

Eurasian Studies in Business and Economics 5
Series Editors: Mehmet Huseyin Bilgin · Hakan Danis

Mehmet Huseyin Bilgin

Hakan Danis

Ender Demir

Ugur Can *Editors*

Country Experiences in Economic Development, Management and Entrepreneurship

Proceedings of the 17th Eurasia
Business and Economics Society
Conference



Springer

Eurasian Studies in Business and Economics 5

Series editors

Mehmet Huseyin Bilgin, Istanbul, Turkey

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Mehmet Huseyin Bilgin • Hakan Danis •
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Editors

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and Economics Society Conference

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Eurasia Business and Economic Society
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ISSN 2364-5067

ISSN 2364-5075 (electronic)

Eurasian Studies in Business and Economics

ISBN 978-3-319-46318-6

ISBN 978-3-319-46319-3 (eBook)

DOI 10.1007/978-3-319-46319-3

Library of Congress Control Number: 2016957838

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Printed on acid-free paper

This Springer imprint is published by Springer Nature

The registered company is Springer International Publishing AG

The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

This is the fifth issue of the Springer's series *Eurasian Studies in Business and Economics*, which is the official book series of the Eurasia Business and Economics Society (EBES, www.ebesweb.org). This issue includes selected papers presented at the 17th EBES Conference that was held in October 15–17, 2015, at the San Servolo Island in Venice, Italy, with the support of *Istanbul Economic Research Association*. All accepted papers for the issue went through a peer-review process and benefited from the comments made during the conference as well.

During the conference, participants had many productive discussions and exchanges that contributed to the success of the conference where 323 papers by 569 colleagues from 56 countries were presented. In addition to publication opportunities in EBES journals (*Eurasian Business Review* and *Eurasian Economic Review*, which are also published by Springer), conference participants were given the opportunity to submit their full papers to this Issue. We regret that we could accept only a small portion of those papers.

Theoretical and empirical papers in the series cover diverse areas of business, economics, and finance from many different countries, providing a valuable opportunity to researchers, professionals, and students to catch up with the most recent studies in a diverse set of fields across many countries and regions.

The aim of the EBES conferences is to bring together scientists from business, finance, and economics fields, attract original research papers, and provide them publication opportunities. Each issue of the *Eurasian Studies in Business and Economics* covers a wide variety of topics from business and economics and provides empirical results from many different countries and regions that are less investigated in the existing literature. The current issue covers fields such as:

1. International Trade
2. Growth and Development
3. Political Economy
4. Public Economics
5. SMEs and Entrepreneurship
6. Accounting and Audit
7. Finance and Risk Management
8. Management

Although the papers in this issue may provide empirical results for a specific country or regions, we believe that the readers would have an opportunity to catch up with the most recent studies in a diverse set of fields across many countries and regions and empirical support for the existing literature. In addition, the findings from these papers could be valid for similar economies or regions.

On behalf of the Volume Editors and EBES officers, I would like to thank *our sponsor Istanbul Economic Research Association*, all presenters, participants, board members, and keynote speakers, and we are looking forward to seeing you at the upcoming EBES conferences.

Istanbul, Turkey

Ender Demir

Eurasia Business and Economics Society

Eurasia Business and Economics Society (EBES) is a scholarly association for scholars involved in the practice and study of economics, finance, and business worldwide. EBES was founded in 2008 for the purpose of not only promoting academic research in the field of business and economics but also encouraging the intellectual development of scholars. In spite of the term “Eurasia,” the scope should be understood in its broadest terms as having a global emphasis.

EBES aims to bring worldwide researchers and professionals together through organizing conferences and publishing academic journals and increase economics, finance, and business knowledge through academic discussions. To reach its goal, EBES benefits from its executive and advisory boards which consist of well-known academicians from all around the world. Every year, with the inclusion of new members, our executive and advisory boards became more diverse and influential. I would like to thank them for their support.

EBES conferences and journals are open to all economics, finance, and business scholars and professionals around the world. Any scholar or professional interested in economics, finance, and business around the world is welcome to attend EBES conferences. Since 2012, EBES has been organizing three conferences every year: one in Istanbul (usually in late May or early June) and two in Europe or Asia (usually in January and October). Since our first conference, 4022 academic papers have been presented, and also, in a very short period of time, **EBES has reached 1569 members from 82 countries.**

Since 2011, EBES has been publishing two academic journals. One of those journals, *Eurasian Business Review*—EBR, is in the fields of industry and business, and the other one, *Eurasian Economic Review*—EER, is in the fields of economics and finance. Both journals are published biannually, and we are committed to having both journals included in SSCI as soon as possible. Both journals have been published by *Springer* since 2014 and are currently indexed in the Thomson Reuters Emerging Sources Citation Index, *EconLit*, *Google Scholar*, *EBSCO*, *ProQuest*, *ABI/INFORM*, *Business Source*, *International Bibliography of*

the Social Sciences (IBSS), OCLC, Research Papers in Economics (RePEc), Summon by ProQuest, and TOC Premier.

Furthermore, since 2014 Springer has been publishing a new conference proceedings series (***Eurasian Studies in Business and Economics***) which includes selected papers from the EBES conferences. The 10th, 11th, 12th, and 13th EBES Conference Proceedings have already been accepted for inclusion in the Thompson Reuters' ***Conference Proceedings Citation Index***, and subsequent conference proceedings are in progress.

On behalf of the EBES officers and Board, I sincerely thank you for your participation and look forward to seeing you at our future conferences.

With my very best wishes,

Jonathan Batten, PhD
President

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Part I

International Trade

Trade Competition Between Asia and the European Union in Africa

Wioletta Nowak

Abstract The paper studies trade in goods between the European Union (EU) and 54 African countries and between four Asian countries (China, India, Japan, and South Korea) and Africa over the period from 2000 to 2013. The analysis is based on the data retrieved from the UN Comtrade Database. The EU is a major trading partner for Africa. However, its role in Africa's trade has been declining since the beginning of the global crisis. On the other hand, a significant increase in Asia-Africa trade has been observed. Since 2006, bilateral trade of four Asian countries with 34 Africa's least developed countries (LDCs) have been surpassing trade of the EU with Africa's LDCs. Both, the European Union and Asian countries combine trade policy with development policy.

Keywords Merchandise trade • The EU-Africa trade • Asia-Africa trade • Development assistance • South-South cooperation

1 Introduction

The European Union is the most important trading partner for Africa. However, since the beginning of the global financial crisis it has been steadily losing its advantage over Asian giants in merchandise trade with African countries. In recent years, the expansion of trade between China and Africa has been observed. Since 2009, China has been the second largest (after the EU) trading partner for Africa. Besides, India and Japan have intensified their trade with African countries. The level of South Korea-Africa trade in goods is significantly lower compared to China-Africa, India-Africa or Japan-Africa trade but it has been constantly growing. The Asian countries not only compete between themselves for access to African resources, markets, influence on the African continent, and support on the international forum but also pose a threat for the EU's position and interests in Africa.

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The aim of the paper is to show the scale and trends in merchandise trade between the European Union and 54 African countries, and between four Asian countries (China, India, Japan, and South Korea) and Africa in the years, from 2000 to 2013. The analysis is based on the data retrieved from the UN Comtrade Database. Trade data for South Sudan are available from 2012 so in the study they are combined with data for Sudan and both countries are considered as one, called Former Sudan.

There are a lot of studies on trade between four Asian countries and Africa in the twenty-first century. For instance, China-Africa trade was examined by Lee et al. (2007), Large (2008), and Obuah (2012). Trade between India and Africa was studied by Geda and Meskel (2008), Broadman (2008), and Roy (2014). Cornelissen and Taylor (2000) and Cornelissen (2012) examined trade relations between Japan and Africa. Korea-Africa trade in the years 1998–2012 was analyzed by Kang (2014).

The main contribution of the paper to the discussion on the trade expansion of China, India, Japan, and South Korea in Africa is a presentation of their trade with African countries in comparison with trade between Africa and its largest trading partner.

2 Development of the EU-Africa and Asia-Africa Commercial Relations

Relations between Europe and Africa have evolved over the years. They were mainly determined by European colonialism, the Cold War, and various stages of enlargement of the European Economic Community (EEC) and then the European Union (Hurt 2010). The first institutional relations between six member states of the EEC and their former colonies in Africa were established in the Treaty of Rome in 1957. The Treaty created a free trade area between the EEC and Sub-Saharan Africa. Additionally, the EEC's member states established the European Development Fund (EDF) to provide development aid to African countries.

After independence, trade relations between the EEC and 18 African countries were regulated by the Yaoundé Conventions of 1963 and 1969. The Conventions maintained the system of preferential trade between the EEC and Sub-Saharan Africa and financial support through the EDF. Due to differences in economic potential between trading sides, Africa has become a market for the European goods. Besides, the Yaoundé Conventions were a continuation of post-colonial relations (Hurt 2003).

Since the second half of the 1970s, trade relations between the Western Europe and Sub-Saharan Africa were defined by Lomé I (1975), Lomé II (1979), Lomé III (1984), Lomé IV (1989) and Lomé IV-bis (1995) Conventions.¹ Europe has granted non-reciprocal trade preferences to Sub-Saharan Africa. African manufactured goods and agricultural products that were not covered by the Common Agricultural

¹The Conventions were signed by the African, Caribbean, and Pacific Group of States.

Policy gained duty-free access to the European market. Separate protocols guaranteeing prices and quotas for sugar, bananas, rum, and meat were implemented. The Lomé system was supplemented by System of Stabilization of Export Earnings (STABEX) and System of Stabilization of Export Earnings from Mining Products (SYSMIN). The critics of the Lomé trade regime mainly pointed out that it reinforced Sub-Saharan Africa's dependence on exports of a few primary commodities to Europe, did not contribute to an increase in the share of African countries in the trade with Europe, failed to stimulate development of African countries, and worked against the development of regional trade and cooperation links (Arts and Byron 1997). Besides, the Lomé trade preferences were not compatible with the WTO (World Trade Organization) Law.

In the twenty-first century, the trade relations between the European Union and African countries were defined by the Cotonou Agreement. It was signed on 23 June 2000 and replaced the Lomé Conventions. The Cotonou Agreement assumes that trade between the EU and Africa will be based on the principles of free trade and neoliberal orthodoxy. Since 2008, the EU has been negotiating the Economic Partnership Agreements (EPAs) with five groups of African countries (Central Africa, Eastern and Southern Africa, East African Community, Southern African Development Community, and West Africa). In 2009, Madagascar, Mauritius, Seychelles, and Zimbabwe signed interim EPA with the EU. Countries like Algeria, Egypt, Cameroon, Morocco, South Africa, Tunisia, and Côte d'Ivoire signed free trade agreements with the EU. The less developed African countries can negotiate EPAs or trade with the EU according to the Generalized System of Preferences or under 2001 Everything but Arms Programme.

China-Africa relations were negligible until the proclamation of the People's Republic of China in 1949. In the 1950s and 1960s, China's interest in Africa was mainly of political and ideological nature. Initially, China supported independence movements in Africa. After the Sino-Soviet split, it competed with the Soviet Union for influence in newly independent African countries. In order to achieve its objectives, China provided foreign assistance to Africa (Nowak 2015a).

Merchandise trade between China and Africa was low until the 1980s. Sino-African trade in goods began to improve in the late 1990s. China revived its bilateral relations with Africa based on commercial cooperation rather than ideological coalitions (Ebner 2015). A huge rise in China-Africa trade has been observed since the middle of the first decade of the twenty-first century. In development of trade relations between China and Africa key dates were 2000, 2003, and 2006. In 2000, China established the Forum on China-Africa Cooperation (FOCAC) at the ministerial conference in Beijing. Besides, it cancelled of RMB 10 billion of debts of heavily indebted poor countries and least developed countries in Africa. During the 2nd Ministerial Conference of FOCAC in 2003, China announced further increase in assistance for Africa and zero-tariff treatment to products exported to China from some Africa's LDCs.

In 2006, China decided to establish and develop a new type of strategic partnership with Africa featuring political equality and mutual trust, win-win economic cooperation, and cultural exchange. Moreover, the China-Africa Development

Fund was set up. At the end of 2006, Chinese leaders announced that the Export–import Bank of China would provide USD 2 billion in concessional loans and USD 3 billion in preferential export credits to African countries in the years 2007–2009 (Bräutigam 2011). During the following two Ministerial Conferences of FOCAC in 2009 and 2013, China declared to provide USD 10 billion in concessional/preferential credits to Africa in the years 2010–2012 and USD 20 billion of credit line from 2013. The main outcome of the 6th Ministerial Conference of FOCAC in 2015 was a new Declaration and Plan of Action (2016–2018) and a further USD 60 billion to Africa (Forum on China-Africa Cooperation 2015).

Generally, the basis for China-Africa economic cooperation is competitive political advantage, comparative economic advantage, and economic diplomacy and development assistance. China cooperates with African countries despite they are not democratic and do not respect human rights. Moreover, it does not interfere in domestic affairs of its partners. The comparative economic advantage stems from utilizing by China low-cost bidding strategy based on low skilled labor and managerial costs. The Chinese government diplomatically supports prestige projects in Africa and offers low-interest loans to China's trading partners (Alden 2008).

After India's independence in 1947, Jawaharlal Nehru laid the foundations for India's policy towards Africa. The first Prime Minister of India mainly focused on the support for struggle against colonization and apartheid, and the people of Indian origin in Africa. He intended to create friendly, cooperative, and mutually constructive relationships between India and African countries (Taylor 2012). India's friendship with African countries was further developed by Indira Gandhi and Rajiv Gandhi. Since the beginning of the 1960s, India-Africa relations were enhanced by Indian development assistance. India supported selected African countries under the Special Commonwealth African Assistance Programme and the Indian Technical and Economic Cooperation Programme.

In the 1970s and 1980s, Indo-African economic relations were limited due to the poor state of Indian economy and constraints imposed by the Cold War. Since the 1990s, India's policy towards Africa has been based on five pillars: developing economic cooperation, engaging the people of Indian origin, preventing and combating terrorism, preserving peace, and assisting the African defense forces (Beri 2003). In the late 2000s economic and trade relations between India and Africa were strengthened during the India-Africa Forum Summits. The First Summit was held in 2008 in New Delhi, India. It was followed by the 2nd India-Africa Forum Summit in 2011 in Addis Ababa, Ethiopia. The Third Summit was held in 2015, in New Delhi.

India, like China, uses foreign aid to develop its economic cooperation with Africa. In the 2000s, India extended lines of credit and grants for Africa. From 2004, African countries have been beneficiaries of Indian Development and Economic Assistance Scheme. Besides, India committed USD 5.4 billion at the First Summit, and USD 5 billion at the Second (Chakrabarti and Ghosh 2014). During the 3rd India-Africa Forum Summit, India promised to provide a further USD 10.6 billion in concessional loans and grants to Africa.

After World War II, Japan mainly imported mineral resources from Southeast Asia. Besides, the Japanese economy was closely tied with the North American

market. As a result, the African continent was of little significance to Japan. The major Japanese trading partner in Africa was South Africa. However, the level of trade between those countries was very low. In 1959, Japan's exports to South Africa were 1.5 % of its total exports while Japan's imports from that country were 1.0 % of its total imports (Osada 2002).

In the 1960s, Japan initiated its relations with the English-speaking African countries through Britain. Japan wanted to expand its exports to Africa and needed the British support to justify its presence in the region. Initially, the Commonwealth African countries imposed severe restrictions on imports from Japan. In order to reduce the trade friction, Japan started to provide development assistance to Africa. Ghana, Kenya, Nigeria, Tanzania and Uganda were among the first beneficiaries of Japanese aid on the African continent (Ampiah 2010). Japan developed its trade relations primarily with South Africa. In the sixties, it became the second largest market for the South African goods. From 1960 to 1972, Japanese-South African trade increased more than five times. In the late 1980s, Japan was South Africa's largest trading partner, despite the fact that South Africa was under apartheid rule protests of racial discrimination (Alden 2002).

The economic links between Japan and Africa were strengthened after the 1973 and 1979 oil crises. The search for new suppliers of natural resources and raw materials resulted in new Japan's foreign policy towards resource-rich African continent. To enhance its trade and economic relations, Japan increased development assistance to Africa. By 1990, it became one of the Africa's top bilateral donors (Cornelissen 2012). Japan directed its assistance mainly to Egypt, Tanzania, Kenya, Nigeria, Ghana, and Zambia. In the first decade of the twenty-first century, Japanese foreign aid declined due to economic recession in Japan (Nowak 2015b).

Between the 1960s and 1990s, Japan-Africa relations were determined by the international power struggles between the Western Bloc (the United States and allies) and the Eastern Bloc with the Soviet Union (Morikawa 2005). The end of the Cold War was a turning point in Japan's policy towards Africa. In 1993, the Japanese government initiated the Tokyo International Conference on African Development (TICAD). The TICAD has been held every 5 years since its inception. The conferences aim to enhance economic and trade relations with African countries through development cooperation. Japan uses the conferences to announce its foreign aid policy towards Africa. For instance, during the TICAD V (2013) Japan's Prime Minister declared a 5-year USD 32 billion package for African countries (Ministry of Foreign Affairs of Japan 2013).

Historically, economic and political contacts between South Korea and Africa were limited. Korea began to establish diplomatic relations with African countries in the early 1960s. In 1961, it established relations with Côte d'Ivoire, and then subsequently with Niger, Benin, Chad, and Cameroon. During the Cold War period Korea's relations with Africa were determined by its diplomatic competition with North Korea. In the 1990s, Africa was a low priority in the Korean foreign policy. Instead, Korea began to develop its relations with China, Russia, and Eastern European Countries. Since the beginning of the twenty-first century, economic cooperation between Korea and Africa has been actively developed. Resource-

rich African countries have become attractive trading partners for Korea due to its deep concerns regarding energy security (Hwang 2014).

The new phase in South Korea-Africa relations started in 2006. The Korean President launched the Korea's Initiative for Africa's Development during his visit to Nigeria. Besides, the Korea Africa Economic Cooperation (KOAPEC) Ministerial Conference was held in Seoul. Since its inception in 2006, the KOAPEC has become the permanent framework for economic cooperation between Korea's Ministry of Strategy and Finance (MOSF) and the African Development Bank (AfDB). During the conferences a series of Korea's assistance packages were announced. For instance, in 2009, the MOSF promised to provide to the AfDB USD 306.1 million. In 2010, it declared a further USD 200 million. During the 4th KOAPEC, Korea offered USD 590 million to the AfDB in 2013–2014 (Ministry of Strategy and Finance 2012). Korea-Africa relations are also developing during Korea-Africa Forums led by the Ministry of Foreign Affairs and Trade of the Republic of Korea.

Recent South Korea's engagement in Africa is driven mainly by the pursuit of energy and food security, the establishment of new markets for Korean manufactured goods, and the enhancement of its credentials as a prominent global power (Darracq and Neville 2014).

3 Main Characteristic of the EU-Africa and Asia-Africa Trade in Goods

Since the beginning of the twenty-first century, the value of bilateral merchandise trade between 25 countries of the European Union (EU25) and Africa increased approximately three times, from USD 139.3 billion in 2000 to USD 425.7 billion in 2013. It grew annually at 8.3 %. The value of bilateral trade in goods of four Asian countries (Asia4) with Africa increased over 10 times, from USD 32.5 billion in 2000 to USD 338.0 billion in 2013. It has been growing annually at 18.2 %. In 2000, bilateral trade of the EU25 with Africa was 4.3 times bigger than Asia-Africa one, while in 2013 only 1.3 times. Differences in the EU25-Africa and Asia4-Africa total trade have been gradually decreasing since 2008 (Fig. 1).

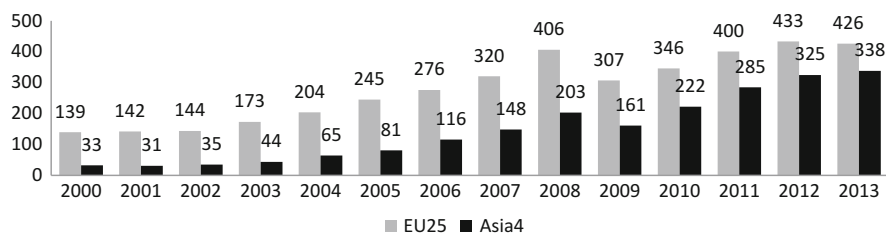


Fig. 1 Merchandise trade of the EU25 and Asia4 with Africa, 2000–2013 (USD billion). Source: Own calculations based on data retrieved from <http://comtrade.un.org/data/>

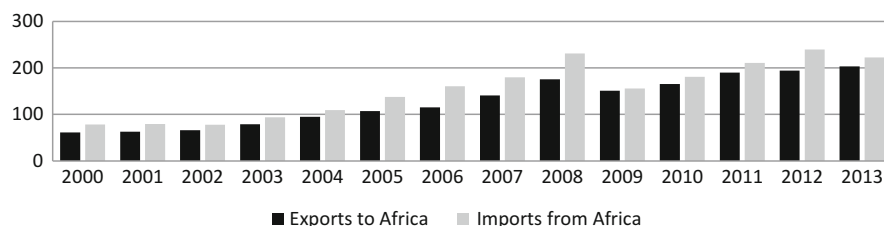


Fig. 2 Merchandise trade of the EU25 with Africa, 2000–2013 (USD billion). Source: Own calculations based on data retrieved from <http://comtrade.un.org/data/>

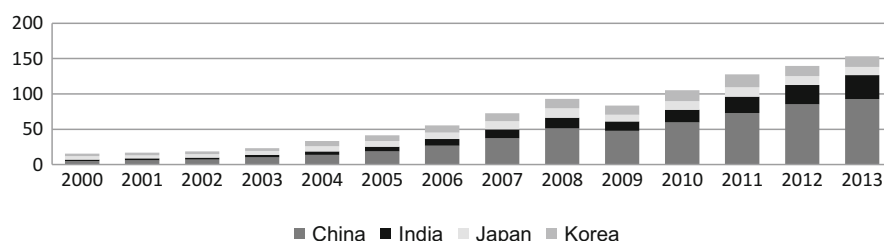


Fig. 3 Merchandise exports of four Asian countries to Africa, 2000–2013 (USD billion). Source: Own calculations based on data retrieved from <http://comtrade.un.org/data/>

Africa is more strategic trading partner for the EU25 than for Asia4. It accounted for 8.2 % of the European Union total trade in 2000 and for 9.3 % in 2013. In the years from 2000 to 2013, African countries more than doubled their share in Asia's total trade. Africa accounted for 1.8 % of Asia4's trade with the world in 2000 while 4.5 % in 2013.

