OLSZTYN ECONOMIC JOURNAL
2021, 16(1), 57–70
ISSN 1897-2721 e-ISSN 2083-4675 DOI: 10.31648/oej.7311

ORIGINAL PAPER

ASEAN AS AN OPTIMAL/NONOPTIMAL CURRENCY AREA

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JEL Classification: E42, E52.

K e y w o r d s: optimum currency area, ASEAN, monetary system.

A b s t r a c t

Economists have been arguing to this day about the benefits and risks of introducing a community currency. It is very difficult to clearly determine which side is right. Most often, scientists refer to the example of the so-called Eurozone, but it is still far from reaching an agreement between supporters and opponents of such a solution. This paper presents the issues of monetary integration in ASEAN+3 (i.e. ASEAN member countries, China, South Korea, and Japan) in terms of the optimal currency area and other necessary conditions for the creation of a sustainable development region. The researchers argue about whether ASEAN+3 should introduce a single currency. Some suggest that the group meets several OCA theory criteria, i.e. labour mobility and economic openness. According to the results of the study, ASEAN+3 is an economically diverse area and there is a lack of institutions enabling effective monetary integration in the short term. Optimization assumptions included in the analysis determine the real chances of development and survival within the currency area. The author's analysis has indicated that ASEAN+3 should not introduce

How to cite: Merło, P., Kułak, R., & Warzocha, Z. (2021). ASEAN as an Optimal/Nonoptimal Currency Area. *Olsztyn Economic Journal*, *16*(1), 57-70. https://doi.org/10.31648/oej.7311.

a single currency for three reasons: failure to meet the optimization criteria, diversification of socio-economic development, lack of an institutional framework and inconsistency in the perception of monetary integration. On the other hand, it should be noted that a single currency could contribute to increasing the monetary security of the entire South-East Asian region, which means that the monetary integration may be a long-term idea.

ASEAN JAKO OPTYMALNY/NIEOPTYMALNY OBSZAR WALUTOWY

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S ł o w a k l u c z o w e: optymalny obszar walutowy, ASEAN, system walutowy.

A b s t r a k t

Ekonomiści spierają się do dziś odnośnie do korzyści oraz zagrożeń, które wynikają z wprowadzania wspólnotowej waluty. Bardzo trudno jest jednoznacznie określić, która ze stron ma rację. Najczęściej naukowcy odwołują się do przykładu tzw. strefy euro, jest jednak wciąż daleko do osiągnięcia porozumienia między zwolennikami a przeciwnikami takiego rozwiązania. W pracy przedstawiono problematykę integracji monetarnej w ASEAN+3 (tj. kraje członkowskie ASEAN, Chiny, Korea Południowa, Japonia) w kontekście optymalnego obszaru walutowego oraz innych niezbędnych warunków powstania regionu o zrównoważonym rozwoju. Badacze się nie zgadzają, czy w ASEAN+3 należy wprowadzić wspólny pieniądz. Niektórzy sugerują, że ugrupowanie spełnia kilka kryteriów TOOW, tj. mobilność siły roboczej oraz otwartość gospodarczą. Zgodnie z wynikami badań ASEAN+3 jest obszarem zróżnicowanym pod względem gospodarczym i brakuje instytucjonalnych ciał, które umożliwiłyby skuteczną integrację monetarną w krótkim okresie. Założenia optymalizacji zawarte w przeprowadzonej analizie określiły rzeczywiste szanse rozwoju i przetrwania obszaru walutowego. Przeprowadzona przez autorów analiza wskazała, że ASEAN+3 nie powinien wprowadzać wspólnego pieniądza z powodów: niespełnienia kryteriów optymalizacji, dywersyfikacji rozwoju społeczno-gospodarczego, braku instytucjonalnych ram oraz niezgodności postrzegania integracji monetarnej. Należy jednak zauważyć, że wspólna waluta mogłaby przyczynić się do zwiększenia bezpieczeństwa monetarnego całego regionu Azji Południowo-Wschodniej, wskutek czego pomysł integracji walutowej może być pomysłem długoterminowym.

