC–Thailand can also still use the bilateral FTA as a stepping stone to acquire new products with cost advantage and economies of scale to face the wider RCEP.

Appendix

[5] See Jakarta Post, March 09, 2015, for details (http://www.thejakartapost.com/news/2015/03/09/asia-pacific-strike-deal-year-end.html).

Table 5 Revealed comparative advantages of China with respect to Thailand, by-product group, 2000–2013

Code	Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
00	Live animals	−7.26	−0.09	−0.18	−3.86	−0.13	−0.41	−1.42	−0.28	−0.17	−0.17	−0.19	−0.12	−0.15	−0.26
01	Meat and meat preparations	11.49	−0.58	−0.10	0.29	0.15	0.61	0.75	0.20	0.25	0.09	0.01	0.02	0.03	0.04
02	Dairy products and bird's eggs	0.04	0.00	0.00	0.02	0.01	0.05	0.02	0.59	0.27	0.02	0.00	−0.01	−0.01	−0.02
03	Fish crustaceans, molluscs	−1.31	−0.73	−0.11	−0.32	−0.53	−0.65	−0.60	−5.18	−0.82	−0.62	−0.74	−0.12	−0.19	−0.11
04	Cereals and cereal preparations	−6.05	−8.47	−7.63	−8.42	−4.75	−5.66	−13.28	−14.25	−10.30	−7.75	−5.55	−4.81	−1.38	−2.05
05	Vegetables and fruit	−3.29	−10.52	−9.20	−5.89	−12.30	−11.18	−10.23	−8.63	−5.00	−7.03	−6.99	−5.80	−9.84	−11.56
06	Sugars, sugar preparations and honey	−2.19	−11.96	−5.29	−5.60	−7.44	−3.13	−3.52	−3.60	0.24	−1.21	2.02	−1.01	−7.93	2.10
07	Coffee, tea, cocoa, spices	0.41	−0.26	−0.71	−0.96	−0.84	0.38	0.76	0.75	0.80	1.01	0.63	0.86	0.62	0.63
08	Feeding stuff for animals	1.16	1.04	1.06	0.52	0.45	−0.01	−0.41	−1.36	0.05	−0.08	−1.07	−0.47	−0.49	−0.69
09	Miscellaneous edible products	0.55	0.28	0.16	0.51	0.45	0.15	−0.04	−0.12	−0.40	0.06	−0.08	0.01	−0.19	−0.82
11	Beverages	0.16	0.29	0.35	0.13	0.18	0.15	0.17	0.12	0.14	0.09	0.11	0.08	0.09	−0.22
12	Tobacco and tobacco manufactures	−0.09	0.35	0.81	1.31	0.72	0.98	0.20	0.30	0.42	n.a.	0.51	n.a.	n.a.	0.31
22	Oil seeds and oleaginous fruits	0.06	0.03	0.03	0.06	0.05	0.08	0.16	0.15	0.15	0.28	0.39	0.19	0.22	0.26
23	Crude rubber	−15.50	−13.66	−14.14	−13.95	−12.83	−10.40	−10.14	−10.24	−12.12	−10.29	−11.01	−13.83	−14.40	−17.29
24	Cork and wood	−0.96	−1.04	−1.72	−1.65	−2.06	−1.68	−1.34	−1.22	−1.25	−1.94	−2.34	−2.33	−3.18	−3.14
25	Pulp and waste paper	−1.11	−0.79	−0.41	−0.44	−0.21	−0.17	−0.33	−0.38	−0.16	−0.11	−0.01	0.05	0.09	−0.06
26	Textile fibres and their wastes	0.77	−0.67	−0.46	0.48	−0.69	−0.68	−0.29	−0.09	0.10	0.09	0.04	−0.03	0.22	0.09
27	Crude fertilisers and crude minerals	2.77	3.34	2.16	1.97	1.81	1.76	1.85	2.00	1.75	1.03	1.52	1.55	1.53	1.74

(continued)

Table 5 (continued)