The EU's exports to African countries jumped from USD 61.1 billion in 2000 to USD 175.3 billion in 2008, and USD 203.3 billion in 2013. The European imports from Africa increased from USD 78.2 billion in 2000, to USD 231.0 billion in 2008, and reached the value of USD 222.4 billion in 2013. In the period 2000–2008, the EU25's exports to Africa grew annually at 12.4 % and imports at 12.8 % while from 2009 to 2013, exports grew at 6.1 % and imports at 7.4 %. In 2009, the European exports to Africa decreased by USD 24.4 billion and imports by USD 75.4 billion (Fig. 2).

Asia4's exports in goods to Africa jumped from USD 15.4 billion in 2000, to USD 93.1 billion in 2008, and USD 153.3 billion in 2013. The Asian imports from Africa grew faster than the exports. At the beginning of the twenty-first century, four Asian countries imported goods from Africa of the value of USD 17.1 billion. The Asian imports were worth USD 110.2 billion in 2008 and USD 184.7 billion in 2013. From 2000 to 2008, Asia4's exports to Africa grew annually at 22.1 % and imports at 23.0 % while in the years 2009–2013, exports grew at 13.0 % and imports at 18.8 %. In 2009, the Asian exports to Africa decreased by USD 9.7 billion and imports by USD 32.1 billion (Figs. 3 and 4).

China is the most important Asian trading partner for Africa. In the years from 2000 to 2013, the value of China's exports in goods to Africa was approximately 3.0 times bigger than India's ones and the Chinese merchandise imports surpassed Indian about 2.4 times. Details about trade in goods between the Asian countries and Africa are presented in Table 1.

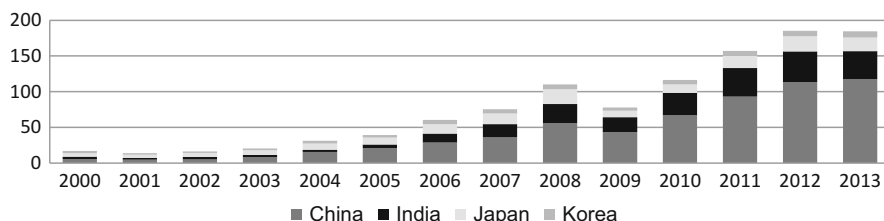


Fig. 4 Merchandise imports of four Asian countries from Africa, 2000–2013 (USD billion). Source: Own calculations based on data retrieved from <http://comtrade.un.org/data/>

Table 1 Trade between four Asian countries and Africa, 2000–2013

Country	Exports of goods to Africa					Imports of goods from Africa				
	Value (USD billion)			Annual growth rate (%)		Value (USD billion)			Annual growth rate (%)	
	2000	2008	2013	2000–2008	2009–2013	2000	2008	2013	2000–2008	2009–2013
China	5.0	51.1	92.6	29.4	14.2	5.6	56.0	117.5	29.3	22.1
India	2.2	15.4	34.1	24.2	20.7	3.5	26.6	39.4	25.5	13.3
Japan	4.9	13.3	11.4	11.7	3.8	4.9	21.0	19.1	17.4	16.0
South Korea	3.3	13.3	15.3	16.8	3.3	3.2	6.6	8.7	8.4	14.3

Source: Own calculations based on data retrieved from <http://comtrade.un.org/data/>

Trade relations between the EU25 and Africa and Asia4 and Africa create and sustain the asymmetry between those regions and the net-winner and net-loser African countries. During the considered 14 years, the EU25 recoded a trade deficit with 19 African countries, while Asia4 imported more goods from 18 African countries than it exported to.

The EU25 trades mainly with the Northern Africa.² In the years 2000–2013, the Northern Africa accounted for 52 % of exports to the EU25 and 49 % of imports from the European Union. From 2009, the EU25 slightly decreased its trade with that region in Africa. The Western and Northern Africa were the largest regional markets for Asian commodities with the share of 58 %. The Asian countries imported goods mainly from the Central and Southern Africa. Those regions supplied nearly 63 % of all goods to Asia (Table 2).

There are similarities between the EU-Africa and Asia-Africa trade in goods. In the years 2000–2013, the top five importers from Africa accounted for nearly 62 % of the EU25's exports to the continent while the top five African exporters

²The African countries are classified into the following regions: **Northern Africa** (6 countries): Algeria, Egypt, Libya, Morocco, Former Sudan, Tunisia; **Western Africa** (16 countries): Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo; **Central Africa** (9 countries): Angola, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of Congo, Equatorial Guinea, Gabon, São Tomé and Príncipe; **Eastern Africa** (17 countries): Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, Seychelles, Somalia, Tanzania, Uganda, Zambia, Zimbabwe, **Southern Africa** (5 countries): Botswana, Lesotho, Namibia, South Africa, Swaziland.

Table 2 The EU25's and Asia4's trade with African regions

Region	The EU25's trade with African regions				Asia4's trade with African regions			
	2000–2013		2009–2013		2000–2013		2009–2013	
	European exports	European imports	European exports	European imports	Asian exports	Asian imports	Asian exports	Asian imports
Northern Africa	48.82 %	52.31 %	48.57 %	50.00 %	27.02 %	18.25 %	26.18 %	16.25 %
Western Africa	18.76 %	16.73 %	19.56 %	20.32 %	30.72 %	14.57 %	31.20 %	14.87 %
Central Africa	7.91 %	9.08 %	8.47 %	10.19 %	6.56 %	31.64 %	6.79 %	32.12 %
Eastern Africa	5.69 %	4.86 %	5.53 %	4.38 %	15.20 %	4.26 %	16.49 %	4.41 %
Southern Africa	18.82 %	17.03 %	17.86 %	15.12 %	20.50 %	31.28 %	19.35 %	32.34 %

Source: Own calculations based on data retrieved from <http://comtrade.un.org/data/>

Table 3 The share of top trading partners in the EU25's and Asia4's total trade with Africa

Number of top trading partners	EU25				Asia4			
	2000–2013		2009–2013		2000–2013		2009–2013	
	African importers	African exporters	African importers	African exporters	African importers	African exporters	African importers	African exporters
5	61.6 %	66.7 %	60.8 %	66.4 %	55.5 %	72.3 %	54.2 %	73.2 %
10	81.2 %	85.5 %	81.2 %	86.0 %	72.9 %	86.5 %	72.3 %	87.1 %
20	91.2 %	95.0 %	91.0 %	95.6 %	90.2 %	95.9 %	89.5 %	96.3 %

Source: Own calculations based on data retrieved from <http://comtrade.un.org/data/>

accounted for 67 % of the European imports from Africa. Correspondingly, 56 % of Asia's exports in goods were directed to five African countries while 73 % of Asia's imports came from five African countries. Principally, the EU25 and Asia4 trade with 10 African countries (Table 3).

According to the value of bilateral trade, in the years from 2000 to 2013, the most important EU25's trading partners were South Africa (16.3 % of the EU25-Africa total trade), Algeria (15.4 %), Libya (11.1 %), Nigeria (9.7 %), and Morocco (8.7 %). Four Asian countries traded mainly with South Africa (25.5 % of Asia4-Africa total trade), Angola (12.6 %), Nigeria (10.7 %), Egypt (6.9 %), and Former Sudan (4.8 %). The rankings of top ten African importers from the EU25 and Asia4, and African exporters to those regions are presented in Table 4.

Both, the EU25 and Asia4 mainly import mineral resources and raw materials from Africa and export manufactured goods.

China, India, Japan, and Korea have become more and more important trading partners for Africa. Over the period from 2000 to 2008, four Asian countries exported more goods than the EU25 to 12 countries and imported more goods from 9 countries in the region. From 2009 to 2013, the Asian merchandise exports to Africa surpassed the European ones in 21 countries, while imports in 20 countries (Table 5).

Table 4 Top ten the EU25's and Asia4's African trade partners, 2000–2013 (USD billion)

Rank	African importers from			African exporters to		
	EU25		Asia4	EU25		Asia4
	Country	Value	Country	Value	Country	Value
1	South Africa	327.6	South Africa	192.6	Algeria	380.8
2	Algeria	227.3	Nigeria	106.1	Libya	361.5
3	Morocco	209.0	Egypt	103.3	South Africa	318.2
4	Egypt	189.1	Liberia	81.9	Nigeria	238.8
5	Tunisia	159.4	Algeria	59.6	Tunisia	138.8
6	Nigeria	145.5	Kenya	42.6	Morocco	133.8
7	Libya	79.2	Angola	36.2	Egypt	109.3
8	Angola	63.8	Morocco	34.0	Angola	73.5
9	Ghana	32.8	Ghana	30.4	Côte d'Ivoire	47.6
10	Senegal	32.6	Former Sudan	27.4	Equatorial Guinea	40.6
					Gabon	20.4

Source: Own calculations based on data retrieved from <http://comtrade.un.org/data/>

Table 5 African countries for which Asia4 was more important trading partner than the EU25

Period	Exports of goods	Imports of goods
2000–2008	Liberia, Benin, Kenya, Former Sudan, Djibouti, Tanzania, Lesotho, Somalia, Swaziland, Togo, Gambia, Mozambique	Angola, Former Sudan, Congo, Zambia, Benin, Guinea-Bissau, Burkina Faso, Chad, Somalia
2009–2013	Liberia, Kenya, Tanzania, Former Sudan, Benin, Mozambique, Djibouti, Ethiopia, Ghana, Mauritius, Zambia, Uganda, Zimbabwe, Somalia, Gambia, Malawi, Lesotho, Togo, Madagascar, Swaziland, Eritrea	Angola, South Africa, Former Sudan, Zambia, Congo, Democratic Republic of Congo, Gabon, Mauritania, Tanzania, Benin, Sierra Leone, Mali, Guinea-Bissau, Chad, Burkina Faso, Gambia, Somalia, Rwanda, Eritrea, Zimbabwe
2000–2013	Liberia, Kenya, Tanzania, Benin, Former Sudan, Djibouti, Mozambique, Ethiopia, Zambia, Somalia, Lesotho, Gambia, Uganda, Zimbabwe, Togo, Malawi, Swaziland	Angola, Former Sudan, Congo, South Africa, Zambia, Gabon, Democratic Republic of Congo, Benin, Mauritania, Guinea-Bissau, Burkina Faso, Chad, Mali, Tanzania, Gambia, Somalia, Sierra Leone, Eritrea

Source: Own calculations based on data retrieved from <http://comtrade.un.org/data/>

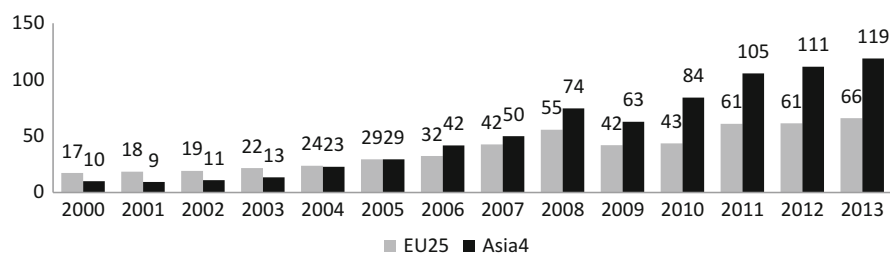


Fig. 5 Total merchandise trade of the EU25 and Asia4 with 34 Africa's LDCs, 2000–2013 (USD billion). Source: Own calculations based on data retrieved from <http://comtrade.un.org/data/>

Besides, bilateral trade of four Asian countries with 34 Africa's least developed countries have been surpassing trade of the EU25 with Africa's LDCs since 2006 (Fig. 5).

4 Conclusion

The European Union is a major trading partner for 54 African countries. However, its role in Africa's trade has been declining since the beginning of the global crisis. On the other hand, a significant increase in Asia-Africa trade has been observed. Since 2006, bilateral trade of four Asian countries (China, India, Japan, and South Korea) with 34 Africa's least developed countries have been surpassing trade of the EU with Africa's LDCs.

Trade relations between the EU and Africa are very complicated. The EU negotiates agreements with individual African countries, groups of countries, and the African Union. It declares partnership, insists on multilateral trade liberalization by African countries but at the same time protects its own market. The EU provides more and more development assistance to African countries. However, its assistance is highly conditional.

The Asian countries treat African countries as equal partners, do not interfere in their domestic affairs, and they (first of all China and India) develop the South-South cooperation. Besides, they systematically increase their development assistance to African countries without political conditions.

Both, the EU and the Asian countries, in order to increase their trade with Africa, combine trade policy with development policy. However, it seems that the Asian countries do it in a more efficient way.

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Central Asian Integration and Its Impact on Regional Trade and Economy

Bulat Mukhamediyev and Azimzhan Khitakhunov

Abstract Central Asian region includes five Former Soviet Union republics such as Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan. All countries follow totally different national development strategies. While Kazakhstan and Kyrgyz Republic are outward looking and the most integrated to world economy, Turkmenistan and Uzbekistan keep isolationism policy. Since 1991 many Preferential Trade Agreements have been signed in Central Asia. However, the countries could cooperate in only a few areas. Majority of these agreements led to more conflicts and contradictions, which became the beginning of Central Asian disintegration. All countries of the region in their trade policies have largely followed the path of policy autonomy. Thus, this paper analyzes the impact of integration agreements on the regional trade and economy of Central Asia with the special focus on Kazakhstan. The paper also covers the analysis of possible impact of the newly created Eurasian Economic Union (EAEU) and the World Trade Organization (WTO) on Central Asian countries, taking into consideration that Kazakhstan and Kyrgyz Republic are the member countries of EAEU.

Keywords Regional integration • Central Asia • Kazakhstan • International trade

1 Introduction

Independence came to Central Asian (CA) countries after the dissolution of the Soviet Union in 1991. In the Soviet Union the CA countries played the role of raw materials producers, mainly oil, natural gas, metals and cotton. The first decade of independence brought breakdown of Soviet economic links, economic decline, currency crises, and hyperinflation. But after 2000, economic growth of CA countries was rapid. This growth came due to oil boom, growth of trade with China, growth of investment, increase in migrant remittances, and minor success in economic management (Linn 2009).

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© Springer International Publishing AG 2017

M.H. Bilgin et al. (eds.), *Country Experiences in Economic Development, Management and Entrepreneurship*, Eurasian Studies in Business and Economics 5, DOI 10.1007/978-3-319-46319-3_2

Kazakhstan as the holder of huge stock of natural resources achieved economic leadership in the CA region thanks to oil boom. Uzbekistan, after the decline of world prices to its main commodities gave up the regional leadership and became one of the highest state controlled countries. Turkmenistan, one of the richest natural gas holders in the world, continues its economic and political isolationism and internal populist policy. Tajikistan after a bitter civil war became one of the poorest countries, and mostly depends on migrant remittances mainly from Russia. The Kyrgyz Republic despite the political turbulence became one of the most liberal countries of the region.

Many Preferential Trade Agreements (PTAs) have been signed in the CA region. But more organizations led to more conflicts and contradictions, which became the beginning of disintegration. The CA countries have in their trade policies followed the path of policy autonomy and became greater integrated into global than regional markets (Pomfret 2009). Thus, the basic questions are (a) why regionalism failed in Central Asia, and (b) how it impacted on regional trade and economy? Section 2 gives an overview of CA economies. Section 3 analyzes the results of regionalism in CA. It also covers the analysis of CA transport integration and the impact of the EAEU and WTO on CA countries. The last section concludes.

2 Review of Central Asian Economies

Central Asia is a small market with a small share in the world trade (Table 1). The structure of national economies (Table 2) shows that CA countries are semi-industrialized. Since the end of the Soviet period, the share of services in CA countries' GDP increased, substituted mainly by decreased share in agriculture. In CA, jobs are increasingly leaving agriculture for urban services. For instance, Kazakhstan experienced solid job creation between 2003 and 2013, with gains in services, mainly in trade. Kazakhstan's economy added about 1.5 million jobs, with the high rate of self-employment and low rate of unemployment. According to World Bank (2015), agriculture was the only sector with employment declined by 14 % in absolute terms.

Table 1 Share of Commonwealth of Independent States (CIS) and Central Asia (Kazakhstan) in the world trade, %

Indicator	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CIS/World	2.65	2.99	3.25	3.40	3.98	3.32	3.56	3.94	4.01	3.86
CA/World	0.30	0.34	0.40	0.45	0.54	0.48	0.50	0.57	0.57	0.56
Kazakhstan/ World	0.20	0.24	0.28	0.30	0.38	0.30	0.35	0.40	0.40	0.38

Source: Author's calculations based on UNCTAD statistics

Table 2 Economic structure of Central Asian countries, 2014 (% of GDP)

	Agriculture	Industry	(Manufacturing)	Services
Kazakhstan	4.6	35.9	11.2	59.4
Kyrgyz Republic	17.3	26.7	15.2	56.0
Tajikistan	27.4	21.7	11.2	50.8
Turkmenistan	14.5	48.4	n.a.	37.0
Uzbekistan	18.8	33.7	13.2	47.5

Source: World Bank World development indicators, <http://data.worldbank.org/data-catalog/world-development-indicators>

Note: For Tajikistan—data from 2013; for Turkmenistan—data from 2012; n.a.—not available

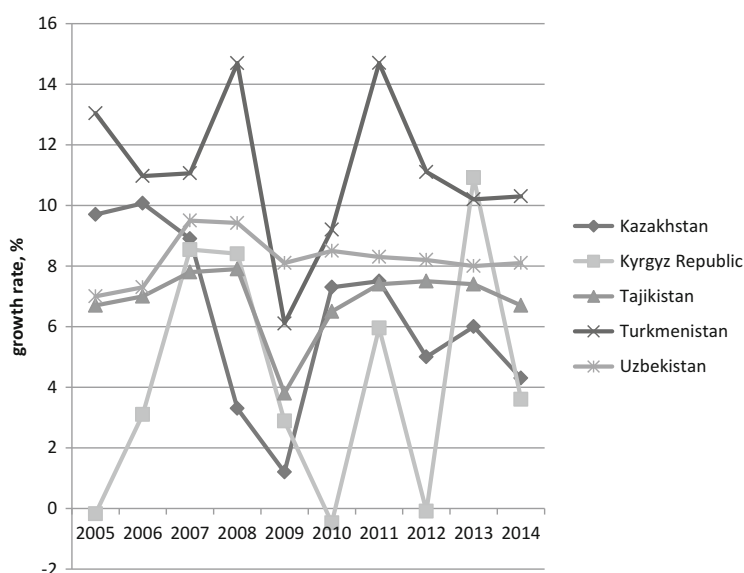


Fig. 1 Annual GDP growth rate in CA, %. Source: World Development Indicators, <http://data.worldbank.org/data-catalog/world-development-indicators>

Basically the CA economies are raw materials suppliers. The economic growth of these countries is highly dependent on the world market shocks. Overdependence on raw materials exports with the simultaneously decreasing agriculture increases the vulnerability of the national economies of CA states. Decrease in raw materials prices can be catastrophic for Turkmenistan and Kazakhstan. Current world economic slowdown and oil market crisis negatively impacted on the regional economic growth (Fig. 1). As a result of lower raw materials exports, domestic spending was constrained. Russia's economic slowdown decreased remittance flows to the Kyrgyz Republic and Tajikistan. As the result of energy market shocks and external pressure, average growth in CA is expected to fall further to 3.5 % (Asian Development Bank (ADB), 2015).

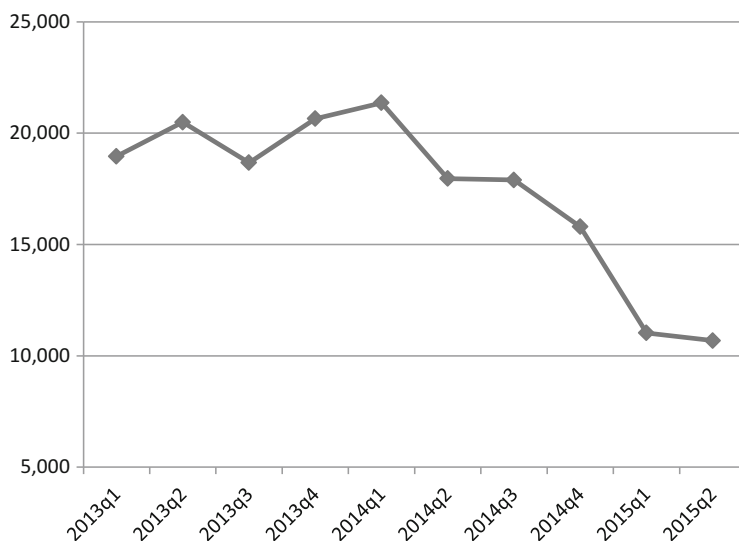


Fig. 2 Quarterly export of Kazakhstan, mln. USD. Source: Kazakhstan's Customs Control Committee, <http://e.customs.kz/wps/portal/customs/>

Kazakhstan's GDP growth slowed in 2014 due to fall in oil prices and weak demand from China and Russia for its metals and metal products. It fell from 6.0 % in 2013 to an estimated 4.3 % in 2014, and is projected to drop to 1.3 % in 2015.¹ For 2010–2013, real GDP growth averaged 6.5 % due to favorable external market conditions.

Fall in oil prices affected investor confidence in Kazakhstan's economy. Growth of investment slowed from 6.2 % in 2013 to about 2 % in 2014. Lower export (Fig. 2), especially oil and metals export revenues are likely to translate into current account and fiscal deficits (World Bank 2015). In November 2014, due to economic slowdown and crisis, a countercyclical program NurlyZhol was accepted which stipulated raising the National Fund for the Republic of Kazakhstan by 3 billion USD per year to support the national economy. Assets of the National Fund which consists of the country's petroleum earnings are going to be used for government's anti-crisis program. To attract new investment and to support its financial market Kazakhstan sold 6.5 billion USD in Eurobonds in 2014–2015. After several currency devaluations, in August 2015 Kazakhstan moved to floating exchange rate with significant loss of its currency value (ADB 2015).