Introduction

The Association of Southeast Asian Nations is an organization founded in 1967 and associates ten countries – Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei Darussalam, Vietnam, Laos, Myanmar and Cambodia (Santos-Paulino, 2017, p. 5). It assumes political and economic cooperation in spite of the diversity of its members (Hill & Menon, 2010, p. 1-8). The most important aim of the association is to provide peace in times of dynamic economic development (Preepremmote *et al.*, 2013, p. 923-925). The main goals of ASEAN include (Onyusheya & Thammashote, 2018, p. 3):

– fair and equal economic development (supporting the sector of small and medium-sized enterprises);

– a single market and manufacturing base (free movement of goods, services, investments, capital and labour);

– a competitive economic region (creating fair competition, consumer protection, intellectual property protection, infrastructure development and e-commerce);

– integration with the global economy.

Based on the process of introducing the single currency in the Euro area, ASEAN+3 is trying to introduce its own currency in its territory. In comparison to European integration, ASEAN is at a low level of integration, i.e. at the level of a free-trade zone (Kazushi, 2010, p. 77-84). The regulations of the 1990s enabled the elimination of tariff barriers in mutual trade (Watanabe & Ogura, 2006, p. 2-7), which resulted in the creation of the above-mentioned AFTA zone in 1993 (ASEAN Free Trade Area). The aim of the research is to try to answer the question of whether ASEAN should introduce a single currency in accordance with the optimum currency area theory (OCA) or not.

Research methodology

The conducted research concerned the ASEAN+3 members, the study period between 2005-2019 was assumed. In the analysis, a descriptive method and a statistical analysis were employed, with the data coming from the World Bank (2021). The conducted analysis took into account a comparison of GDP, GDP per capita, total exports as a % of GDP, inflation, unemployment and trade openness. GDP data was based on the trade value data (USD). The methods enabled the presentation of the ASEAN economic integration and the optimum currency area theory. The optimization assumptions included in the analysis are: business cycle synchronization (change in GDP) and a similarity in inflation and economic openness; especially in relation to ASEAN +3 partners. The comparison of the above-mentioned factors created the possibility of determining the real chances for the development and survival of the currency area.

The optimum currency area theory

The genesis of the optimum currency area theory dates back to the 1960s. Mundell (1961, p. 661) noticed that countries which had removed floating exchange rates had the possibility to become an optimal currency area, that is, an area in which currency unification is beneficial for the economy. According to the economist, the region should be characterized by labour mobility and flexibility of prices and wages. In the following years, many economists, including McKinnon (1963, p. 717), Ingram (1970, p. 6-23), Tavlas (1993, p. 663-671), Frankel and Rose (1996, p. 490-493) and De Grauwe (2003, p. 140), made an attempt to create further optimization criteria.

The first economist who developed the so-called optimization theory, introduced by Mundell (1961), was McKinnon (1963). He drew attention to the impact of the economic openness, i.e. the ratio of tradable goods to non--tradable goods and the problem of reconciling external and internal balance, while emphasizing the need for internal price stability. The main person who was critical when it comes to the so-called 'old' theory of optimal areas was Ingram (1970). The author emphasized that it is a critical mistake to refer only to real, and not also to monetary factors while formulating the OCA criteria. A new approach to the theory of optimal currency areas was introduced and adopted in the 1990s. Frankel and Rose (1996) concluded that one of the most significant benefits of introducing the single currency is an increase in the convergence of business cycles and an increase in economic exchange. Tavlas (1993), in turn, enumerated eight features that countries which want to create a monetary union should have. These are: convergence of inflation, mobility of factors of production, openness and size of the economy, economic diversification, price and wage flexibility, goods market integration and fiscal and political integration. According to De Grauwe (2003), OCA should not be based on the two main principles which were listed, for example in the Maastricht Treaty. The principle of staged transition and the principle of determining the criteria of convergence should not constitute the basis of OCA. To confirm his thesis, the author referred to the situation of the intra-German monetary union in 1990, where decisions had been made regardless of the differences in convergence or specific stages of transition.

Should ASEAN introduce a single currency?

In 2002, Mundell (2002, p. 3-12) published a study "Does Asia need a common currency?". The conclusion was as follows: yes – with the current system of international finance, no – with the change of the world monetary system. According to Mundell, a change in the international finance system would be

grounded on a system based on three selected currencies[1]. However, one may ask if Asia or even a selected group of countries would meet the criteria of optimal currency areas.