Code	Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
28	Metalliferous ores and metal scrap	0.39	0.04	0.04	0.01	−0.03	−0.03	−0.06	−0.11	−0.12	0.00	0.07	0.10	0.05	0.13
29	Crude animal and vegetable materials	1.55	2.42	2.26	1.48	3.01	2.97	1.51	1.53	1.49	2.32	1.89	2.06	2.45	2.33
33	Petroleum, petroleum products	0.10	−0.42	−0.69	−0.86	−0.51	−0.47	−0.49	−0.72	−0.73	−0.48	−0.35	−0.25	−0.50	−0.66
34	Gas, natural and manufactured	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	−0.04	−0.23	−0.20
41	Animal oils and fats	0.00	0.06	0.00	0.01	−0.04	−0.07	0.00	−0.02	0.03	0.03	n.a.	n.a.	n.a.	n.a.
42	Fixed vegetable fats and oils	1.27	0.87	0.39	0.59	0.33	0.52	0.30	0.65	0.15	0.35	0.35	0.13	0.10	0.06
43	Animal or vegetable fats and oil, waxes	0.00	0.00	−0.37	−0.08	−0.10	−0.19	−0.03	0.44	0.64	0.39	0.36	0.53	0.65	0.53
51	Organic chemicals	0.43	0.64	0.11	−0.04	−0.02	−0.02	−0.90	−0.53	0.27	0.12	−0.17	−0.51	−0.90	−1.14
52	Inorganic chemicals	5.33	5.04	5.15	4.65	4.18	3.59	3.16	2.78	2.69	3.31	3.08	2.77	2.79	2.72
53	Dyeing, tanning and colouring materials	0.88	1.06	0.99	0.95	0.92	0.95	0.92	0.98	0.81	0.64	0.54	0.59	0.27	0.34
54	Medicinal and pharmaceutical products	1.05	0.91	0.79	0.57	0.53	0.50	0.59	0.56	0.71	0.73	0.76	0.85	0.67	0.67
55	Essential oils, perfume materials, cosmetic	−0.02	0.10	0.07	−0.24	−0.23	−0.13	−0.11	−0.22	−0.41	−0.53	−0.61	−0.68	−0.71	−0.68
56	Fertilisers	0.00	0.00	0.00	0.00	1.21	0.52	0.67	1.57	1.14	0.90	1.06	1.02	0.69	0.50
57	Plastics in primary forms	−2.60	−2.55	−2.62	−2.22	−2.23	−2.13	−1.88	−1.40	−1.52	−1.31	−1.62	−1.94	−2.08	−2.43
58	Plastics in non-primary forms	−0.40	0.05	−0.17	−0.16	−0.03	0.37	0.51	0.56	0.49	0.36	0.46	0.65	0.85	0.93
59	Chemical materials and products	0.49	0.95	0.86	0.94	0.64	0.81	0.77	0.63	0.59	0.16	−0.14	0.07	0.08	−0.47
61	Leather and manufactures	0.19	0.81	0.06	−0.30	−0.07	−0.26	−0.45	−0.88	−1.64	−1.47	−1.56	−1.30	−1.40	−1.73