According to ADB (2015), in Kyrgyz Republic growth slowed to 3.6 % in 2014 as the economies of its biggest trade partners such as Russia and Kazakhstan weakened. Due to economic decline expected in Russia, growth will likely slow further to 1.7 % in 2015. Drop in gold production (production at the main Kumtor

¹World Bank (2015) forecasts that Kazakhstan will achieve economic growth at 2.8 % in 2016 and 3.9 % in 2017 if oil prices fluctuate from 57 to 61 USD per barrel.

gold mine declined by 16 %), weaker sales of fruit, vegetables, and textiles caused export decline by 6.3 %. This decline cut GDP growth by two-thirds to 3.6 % in 2014 from 10.9 % in 2013. As a result, the Kyrgyz currency depreciated in 2014 by 19.1 %. Kyrgyz Republic is highly dependent on migrant remittances, mainly from Russia. The total amount of remittances (which is declined by an estimated 5 % to \$1.8 billion) is equal to about a quarter of GDP.

Tajikistan's economy also shows economic slowdown due to declines in remittances (which are equivalent to almost half of GDP) and the traditional exports of aluminum and cotton. Currency depreciation in Russia, which hosts up to 90 % of the 1 million Tajik migrant workers also negatively impacted on economic growth in Tajikistan. As a result, growth slowed to 6.7 % in 2014 from 7.4 % a year earlier. It is estimated that a 1 % point reduction in the GDP of Russia causes a 1 % point GDP contraction in Tajikistan.

Turkmenistan and Uzbekistan achieved the highest economic growth in the region. The corresponding rates were 10.3 % and 8.1 % in 2014. Mineral resources which grew by 6.1 % in 2014 represent more than 90 % of Turkmenistan's exports. However, despite the fall in energy prices and lack of investor confidence Turkmenistan could attract more than 4 billion USD of foreign direct investment. As the result of external pressure the government devalued the currency by 19 % to keep non-energy exports competitive. Russia's economic decline negatively impacted on economic growth of Uzbekistan and its migrants. Remittances from Russia decreased. In response, Uzbekistan adopted a special labor program for returning migrants. Both countries are realizing strategic programs in energy. While Uzbekistan completed a key branch of the gas pipeline linking CA to China, Turkmenistan announced the start of Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline.

High dependence on raw materials became the main reason of economic slowdown in the current period in CA. The region is also affected by economic decline and less demand from its biggest trading partners such as Russia and China. The current crisis should create new opportunities not only to diversify national economies, but also to find new markets. Moreover, CA countries could strengthen bilateral economic relations to increase market size and liberalize regional economy.

3 Regionalism in Central Asia

The regionalism debate is too vast to review it in detail. There are debates between multilateralists (Bhagwati 1992; Panagariya 1999, 2000) and regionalists, economists and policymakers, public opinion and experts. The term "economic integration" refers to both a process and a state of affairs. As a process it covers measures designed to abolish discrimination between economic units belonging to different national states; as a state of affairs it is the absence of various forms of discrimination between national economies (Sapir 2011). Regionalism may be explained by following economic motives: preferential treatments could serve as bargaining

tools, positive effects of terms of trade changes, easiness of formation (Pomfret 1986; Baldwin 1997), as well as for political and social reasons, or other explanations such as the “domino theory of regionalism” (Baldwin 1997). The effects of regionalism can be divided into static and dynamic. Static effects center on trade creation and trade diversion concepts. The net advantage of the regional integration is indicated as the balance of created and diverted trade. The dynamic gain of regional integration is the facilitation of deep integration processes, including harmonization of wide range of policies. Dynamic effects are also linked with market extension (Sapir 2011).

In CA many PTAs have been signed since independence. These PTAs are even harder to track, as some of them have not been implemented, and probably too short, because some agreements may have been omitted. These often overlapping agreements, to the extent that they envisage preferential treatment of regional or bilateral trade, exhibit a spaghetti bowl effect (Pomfret 2009; UNDP 2005). All CA countries are members of the CIS, which made no progress in trade and economic liberalization. In 1994, Kazakhstan, the Kyrgyz Republic and Uzbekistan created the Central Asian Economic Union which evolved into the Central Asian Economic Community (CAEC) with the joining of Tajikistan in 1998. It is counted that more than 250 resolutions were passed at the CAEC meetings by the presidents which tried to contribute in tax harmonization and double taxation elimination. But these attempts also failed. As a result, the CAEC had insignificant impact on intra-regional trade.

After the CAEC fail, in February 2002 the Central Asian Cooperation Organization (CACO) was proposed as its successor. But the CACO’s founding agreement was based on poor institutions. After May 2004 when Russia became a CACO member, the CACO and the Eurasian Economic Community (EAEC) merged.

The Special Programme for the Economies of Central Asia (SPECA) was launched in 1998 and had no intention of promoting PTA. It aimed to support the CA countries cooperation in order to both stimulate their economic development and facilitate their integration with the economies of Asia and Europe. Due to no self-funding mechanism and incomplete participation of Turkmenistan and Uzbekistan, SPECA’s achievements have been minimal and it became divisive rather than uniting for the CA region. Thus, intentions to harmonize external trade policies have been practically fruitless (Pomfret 2009). In 2007 the president of Kazakhstan proposed the idea of Central Asian Union, but it was rejected by Turkmenistan and Uzbekistan.

The impact of all of PTAs signed in CA has been minimal. Nevertheless, the CA bilateral trade tends to increase (Fig. 3). But the region is highly dependent on trade with Russia due to Soviet economic ties. For each of the CA republics, trade with Russia and Ukraine is far more important than trade with each other. These trade links are still important, despite the decline in volume of trade. This can be proved by statistical data. According to Agency of statistics of Kazakhstan, in 2013 Ukraine’s share in international trade of Kazakhstan was 3.3 % (which decreased to 2.4 % in 2014 due to political and economic crises in Ukraine). Share of Ukraine’s import in total import of Kazakhstan was 4.6 %, and Kazakhstan’s export to Ukraine was 2.5 % of total international export. Bilateral trade between Kazakhstan and Ukraine was

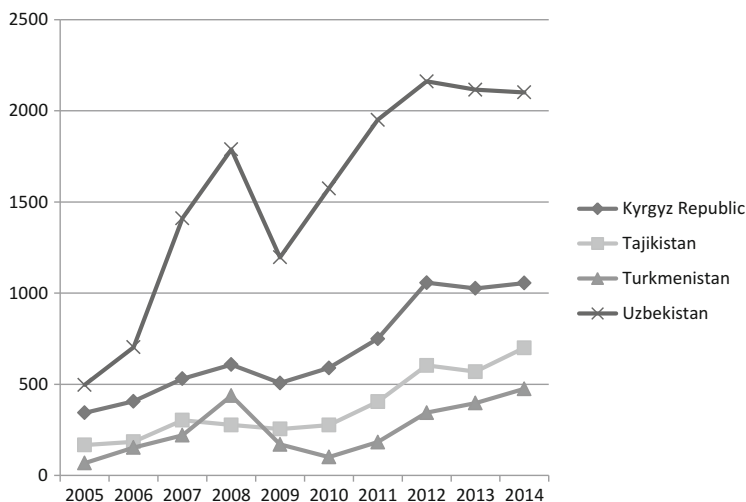


Fig. 3 Kazakhstan's total bilateral trade with CA countries, mln. USD. Source: UN Comtrade, <http://comtrade.un.org/data/>

higher than trade between Kazakhstan and other CA countries. In 2013 only 1.4 % of Kazakhstan's export went to Uzbekistan, and 2 % of Kazakhstan's import came from Uzbekistan and this is the largest intra-regional trade flow. The share of other Central Asian countries is less than 1 %. Commonly, in 2013 Central Asian share in Kazakhstan's total trade was 3.1 %, but in 2014 it increased to about 4 %. Nonetheless, this level is extremely low for possible further integration.

Why the integration attempts of CA countries failed? The reasons of integration failure are either political or economical. PTAs were cheap ways of signaling political alignments; hence the political twists and turns work against the establishment of any strong regional organization. Moreover, the CA largest countries such as Kazakhstan and Uzbekistan used the PTAs as a foreign policy instrument. Thus, it is difficult to assess the effectiveness of this policy.

Economic reasons of CA integration failure are also strong. Likelihood of trade diversion is the principle argument of PTA failure. Each of the CA country wanted to expand the market for its own industries without giving a preferential status to their neighbors' manufactured goods. Tariffs on import protected domestic market from lower-cost or higher-quality imports of neighbor countries' industries. Moreover, PTAs were not in interest as they could lead to tariff revenue losses for importing countries (Pomfret 2009).

The Customs Union (CU) of Belarus, Kazakhstan and Russia established in 2010 and the Eurasian Economic Union established in 2015 with the inclusion of Armenia and the Kyrgyz Republic could be seen as a new generation of regional organizations in Eurasia. It was recognized as the most effective integration process in the post-Soviet area (Czerewacz-Filipowicz 2016). The EAEU is an international organization for regional economic integration with international legal personality

and it was established by the Treaty on the Eurasian Economic Union. It provides free movement of goods, services, capital and labor, pursues coordinated, harmonized and single policy in the sectors determined by the Treaty and international agreements within the Union. It is governed by the Supreme Eurasian Economic Council which includes the presidents of member countries, Eurasian Intergovernmental Economic Council which consists of member countries' prime ministers, Eurasian Economic Commission and the Court of the EAEU. This organization is frequently discussed today from the perspective of the studies of Russian foreign policy, economic modernization, internal politics and political and economic ideologies of post-Soviet countries, as well as changing shape of the global politics and crises (Libman 2015).² Two CA countries as Kazakhstan and Kyrgyz Republic are the members of the EAEU. The motives of Kazakhstan were the market liberalization through the competition within organization; Kyrgyz Republic was mainly driven by the interests of its migrant workers in Russia. The EAEU strongly affected the regional economy. Russia unchanged 82 of its customs tariffs, lowered 14 % and increased 4 % of its tariffs. The corresponding shares for Kazakhstan were 45 %, 10 % and 45 %. In 2009, simple average MFN applied tariff for Belarus, Kazakhstan and Russia were equal to 10.6 %, 5.9 % and 10.5 % respectively (WTO 2010). Estimates of the Customs Union's effects are ambiguous. Mogilevskii (2012) estimated the additional revenue from increased tariffs by at least 1.4 billion dollars in 2011. Laruelle and Peyrouse (2012) pointed out that the price of importing Western equipment will be significantly increased for Kazakhstan, therefore Kazakhstan's competitiveness will be reduced and the most innovative sectors will be negatively affected. In Kyrgyz Republic as the result of CU formation, there was a reduction in the number of wholesale traders by 70–80 % and 30–40 % in retail traders, and, as a consequence, decline in re-exporting activity. World Bank (2012) estimated that Kazakhstan's collected tariff revenues approximately doubled. In other way, due to implementation of common external tariffs it will lose about 0.2 % in real income per year as a result of participation in the CU. However, CU could produce a net benefit, if it can achieve a successful outcome on trade facilitation and non-tariff barriers. Tariff revenues collected in Kyrgyzstan will increase due to higher rates. It will capture 1.9 % of the total tariff revenues of EAEU, which is expected to result in an increase in customs revenue by 1.5 % points of GDP for 2016 (according to the Kyrgyz authorities' estimates). The macroeconomic effects of joining EAEU are negative and small for the Kyrgyz

²Despite the idea of the Eurasian Union was proposed by the president of Kazakhstan, the EAEU is recognized as the Russia-led integration. Internal conflicts within CA, different strategies of development and competition between Kazakhstan and Uzbekistan made the CA integration hardly possible. Thus, Great Powers such as Russia with the EAEU or China with the Shanghai Cooperation Organization (SCO) push the region for further integration and cooperation. China-led SCO is not an economic integration. Its major goal is tackling the three evil forces such as extremism, international terrorism and separatism. Despite this, China uses the SCO as an umbrella organization, within which it would pursue bilateral economic relations with the Central Asian countries.

economy and even smaller for the EAEU. The effect of higher tariff rates on imports from non-EAEU countries is expected to reduce the GDP growth rate. However, as part of the membership agreement, Kyrgyz Republic is expected to receive a 200 million USD grant to upgrade its customs infrastructure and comply with other terms of EAEU membership. In addition, a one billion USD Development Fund will help support Kyrgyz Republic's public investments. Because of the addition of this financial aid, the economic effects of joining the EAEU have become beneficial (International Monetary Fund (IMF), 2016).

3.1 Transport and Trade Facilitation

One of the most important problems to be solved is CA transportation networks. Until 1991, CA was part of the integrated economic space of the Soviet Union without borders and with a relatively efficient transport network. But the major defect of the transport network was the poor connectivity to the east or south; roads and railways led north or west to Russia, and the eastern and southern borders of the Soviet Union were effectively closed to trade (Pomfret 2010). All five CA countries are developing landlocked countries in transition. Landlockedness increases costs of doing business for CA economies. Moreover, it limits the ability of CA states to pursue independent foreign trade policy (Raballand 2003).

Transport integration networks in CA have important problems such as corruption, lack of institutions, and poor infrastructure and logistics. Turkmenistan's isolationism was a major reason why the railway south to Iran has had minimal economic importance. Turkmenistan's position has eased since Turkmenbashi's death in December 2006. In 2014, the presidents of Iran, Turkmenistan and Kazakhstan opened a long-anticipated railroad connecting landlocked CA to the Persian Gulf. New railway opens new opportunities for CA economic diversification.

It became clear that the obstacles to international trade in CA were not just poor physical infrastructure. Police and customs officials supplemented their incomes through bribes. A much publicized figure of doubtful provenance but plausible to many observers, was that a truck travelling north from Bishkek (capital of Kyrgyz Republic) would pay 1700 USD in bribes by the time it had crossed the Russian border (Pomfret 2010). Furthermore, there are 'internal borders' within national borders which also increase the costs of transportation. The director of the main foreign freight forwarder company in Kyrgyzstan explained that any crossing of oblast borders in Kazakhstan required a payment between 50 and 100 USD for any Kyrgyz truck in transit towards Russia (Raballand 2003).³ Due to the absence of alternative routes, a truck driver from the landlocked country is dependent on one country and must usually

³CAREC program estimated a probability of unofficial payments. Results of the estimation show that 1189 and 94 unofficial payments were made at the border crossing and non-border crossing points respectively. Therefore, the chance of encountering demand for a bribe was equal to 32 %.

pay higher unofficial tariffs that further boost transportation costs. For instance, Uzbekistan has to negotiate tariffs with Kazakhstan, whereas Kazakhstan has to negotiate only with Russia (Raballand et al. 2005). Delays at border crossings, outright border closures, unofficial payments to customs officials, border guards and other inspecting bodies all add to the cost of exchange across CA borders. For instance, Tashkent–Samarkand road runs through Kazakhstan. This road was beneficial for shuttle traders. But due to protectionist policy, Uzbekistan decided to close it for general public and all traders had to re-route along a 56 km. The cost of this decision was about 16 million USD annually (Grafe et al. 2008).

All CA countries are participating in Central Asia Regional Economic Cooperation (CAREC). CAREC transport network (29,350-km) connects China with Caucasus, Europe and South Asia. The Program achieved significant results in construction of more than 7000 km of high quality roads and rail links. The number of CAREC projects increased from 6 in 2001 to 158 in 2014. CAREC investment increased from 247 million USD to 24.6 billion USD for the same period. Nonphysical trade barriers have been eliminated since the implementation of the CAREC. The program led to reduction of transit costs at borders. In 2014 these costs were 28 % less than in 2013. The target for the length of better road conditions overcame the results by 5 % making it 85 % of the total length of CAREC corridors (CAREC 2014). Due to Customs Union implementation border crossing times between participants decreased significantly. For instance, border crossing time between Kazakhstan and Russia reduced from 7.7 h to 2.9 h in 2012 (CAREC 2012).

Through CAREC Corridors CA could strengthen its bilateral trade with South Asian countries, diversify its export products to Europe. Multi-vector routes are important in the case of economic disasters or political isolation. Despite the trade expansion within CA region through transport network integration is beneficial, the main point is that for CA countries the most meaningful transportation is through pipelines that go to China and Russia. But CAREC through infrastructural projects transform transit corridors into economic corridors, creates new jobs, and assists to improve the export diversification of CA countries. Moreover, it creates new opportunities for transit countries to improve services.

3.2 World Trade Organization and Central Asia

WTO membership liberalizes trade, gives opportunity of market expansion and puts trade on a basis of international trade law. For CA countries, it will provide a legal framework for intra-regional trade and trade with the region's giant neighbors such as Russia and China. In 1998 Kyrgyz Republic became the WTO member. Its WTO accession led to recession with the collapse of three of the country's four largest banks. But this was due to Russian crisis and Kazakhstan's 50 % devaluation. A more robust criticism of the Kyrgyz Republic's accession experience is that the negotiators, whether due to inexperience or by intent, failed to make transitional arrangements or gain exemptions that would have protected Kyrgyz interests.

Table 3 CA countries WTO status to December, 2015

	Applied	Member
Kazakhstan	January 1996	November 2015
Kyrgyz Republic	February 1996	December 1998
Tajikistan	May 2001	March 2013
Turkmenistan	Did not apply	
Uzbekistan	December 1994	Ongoing negotiations

Source: WTO, https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm

Recent EAEU accession will significantly increase Kyrgyz Republic's tariffs, which could lead to trade diversion and could be the case for compensation within its WTO obligations. For instance, 30 % of Kyrgyz duties align with those of the Customs Union, 21 % can be realigned without violating WTO commitments, and 49 % would require renegotiation of WTO terms (and potentially compensation to affected WTO members) before they could be aligned (WTO 2013). To reduce the risk of trade diversion, Kyrgyz Republic secured transition period for about 1500 products including food products, cars, and machinery. Transition period for Kyrgyz Republic will last from 5 to 10 years (IMF 2016). However, common external tariff rate schedule of the EAEU will decline over the medium term reducing risks of trade diversion after the end of transition periods.

Turkmenistan views WTO membership as incompatible with its neutrality (Pomfret 2009). Uzbekistan pursues import-substituting strategy and reluctant to economic openness. More recently, Tajikistan (in 2013) and Kazakhstan (in 2015) became WTO members (Table 3).

The accession of Kazakhstan can cause trade conflicts with EAEU as it has undertaken tariff concessions and commitments that bind tariff rates for all products on average at 6.1 % while in EAEU it equals to 10.4 %. Lower tariffs on 3000 commercial positions may result in additional risks in the re-export of products and foods via Kazakhstan to the other EAEU countries. To resolve contentious issues the EAEU members adopted a special document entitled "On some issues related to the accession of Kazakhstan to the World Trade Organization". Thus, Kazakhstan reduced the risk of trade diversion by prioritization of its WTO obligations. Hence, regional integration is fully compatible with WTO membership. WTO provides the framework in which regional and wider trade can flourish and overcome poor institutional environment. Thus, multilateralising regionalism could be the best option for CA countries to increase intra-regional trade and to be integrated in the world trade flows.

4 Conclusions

Why have so many PTAs been signed in Central Asia? PTAs were used as an ineffective foreign policy instrument without intention of economic liberalization. Strong economic motive of PTA failure was the likelihood of trade diversion.

The economic structure of the countries is similar; all of the countries are small economies mainly dependent on raw materials export, which makes them extremely vulnerable. This can be proved by recent crisis in CA due to drop in oil prices and less demand for raw materials from main trading partners. Trade relationship between Kazakhstan and CA countries is also low. This fact could be explained by several reasons, for instance, economic similarity of CA countries in producing goods and services. Intraregional transportation of goods and services created the list of problems as bribes, unofficial payments, road protectionism, which increased transportation costs and negatively affected for trade integration. Due to Soviet economic ties, for each of the CA republic, trade with Russia and Ukraine was far more important than trade with each other.

The argument that should be added for explanation of economic disintegration is simple unwillingness due to uncertainty and economic regime instability and mistrust. Thus, the impact of regional economic integration in Central Asia on regional trade and economy was insignificant. But externally driven regionalism as EAEU, SCO or CAREC (supported by international financial institutes) have significant contribution to the economic development of CA region than internally driven regionalism.

Despite the fail of economic integration strategy, there are other important fields for cooperation within Central Asian region, such as ecological integration on the saving of the Aral Sea, agricultural irrigation cooperation and other. All CA countries are interested in agriculture irrigation. Thus the strengthening of cooperation on use of water from the Syrdarya and Amudarya rivers is necessary. Even this field is becoming contradictory due to ambitious Turkmen projects as ‘Golden Lake’, which led to tension between Turkmenistan and Uzbekistan. So, without cooperation and creation of regional committees with legal status and official power it is impossible to find solutions to the problems. Another important field for cooperation is fighting against drug transit and terrorism, which became important world problems. The deepening of linguistic and cultural integration could increase the civil society integration and reduce the risks of ethnic conflicts, which is important for keeping the Central Asia politically stable.

Acknowledgements The authors are grateful for valuable comments from Richard Pomfret on earlier drafts of this paper.

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ASEAN and Trade Regionalism: An Opportunity for Convergence or Threat of “Two Speeds”?

Sebastian Bobowski

Abstract The paper is studying Association of Southeast Asian Nations (ASEAN)—integration grouping, through the prism of trade regionalism and the concept of two-speed. Author provided an indicatory analysis in order to embrace different dimensions of development gap between ASEAN-6 (Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore and Thailand) and CLMV (Cambodia, Lao PDR, Myanmar, Vietnam), while pointing out the context of convergence and perspectives of narrowing the distance successfully. A special emphasis was put on the context of competitive mega-regional projects of Trans-Pacific Partnership (TPP) and Regional Comprehensive Economic Partnership (RCEP), with overlapping memberships of four ASEAN states, namely, Brunei Darussalam, Malaysia, Singapore and Vietnam. Author attempts to draw implications of eventual successful establishment of two trade blocks led by the United States on the one side, and China on the other, including the threat of internal decomposition of ASEAN and division into pro-TPP and pro-RCEP coalitions, while affecting ASEAN’s centralist role in Asian regionalism. Two-speed ASEAN was studied both in economic and political terms in this matter, while Vietnam was recognized as prospective member of the ASEAN’s core operating at higher speed.