The Asian financial crisis, which affected ASEAN member countries the most, contributed to the acceleration of economic integration and debates on currency unification. In November 1999, ASEAN leaders decided to introduce currency swaps and a repurchase agreement system as a credit line to cope with future macroeconomic shocks. In May 2005, ASEAN members agreed to extend the network of bilateral currency swaps and introduced multilateral ones. It is believed that this will enable the establishment of an Asian currency fund in the future. Another essential decision was made. The Asian Bond Market Initiative (ABMI) was implemented. The conditions were then created to collect the necessary savings which were to be allocated to local investments. These resources were to reduce the need for loans from outside the region. Gharlehji *et al.* (2015, p. 111) recognized that this was a turning point in regional monetary integration.

Asian researchers quite often engage in the topic of monetary integration in the context of the OCA theory. Some of them wonder if ASEAN together with three Asian countries (Japan, China and South Korea) could create an optimal currency area (Ogawa & Kawasaki, 2006, p. 219-223). Supporters of a fixing of the exchange rate note that a single currency would enable coping with the attacks on minor, insignificant currencies. The argument in favour of creating an Asian monetary union is also the fulfilment of selected optimization criteria. Asia, in particular ASEAN+3, is an association with strong economic ties, which has relatively large trade and foreign direct investment (Shimitzutani, 2009, p. 32-34).

The authors list numerous reasons that would prevent the introduction of the single currency area in ASEAN or in ASEAN+3. They can be divided into three categories: OCA theory criteria, socio-economic differentiation (factors not included in OCA theory) and conflict of interest.

Researchers who deal with the topic of monetary integration in ASEAN in the context of the theory of optimal currency areas point out that the association fulfils some of the optimization criteria. ASEAN is characterized by a high mobility of the workforce and capital in relation to the European Union. Workers from Indonesia, Malaysia, the Philippines and Thailand constitute 10% of the workforce in Singapore, and over 2% of the workforce in their countries of origin. ASEAN also meets the price and wage elasticity condition, which guarantees (according to OCA theory) a quick adjustment in case of a macroeconomic shock. Chirathivat and co-authors in their study (2005) mentioned high economic relativity and trade within the group, which was partially confirmed by this particular research..

[1] Mundell was certain that the system ought to be based on the US dollar, the euro and one more currency. However, he was not convinced of any Asian currency.

Opponents of currency unification recognize that ASEAN+3 is an economically diversified area. The countries differ in, for instance, GDP per capita and are characterized by little diversification of trade, which may make it difficult to deal with macroeconomic damage quickly and effectively (Masini, 2009, p. 7-9).

Chia (2013, p. 24-28) noticed numerous economic barriers to the creation of an optimal currency area, i.e. the diversity of the size of economies and the socio-economic situation. ASEAN countries also differ in terms of economic openness. According to research performed by the author, 25% of trade from ASEAN members goes to the remaining countries of the association. This is 15 percentage points fewer than in the EU, but more by the same percentage points than in the Caribbean and West African Monetary Union. To conclude, ASEAN fulfils the OCA theory's criteria mentioned above, and could therefore become an optimal currency area.

The second important counterargument is the socio-economic differentiation of these countries. Szołtun (2002) has stated that if Asia created a monetary union, Japan would become the dominant country, like Germany in the euro area (admittedly, this country is not counted among the members of the Association, but among the ASEAN+3 members).

The third category of premises that would make it difficult to create a single currency zone relates to different interests. Szołtun (2002) noted that members of the Association are reluctant to create a single currency area because of their diversified interests and perception of the possible consequences resulting from monetary integration.

Madhur (2002, p. 5-7) summarized all of the above-mentioned difficulties – those related to the non-fulfilment of selected OCA theory criteria, as well as the ones connected with a conflict of interest. The author also noticed too wide of a variety of levels of economic development. What is more, he noted that fiscal and political integration, i.e. the criterion introduced by Ingram to OCA theory, is at too low of a level. Important barriers to the creation of a single currency area in ASEAN are: the weaknesses of many financial sectors, the inadequacy of the mechanisms for pooling resources at the regional and institutional level required to establish and manage the monetary union, the lack of political preconditions for monetary policy, and the current level of monetary cooperation. It also appears to be a long-term idea since the current level of economic integration is too low.