62	Rubber manufactures	−2.20	−1.68	−2.19	−3.76	−3.94	−2.92	−4.88	−4.28	−5.58	−6.89	−8.67	−9.29	−10.89	−12.42
63	Cork and wood manufactures	−0.42	−1.78	−2.19	−1.91	−0.95	−1.13	0.34	0.57	0.04	−0.17	1.24	3.33	2.14	2.46
64	Paper, paperboard and articles thereof	−1.04	−0.85	−0.81	−0.52	−0.57	−0.35	0.22	0.27	0.02	0.37	0.61	0.69	0.72	0.80
65	Textile yarn, fabrics, made-up articles	3.21	3.26	2.69	3.18	2.67	3.03	3.14	3.25	3.54	3.84	3.51	3.51	3.36	3.40
66	Nonmetallic mineral manufactures	−0.39	−0.46	−0.89	−0.72	−0.43	−0.24	0.03	0.02	0.03	0.11	−0.11	−0.14	0.39	0.98
67	Iron and steel	0.73	0.19	0.03	0.01	1.43	1.44	1.67	1.05	1.30	0.71	0.86	1.21	1.23	1.03
68	Non-ferrous metal	0.41	0.55	0.57	1.20	1.49	1.30	1.01	0.96	1.05	0.68	0.67	0.55	0.74	0.79
69	Manufactures of metals	0.22	0.45	0.48	0.43	0.33	0.48	0.47	0.49	0.55	0.45	0.43	0.64	0.57	0.57
71	Power-generating machinery and equipment	0.31	0.08	−0.21	0.20	0.45	0.11	0.39	0.47	0.76	0.74	0.38	0.58	0.25	−0.04
72	Machinery specialised for particular industries	0.62	0.77	0.63	0.81	0.87	0.90	1.03	1.15	1.13	1.40	1.19	1.18	1.27	1.52
73	Metalworking machinery	0.18	0.16	0.21	0.28	0.15	0.24	0.30	0.45	0.55	0.63	0.53	0.47	0.38	0.58
74	General industrial machinery and equipment	−0.21	0.16	0.49	0.50	0.56	0.76	1.06	1.19	1.19	1.05	1.08	1.19	0.91	0.98
75	Office machinery and automatic data-processing machines	−0.66	−0.28	−0.14	−0.73	−1.64	−1.95	−2.35	−4.02	−5.73	−5.32	−4.31	−4.93	−4.73	−3.62
76	Telecommunication, sound, TV, video	1.68	2.65	2.77	2.28	1.90	2.26	2.69	2.56	1.98	0.87	0.66	1.14	1.17	1.32
77	Electrical machinery, apparatus and appliances	−0.47	−0.39	−0.29	−0.26	−0.30	−0.34	−0.29	−0.33	−0.27	−0.25	−0.29	−0.10	0.15	0.19
78	Road vehicles	0.29	0.26	0.25	0.37	0.18	0.48	0.56	0.62	0.74	0.58	0.48	0.66	0.63	0.81
79	Other transport equipment	2.08	0.43	1.13	0.01	0.02	0.04	0.03	0.10	0.20	0.54	0.60	0.14	0.31	0.15

(continued)

Table 5 (continued)

Code	Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
81	Prefabricated buildings, sanitary, heating, lighting	7.22	6.31	5.13	4.23	4.68	5.76	3.89	3.55	5.27	4.98	3.28	2.96	3.84	7.78
82	Furniture and parts thereof, bedding, mattresses	0.56	0.47	1.01	1.60	1.65	1.86	2.00	3.65	4.89	10.20	22.61	9.67	6.24	8.23
83	Travel goods, handbags	2.48	2.24	2.37	3.11	2.53	2.07	2.10	1.97	3.39	2.76	3.17	4.29	4.08	4.11
84	Articles of apparel and clothing accessories	5.55	3.69	3.99	4.23	2.01	2.18	2.12	3.59	5.24	3.32	3.66	3.61	3.56	4.69
85	Footwear	4.31	4.84	4.87	4.40	2.54	1.90	2.56	3.26	3.56	4.74	6.78	5.84	5.83	9.24
87	Professional, scientific and controlling instruments	0.41	0.48	0.78	1.55	0.96	1.05	1.45	1.35	2.54	2.92	2.71	3.04	2.46	1.87
88	Photographic apparatus, equipment and supplies	0.88	1.14	0.47	−0.02	−0.34	0.02	−0.12	−0.26	0.00	0.43	0.23	0.25	0.25	0.36
89	Miscellaneous manufactured articles	0.55	0.62	0.42	0.50	0.64	0.74	0.86	1.04	0.89	0.94	0.90	0.98	1.09	0.08

Source: Authors' calculation based on SITC Rev. 3 data (UN Comtrade Database, 2014)
Note: Revealed comparative advantages are shown if index is greater than 1

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