Keywords ASEAN • Trade regionalism • Two-speed

1 Introduction

The Association of the Southeast Asian Nations (ASEAN), nearly 50-year old grouping tend to be regarded as one of the most successful integration projects in the developing world for decades, demonstrating high ambitions in terms of advancing agenda and fostering cooperation among member states. The so-called ASEAN Declaration (Bangkok Declaration), signed on 8 August 1967 by five

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M.H. Bilgin et al. (eds.), *Country Experiences in Economic Development, Management and Entrepreneurship*, Eurasian Studies in Business and Economics 5,
DOI 10.1007/978-3-319-46319-3_3

founding members, namely, Indonesia, Malaysia, Philippines, Singapore, and Thailand, has become the legal foundation of the new regional framework in the Southeast Asia. Brunei Darussalam joined ASEAN on 7 January 1984, Vietnam on 28 July 1995, Lao PDR and Myanmar on 23 July 1997, last but not least—Cambodia on 30 April 1999. Thus, ASEAN as the grouping of ten Southeast Asian states exists for nearly two decades. Noteworthy, East Timor made a formal request to join ASEAN in 2006, while Papua New Guinea—in 2009, however, both candidates were provided only with observer status so far.

ASEAN backed initially to challenge the threat of expansive communism in the region, tend to aim more and more intensively at enhancing economic development, social progress, maintaining regional peace and security, as well as resolving disputes and differences in peaceful manner.

Noteworthy, post Cold War accession of the four communist Southeast Asian states, namely, Cambodia, Lao PDR, Myanmar and Vietnam (CLMV), manifesting significant development gap to ASEAN-6, raised the concerns whether real convergence, perceived as *sine qua non* to build and strengthen internal cohesion and unity of ASEAN, is feasible. Myanmar, in fact, entered ASEAN as anachronistic system ruled by military junta, thus, cannot be unambiguously classified in terms of regime type (Kassim 2007).

The aim of the paper is to adapt the concept of two-speed world to the integration grouping scheme attempting to resolve dilemma, whether a threat of future disintegration of ASEAN is probable. The author reflects the perspective of trade regionalism, found as highly advanced and successful dimension of Southeast Asian regionalism up to date. Therefore, both intra-ASEAN (ASEAN Free Trade Area—AFTA), as well as regional (ASEAN Plus FTAs) and mega-regional (Trans-Pacific Partnership—TPP, Regional Comprehensive Economic Partnership—RCEP) trade frameworks require in-depth studies.

The author does not question the importance of financial regionalism encouraged by Asian financial crisis 1997–1998, manifested through unrealized Asian Monetary Fund project of 1997 or successful framework of ASEAN+3 Finance Ministers' Meeting of 1999, that inspired, among others, Chiang Mai Initiative (CMI), Asian Bond Market Initiative (ABMI), Chiang Mai Initiative Multilateralization (CMIM) and ASEAN Plus Three Macroeconomic Research Office (AMRO). Noteworthy, recent CMIM and AMRO projects, even though not found by author as direct emanations of financial regionalism, cannot be assessed in terms of utility due to lack of their practical verification so far in the field of, for instance, crisis deflection after 2008.

2 The Two-Speed World Concept and Its Adaptation

The two-speed world concept lacks clearly defined origins and frameworks, however, has been addressed few times by Anthony Bolton, Fidelity Fund Manager (Bolton 2011). Worth mentioning, phenomena of expanding imbalances of growth

rates and development gap used to be pointed out by some economists before, however, without direct reference to this term. The two-speed world concept requires adaptation for the purposes of studying ASEAN grouping due to the fact, that narrow perception of the issue in terms of divergent structural growth rates among the group of higher and lower developed economies does not fully comply with the Southeast Asian grouping's characteristics. Namely, Vietnam, situated among the sub-grouping CLMV of ASEAN, has performed pretty well through the years in terms of growth rates and attracting foreign direct investments, therefore, Bolton's approach assuming continuous aggravation of growth rate disparities between slowing down developed world and rapidly chasing emerging markets, should be extended to study integration grouping as the "micro-world" embracing both newly industrialized, already advanced and catching-up, developing economies, threaten, according to author, by two-speed effect.

Furthermore, two-speed concept has been addressed by some economists and policy makers when studying implications of Eastern enlargement of the European Union (EU) since 2004. New EU members, experienced by communist past and subsequent regime and socioeconomic transformation, manifesting income and development gap to the old EU-15, located initially outside the main political stream of the European project, including Eurozone and Schengen area, were supposed to be an EU subgroup of catching-up states following its own path of integration with its own speed. To date, 18 EU member states entered Eurozone, another two are expected to join ERM II soon, Denmark and United Kingdom declared to stay outside, while Sweden, as the signatory party, had made no steps to join so far. Worth noting, Schengen area excludes Bulgaria, Croatia, Cyprus, Ireland, Romania and the United Kingdom, while embracing four non-EU members—Norway, Switzerland, Iceland and Liechtenstein. Failure of the European Constitution project of 2004, signed by representatives of 25 EU member states, however, not ratified, inspired establishment of the Treaty of Lisbon, providing, for instance, additional opt-outs for some EU states. Moreover, EU tend to be inconsistent in diplomatic and military issues. Even though EU regional/cohesion policy tend to concentrate on narrowing development gap and support convergence of lower developed regions of the member states in the name of solidarity, boosting wealth, enhancing prosperity and internal cohesion, many influential European politicians, starting with former German Chancellor Helmut Kohl, advised by Michael Mertes and Norbert J. Prill, opted for the concept of core Europe since July 1989 (Mertes and Prill 1989). An idea was to build a federal core of six founding members of the European Communities, accompanied by like-minded followers. In 1994 Wolfgang Schäuble and Karl Lamers—German politicians, recalled core Europe concept, raising the question, whether idea of an ever closer union among the peoples of Europe, stipulated by Treaty establishing the European Economic Community of 1957, may not be threaten by dilution due to further expansion of EU membership (Andréani 2002). In fact, larger EU was expected to be less expansive and effective in terms of finding consensus on various topics and advancing at the same pace in different fields.

Summing up, the concept of two-speed grouping may be studied in terms of dilemma whether under circumstances of extending the scope of membership, widening may proceed at the expense of deepening, as well as diversity at the expense of unity. Consequently, while opponents of two-speed concept address the problem of perpetuating divisions, undermining solidarity, rigidity and complexity of such an architecture of, for instance, regional grouping, advocates used to point out the issues of efficiency, flexibility, political realism and pragmatism. In other words, one size does not fit all; therefore, to make our convoy faster, we should not rely on the slowest ships. As German Vice Chancellor Sigmar Gabriel stated in May 2015, “not everyone needs to do everything. But we need deeper co-operation under the roof of the European Union” (Bimmer 2015).

Finally, the concept of two-speed EU appears to prioritize political context of speed, thus, placing itself in the core of a given regional grouping may result of power as possession or power as relation, following Hobbes and Lockean Schools of thought (Habeeb 1988; Zartman 1997; Pfetsch 1995), however, not fully determined by economic growth rate, as Bolton indicated. Put simply, Vietnam in ASEAN, as well as, for instance, Poland in EU cannot be found in the core of regional framework, however, proved to be vital in economic terms and catching-up, that potentially may translate into political speed-up. Namely, Polish economy was the only in EU without even a quarter of negative growth since 2007, with over 20 % of cumulative growth till 2015 and dynamic convergence in respect of EU average.

3 Theory of Trade Regionalism

For the purposes of the following analysis, author addresses Hamanaka’s concept of trade regionalism, providing its main four manifestations. The least advanced, formal and intrusive form of trade regionalism is regional trade meeting or forum, involving officials, experts, and representatives of regional states being in charge with trade policies, and issues. Consequently, leading participants of a given trade framework may encourage other members to intensify and formalize cooperation to enhance more ambitious agenda and pave the way toward more formal, not necessarily legally sanctioned, cooperative actions.

Another type of trade regionalism is regional trade cooperation, however, lacking legal frameworks. In case of ASEAN, trade promotion through skills development and industrial cooperation tend to be prioritized. Noteworthy, aforementioned trade cooperation may embrace much broader spectrum of macroeconomic issues, depending on priorities of participants, induced by mutually shared will and readiness to undertake some decisions and actions together.

Regional trade arrangement (RTA), manifested mostly in the form of free trade agreement (FTA), assuming elimination or reduction of tariffs between signatory parties, is the third type of trade regionalism. Following GATT/WTO rules, FTA need to be designed in accordance to the Most Favored National clause and address

three prerequisites stipulated by Article 24. Firstly, free trade agreement is expected to cover substantially all trade between signatories, thus, elimination of tariff and non-tariff barriers should address all the tradable assortments. Secondly, the said FTA should not raise already existing barriers to the third parties, then, generate negative externalities (Bobowski 2011). Finally, signatories should draw reasonable schedule of FTA implementation. Worth mentioning, following Enabling Clause 1979, developing countries are allowed to violate Article 24 of GATT, then, discipline sanctioned by WTO membership (Ravenhill 2003; Hamanaka 2008). For instance, ASEAN Free Trade Area (AFTA) is based on Enabling Clause, as well as numerous bilateral, and plurilateral FTAs involving Asian states, mainly due to the fact, that GATT/WTO's legal foundations lack definition of "developing country". Therefore, Asian countries are able to design FTAs in much less restrictive manner, assuming exclusion of sensitive sectors such as automobile, and chemical industry, agriculture, or textiles, even though ASEAN member, namely Singapore, shouldn't be termed as developing country anymore, similarly to the other regional newly industrialized economies (NIEs) such as Hong Kong or Republic of Korea (Hamanaka 2010). Furthermore, Enabling Clause, as well as Preferential Trade Agreement (PTA)—engaging developed, and developing countries, representing differentiated level of development, eliminate requirement addressing reciprocity in FTA preferences among signatory parties, therefore, one country may provide asymmetrical gains to FTA partner, while advocating sectoral protectionism, thus, breaking discipline of Article 24.

Last but not least, economic partnership arrangement (EPA) may be found as another manifestation of trade regionalism, going beyond tariff elimination or reduction to address harmonization of rules, and standards in trade. Consequently, EPA appears to be an useful instrument of proliferation and enforcement of the dominating country's norms and patterns in trade at international scale, as examples of mega-regional trade frameworks engaging ASEAN members, namely, RCEP and TPP, indicate.

4 ASEAN Trade Regionalism

In the period 2005–2010 ASEAN concluded five regional free trade agreements with "Plus Six" countries, namely, China (2005–2007), Japan (2008), Republic of Korea (2009–2010), India (2010), Australia, and New Zealand (2010), to be fully operational in years 2020–2026. Worth mentioning, regional trade agreements signed with China, Australia and New Zealand, and Republic of Korea addressed both trade in goods and services, in the latter case under provisions of art. 5 of GATS. Thus, the three latter FTAs were accompanied by economic integration agreements (EIAs), with full implementation dates between 2020 and 2025 (Table 1). Furthermore, there are 50 bilateral FTAs between one ASEAN state and one non-ASEAN state, 11 plurilateral agreements between one ASEAN state and two or more non-ASEAN states, or 23 multilateral agreements between two or

Table 1 ASEAN Regional Trade Agreements notified by WTO

RTA name	Coverage	Type	Notification	Date of entry into force	End of implementation period
ASEAN Free Trade Area (AFTA)	Goods	Free Trade Agreement	Enabling Clause	28.01.1992	2018
ASEAN—China	Goods & Services	Free Trade Agreement & Economic Integration Agreement	Enabling Clause, GATS art. 5	01.01.2005 (Goods) 01.07.2007 (Services)	2020
ASEAN—Japan	Goods	Free Trade Agreement	GATT art. 24	01.12.2008	2026
ASEAN—Republic of Korea	Goods & Services	Free Trade Agreement & Economic Integration Agreement	GATT art. 24, Enabling Clause, GATS art. 5	01.01.2010 (Goods) 01.05.2009 (Services)	2024
ASEAN—Australia—New Zealand	Goods & Services	Free Trade Agreement & Economic Integration Agreement	GATT art. 24, GATS art. 5	01.01.2010	2025
ASEAN—India	Goods	Free Trade Agreement	Enabling Clause	01.01.2010	2024

Source: WTO (2015a)

more ASEAN states and one or more non-ASEAN states. Among 50 bilateral FTAs, 29 possess “under negotiation” status, another 21 are under study or proposed.

4.1 AFTA: Elimination of Tariff Barriers

Aforementioned trade regionalism, manifested by liberalization of trade through removal of barriers and trade facilitations, is found by author as key achievement of regionalism centred around ASEAN. Harmonization of standards, rules, procedures, documentation, as many other technical barriers of trade constitute more comprehensive approach of ASEAN leaders toward economic cooperation, preceded by establishment of the Common Effective Preferential Tariff (CEPT) under the ASEAN Free Trade Area (AFTA), and the ASEAN Trade in Goods Agreement (ATIGA), that entered into force in May 2010. Worth mentioning, according to Protocol to Amend the Agreement on CEPT-AFTA for the Elimination of Import Duties, agreed in 2003, tariff lines from the Inclusion List (IL) were to be removed within ASEAN-6 by 1 January 2010, while within CLMV—1 January 2015, assuming extended 3-year period for some sensitive products in case of the latter group of members. It should be noted, that flexibility for CLMV has been reduced up to the level of 7 % of tariff lines to avoid any sort of discretionary actions to be undertaken. Similar flexibilities have been addressed to CLMV in the field of eliminating non-tariff barriers to trade (NTB), including, among others, quantitative restrictions. To date, however, Cambodia, Lao PDR and Myanmar accounted for 6, while Vietnam—119 of total 2178 notified non-tariff measures by ASEAN (WTO 2015b). The so-called Sensitive List (SL) and Highly Sensitive List (HSL) were addressed by separate protocol to phase in into the CEPT scheme, with reduced tariffs to 0–5 %. Furthermore, import duties for the products covered by IL were eliminated under the Priority Integration Sectors (PIS) by ASEAN-6 in 2007, CLMV—2012, thus, 3 years earlier than normal track stipulated, following provisions of ASEAN Framework (Amendment) Agreement. In 2014, the average ATIGA rate stood at 0.04 % in ASEAN-6, 1.33 %—CLMV (1.32 and 4.44 % in 2007, respectively). Meanwhile, Most Favoured Nations (MFN) rates, then, standard rates charged on imports from all WTO members, excluding preferential or lower rates charged within quotas, stood at rate 5.55 % in ASEAN-6 and 8.93 % in CLMV (5.87 and 11.58 % in 2007, respectively). In case of CLMV, an increase in the share of tariff lines at ATIGA 0 % rose to 72.6 % in 2014 (46.5 % in 2007), in comparison to 99.2 % in ASEAN-6 in 2014. Addressing calculations by ASEAN Secretariat, in the end of 2015, share of tariff lines at 0 % in the ATIGA Tariff Schedule reached 99.2 % for ASEAN-6, 90.8 %—CLMV, 96 %—ASEAN (ASEAN 2015).

4.2 *Economic and Social Development of ASEAN-6 and CLMV*

Author would like to address various dimensions of ASEAN members' macroeconomic performance, using set of indicators: Gross Domestic Product growth (GDP growth), Gross Domestic Product per capita (GDP per capita), Human Development Index (HDI) and Environmental Performance Index (EPI).

When studying GDP growth rates in years 2007–2014 (Table 2), it is apparent that global crisis 2008 resulted in slowdown of the regional output growth, especially after 2010. Recent data demonstrate negative macroeconomic trends in the largest ASEAN economies, namely, Indonesia, Thailand, Singapore and the Philippines. Noteworthy, Malaysia, Myanmar and Vietnam were the only ASEAN states recording higher growth rates in 2014 when compared to 2013. Furthermore, ASEAN-6 average in 2007 was 5.65 %, in 2014—3.08 %, while CLMV—8.83 and 7.32 %, respectively, then, newer ASEAN members tend to grow at higher rates than ASEAN-6 in the respective period.

Moreover, in terms of GDP per capita, in 2007 Cambodia, Lao PDR and Vietnam (lack of comparable data for Myanmar in years 2007–2010) accounted, on average, for 1.92 % of Singapore's indicator (namely, 629.3 USD, 711 USD, 919.2 USD (CLV) and 39,223.5 USD (Singapore). Probably, when including Myanmar, CLMV's shares in Singapore index 2007 would be even lower), while in 2014 as CLMV—2.71 % [namely, 1090.1 USD, 1759.8 USD, 1203.8 USD, 2052.3 USD (CLMV) and 56,286.8 USD (Singapore)], that translated into growth rate between 2007 and 2014 of 43.5 % in case of Singapore and 102.7 % in case of CLMV. Then, income disparities have been narrowed among the members; however, its scale and the fact, that it is accompanied by intra-state's increasing gaps, make the distance between leading members and CLMV constantly large.

In order to measure social development of ASEAN member states, the Human Development Index (HDI) is addressed. HDI is a comparative measure of life

Table 2 Annual GDP growth of ASEAN member states 2007–2014 (in %)

	2007	2008	2009	2010	2011	2012	2013	2014
Brunei Darussalam	0.6	−2.4	−1.8	2.6	3.4	0.9	−2.1	−2.3
Cambodia	10.2	6.7	0.1	6.0	7.1	7.3	7.4	7.0
Indonesia	6.3	6.0	4.6	6.2	6.5	6.3	5.7	5.1
Lao PDR	6.0	7.8	7.5	8.1	8.0	7.9	8.0	7.6
Malaysia	6.3	4.8	−1.5	7.4	5.2	5.6	4.7	6.0
Myanmar	12.0	10.3	10.5	9.6	5.6	7.3	8.4	8.7
Philippines	6.6	4.2	1.1	7.6	3.7	6.7	7.1	6.1
Singapore	9.1	1.9	−0.6	15.1	6.2	3.4	4.4	2.9
Thailand	5.0	2.5	−2.3	7.8	0.1	6.5	2.9	0.7
Vietnam	7.1	5.7	5.4	6.4	6.2	5.2	5.4	6.0
ASEAN	6.6	4.8	2.2	7.6	4.9	6.0	5.2	4.6

Source: World Bank (2015a)

Table 3 Human Development Index 2007 and 2014 for ASEAN member states

	2007 value (ranking of 182 states)	2014 value (ranking of 188 states)
Brunei Darussalam	0.920 (30th)	0.856 (31st)
Cambodia	0.593 (137th)	0.555 (143rd)
Indonesia	0.734 (111th)	0.684 (110th)
Lao PDR	0.619 (133rd)	0.757 (141st)
Malaysia	0.829 (66th)	0.779 (62nd)
Myanmar	0.586 (138th)	0.536 (148th)
Philippines	0.751 (105th)	0.668 (115th)
Singapore	0.944 (23rd)	0.912 (11th)
Thailand	0.783 (87th)	0.726 (93rd)
Vietnam	0.725 (116th)	0.666 (116th)

Source: UNDP (2009, 2015)

expectancy, literacy, education, standards of living, and quality of life for countries worldwide.

When analyzing ASEAN members in respect of HDI index it should be noted that 2014 indexes tend to be lower for the majority of countries worldwide due to changes in methodology since 2010. Therefore, assessment might be misleading when basing on HDI values; however, individual positions of ASEAN members in the HDI ranking could be addressed. Namely, in the 7-year period only three ASEAN countries improved its performance—Singapore—by twelve positions, Malaysia—four positions, Indonesia—one (Table 3). Except for Vietnam, maintaining its 2007 rank in 2014 (116th), Cambodia, Lao PDR and Myanmar recorded deterioration in their performance (137th, 133rd, 138th and 143rd, 141st, 148th, respectively). Interestingly, the distance between best performing ASEAN member, namely, Singapore and worst one—Myanmar, equaled 0.358 in the 2007 HDI ranking and 0.376 in the 2014 edition. This, in turn, raises the question whether social development distance between ASEAN-6 and CLMV has been effectively narrowed, even though countries like Philippines and Thailand worsen their performance too.

Environmental sustainability seems to attract ASEAN's attention recently, consequently, member states perform better and better every year in terms of Environmental Performance Index (EPI), with Singapore as an unquestionable leader—4th position in the 2014 Environmental Performance Index Rankings of 178 countries, Brunei Darussalam on the 37th position, however, among lowest 10 Trend Performers, with significantly poorer position of the less developed ASEAN member states, namely, Laos, Vietnam, Cambodia and Myanmar—127th, 136th, 145th, and 164th, respectively (Table 4). The Environmental Performance Index (EPI) ranks countries according to their performance on high-priority environmental issues within two dimensions, namely, protection of human health from environmental harm and protection of ecosystems. The EPI covers nine issue areas, embracing 20 indicators. EPI varies between 0 and 100 points, thus, the higher the score is, the better the rank of the country.

Table 4 Environmental Performance Index 2014 for ASEAN member states

	EPI value (ranking of 178 states)		EPI value (ranking of 178 states)
Brunei Darussalam	66.49 (37th)	Myanmar	27.44 (164th)
Cambodia	35.44 (145th)	Philippines	44.02 (114th)
Indonesia	44.36 (112th)	Singapore	81.78 (4th)
Lao PDR	40.37 (127th)	Thailand	52.83 (78th)
Malaysia	59.31 (51st)	Vietnam	38.17 (136th)

Source: Center for Environmental Law and Policy (2014)

Noteworthy, EPI index indicates large disparity between ASEAN-6 and CLMV and this gap appears to broaden through the years—for instance, gap between the best ASEAN member state's EPI score and the worst one, according to 2010 ranking, namely, Singapore and Cambodia, equaled 27.9, while in the 2014, between Singapore and Myanmar—54.34.

4.3 *Merchandise Trade Performance*

Trade openness of ASEAN, measured as shares of total merchandise trade in nominal output, tend to be maintained despite external volatilities in recent years (Table 5). Interestingly, CLMV increased trade openness in the 8-year period by 9.4 %, exceeding ASEAN and ASEAN-6 average in 2011, while ASEAN and ASEAN-6 averages declined in the 8-year period by 23.3 and 27.1 %, respectively. Within CLMV, Vietnam tend to maintain three-digit indicator through the years, much above ASEAN average, Cambodia recorded the most significant progress since 2007 (by 89 %), ranked as the second best ASEAN state in 2014, while both Lao PDR and Myanmar performed poorly, with the latter deteriorating its position in this matter in years 2012–2014.

In years 2007–2014 ASEAN total trade volume increased from 1.6 to 2.5 trillion USD, however, intra-ASEAN trade maintained its shares around 25 % of total. In terms of value, intra-ASEAN trade increased by 58.9 % in the analyzed period, while extra-ASEAN—51.7 %. Record year-to-year increase in ASEAN trade volume has been registered in 2010, after 1 year decline induced by the global crisis—intra-ASEAN trade rose by 35.8 while extra-ASEAN—29.1 %. Next year two-digit growth rates were maintained, however, following years brought modest annual increase of intra-ASEAN trade below 1 %, with slightly rising extra-ASEAN rates.

The shares of CLMV in intra-ASEAN trade increased from 7.6 to 10.4 % in years 2007–2014, with tripled shares of Cambodia and Lao PDR, however, with relatively low starting positions, as well as continuous increase in case of Myanmar and Vietnam in the studied period (Table 6). Noteworthy, declining shares in intra-ASEAN trade have been registered by Malaysia, Philippines, and, to the greatest

Table 5 Trade openness of ASEAN in years 2007–2014 (total trade as % of nominal GDP)

	2007	2008	2009	2010	2011	2012	2013	2014
Brunei Darussalam	79.2	88.4	88.8	88.7	88.8	99.3	83.2	82.9
Cambodia	87.8	79.2	85.8	93.3	100.3	133.1	120.3	176.8
Indonesia	43.8	51.9	39.1	41.3	45.0	43.6	42.9	36.0
Lao PDR	25.9	49.7	52.9	66.8	49.1	65.5	54.6	45.8
Malaysia	166.6	146.4	138.3	149.3	143.5	138.8	139.1	135.8
Myanmar	47.9	42.7	37.8	28.8	26.4	30.7	37.9	41.4
Philippines	69.7	60.9	49.7	54.8	49.9	46.8	44.3	45.5
Singapore	312.5	342.3	268.0	280.3	281.5	271.8	259.1	252.1
Thailand	118.8	129.2	108.4	120.6	132.7	130.4	123.4	122.1
Vietnam	142.2	142.6	118.8	135.0	147.2	146.2	154.6	157.8
ASEAN-6	121.9	124.1	100.3	106.0	108.0	104.8	102.3	94.8
CLMV	117.5	116.6	99.4	104.8	108.6	113.2	120.6	126.9
ASEAN	121.6	123.4	100.2	105.9	108.0	105.7	104.2	98.3

Source: ASEAN (2015, p. 21)

Table 6 Shares in intra-ASEAN trade by member state in years 2007–2014 (in %)

	2007	2008	2009	2010	2011	2012	2013	2014
Brunei Darussalam	0.8	0.8	0.6	0.4	0.5	0.6	0.7	0.6
Cambodia	0.4	0.4	0.6	0.5	0.5	0.9	0.7	1.3
Indonesia	11.5	14.5	13.9	15.7	16.6	15.9	15.6	14.9
Lao PDR	0.2	0.5	0.7	0.5	0.4	0.4	0.6	0.6
Malaysia	20.6	18.1	19.2	18.6	18.1	19.2	19.6	19.6
Myanmar	1.2	1.2	1.4	1.1	1.2	1.2	1.6	1.9
Philippines	5.2	4.6	4.6	5.4	4.0	4.1	3.7	4.2
Singapore	40.0	39.0	37.4	35.5	34.4	34.8	34.0	33.4
Thailand	14.4	14.8	15.7	16.9	18.6	16.5	17.0	16.9
Vietnam	5.8	6.3	5.9	5.2	5.7	6.4	6.5	6.7
ASEAN-6	92.4	91.7	91.5	92.7	92.1	91.1	90.6	89.6
CLMV	7.6	8.3	8.5	7.3	7.9	8.9	9.4	10.4
ASEAN	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: ASEAN (2015, p. 23)

extent, Singapore. The average annual growth rate of intra-ASEAN trade was higher in the observed period for CLMV than ASEAN-6, namely, 12.1 and 7 %.

The shares of CLMV in extra-ASEAN trade almost doubled from 8 to 15.2 % in years 2007–2014, again, dominated by the fifth largest regional actor, both in intra- and extra-regional trade, namely, Vietnam, accounting for 13.2 % of total extra-ASEAN trade in 2015, then, comparable to Indonesia (Table 7). Again, the average year-to-year growth rate of extra-ASEAN trade tend to be much higher in the analyzed period in case of CLMV than ASEAN-6—17.7 and 6.7 %, respectively.

When studying World Bank's Doing Business Survey, it seems that international trade costs, both in terms of money and time, have decreased through the years,

Table 7 Shares in extra-ASEAN trade by member state in years 2007–2014 (in %)

	2007	2008	2009	2010	2011	2012	2013	2014
Brunei Darussalam	0.5	0.6	0.6	0.6	0.7	0.7	0.6	0.5
Cambodia	0.5	0.5	0.6	0.5	0.5	0.7	0.7	1.1
Indonesia	11.8	13.9	13.9	14.2	15.7	15.3	14.4	13.7
Lao PDR	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1
Malaysia	19.9	17.8	17.9	17.9	17.2	16.4	16.6	16.9
Myanmar	0.3	0.3	0.4	0.4	0.4	0.6	0.7	0.8
Philippines	7.0	5.9	5.7	5.5	4.9	4.9	5.1	5.4
Singapore	33.2	33.3	32.3	32.1	31.8	30.9	30.3	29.8
Thailand	19.5	19.8	19.6	19.9	19.4	20.2	19.7	18.4
Vietnam	7.2	8.7	8.9	8.7	9.2	10.1	11.8	13.2
ASEAN-6	92.0	91.3	90.0	90.2	89.7	88.4	86.6	84.8
CLMV	8.0	8.7	10.0	9.8	10.3	11.6	13.4	15.2
ASEAN	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: ASEAN (2015, p. 23)

with significant improvement in case of CLMV, however, again, starting from relatively low positions (Table 8).

On the other hand, when studying one of the DB ranking's criteria, namely, Trading Across Borders, it seems that CLMV, except for gradual advance by Vietnam, keeps the distance to ASEAN-6, with special regard to top position of Singapore and significant improvement of Malaysia and Thailand through the years (Table 9).

Composition of ASEAN members' economies indicates relatively high shares of agriculture sector in CLMV countries, with special regard to Myanmar, Cambodia and Lao PDR—31.4, 24.2 and 23.5 %, respectively (Table 10). Meanwhile, Singapore, Brunei Darussalam, Malaysia and Thailand reflect little or no shares of the said sector in the national output. Brunei Darussalam tend to be heavily focused on industry sector (64.4 % of output in 2013), Malaysia, Philippines and Singapore—service sector (55.2, 56.8 and 66.6 %, respectively). CLMV are expected to increase the shares of service sector in national output above 40 % continuously. It should be noted, that the role of services is crucial for ASEAN economies, mainly due to emergence and expansion of global value chains, within which services act as interface enabling production activities to take place in different locations. Moreover, services have become a source of value and innovation, thus, economic integration and advancement tend to be correlated with the performance of service sector and its shares in the real output of the country, as examples of Singapore and Malaysia confirm.

Table 8 Doing Business: Selected indicators for ASEAN member states 2007–2014

	2007	2010	2013	2014	2007	2010	2013	2014
	Time to export (days)				Export documents (number)			
Brunei Darussalam	27	27	19	19	5	5	5	5
Cambodia	37	22	22	22	9	9	8	8
Indonesia	22	18	17	17	4	4	4	4
Lao PDR	55	38	25	23	12	10	10	10
Malaysia	13	13	11	11	4	4	4	4
Myanmar	n/a	n/a	25	25	n/a	n/a	9	9
Philippines	17	16	15	15	6	6	6	6
Singapore	6	6	6	6	3	3	3	3
Thailand	24	14	14	14	9	5	5	5
Vietnam	24	22	21	21	5	5	5	5
	Time to import (days)				Import documents (number)			
Brunei Darussalam	19	19	15	15	5	5	5	5
Cambodia	45	29	26	24	10	10	9	9
Indonesia	27	27	23	23	8	8	8	8
Lao PDR	65	37	26	26	15	10	10	10
Malaysia	10	10	8	8	4	4	4	4
Myanmar	n/a	n/a	27	27	n/a	n/a	9	9
Philippines	18	16	14	14	8	8	7	7
Singapore	4	4	4	4	3	3	3	3
Thailand	22	13	13	13	12	5	5	5
Vietnam	23	21	21	21	8	8	8	8

Source: World Bank (2015b)

Table 9 World Bank's Trading across Borders—ASEAN members' ranking 2007–2014

	2007	2008	2009	2010	2011	2012	2013	2014
Brunei Darussalam	n/a	36th	42nd	48th	52nd	35th	40th	39th
Cambodia	114th	139th	122nd	127th	118th	120th	118th	114th
Indonesia	60th	41st	37th	45th	47th	39th	37th	54th
Lao PDR	161st	158th	165th	168th	170th	168th	160th	161st
Malaysia	46th	21st	29th	35th	37th	29th	11th	5th
Myanmar	n/a	n/a	n/a	n/a	n/a	n/a	n/a	113th
Philippines	63rd	57th	58th	68th	61st	51st	53rd	42nd
Singapore	4th	1st	1st	1st	1st	1st	1st	1st
Thailand	103rd	50th	10th	12th	12th	17th	20th	24th
Vietnam	75th	63rd	67th	74th	63rd	68th	74th	65th

Source: World Bank (2015c)

Table 10 ASEAN member states—output shares as % of real GDP (2013)

	Agriculture	Industry	Services
Brunei Darussalam	0.7	64.4	36.8
Cambodia	24.2	29.9	39.2
Indonesia	12.3	40.0	47.8
Lao PDR	23.5	33.2	37.4
Malaysia	7.1	36.4	55.2
Myanmar	31.4	28.5	40.1
Philippines	10.4	32.8	56.8
Singapore	0.0	25.5	66.6
Thailand	8.3	46.0	45.8
Vietnam	17.6	38.6	43.9

Source: ASEAN (2015, p. 26)

4.4 FDI Flows

FDI inflows to ASEAN tend to increase through the years, indicating significant dynamism in the period 2008–2014. Member states made investment regime more open and sustainable to attract foreign capital, with CLMV fostering successfully market enabling policies within several fields to participate in capital flows (Fig. 1). One of the important determinants of FDI inflows is expansion of regional production networks, based on vertical specialization of production blocks emerged as a consequence of fragmentation of value chains by multinational enterprises. East Asia, with special regard to ASEAN member states such as Singapore, Malaysia, Philippines and Vietnam, increased the volume of intra-regional trade in parts of components of machines, including those ICT-related.

The unquestioned leader in terms of FDI shares in nominal GDP in the analyzed period was Singapore—18.7 % in years 2001–2007, slightly less in the following 7-year period (17.4 %). While 2008–2014 average in case of Brunei Darussalam declined by 2/3, downtrend has been recorded also in Philippines and Thailand—from 1.4 to 1.2 % and 4.0 to 2.6 %, respectively. Worth mentioning, CLMV countries seem to benefit mostly from FDI inflows in the recent 7 years, translating into consistent increase of transborder capital movement in relation to GDP—in case of Cambodia, from 4.9 to 8.0 %, Lao PDR—from 2.7 to 5.1 %, Myanmar—from 2.7 to 3.5 %, Vietnam—from 4.3 to 6.4 %. Then, in the period 2008–2014 CLMV improved their positions, namely, Cambodia was ranked as the second largest recipient of FDI in relation to GDP among ASEAN members, Vietnam—the third, Lao PDR—the fourth, Myanmar—the sixth.

When studying FDI regime of ASEAN member states, OECD index is addressed, embracing four types of restrictions ie foreign equity limitations, screening or approval mechanisms, restrictions on the employment of foreigners as key personnel, operational restrictions (such as restrictions on branching, capital repatriation and land ownership). As Table 11 indicates, ASEAN average was higher than ASEAN FTA Partners, then, FDI regimes were generally more restrictive in Southeast Asia in 2013. Interestingly, among CLMV Cambodia represented index

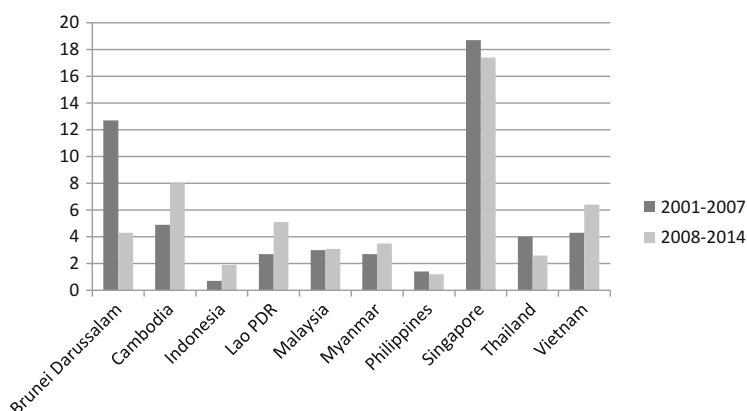


Fig. 1 FDI as % of nominal GDP of ASEAN member states, period annual average 2001–2014.
Source: ASEAN (2015, p. 35)

Table 11 FDI Regulatory Restrictiveness Index^a 2013

	Index
Cambodia	0.049
Indonesia	0.324
Lao PDR	0.265
Malaysia	0.212
Myanmar	0.356
Philippines	0.425
Singapore	0.047
Thailand	0.291
Vietnam	0.214
Average	0.243
ASEAN FTA Partners	
Australia	0.128
China	0.418
India	0.264
Japan	0.052
New Zealand	0.240
Republic of Korea	0.135
Average	0.206

^aThe FDI Regulatory Restrictiveness Index ranges from 0 (open) to 1 (closed)

Source: OECD (2015)

comparable to the most competitive and open investment regime of Singapore (0.049 and 0.047, respectively)—consequently, both countries recorded higher FDI ratios to nominal output, while Vietnam performed in terms of openness at comparable level to Malaysia, finally, Lao PDR and Myanmar were ranked above ASEAN average (0.265 and 0.356 compared to 0.243, respectively). However,

CLMV performed better than China in the analyzed period. On the other hand, among ASEAN FTA Partners, Japan accounted for the best index, thus, least restrictive FDI regime in the “Plus Six” group.

FDI inflows to ASEAN tend to recover and increase steadily after 2008 downturn (decline by 41.5 % year-to-year), with significant growth in 2010 at annual rate of 109.4 % (Table 12). Annual FDI inflows to ASEAN in 2014 reached record level of 136.2 billion USD, then, more than China. Singapore tends to be an unquestionable leader in terms of FDI inflows in ASEAN, while Vietnam was ranked as fifth in 2014. Interestingly, in critical year 2008, when FDI inflows to ASEAN decreased from 84.9 to 49.7 billion USD, Vietnam attracted the largest pool of capital ever—9.6 billion USD, while Myanmar increased FDI inflows year-to-year against worldwide trend of FDI contraction. Worth mentioning, while CLMV accounted for 10.13 % of ASEAN FDI inflows in 2007, in record year 2014—shares decreased to 9.39 %. Then, while ASEAN attracted 60.37 % more FDI inflows in 2014, when compared to 2007, CLMV—48.57 %. While Cambodia doubled annual FDI inflows between 2007 and 2014, Lao PDR—almost tripled, in case of Myanmar and Vietnam growth rate ranged between 32 and 37 %. Best performing ASEAN member, namely, Singapore, recorded an increase in the respective period by 55.6 %.

ASEAN’s Dialogue Partners, when combined, account for 77.1 billion USD of FDI inflows in 2014 (Table 13). Noteworthy, EU-28 was the largest external investor to ASEAN in respective year—29.3 billion USD, then, 21.5 % of the total. The second investor in 2014 was Japan—13.4 billion USD (9.8 %), the third—the United States—13 billion USD (9.6 %). Importantly, intra-ASEAN FDI inflows came second after the EU at 24.4 billion USD (17.9 %) in 2014. Noteworthy, China’s FDI to ASEAN quadrupled between 2007 and 2014, thus, distance to EU-28 and Japan (increase by 32.6 and 52.04 %, respectively) has been reduced even though China’s stock in 2014 nearly equaled Japan’s 7 years before.

As Table 14 shows, both in terms of sources and destinations, intra-ASEAN FDI inflows appear to be volatile, with ASEAN-6 maintaining 97–99 % shares in FDI stock, while CLMV accounted for 0.9 % on average in years 2001–2007, and 2.4 % in the following period 2008–2014. Thus, four newer members strengthened their performance as intra-regional investors, however, mainly due to Vietnam. When studying intra-ASEAN FDI inflows through the prism of destinations, Indonesia tend to maintain its central role in the last 7 years (40.9 % on average), with Singapore ranked as second destination for intra-ASEAN FDI inflows (while being the major source of FDI inflows). Comparing two 7-year periods, ASEAN-6 reduced its average shares from 91.9 to 84.9 % at the expense of doubling CLMV’s shares to 15.1 % in years 2008–2014, however, heavily dominated by Vietnam. As a result, development gap may be narrowed by enhancing FDI inflows to CLMV. Noteworthy, ASEAN-6 increased the shares of intra-ASEAN FDI in its total FDI outflows after the 2008 crisis, reaching 30.3 % in 2014, while in 2007—15.8 %. Even though economic recovery after 2009 has been observed within external markets, intra-ASEAN market tends to maintain its attractiveness for ASEAN-6 as FDI destination due to rising demand and low volatility. Importantly, both in years 2001–2007 and 2008–2014 top three sectors accounting for the largest

Table 12 ASEAN total FDI inflows 2007–2014 (in million US dollars)

	2007	2008	2009	2010	2011	2012	2013	2014
Brunei Darussalam	260.2	330.1	371.4	625.4	1208.3	864.8	725.5	568.2
Cambodia	867.3	815.2	539.0	782.6	891.7	1557.1	1274.9	1726.5
Indonesia	6928.3	9318.1	4876.8	13,770.9	19,241.6	19,137.9	18,443.8	22,276.3
Lao PDR	323.5	227.8	318.6	33.6	466.8	294.4	426.7	913.2
Malaysia	8538.4	7248.4	1405.1	9155.9	12,000.9	9400.0	12,297.4	10,714.0
Myanmar	714.8	975.6	963.3	2248.8	2058.2	1354.2	2620.9	946.2
Philippines	2916.0	1544.0	1963.0	1298.0	1815.9	2797.0	3859.8	6200.5
Singapore	46,337.8	11,115.4	25,036.4	55,034.5	46,774.3	60,980.3	56,138.3	72,098.3
Thailand	11,330.2	8539.5	4853.5	9111.6	3861.1	10,699.2	12,999.8	11,537.9
Vietnam	6700.2	9579.0	7600.0	8000.0	7519.0	8368.0	8900.0	9200.1
ASEAN	84,916.5	49,692.9	47,927.0	100,360.1	95,837.9	115,452.8	117,687.0	136,181.4
ASEAN FDI growth	32.9	-41.5	-3.6	109.4	-4.5	20.5	1.9	15.7

Source: ASEAN (2015, p. 42)

Table 13 ASEAN total FDI inflows, by source (in million US dollars)

	2007	2008	2009	2010	2011	2012	2013	2014
Intra-ASEAN	9634.0	10,448.8	6672.5	15,200.4	14,559.8	20,548.8	19,399.6	24,377.4
Dialogue Partners	51,753.5	22,530.6	23,793.8	59,709.0	62,186.7	58,049.3	66,144.6	77,111.7
Australia	2240.2	1091.3	994.1	4000.7	5075.7	3219.2	3489.2	5703.4
Canada	389.8	546.9	753.2	1297.5	955.7	1048.0	1030.3	1264.0
China	2129.6	946.8	1965.5	4052.3	7860.2	5718.1	6778.5	8869.4
European Union	22,065.2	9448.8	8598.1	19,017.7	30,166.9	6542.3	22,255.7	29,268.5
India	2724.8	1505.8	553.1	3474.0	-1732.1	4299.0	1330.7	819.5
Japan	8801.4	4285.5	3919.3	11,171.1	8790.5	21,206.1	21,766.0	13,381.1
New Zealand	109.4	-35.0	-157.1	21.7	57.2	-141.8	388.5	319.9
Pakistan	19.8	6.8	14.7	29.5	12.4	1.3	-2.1	3.3
Republic of Korea	2439.1	1533.6	1798.6	4298.8	1557.3	1577.0	3652.4	4468.9
Russian Federation	30.9	81.3	139.8	60.3	67.6	184.4	542.1	-28.4
USA	10,803.4	3118.7	5214.6	12,285.3	9375.4	14,395.7	4913.3	13,042.3
Rest of the world	23,529.0	16,713.6	17,460.7	25,450.7	19,091.4	36,854.7	32,142.9	34,692.2
Total	84,916.5	49,692.9	47,927.0	100,360.1	95,837.9	115,452.8	117,687.0	136,181.4

Source: ASEAN (2015, p. 43)

Table 14 Intra-ASEAN FDI inflows shares 2007–2014 (in %)

	2007	2008	2009	2010	2011	2012	2013	2014	2001–2007 average	2008–2014 average
By source, FDI from:										
Brunei	0.0	0.8	1.9	−0.2	1.0	1.5	4.5	0.2	0.3	1.4
Darussalam										
Cambodia	0.0	0.1	−0.2	0.1	0.2	0.0	0.0	0.1	0.1	0.1
Indonesia	8.2	8.2	20.6	9.6	14.3	15.4	11.6	7.8	8.3	12.5
Lao PDR	0.1	−0.7	0.0	0.2	0.0	0.0	−0.2	0.0	0.1	−0.1
Malaysia	10.0	35.6	39.6	22.6	13.7	17.1	8.2	15.9	18.9	21.8
Myanmar	0.7	0.6	1.1	0.5	0.8	0.5	0.5	0.5	0.2	0.6
Philippines	3.7	1.5	−6.6	1.7	−3.0	5.1	−2.4	0.3	2.5	−0.5
Singapore	66.2	44.2	33.3	52.7	81.0	50.2	75.3	70.2	64.4	58.1
Thailand	9.2	8.5	8.8	10.3	−10.1	8.1	0.7	3.7	4.6	4.3
Vietnam	1.9	1.3	1.4	2.6	2.0	2.1	1.9	1.4	0.6	1.8
ASEAN-6	97.4	98.7	97.7	96.6	97.0	97.4	97.9	98.1	99.1	97.6
CLMV	2.6	1.3	2.3	3.4	3.0	2.6	2.1	1.9	0.9	2.4
By destination, FDI to:										
Brunei	0.6	0.0	0.0	0.6	0.5	0.2	−0.3	0.6	0.6	0.2
Darussalam										
Cambodia	2.8	2.3	2.6	2.3	1.5	2.5	1.5	1.5	1.6	2.1
Indonesia	11.5	32.5	20.7	38.8	57.2	36.9	45.0	55.2	13.4	40.9
Lao PDR	1.0	0.5	0.9	0.9	0.5	0.4	0.5	0.6	0.3	0.6
Malaysia	39.2	15.7	−0.9	3.5	18.3	13.7	11.3	11.4	14.8	10.4
Myanmar	1.0	1.0	1.0	0.2	0.6	0.7	6.1	2.8	1.0	1.8
Philippines	−7.3	2.9	−0.1	0.3	−0.5	0.7	−0.2	0.3	2.7	0.5
Singapore	20.0	14.3	47.4	36.8	11.8	40.4	18.9	18.6	21.2	26.9
Thailand	25.5	4.9	21.9	8.1	−0.3	−1.7	6.5	2.7	39.2	6.0
Vietnam	5.6	25.9	6.4	8.6	10.4	6.1	10.7	6.3	5.3	10.6
ASEAN-6	89.5	70.4	89.1	88.1	86.9	90.2	81.1	88.8	91.9	84.9
CLMV	10.5	29.6	10.9	11.9	13.1	9.8	18.9	11.2	8.1	15.1

Source: ASEAN (2015, p. 44)

shares in intra-ASEAN FDI inflows were as follows: manufacturing (29.5 and 26.6 %, respectively), financial intermediation (24.1 and 20 %, respectively), real estate and related services (15.4 and 25.1 %, respectively).

4.5 Initiative for ASEAN Integration (IAI) and CLMV

IAI—an initiative launched in November 2000 at the Informal ASEAN Summit, was aimed at reducing divisions between member states. It has been drawn as a framework of regional cooperation to share resources, expertise and experiences between leading members and followers, namely, CLMV. IAI was supported by Hanoi Declaration on Narrowing the Development Gap (NDG) for Closer ASEAN Integration in the following years. Both IAI and NDG addressed CLMV as newer members, lacking experiences of few decades of regional cooperation of five founding countries of ASEAN (Indonesia, Malaysia, Philippines, Singapore and Thailand), while facing significant socio-economic development challenges that require assistance and intensive involvement of better performing neighbours. Worth noting, three of CLMV states were classified as least developed countries (LDCs) by the United Nations.

IAI frameworks embraced two comprehensive work plans for period 2002–2008 and 2009–2015. Both plans focused mainly on support of CLMV's governments to build capacities and address regional commitments more effectively. The major context is an establishment of ASEAN Community till the end of 2015, consisting of three closely and mutually intertwined pillars, namely, ASEAN Economic Community (AEC), Socio-Cultural Community (ASCC) and Political-Security Community (APSC). As stated in the Declaration of ASEAN Concord II (Bali Concord II) agreed in Bali, Indonesia, on 7 October 2003, future ASEAN Community will act in the common interest and prerogatives of peace, stability and prosperity of the region. IAI Work Plan II, covering 182 action lines to be implemented through numerous projects or set of projects, was expected to enhance CLMV integration with the region. Within 182 actions lines, 94 addressed AEC, 78—ASCC, 6—APSC, whereas 78 were related to policy development and implementation, 85—capacity building and training. Among AEC-related measures CLMV countries were provided with translation of a primer on rules of origin into their national languages to improve high officials' skills when entering trade negotiations.

Following OECD Development Centre's development gap indicators, six key policy areas were identified to measure the scale of the distance between ASEAN-6 and CLMV, namely: poverty, human resource development, infrastructure, tourism, ICT, trade and investment. Variables were normalised and indexed into a scale between 0 (no gap) to 10 (widest gap) base points. For each variable the ASEAN development gap was defined by the difference between the average indices of ASEAN-6 and CLMV. As Fig. 2 indicates, the largest gap exists in poverty-related indicators (4.4), as well as human resources development (4.0), while the smallest one—in tourism (1.5).

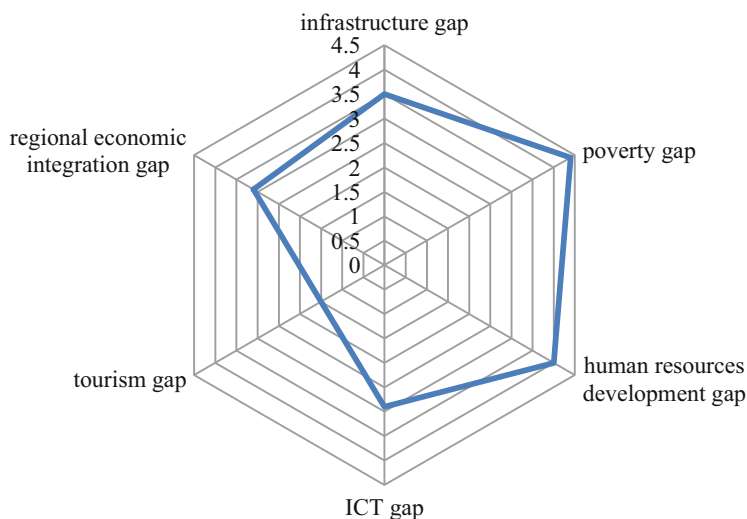


Fig. 2 Development gaps between ASEAN-6 and CLMV 2011–2012. Source: ASEAN (2015, p. 85)

4.6 ASEAN Plus FTA and CLMV

Five ASEAN Plus FTAs that entered into force in years 2005–2010 assumed 13 years (ACFTA—services), 14 years (AIFTA—goods, AKFTA—goods), 15 (AKFTA—services, ACFTA—goods, AANZFTA—goods and services) or 18 years (AJCEP—goods) for full implementation. Duty phase out periods were agreed separately for ASEAN-6 and CLMV. For instance, in case of ACFTA, tariffs for more than 90 % of total tariff lines were eliminated till 2012 for both China and ASEAN-6, in case of AKFTA deadline for Republic of Korea was set at 2010, ASEAN-6—2012, while for Vietnam—2018, Cambodia, Lao PDR and Myanmar—2020. In case of AJCEP, normal track duty phase out will end in 2018 only between Japan and ASEAN-6, providing CLMV with extended period. Finally, AANZFTA assumed progressive liberalization of tariffs for over 90 % of tariff lines by 2020 for Brunei, Malaysia, Philippines and Thailand, 2022—for Vietnam, 2025—for Cambodia, Indonesia, Lao PDR and Myanmar. Meanwhile, both Australia and New Zealand are expected to eliminate tariffs for 100 % tariff lines till 2020.

4.7 RCEP and TPP

Mega-regional competitive trade projects of Regional Comprehensive Economic Partnership (RCEP) and Trans-Pacific Partnership (TPP) require in-depth analysis

due to partially overlapping memberships, as well as the context of rivalry over influences in ASEAN between China, Japan and the United States. While RCEP tend to be perceived as China-led initiative, TPP seems to be dominated by the US party, while Japan is the common denominator of both trade projects, together with four ASEAN members, namely, Brunei Darussalam, Malaysia, Singapore and Vietnam, as well as Australia and New Zealand (see: Fig. 3). Thus, previous division between ASEAN-6 and CLMV may evolve toward pro-RCEP and pro-TPP division of ASEAN determining future reconfiguration of regional trade regime, however, TPP membership does not necessarily stipulate anti-RCEP approach of a given ASEAN member. Namely, aforementioned four ASEAN representatives engaged in TPP talks may gain an advantage over the other six member states when competing for the US market, while strengthening political-security alliance to offset rising influences of China. The question is whether both within ASEAN-6, as well as CLMV RCEP/TPP division may lead to decomposition of those subgroups and affect further convergence. In my opinion, it is likely, however, to a larger extent in case of CLMV and Vietnam's prospective membership in TPP, because of pretty low probability of future accession of three least developed countries (CLM) to highly advanced and intrusive US-led trade block, while both Indonesia's, Philippines', as well as Thailand's future TPP membership cannot be excluded. Therefore, successful completion of RCEP and TPP talks may perspectively enhance further evolution of two-speed ASEAN, however, with Vietnam already joining the core—future ASEAN-7, while leaving CLM behind.

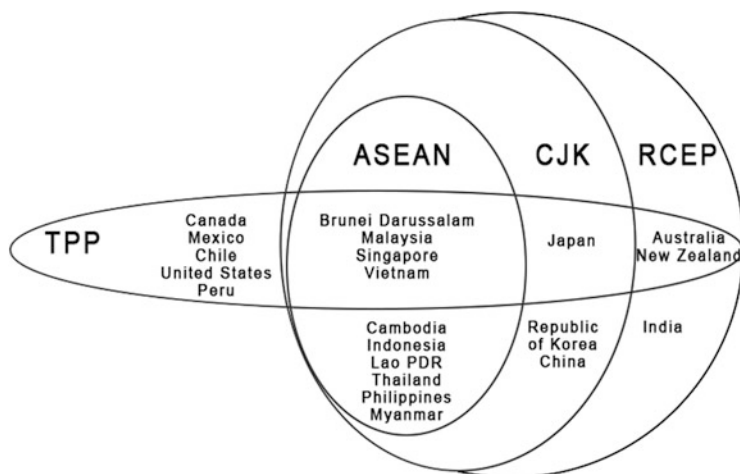


Fig. 3 Overlapping memberships of CLMV in TPP and RCEP. *Notes:* Association of Southeast Asian Nations (ASEAN): Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam; **CJK**: China–Japan–Republic of Korea; **Regional Comprehensive Economic Partnership (RCEP)**: ASEAN + China, Japan, Republic of Korea, India, Australia, New Zealand; **Trans-Pacific Partnership (TPP)**: Singapore, Vietnam, Brunei Darussalam, Malaysia, Japan, Australia, New Zealand, United States, Canada, Mexico, Peru, Chile. Source: Own elaboration based on: Bobowski (2014a)

On 20 November 2012, at the East Asia Summit in Phnom Penh, leaders of ASEAN and six ASEAN FTA Partners, namely, Australia, China, India, Japan, New Zealand and Republic of Korea, issued the Joint Declaration on the Launch of Negotiations for the Regional Comprehensive Economic Partnership (RCEP).

RCEP trade negotiations, co-chaired by ASEAN, to constitute its centrality and leadership, started in May 2013, till October 2015 ten rounds of negotiations were completed. RCEP agreement is expected to be broader in scope and deeper in commitments than five ASEAN Plus FTAs, while being flexible in terms of diversified conditions and determinants of engaged parties.

Consequently, special and differential treatment is provided to least developed ASEAN states, then, CLMV. Centralist role of ASEAN, however, cannot be treated as guaranteed or given, then, “Plus Three” countries of Northeast Asia, namely, China, Japan and Republic of Korea, may potentially marginalize ASEAN in the future trade pact, especially when considering trilateral free talks being in progress. In order to maintain centralist role, ASEAN cannot stay aside, need to play the role of a bridge among major regional players.

Noteworthy, establishing FTA with ASEAN has become a prerequisite to enter RCEP talks. According to Guiding Principles and Objectives for Negotiating RCEP, “(...) any ASEAN FTA Partner that did not participate in the RCEP negotiations at the outset would be allowed to join the negotiations, subject to terms and conditions that would be agreed with all other participating countries (Principle 6)” (Hamanaka 2014, p. 176).

Furthermore, RCEP’s Guiding Principles stated that “(...) taking into consideration the different levels of development of the participating countries, the RCEP will include appropriate forms of flexibility including provision for special and differential treatment, plus additional flexibility to the least-developed ASEAN Member States” (Hamanaka 2014, p. 177). Namely, CLMV are provided with technical assistance and capacity building to participate fully in trade negotiations, implement RCEP obligations, as well as enjoy benefits of the new mega-regional trade framework.

As already mentioned, RCEP assumed deeper economic cooperation than existing ASEAN Plus FTA agreements, namely, it will open up more trade in goods and services, eliminate trade barriers, and gradually liberalise services and provide for greater foreign direct investment in ASEAN and its external trading partners (Pakpahan 2012). On the other hand, as Sally (2014) argued, RCEP “will have weak disciplines on non-tariff regulatory barriers that are the biggest obstacles to trade in the region. It might end up agglomerating the noodle-bowl of FTAs among members rather than ironing out distortions among them. In such a scenario, RCEP will create little new trade and investment, and cause extra complications for global supply chains.”

In parallel to RCEP talks, US-led TPP negotiation rounds proceed, engaging, among others, four ASEAN members, representing both ASEAN-6, as well as CLMV subgroups, namely, Brunei Darussalam, Malaysia, Singapore and Vietnam. TPP trade talks were formally launched in March 2010 in Melbourne in the group of

four states, including Vietnam. In the following months, three aforementioned ASEAN members entered the process, accompanied by, among others, Japan.

TPP, in contrast to RCEP, may be considered as a threat to ASEAN's solidarity due to the fact that four member states decided to join trade talks over U.S.-led project in parallel to China-led initiative. Consequently, ASEAN is risking involvement in the global American-Sino rivalry over the leadership in the Asian regionalism. However, as well as RCEP cannot be found as Beijing-backed trade framework, so as TPP is not a concept originated in Washington. While not being linked through FTA with ASEAN, the United States attempted to attract new allies from Southeast Asia through TPP framework.

Current TPP talks may be found as an extension of P5 grouping (Trans-Pacific Strategic Economic Partnership—TPSEP), established in 2005, embracing Australia, Brunei Darussalam, Chile, New Zealand and Peru, however, this translated into latecomer status of the United States, thus, Washington rather opted for a new trade agreement covering twelve states instead of “TPSEP Plus”. Accordingly, accession clause of the latter appeared to be ambiguous, namely, “(. . .) Agreement is open to accession on terms to be agreed among the Parties, by any APEC Economy or other State. The terms of such accession shall take into account the circumstances of that APEC Economy or other State, in particular with respect to timetables for liberalisation” (Hamanaka 2014, p. 169).

It should be noted, that TPP is not designed as regional-wide agreement, but, in fact, a set of bilateral FTAs. However, the United States tend to avoid re-opening of already established bilateral FTAs, attempting to negotiate separately tariff schedules with each TPP partner (Lewis 2011). As a consequence, future members of TPP are required not only to negotiate its own concessions, but also existing concession of all the member states at bilateral basis, that potentially inflate entry barrier. Thus, further enlargement of TPP appears to be uncertain, reducing possibility of broadening the spectrum of ASEAN member states to enter TPP.

Noteworthy, TPP encourages rule—making competition with the United States in terms of the degree of liberalization and integration. It must emphasized, that TPP is a high standard trade agreement of 26 chapters covering, next to the characteristic for ASEAN Plus FTAs customs border issues, WTO-Plus elements such as environment, labor, intellectual property rights, and government procurement (Bobowski 2014b, 2015). Furthermore, it can be assumed, that TPP may enhance dynamic competition for the US market between non-TPP, and TPP members, then, affect both trade, and investment performance of separate ASEAN member states, four of which decided on double membership in RCEP and TPP (Tso 2012).

Worth mentioning, China, being afraid of rule competition under US-led trade project, unwilling to sit by TPP negotiation table, launched bilateral sectoral dialogue with ASEAN in July 2011, covering a broad range of industries (Nan 2010). The problem looks to some extent similar in case of India, reluctant to “socialization” through TPP membership within such fields as environment, and human rights.

4.8 TPP or RCEP: Choice Between ASEAN's Internal Erosion and Solidarity?

When considering rivalry between China-led RCEP and the US-led TPP, it may strengthen centralist position of ASEAN, then, secure its status as the core regional organisation. A special emphasis should be put on RCEP, assigning ASEAN a critical role due to prerequisite of possessing FTA link with ASEAN by any state applying for membership in this trade framework, even though it has been specified that way mainly to exclude the United States. However, presence of powerful competing Northeast Asian states in RCEP, namely, Japan, and China, may threaten centralist position of ASEAN because of being set aside (Kassim 2012; Cheong and Tongzon 2013). In case of TPP, ASEAN is not considered as an integrated entity, mainly due to limited spectrum of representatives being engaged in negotiations. The question is whether TPP membership may become a source of internal divisions within ASEAN to classify some member states as pro-TPP, while the others—pro-RCEP. Furthermore, as Panda (2014) stated, some ASEAN members consider both TPP and RCEP through the prism of economic interests, while the others address security concerns, focusing mainly on territorial disputes with China.

As already mentioned, eventual internal decomposition of ASEAN may start within CLMV with Vietnam's relocation to the core of the grouping due to further real convergence enhanced by TPP membership. Importantly, Vietnam's engagement in US-led trade talks since the beginning may be recognized as an attempt to reconfigure regional production networks at the expense of China's interests in Southeast Asia. Even though Lao PDR, another CLMV representative, seems to be heavily influenced by China's economic and political expansion, similarly to Vietnam, relatively high entry barrier to TPP discourage another least developed ASEAN states' membership in US-led trade block.

On the other hand, ASEAN-6, after successful completion of both RCEP and TPP talks, may be affected by internal tensions among pro-RCEP and pro-TPP subgroups, the latter supported by Vietnam. Absent ASEAN-6 representatives by TPP table, namely, Indonesia, Philippines and Thailand, may not necessarily be willing to consider future membership in US-led project under circumstances of probable polarization in US-Sino relations, however, Indonesia, as the leading and largest, in terms of nominal GDP, ASEAN member, is heavily interested in assuming and securing ASEAN's centrality and leadership in the Asian regionalism. When being intensively promoted by the United States as G20 candidate, Indonesia may follow soft balancing strategy instead of attempting to counter US interests in the region, however, without applying for TPP membership that would annoy China and affect bilateral ASEAN-China relations. Similar course may be undertaken by Philippines, while Thailand appears to be politically unstable nowadays, thus, its political weight is, at least temporarily, underestimated and diluted. However, both Malaysia's and Singapore's engagement in TPP talks, highly successful service economies of ASEAN, may reshape intra-ASEAN hierarchical

relations to balance China's influences through strategic alliance with Japan—another both RCEP and TPP participant. Last but not least, three least developed countries—CLM, may potentially expand the distance to the future ASEAN's core, the latter probably engaging Vietnam at the time.

Thus, ASEAN of two speeds may be not effectively addressed by closer integration within ASEAN Community, with special regard to ASEAN Economic Community pillar if being accompanied by progressive rivalry between two mega-regional trade blocks implemented successfully. Thus, political speeds within ASEAN may continuously differentiate, resulting of partially contradictory interests of pro-RCEP and pro-TPP ASEAN members. The fact that some ASEAN members might consider TPP membership, then, address trade regionalist initiatives, through the prism of, for instance, security dilemmas, indicate, that after 50 years of regional integration ASEAN is not able to address political concerns as cohesive, self-confident entity.

5 Conclusions

The two-speed ASEAN is an objective fact, recognized by Southeast Asian leaders. The way CLMV's backwardness is addressed in the ASEAN's trade diplomacy indicates the importance of development gap between the newer members and the core, namely, ASEAN-6.

Firstly, it is important to point out the origins of diversified speeds in ASEAN. Probably, the two-fold nature of a gap, namely, economic and political, determines the way member states participate in the regional developments and processes. CLMV entered ASEAN in the 90s, manifesting significant transformation of the Southeast Asian grouping prioritizing economic agenda of cooperation partially at the expense of the former political and security prerogatives. On the other hand, trade regionalism, manifesting through free trade agreements and economic partnership agreements, tend to reconcile economic and security issues these days, ie ASEAN-China FTA appeared to diminish mutual untrust between Northeast Asian emerging hegemon and Southeast Asian states, while the following ASEAN Plus FTAs, starting with ASEAN-Japan CEP, were expected both to balance China's influences, as well as boosting ASEAN's extra-regional economic and political position. The latter seems to be of primary importance in the context of RCEP negotiations that should serve as a trigger of ASEAN's integration into the global economy, following one of the ASEAN Economic Community's pillars.

Secondly, the golden rule of non-interference in member states' internal affairs and voluntary basis when attracting individual engagement in the regional integration initiatives, enhanced Southeast Asian regionalism, however, under institutionalized and heavily focused on political correctness. Therefore, when addressing economic gap between ASEAN-6 and CLMV, political context of the lower speed seems to be overlooked or intentionally untold. ASEAN established in the 1967 to counter expansion of communism, make no explicit attempt to encourage

transformation of the non-democratic—communist or hybrid—regimes in Vietnam, Lao PDR or Myanmar, while maintaining successfully quasi-authoritarian system in Singapore. However, experiences of enlarged EU proved that the former Eastern Bloc's representatives could have been consciously located outside the core of EU by the European leaders due to development gap resulting of economic and political conditions. EU regional and cohesion policy, expected to narrow the gap, was not necessarily designed to induce real convergence of the Eastern Europe to eliminate the distance between EU-15 and "new EU", but to manifest European solidarity in the name of political alliance. Similarly, ASEAN Investment Fund established in 2012, as well as prospective support of the China-led Asian Infrastructure Investment Bank (AIIB) and Japan-led Asian Development Bank (ADB) may help to improve physical connectivity both in intra- and extra-ASEAN dimension, to enhance, among others, CLMV's deeper engagement in regional economic integration. Importantly, infrastructure investments need to be accompanied by development of competitive local markets of logistics services and trade facilitations to reduce transaction costs of international business entities. Therefore, two-speed nature of ASEAN is an "original sin" of the grouping that extended membership in the 90s, however, the stakes appear to be raised to the maximum level then. It is not a coincidence that both East Timor and Papua New Guinea were not accepted as prospective members so far.

Thirdly, 26 year-period of AFTA implementation, including establishment of CEPT and ATIGA, provided, to date, CLMV with extended periods for duty elimination within both SL and HSL, while intra-ASEAN-6 trade in goods has been already sanctioned as duty free in over 99 % of tariff lines. Noteworthy, sort of non-tariff measures is still accessible under flexible treatment of CLMV. On the other hand, trade in services is continuously challenged by regional markets' diversity and backwardness.

Fourthly, CLMV's growth rates tend to be relatively higher than ASEAN-6's, moreover, both in years 2007 and 2014 CLMV tend to exceed ASEAN average by 2.32–2.72 %. In the context of GDP per capita, in years 2007–2014 Cambodia, Lao PDR and Vietnam—when combined increased their shares in Singapore's index only by 0.79 %. Importantly, when CLMV doubled the said index in the 7-year period, leading Singapore experienced the rise of GDP per capita by nearly a half—then, income gap is constantly large. In the respective period, gap in regards of social development between ASEAN-6 and CLMV, measured by HDI indicator, appeared to broaden, mainly due to deterioration of CLM's indices, similarly to EPI index.

Fifthly, CLMV proved to be successful in increasing the shares of total trade in GDP, then, improved significantly trade openness, with special regard to Cambodia and Vietnam, ranked in 2014 at the second and the third place, respectively, among ASEAN members. This translated into increasing shares of CLMV in intra-ASEAN trade, however, by less than 3 %. Interestingly, CLMV's shares in extra-ASEAN trade, even though doubled in the respective period, were heavily dominated by one country, namely, Vietnam with two-digit index in 2014.

Sixthly, Doing Business Survey by WB indicated gradual improvement of CLMV's performance in regards of time and cost of trade, however, disaggregation at the level of single criteria, namely, Trading across Borders reflected gradual advance of Vietnam, with the three other less developed countries maintaining the distance to the ASEAN's core.

Seventhly, in terms of output shares in GDP, agriculture accounts for relatively high shares of nominal product of Cambodia, Lao PDR and Myanmar, with underrepresented service sector, the latter perceived as critical factor of attracting global value chains, inducing innovations, in fact—enhancing economic integration with the region.

Eighthly, trade openness and market enabling policies induced FDI inflows to CLMV, as a result, three of four states considered, were ranked among top four largest recipients of FDI in relation to GDP in ASEAN. When considering FDI Regulatory Restrictiveness, Cambodia's and Vietnam's indices were comparable to Singapore's and Malaysia's, while Lao PDR and Myanmar performed worse than ASEAN average. Worth mentioning, CLMV recorded better indexes than China in the respective period. Moreover, ASEAN-6 tend to invest more in the post-2008 period within ASEAN, while increasing the shares of CLMV, however, with massive domination of Vietnam within the latter subgroup.

Ninthly, development gap between ASEAN-6 and CLMV, according to OECD Development Centre, appeared to be large in the fields of poverty and human resources development. Following IAI, as well as Hanoi Declaration (NDG), CLMV are provided with support in regards of policy development and implementation and capacity building programmes to participate fully in regional integration processes and benefit to maximum extent.

Tenthly, ASEAN Plus FTAs, as well as mega-regional RCEP provide CLMV with extended periods and diversified margins of flexibility. The latter trade framework, currently under negotiation, assumes special provisions and differential treatment of less developed countries.

Eleventhly, engagement of CLMV representative, as well as three representatives of ASEAN-6 in TPP talks, namely, Vietnam, next to Brunei Darussalam, Malaysia and Singapore, may reconfigure intra-ASEAN hierarchy and replace the former core and “catching-up” four with pro-TPP and pro-RCEP subgroups, inconsistent in terms of perceiving China's role in the region, as well as the importance of US ally in the regional trade and security complex. However, that won't be the issue in case of a failure of mega-regional trade talks both led by China and by the US. The question is whether in such a case centralist role of ASEAN, expected to be strengthened through trade block of 16 states, may be threaten, as well as political legitimacy of the grouping in confrontation with intra- and extra-regional powers. Irrespective of the negotiations' results, division of ASEAN into pro-US and pro-China coalitions may be outlined and preserved if powers' rivalry above “ASEAN's head” will proceed and escalate, starting with US-Sino and Japanese-Sino relations.

Finally, ASEAN seems to be sentenced on “two-speed” scheme, regardless of the final result of both TPP and RCEP talks, as well as successful implementation of

already signed ASEAN Plus FTAs, followed by numerous plurilateral and multi-lateral agreements by individual ASEAN members inducing, so far, rapid increase in non-tariff barriers. Two-speed ASEAN, considered in economic terms, if being properly addressed by collective interventions under ASEAN Community, as well as regional financial frameworks, such as aforementioned AIIB and ADB, will be continuously accompanied by political two speeds, that cannot be offset in the foreseeable future. While reducing intra-ASEAN development gap significantly, then, real convergence in more-than-moderate scale seems to be uncertain, Vietnam may be recognized as the first candidate among latecomers to enter ASEAN's core. Early accession to TPP talks seems to confirm Vietnam's readiness to relocate to the economic, potentially also political mainstream of ASEAN. Last but not least, Vietnam might be ready to speed up, in contrast to three less developed ASEAN members. Two-speed ASEAN is not the matter of the past, even though convergence is observed, it is also the matter of the future, then, bearable component of ASEAN's reality that should not be considered in terms of a threat. The only way is to accept it, as it seems to look like in case of the European Union, with high-speed subgroup of Eurozone members and the followers. That will not be the first time when ASEAN is taking the European lesson. The price of solidarity is worth paying, however, paraphrasing, to make "ASEAN's convoy" faster, "the slowest ships" might be left behind.

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Interdependence of Real, Financial and Export Import Indicators in a DSGE Model of Multiple Countries

Bulat Mukhamediyev and Azimzhan Khitakhunov

Abstract Interdependence, which is a consequence of the international division of labor and use of the world's natural resources, increases at the global level. Macroeconomic indicators of each country are more exposed to shocks arising in the country and in partner countries. In this paper, we propose a model of dynamic stochastic general equilibrium (DSGE) of many countries. For each country, the variables of output, inflation, interest rate, exchange rate, terms of trade, as well as exports and imports for each pair of countries are included in the model. In accordance with the number of countries the model contains equations of dynamic IS and New Keynesian Phillips curves and equations of monetary policy. The estimation of the model was implemented for the economies of Kazakhstan, Russia and the EU. An asymmetrical interaction of large and small economies is taken into account. The analysis of the impact of internal and external shocks on the macroeconomic variables is performed for each country/region. Responses of indicators on various shocks are obtained. For example, a positive technology shock in the country leads to the negative reaction of output, inflation and interest rate variables, as well as having a positive impact on imports and the negative impact on exports in each partner country. Cost-push as well as monetary policy shocks reduce imports and increase exports, and this is also observed for a couple of countries where there is no such a shock. It is revealed that the value of the response does matter to the size of the economy. The model allows analyzing the effects of the macroeconomic policies of trading partners to the fluctuations of the various shocks. The model can be extended in various directions.

Keywords Interdependence • DSGE model • Impulse-response analysis • Export • Import

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M.H. Bilgin et al. (eds.), *Country Experiences in Economic Development, Management and Entrepreneurship*, Eurasian Studies in Business and Economics 5,
DOI 10.1007/978-3-319-46319-3_4

1 Introduction

There is an increasing interdependence on the global level in the world which is the consequence of international labor division, use of world reserves of natural resources. Macroeconomic indicators of each country, such as GDP growth, inflation rate, exchange rate, export, import of goods are more exposed to shocks as in the country, so in the partner economies. Besides, a great influence of big economies on other countries should be expected. An effective instrument to the solution of this problem can be Dynamic stochastic general equilibrium models. Their fundamentals were laid in Kydland and Prescott (1982). They are based on microeconomic analysis of agents optimizing their behavior in the conditions of flexible prices. Price flexibility leaves opportunity only for real values to make fluctuations in the economy.

Then, elements of the Keynesian approach, containing nominal rigidities were included in the DSGE model. In Calvo (1983) a pricing mechanism as a certain stochastic process of decision-making firms to change the price or keeping it at the same level was proposed. As a result a new paradigm in the construction of models of dynamic stochastic general equilibrium appeared. They take into account the microeconomic foundations of decision-making by households, optimization behavior of monopolistically competitive firms and regulatory functions of the state. Because of the nominal rigidity of prices and wages, compliance with the results of calculations required by the model with real data of short-term macroeconomic fluctuations in the economy is achieved.

Among the most well-known DSGE models created in the last two decades and intended for policy analysis and forecasting, there is a list of developments by central banks of Europe and America (Smets and Wouters 2003; Dib 2001; Cuche-Curti et al. 2009) and central banks of developing countries (Medina and Soto 2007; Tovar 2008; Galí and Monacelli 2005) and others.

In this article a model of dynamic stochastic general equilibrium of many countries in which a way to construct models of two countries was offered (Obstfeld and Rogoff 2001; Corsetti and Pesenty 2001). For each country variables such as output, inflation, interest rate, exchange rate, trade conditions and export and import for each pair of countries are included in the model. A model contains equation of dynamic IS and New Keynesian Phillips curves and equations of monetary policy. Asymmetric interference of big and small economies is considered in the equations. The analysis of the impact of internal and external shocks on the macroeconomic performance of each country/region is done. Response on various indicators shocks is obtained. It was noted that for the size of the economy the value of the response index is important. The model can be used to analyze the impact of macroeconomic policies both within the country and abroad due to the fluctuations of the various shocks. Section 2 presents a model of dynamic stochastic general equilibrium in many countries/regions, with its mathematical reasoning. It is supplemented by the equations of exports and imports between the countries. The results of calculations

on the model of the three countries/regions are presented in Sect. 3. The last section concludes.

2 Model

2.1 Households

Domestic and foreign goods are consumed in each country. For production, firms use labor. Nominal rigidity of prices is modeled with the use of mechanism by Calvo (1983). It is assumed that the world population is made up of a continuum of infinitely long-lived households indexed through $i \in [0, 1]$. Households in each country have the same preferences. There are K countries in the world. In the country k households are indexed as $i \in J_k$. A set of J_k , $k = 1, 2, \dots, K$, do not cross/overlap and cover all the households. We denote n_k the set of a measure J_k , which reflects the population of the country k .

In the country k a composite index of consumption is determined by assuming that all the traded goods and trade costs are ignored:

$$C_k = \left(\sum_{l=1}^K n_l^{\frac{1}{\mu}} C_{kl}^{\frac{\mu-1}{\mu}} \right)^{\frac{\mu}{\mu-1}}, \quad (1)$$

where C_{kl} —a composite index of consumer goods in the country k produced in the country l , μ —parameter. The representative household maximizes C_k while limiting

$$\sum_{l=1}^K P_{kl} C_{kl} = P_k \quad (2)$$

Where P_{kl} —the index of the prices of goods from the country l in the currency of the country k , P_k —index of the prices of all goods consumed in the country k . Under the condition of maximum consumption (1) under the limit (2) we obtain

$$\begin{aligned} C_{kl} &= \left(\sum_{j=1}^K n_j P_{kj}^{1-\mu} \right)^{\frac{\mu}{1-\mu}} \frac{n_l}{P_{kl}^{\mu}} C_k, \\ P_k &= \left(\sum_{l=1}^K n_l P_{kl}^{1-\mu} \right)^{\frac{1}{1-\mu}}. \end{aligned} \quad (3)$$

For simplicity, we consider the case where $\mu = 1$. In the limit where μ is tending to 1, we find that the price index

$$P_k = \prod_{l=1}^K P_{kl}^{n_l},$$

and the index of consumer goods from country l to country k

$$C_{kl} = n_l \left(\frac{P_{kl}}{P_k} \right)^{-1} C_k, \quad k, l = 1, \dots, K. \quad (4)$$

And a composite index of consumption in the country k will take the form of a power function

$$C_k = \prod_{l=1}^K \frac{C_{kl}^{n_l}}{n_l^{n_l}} = \frac{C_{k1}^{n_1} C_{k2}^{n_2} \dots C_{kK}^{n_K}}{n_1^{n_1} n_2^{n_2} \dots n_K^{n_K}}, \quad k, l = 1, 2, \dots, K. \quad (5)$$

Here and below the index of period t is omitted if it is inessential. The index of consumption of goods in the country k produces in the country l :

$$C_{kl} = \left[\left(\frac{1}{n_l} \right)^{\frac{1}{\gamma}} \int_j C_k(i)^{\frac{\gamma-1}{\gamma}} di \right]^{\frac{\gamma}{\gamma-1}}, \quad (6)$$

where $C_k(i)$ —consumption of good i in the country k , γ —the elasticity of substitution across two individual goods i, j produced in the country k , $\gamma > 1$. The representative household maximizes C_{kl} on $C_k(i)$, $i \in J_l$ provided

$$P_{kl} C_{kl} = \int_{J_l} P_k(i) C_k(i) di, \quad (7)$$

where $P_k(i)$ —the price of good i in the country k .

In the country k a representative household has a discontinued utility

$$U_{kt} = \mathbb{E}_t \left\{ \sum_{s=t}^{\infty} \beta^{s-t} \left[\frac{C_{ks}^{1-\rho}}{1-\rho} + \frac{\omega_k}{1-\delta} \left(\frac{M_{ks}}{P_{ks}} \right)^{1-\delta} - \vartheta_k \frac{L_{ks}^{1+\varphi}}{1+\varphi} \right] \right\}, \quad (8)$$

Where C_{ks} —real consumption, $\frac{M_{ks}}{P_{ks}}$ —real money balances, P_{ks} —consumer price index in the country k , L_{ks} —is the cost of labor in the time period s . Parameter β , $0 < \beta < 1$, represents the intertemporal discount factor, parameters ρ , δ , φ define utility function elasticities of the relevant variables.

The representative household i maximizes utility (8) under the budget constraints

$$P_{kt} C_{kt} + M_{kt} + B_{kt} + P_{kt} \tau_{kt} \leq W_{kt} L_{kt} + (1 + i_{kt-1}) B_{kt-1} + \\ + M_{kt-1} + \Pi_{kt}, \quad t = 0, 1, \dots$$

Here for the country k and period t : W_{kt} —nominal wage in a perfect labor market, the same for all households, i_{kt-1} —nominal interest rate for the time interval from $t-1$ to t for a one-period risk free corporate bonds B_{kt-1} in the domestic currency are indicated. Money M_{kt} does not give a nominal income. Π_{kt} —income of a representative household, τ —the real undistorted lump-sum taxes. The index of household $i \in J_k$ is omitted for simplicity. For each country $k = 1, \dots, K$ optimality conditions of the first order are true:

$$\frac{C_{kt}^{-\rho}}{P_{kt}} = \beta(1 + i_{kt})\mathbb{E}_t \left[\frac{C_{kt+1}^{-\rho}}{P_{kt+1}} \right], \quad (9)$$

$$\vartheta_k \frac{L_{kt}^\varphi}{C_{kt}^{-\rho}} = \frac{W_{kt}}{P_{kt}}, \quad (10)$$

$$\frac{\omega \left(\frac{M_{kt}}{P_{kt}} \right)^{-\delta}}{C_{kt}^{-\rho}} = \frac{i_{kt}}{1 + i_{kt}}. \quad (11)$$

2.2 Firms

It is assumed that each household is also a producer of the good $i \in J_k$. The goods are thought to be differentiated, thus each such a firm has a market power. In simple words output of each firm $i \in J_k$ is defined by the production function

$$Y_{kt}(i) = A_{kt}L_{kt}(i). \quad (12)$$

The value A_{kt} sets the influence of shock performance. It is assumed that in different countries these values may be correlated. In the case of accounting energy costs as in Mukhamediyev (2014) production function might look like

$$Y_{kt}(i) = A_{kt} \min\{L_{kt}(i), O_{kt}(i)\},$$

Where $O_{kt}(i)$ —the cost of oil as an energy resource, L_{kt} —labor costs. For a country that produces oil, its production sector should be separately disclosed. Here A_{kt} reflects technological shocks. Behavior of A_{kt} is described by an autoregressive process

$$\ln A_{kt} = \rho_{ak} \ln A_{kt-1} + \varepsilon_{akt}, \quad \varepsilon_{akt} \sim i.i.d.(0, \sigma_{ak}^2).$$

Since the goods are assumed to be diversified, the firm may change the price of its goods to a certain limit, i.e. there is a monopolistic competition. Labor markets in

the countries are isolated. Firms hire labor in their countries. For the production function (12) the firm's profit

$$\Pi_{kt}(i) = P_{kt}(i) \left[Y_{kt}(i) - \frac{W_{kt}}{A_{kt}P_{kt}(i)} Y_{kt}(i) \right].$$

The coefficient

$$MC_{kt} = \frac{W_{kt}}{A_{kt}P_{kt}(i)}$$

is the real marginal cost of the firm. The optimal production volume of a good $i \in J_k$ is determined by the condition for maximization:

$$\frac{\partial \Pi_{kt}(i)}{\partial Y_{kt}(i)} = P_{kt}(i) + Y_{kt}(i) \frac{\partial P_{kt}(i)}{\partial Y_{kt}(i)} - \frac{W_{kt}}{A_{kt}} = 0.$$

Let's consider the situation with flexible prices. Then all the firms in each period t optimally adjust their prices and set them the same, $P_{kt}(i) = P_{kt}$. Since only the firm i produces this product, then the equilibrium output should be equal to the global demand for it, that is $Y_{kt}(i) = C_t^w(i)$. Note that

$$\frac{Y_{kt}(i)}{P_{kt}} \frac{\partial P_{kt}}{\partial Y_{kt}(i)} = \frac{C_t^w(i)}{P_{kt}} \frac{\partial P_{kt}}{\partial C_t^w(i)} = -\frac{1}{\eta},$$

where η —the elasticity of demand for good at a price. Therefore, real marginal cost of production in the case of flexible prices is the same for all manufacturers in all countries:

$$\widetilde{MC} = \frac{\eta - 1}{\eta}.$$

Conditions of cleaning of market of commodity i is equilibrium of supply of this good to the total demand for all countries:

$$Y_{kt}(i) = \sum_{l=1}^K n_l C_{lt}(i), \quad i \in J_k, \quad k = 1, \dots, K.$$

It is believed that consumption is distributed across all the countries in proportion to the population.

Given the law of one price (6) it follows

$$C_{lmt} = n_m \left(\frac{P_{lmt}}{P_{lt}} \right)^{-1} C_{lt} = n_m \left(\frac{P_{kmt}}{P_{kt}} \right)^{-1} C_{lt}.$$

With S_{klt} we denote the terms of trade between countries k and l :

$$S_{klt} = \frac{P_{kkt}}{P_{klt}}.$$

Each country consumes exactly its real income. Formally we believe that $S_{kk} = 1$. It follows that

$$C_{kt} = \frac{P_{kkt} Y_{kt}}{P_{kt}} = \frac{P_{kkt} Y_{kt}}{\prod_{l=1}^K P_{klt}^{n_l}} = \prod_{l=1}^K S_{klt}^{n_l} Y_{kt}. \quad (13)$$

Now, using the production function (12) and optimality conditions (9)–(11) we can calculate equilibrium output under flexible prices.

$$\tilde{Y}_{kl} = A_{kt}^{\frac{\varphi+1}{\varphi+\rho}} \chi^{\frac{1}{\varphi+\rho}} \left(\frac{\eta-1}{\eta} \right)^{\frac{1}{\varphi+\rho}} \prod_{l=1}^K \left[S_{klt}^{\frac{-\rho(n_l-1)}{\varphi+\rho}} \right] \quad (14)$$

It depends positively on the overall performance and condition of country's trade with other countries, because $n_l < 1$.

2.3 Rigid Prices

Let's assume that in addition to monopolistic competition there is also nominal rigidity of prices. For the country k we present Euler equation in the following form:

$$C_{kt}^{-\rho} = \beta(1 + i_{kt}) P_{kt} \mathbb{E}_t \left[\frac{C_{kt+1}^{-\rho}}{P_{kt+1}} \right].$$

We insert in it real consumption C_{kt} from equation (13):

$$\prod_{l=1}^K (S_{klt}^{-\rho n_l}) Y_{kt}^{-\rho} = \beta(1 + i_{kt}) P_{kt} \mathbb{E}_t \left[\frac{1}{P_{kt+1}} \prod_{l=1}^K (S_{klt+1}^{-\rho n_l}) Y_{kt+1}^{-\rho} \right].$$

In the steady state economy we denote output as \bar{Y}_k , by \bar{S}_{kl} —the terms of trade of country k with country l , by \bar{i}_k —nominal interest rate, by \bar{P}_k —price index of commodities in the country k . Let's write this equation for the steady state.

We do log-linearization of both equations. Let's denote: $s_{klt} = \ln S_{klt}$, $y_{kt} = \ln Y_{kt}$, $\bar{s}_{kl} = \ln \bar{S}_{kl}$, $\bar{y}_k = \ln \bar{Y}_k$, $p_{kt} = \ln P_{kt}$, $\bar{p}_k = \ln \bar{P}_k$. Using the properties of logarithms, we obtain the following equation:

$$\begin{aligned} & \sum_{l=1}^K \rho n_l s_{klt} - \rho y_{kt} + \sum_{l=1}^K \rho n_l \bar{s}_{kl} + \rho \bar{y}_k = \ln(1 + i_{kt}) - \ln(1 + \bar{i}_k) + \\ & + P_{kt} - \mathbb{E}_t[p_{kt+1}] - \sum_{l=1}^K \rho n_l \mathbb{E}_t[s_{klt}] - \rho \mathbb{E}_t[y_{kt+1}] + \sum_{l=1}^K \rho n_l \mathbb{E}_t[\bar{s}_{kl}] + \rho \bar{y}_k. \end{aligned}$$

We denote variable deviations from their values in the steady state: $\hat{y}_{kt} = y_{kt} - \bar{y}_k$, $\hat{i}_{kt} = i_{kt} - \bar{i}_k$. Note that the difference $\pi_{kt+1} = p_{kt+1} - p_{kt}$ is the rate of inflation in period $t+1$. Then the equation is transformed to:

$$\hat{y}_{kt} = \mathbb{E}_t[\hat{y}_{kt+1}] + \frac{1}{\rho} \mathbb{E}_t[\pi_{kt+1} - \hat{i}_{kt}] + \sum_{l=1}^K n_l \mathbb{E}_t[\Delta s_{klt+1}], \quad k = 1, \dots, K. \quad (15)$$

This equation is equation of the dynamic IS curve. It sets the aggregate demand in the country k . In the period t aggregate demand increases if the expected outcome in period $t+1$ will be higher than its steady state. Expectation of inflation increase will also increase demand on domestic goods. But the expected improvement in terms of trade with other countries, that is positive value of Δs_{klt+1} , will lead to increase of current aggregate demand as prices of domestic goods will become relatively higher than prices of imported goods and incomes of the countries will increase.

In accordance with the mechanism of price correction Calvo (1983) manufacturer i changes the price in each period with the probability of $1 - \theta$, maximizing the expected profit at the price $P_t(i)$:

$$\mathbb{E}_t \left\{ \sum_{s=t}^{\infty} \theta^{s-t} \beta^{s-t} \left(\frac{C_s^w}{C_t^w} \right)^{-\rho} \left[\frac{P_{kt}(i)}{P_{kks}} Y_{ks}(i) - MC_{ks} Y_{ks}(i) \right] \right\}.$$

Here $\beta^{s-t} \left(\frac{C_s^w}{C_t^w} \right)^{-\rho}$ is the stochastic discount factor which is the marginal rate of substitution of global consumption between s and t , MC_{ks} —marginal costs of production in the country k of period s . With a probability θ^{s-t} the producer price in the period $s > t$ is equal to $P_{kt}(i)$, $i \in J_k$.

The profit of the firm in the period s that set a price in the period t , equals:

$$\Pi_{ks}(i) = P_{kt}(i) Y_{ks}(i) - W_{ks} \frac{P_{kks}}{A_{ks} P_{kks}} Y_{ks}(i) = P_{kt}(i) Y_{ks}(i) - MC_{ks} Y_{ks}(i) P_{kks}.$$

We divide on price P_{kks} and find the real profit of the firm $i \in J_k$ in the period s ($s > t$).

$$\frac{\Pi_{ks}(i)}{P_{kks}} = \frac{P_{kt}(i)}{P_{kks}} Y_{ks}(i) - MC_{ks} Y_{ks}(i).$$

We put expression (7) for the global demand for good $i \in J_k$ produced in the country k in the targeted function of the firm instead of the $Y_{ks}(i)$ and write the necessary condition of the maximum of this function by equating to zero its derivative of $P_{kt}(i)$. After some transformations we obtain:

$$\begin{aligned} P_{kt}(i) \sum_{s=t}^{\infty} (\theta\beta)^{s-t} \mathbb{E}_t \left[MC_{ks} \left(\frac{P_{kks}}{P_{kkt}} \right)^{\eta} \left(\frac{P_{kks}}{P_{ks}} \right)^{-1} C_s^w 1 - \rho \right] = \\ = P_{kkt} \frac{\eta - 1}{\eta} \sum_{s=t}^{\infty} (\theta\beta)^{s-t} \mathbb{E}_t \left[\left(\frac{P_{kks}}{P_{kkt}} \right)^{\eta-1} \left(\frac{P_{kks}}{P_{ks}} \right)^{-1} C_s^w 1 - \rho \right]. \end{aligned} \quad (16)$$

A positive value of θ corresponds to rigid prices. We carry out log-linearization of the equation (16). After transformation we obtain:

$$\begin{aligned} \hat{p}_{kt}(i) - \hat{p}_{kkt} &= (1 - \theta\beta) \mathbb{E}_t \sum_{s=t}^{\infty} (\theta\beta)^{s-t} [\widehat{mc}_{ks} + \hat{p}_{kks}], \\ \hat{p}_{kt}(i) - \hat{p}_{kkt} &= (1 - \theta\beta) \widehat{mc}_{kt} + \\ &+ \theta\beta \mathbb{E}_t [\hat{p}_{kkt+1} - \hat{p}_{kkt} + \hat{\pi}_{kkt+1}]. \end{aligned} \quad (17)$$

In this situation, true the equation:

$$\hat{p}_{kt}(i) = \frac{1}{1 - \theta} \hat{p}_{kkt} - \frac{\theta}{1 - \theta} \hat{p}_{kkt-1}.$$

We put this expression in the equation (17) and get:

$$\pi_{kkt} = \beta \mathbb{E}_t [\pi_{kkt+1}] + \frac{(1 - \theta\beta)(1 - \theta)}{\theta} \widehat{mc}_t. \quad (18)$$

This is a New Keynesian Phillips curve for the country k . Here $\widehat{mc}_t = mc_t - \widehat{mc}_t$. Note the differences in the determination of inflation rate in the Phillips equation and in the equation of the dynamic IS curve. In equation (16) π_{kt} is determined by the consumer price index, but in the equation (18) π_{kkt} represents growth rate of prices of goods produced in the country k .

From production under flexible prices, we now turn to the issue of deviations of output under the rigid prices: $x_{kt} = \hat{y}_{kt} - \hat{\hat{y}}_{kt}$. We find the ratio

$$\begin{aligned}\frac{MC_{kt}}{\widetilde{MC}_{kt}} &= \frac{\eta W_{kt}}{(\eta - 1)A_{kt}P_{kkt}} = \frac{\eta W_{kt} \prod_{l=1}^K P_{klt}^{n_l}}{(\eta - 1)A_{kt}P_{kkt}} = \frac{\eta W_{kt}}{A_{kt}(\eta - 1)P_{kt}} \prod_{l=1}^K S_{klt}^{-n_l}, \\ \frac{MC_{kt}}{\widetilde{MC}_{kt}} &= \frac{\eta \chi}{A_{kt}(\eta - 1)} \left(\frac{Y_{kt}}{A_{kt}} \right)^\varphi \left(\prod_{l=1}^K S_{klt}^{-n_l} \right)^\rho Y_{kt}^\rho \prod_{l=1}^K S_{klt}^{-n_l} = \\ &= \frac{\eta \chi}{(\eta - 1)} \left(\frac{1}{A_{kt}} \right)^{\varphi+1} \prod_{l=1}^K S_{klt}^{(\rho-1)n_l} Y_{kt}^{\rho+\varphi}.\end{aligned}$$

We transform equation (10) for the flexible prices using equations (12) and (13).

$$\begin{aligned}\vartheta_k \frac{L_{kt}^\varphi}{C_{kt}^{-\rho}} &= \frac{W_{kt}}{A_{kt}P_{kkt}} A_{kt} \frac{P_{kkt}}{P_{kt}}, \quad \vartheta_k L_{kt}^\varphi \left(Y_{kt} \prod_{l=1}^K S_{klt}^{n_l} \right)^\rho = \frac{\eta}{(\eta - 1)} A_{kt} \prod_{l=1}^K S_{klt}^{n_l}, \\ \vartheta_k \left(\frac{Y_{kt}}{A_{kt}} \right)^\varphi Y_{kt}^\rho &= \frac{\eta - 1}{\eta} A_{kt} \prod_{l=1}^K S_{klt}^{(1-\rho)n_l}.\end{aligned}$$

So, the issue under the flexible prices:

$$\widetilde{Y}_{kt}^{\varphi+\rho} = \frac{1}{\vartheta_k} \frac{\eta - 1}{\eta} A_{kt}^{\varphi+1} \prod_{l=1}^K S_{klt}^{(1-\rho)n_l}. \quad (19)$$

Then, we obtain

$$\frac{MC_{kt}}{\widetilde{MC}_{kt}} = \left(\frac{Y_{kt}}{\widetilde{Y}_{kt}} \right)^{\varphi+\rho}.$$

We carry out log-linearization:

$$\widehat{mc}_{kt} = (\varphi + \rho)(y_{kt} - \hat{y}_{kt}) = (\varphi + \rho)x_{kt}.$$

We rewrite equation (15) of the dynamic IS curve using deviation of output under the rigid prices from deviation under flexible prices:

$$\begin{aligned}x_{kt} &= \mathbb{E}_t[x_{kt+1}] + \frac{1}{\rho} (\mathbb{E}_t[\pi_{kt+1}] - \hat{i}_{kt}) + \sum_{l=1}^K n_l \mathbb{E}_t[\Delta s_{klt+1}] - \hat{\widetilde{y}}_{kt} \\ &\quad + \mathbb{E}_t[\hat{\widetilde{y}}_{kt+1}],\end{aligned} \quad (20)$$

And also equation (18) of the neoclassical Phillipps curve:

$$\pi_{kkt} = \beta \mathbb{E}_t[\pi_{kkt+1}] + \frac{(1 - \theta\beta)(1 - \theta)}{\theta} (\varphi + \rho)x_t + u_{kt}, \quad (21)$$

where u_{kt} is the auto regression process

$$u_{kt} = \rho_{uk} u_{kt-1} + v_{kt}, \quad v_{kt} \sim i.i.d.(0, \sigma_{vk}^2).$$

It reflects the impact of the shocks in the production costs. By log-linearization from (19) we obtain for flexible prices

$$\tilde{y}_{kt} = -\frac{1}{\varphi + \rho} \ln \chi + \frac{1}{\varphi + \rho} \ln \left(\frac{\eta - 1}{\eta} \right) + \frac{\varphi + 1}{\varphi + \rho} a_{kt} + \frac{1 - \rho}{\varphi + \rho} \sum_{l=1}^K n_l s_{klt}.$$

We calculate the sum of the last two terms in equation (20).

$$\begin{aligned} \mathbb{E}_t [\hat{\tilde{y}}_{kt+1}] - \hat{\tilde{y}}_{kt} &= \mathbb{E}_t [\hat{y}_{kt+1}] - \hat{y}_{kt} = \\ &= \frac{\varphi + 1}{\varphi + \rho} \mathbb{E}_t [\Delta a_{kt+1}] + \frac{1 - \rho}{\varphi + \rho} \sum_{l=1}^K n_l \mathbb{E}_t [\Delta s_{klt+1}]. \end{aligned}$$

By the definition terms of trade of the country k with the country l :

$$S_{klt} = \frac{P_{kkt}}{\xi_{klt} P_{lkt}} = \frac{P_{kkt}}{P_{klt} P_{kkt}}.$$

Taking the logarithm of both sides of equation we get:

$$s_{klt} = -e_{klt} - p_{lkt} + p_{kkt} = p_{kkt} - p_{klt}.$$

Hence, we have:

$$\mathbb{E}_t [\Delta s_{klt+1}] = \mathbb{E}_t [\pi_{kkt+1}] - \mathbb{E}_t [\pi_{klt+1}].$$

From formula (3) the below ratio follows

$$\mathbb{E}_t [\pi_{kt+1}] = \mathbb{E}_t [\pi_{kkt+1}] - \sum_{l=1}^K n_l \mathbb{E}_t [\Delta s_{klt+1}].$$

Then, the equation of the dynamic curve IS can be written as:

$$\begin{aligned} x_{kt} &= \mathbb{E}_t [x_{kt+1}] + \frac{1}{\rho} (\mathbb{E}_t [\pi_{kkt+1}] - \hat{i}_{kt}) + \frac{\varphi + 1}{\varphi + \rho} \mathbb{E}_t [\Delta a_{kt+1}] + \\ &+ \frac{\varphi(1 - \rho)}{\rho(\varphi + \rho)} \sum_{l=1}^K n_l \mathbb{E}_t [\Delta s_{klt+1}]. \end{aligned} \quad (22)$$

To eliminate currency speculation conditions of uncovered interest arbitrage must be satisfied:

$$1 + i_{kt} = (1 + i_{lt}) \frac{\mathbb{E}_t[\varepsilon_{klt+1}]}{\varepsilon_{klt}}, \quad k \neq l.$$

Log-linearization will bring this equation to the form

$$i_{kt} = \mathbb{E}_t[\Delta e_{klt+1}] + i_{lt}, \quad k \neq l.$$

We write this equation for the period $t - 1$, equation from it and from the equation of terms of trade in log form, we obtain:

$$\Delta s_{klt} = \hat{i}_{lt-1} - \hat{i}_{kt-1} + \pi_{kkt} - \pi_{llt}, \quad k \neq l. \quad (23)$$

Note that, $\Delta s_{lkt} = -\Delta s_{klt}$, and the relationship between the increments of logarithms in terms of trade between the two countries

$$\Delta s_{lmt} = \Delta s_{kmt} - \Delta s_{klt}. \quad (24)$$

Consequently, independent Δs_{klt} of all $K - l$, for example, Δs_{1lt} , $l = 2, \dots, K$. Other values Δs_{mlt} are expressed through them. Equations defining the movement of interest rates should be added to equations (21)–(23). According to the rule of monetary policy Taylor (1993) interest rates are set by central banks in accordance with the formula of the following form:

$$i_{kt} = \psi_{\pi k} \pi_{kkt} + \psi_{xt} x_{kt} + \psi_{ik} \hat{i}_{kt-1} + v_{kt}, \quad k = 1, \dots, K. \quad (25)$$

It is assumed that dynamics v_{kt} is defined exogenously with the autoregression process of the first order:

$$v_{kt} = \rho_v v_{kt-1} + \nu_{vkt}, \nu_{vkt} \sim i.i.d.(0, \sigma_{kv}^2).$$

After the global financial crisis that began in 2007 there are debates in the literature on how to formally take into account the systemic stability factors in the response function of the monetary authorities. Changes in the monetary policy of central banks are discussed in the article of Di Giorgio (2014).

Thus, the model K of countries is described by $4K - l$ equations (21)–(23), (25) and contains the same number of variables given the connection (24) between the increments of logarithms in terms of trade.

2.4 Export and Import of Goods

Goods are considered diversified, i.e. each firm produces its product and its production meets the world demand. Therefore, in each period t export of good

j from country k to the country l equals the volume of consumption of this product in the country l :

$$Ex_{klt}(j) = C_{lkt}(j), j \in J_k.$$

Total index of consumption in the country l , produced in the country k , according to the formulas (5) and (13) equals

$$C_{lkt} = n_k \left(\frac{P_{lkt}}{P_{lt}} \right)^{-1} C_{lt} = n_k \left(\frac{P_{lkt}}{P_{lt}} \right)^{-1} \prod_{m=1}^K S_{lmt}^{n_m} Y_{lt}.$$

Consider that

$$\frac{P_{lt}}{P_{lkt}} = \prod_{m=1}^K \left(\frac{P_{lmt}}{P_{lkt}} \right)^{n_m} = \prod_{m=1}^K \left(\frac{P_{kmt}}{P_{kkt}} \right)^{n_m} = \prod_{m=1}^K (S_{kmt})^{-n_m}.$$

Hence, for export from country k to the country l it is fair

$$Ex_{klt} = n_k \prod_{m=1}^K S_{kmt}^{-n_m} \prod_{m=1}^K S_{lmt}^{n_m} Y_{lt},$$

which corresponds to the macroeconomic theory of direct dependence of the export of the country from the production volume abroad. Also, export depends on the ratio of the terms of trade of the countries k and l with other countries. The value n_k reflects production capacity of the country k . Let ex_{klt} denote logarithm of export Ex_{klt} . Then,

$$ex_{klt} = \ln n_k - \sum_{m=1}^K n_m S_{kmt} + \sum_{m=1}^K n_m S_{lmt} + y_{lt}$$

For the expectation of the export growth in log form, the following is true

$$\mathbb{E}_t[\Delta ex_{klt+1}] = - \sum_{m=1}^K n_m \mathbb{E}_t[\Delta S_{kmt+1}] + \sum_{m=1}^K n_m \mathbb{E}_t[\Delta S_{lmt+1}] + \mathbb{E}_t[y_{lt+1}] - y_{lt}.$$

Let's use the relation between the rate of inflation on consumer price index and on producer price index

$$\mathbb{E}_t[\pi_{lt+1}] = \mathbb{E}_t[\pi_{llt+1}] - \sum_{m=1}^K n_m \mathbb{E}_t[\Delta S_{lmt+1}],$$

Which follows from the equation (3) and from the equation of the dynamic IS curve (15):

$$\begin{aligned}\mathbb{E}_t[y_{lt+1}] - y_{lt} &= \mathbb{E}_t[\hat{y}_{lt+1}] - \hat{y}_{lt} = -\sum_{m=1}^K n_m \mathbb{E}_t[\Delta s_{lmt+1}] - \frac{1}{\rho} \mathbb{E}_t[\pi_{lt+1} - \hat{i}_{lt}] = \\ &= \left(\frac{1}{\rho} - 1\right) \sum_{m=1}^K n_m \mathbb{E}_t[\Delta s_{lmt+1}] - \frac{1}{\rho} \mathbb{E}_t[\pi_{lt+1} - \hat{i}_{lt}].\end{aligned}$$

Consequently, for the expected rate of export growth from country k to the country l , an equation is obtained

$$\begin{aligned}\mathbb{E}_t[\Delta ex_{klt+1}] &= -\sum_{m=1}^K n_m \mathbb{E}_t[\Delta s_{kmt+1}] - \\ &-\frac{1}{\rho} \sum_{m=1}^K n_m \mathbb{E}_t[\Delta s_{lmt+1}] - \frac{1}{\rho} \mathbb{E}_t[\pi_{lt+1} - \hat{i}_{lt}].\end{aligned}\quad (26)$$

Import $Im_{klt}(j)$ of the product $j \in J_k$ from the country l to the country k equals the consumption of this good in the country k :

$$Im_{klt}(j) = C_{klt}(j), j \in J_l.$$

Similarly, the index of consumption of all goods in the country k produced in the country l , according to the formulas (5) and (13) equals

$$C_{klt} = n_l \left(\frac{P_{klt}}{P_{kt}}\right)^{-1} C_{kt} = n_l \left(\frac{P_{klt}}{P_{kt}}\right)^{-1} \prod_{m=1}^K S_{kmt}^{n_m} Y_{kt}.$$

Also, we have

$$\frac{P_{kt}}{P_{klt}} = \prod_{m=1}^K \left(\frac{P_{kmt}}{P_{klt}}\right)^{n_m} = \prod_{m=1}^K \left(\frac{P_{lmt}}{P_{lkt}}\right)^{n_m} = \prod_{m=1}^K (S_{lmt})^{-n_m}.$$

After substitution we get that import from the country l to the country k

$$Im_{klt} = n_l \prod_{m=1}^K S_{lmt}^{-n_m} \prod_{m=1}^K S_{kmt}^{n_m} Y_{kt}$$

or in log form

$$im_{klt} = \ln n_l - \sum_{m=1}^K n_m s_{lmt} + \sum_{m=1}^K n_m s_{kmt} + y_{kt}.$$

Import to the country k positively depends on the production volume in this country and negatively depends on ratios of terms of trade of the countries k and l with other countries.

Expectation of the growth rate of import in the log form is true

$$\mathbb{E}_t[\Delta im_{kl,t+1}] = -\sum_{m=1}^K n_m \mathbb{E}_t[\Delta s_{lm,t+1}] + \sum_{m=1}^K n_m \mathbb{E}_t[\Delta s_{km,t+1}] + \mathbb{E}_t[y_{kt+1}] - y_{kt}.$$

The sum of the two terms in this equation

$$\begin{aligned} \mathbb{E}_t[y_{kt+1}] - y_{kt} &= \mathbb{E}_t[\hat{y}_{kt+1}] - \hat{y}_{kt} = \\ &= -\sum_{m=1}^K n_m \mathbb{E}_t[\Delta s_{km,t+1}] + \frac{1}{\rho} \mathbb{E}_t[\pi_{kt+1} - \hat{i}_{kt}] = \\ &= \left(\frac{1}{\rho} - 1\right) \sum_{m=1}^K n_m \mathbb{E}_t[\Delta s_{km,t+1}] - \frac{1}{\rho} \mathbb{E}_t[\pi_{kkt+1} - \hat{i}_{kt}]. \end{aligned}$$

Then for the expectation of the growth rate of import to the country k from the country l , we obtain

$$\begin{aligned} \mathbb{E}_t[\Delta im_{kl,t+1}] &= -\sum_{m=1}^K n_m \mathbb{E}_t[\Delta s_{lm,t+1}] + \\ &+ \frac{1}{\rho} \sum_{m=1}^K n_m \mathbb{E}_t[\Delta s_{km,t+1}] - \frac{1}{\rho} \mathbb{E}_t[\pi_{kkt+1} - \hat{i}_{kt}]. \end{aligned} \quad (27)$$

From the formulas (26) and (27) it is not hard to notice that export from the country k to the country l coincides with import to the country l from the country k .

3 Estimations on Model of Three Countries

The model was estimated based on the statistical data of Kazakhstan (country H), Russia (country F), and European Union (country G). Statistical data for constructing a model of dynamic stochastic equilibrium for three countries were collected based on data of IFS International Monetary Fund, The World Bank, Agency of statistics of Kazakhstan, and National Bank of Kazakhstan. In particular, proportionately to the population, the below values are considered

$$n_H = 0.03, \quad n_F = 0.22, \quad n_G = 0.75.$$

Indeed, Kazakhstan is a relatively small country. In another approach, instead of the population, respective volumes of GDP could be taken. The model parameters were

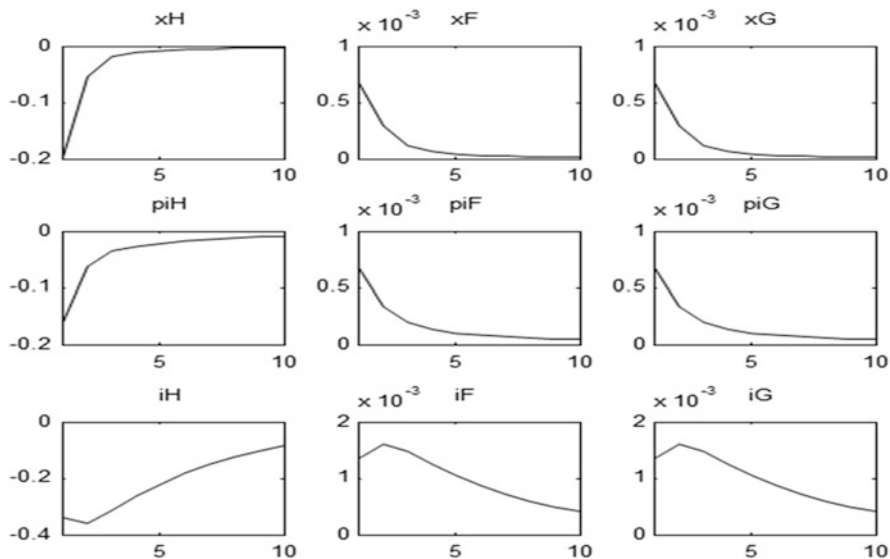


Fig. 1 Impact of technological shock in the country H. Note: xH , xF , xG —deviations of the output under rigid prices from output under flexible prices in logs, πH , πF , πG —inflation rates of the producer price index, iH , iF , iG —deviations of interest rate from its value in steady state for countries H, F, G respectively

mainly estimated with Bayesian method with the use of Metropolis-Hastings algorithm. In equations for technological shocks, parameters ρ_{aFG} , ρ_{aGF} , ρ_{aGH} are taken as equal to zero. This takes into account that technological innovations arising in a large country G, quickly penetrate into both countries F and H, and technological innovations appeared in the country of a medium size F, penetrate only to the country H, and there is no flows of innovation in the opposite direction from small to big country. Figures 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12 show how macroeconomic indicators react to shocks in this country and in the other countries.

A positive technological shock in a country H reduces marginal costs of production of goods. It gives to firms the opportunity to reduce prices for domestically produced goods, which in short term leads to reduction of interest rate and deterioration of terms of trade with countries F and G and contributes to reduction of output in the country H before these parameters return to the values in the steady state (Figs. 1, 2, and 3).

Negative response of output to positive shock of overall productivity in the country is noted in the literature, for instance in Gunter (2009). At the same time, terms of trade of the countries F and G with the country H improve. This leads to increase in income of firms, higher prices, output and interest rates in these countries. However, we note that the impact of the shock in the F and G are three orders of magnitude weaker than in the country H, which is due to the relative size of these countries.