Kenen and Meade (2010) have also pointed out that the obstacle to the immediate creation of a monetary union is the lack of an institutional structure similar to the European Union, which would allow the coordination of monetary and fiscal policy in Southeast Asia. The authors indicated that some members would not agree to lose their autonomy in favour of the single monetary policy. It means that not all the ASEAN members, much less the ones belonging to ASEAN+3, would choose to reduce their sovereignty. According to Kenen and Meade, the largest economies, i.e. China and Japan, would especially like to maintain their national currencies.

ASEAN as an optimal/nonoptimal currency area

ASEAN and ASEAN+3 are socio-economically diverse groups, which is a factor that hinders the maintenance and development of the currency area. Currently, taking into account the experiences of the euro area, it seems to be unjustified to create a currency area among countries with diversified development or a diversified economic situation. The unsustainable economic position of the countries forming the single currency zone causes, for instance, domination of the richest countries (De Grauwe, 2003). The GDP of ASEAN and ASEAN+3 members is diverse (Tab. 1).

Table 1

GDP of ASEAN+3 countries measured in USD billion in 2007, 2012 and 2017

Country		GDP (in billion USD)		
		2007	2012	2017
ASEAN	Brunei	12.248	19.048	12.128
	Philippines	149.360	250.092	313.620
	Indonesia	432.217	917.870	1,015.423
	Cambodia	8.639	14.054	22.180
	Laos	4.223	10.191	16.853
	Malaysia	193.548	314.443	318.958
	Myanmar	20.182	59.938	66.719
	Singapore	180.942	295.087	338.406
	Thailand	262.943	397.558	455.276
	Vietnam	77.414	155.820	223.780
China		3,550.342	8,532.231	12,143.491
South Korea		1,122.679	1,222.807	1,530.751
Japan		4,515.265	6,203.213	4,859.951

Source: based on GDP (current US$). Online (07.08.2021).

In the years 2007-2017, there was a noticeable GDP increase among the group's members. The lowest GDP in 2017 was recorded in Brunei (USD 12.1 billion), Laos (USD 16.9 billion) and Cambodia (USD 22.2 billion). In the same year, the highest GDP was recorded in: Indonesia (USD 1,015.4 billion), Thailand (USD 455.3 billion) and Singapore (USD 338.4 billion). In the surveyed countries, beyond the Association, in 2017 the highest GDP was recorded in China (USD 12,143.5 billion), and the lowest in South Korea (USD 1,530 billion). The highest growth dynamics in the analyzed decade occurred in Laos (about 302%) and Myanmar (about 230%). Beyond the Association, in 2017, China dominated (USD 13,608 billion) in terms of ASEAN+3 GDP. During the period, the country

was characterized by dynamics of growth of around 242%. GDP decline in the years 2012-2017 among ASEAN countries occurred in Brunei (around 36%) and outside of the Association, it was recorded in Japan (around 22%).

It should be noted that in the ASEAN+3 countries there is also a significant differentiation in GDP per capita (Tab. 2).

Table 2

GDP per capita in USD in ASEAN+3 countries in 2007, 2012 and 2017

Country		GDP per capita (in USD)		
		2007	2012	2017
ASEAN	Brunei	3,266.57	47,741.91	31,628.33
	Philippines	1,670.59	2,572.63	3,102.71
	Indonesia	1,860.00	3,694.35	3,893.60
	Cambodia	631.52	95.88	1,510.32
	Laos	710.34	1,581.40	2,542.49
	Malaysia	7,243.46	10,817.44	11,373.23
	Myanmar	406.73	1,165.79	1,325.95
	Singapore	39,432.94	55,546.49	64,581.94
	Thailand	3,973.02	5,860.58	6,578.19
	Vietnam	906.28	1,735.14	2,365.62
China		2,693.97	6,316.92	9,770.85
South Korea		23,060.71	24,358.78	31,362.75
Japan		35,275.23	48,603.48	39,289.96

Source: based on: GDP per capita (current US$). Online (7.08.2021).

During the analyzed period, in the majority of the Association's countries, an increase in GDP per capita is noticeable. Taking into account ASEAN countries, the highest GDP per capita in 2017 was recorded in Singapore (USD 65 thousand), Brunei (USD 31.6 thousand) and Malaysia (USD 11 thousand). The lowest GDP per capita was recorded in Myanmar (USD 1.3 thousand), Cambodia (USD 1.5 thousand), Vietnam (USD 2.3 thousand) and Laos (USD 2.5 thousand). The highest increase in the analyzed period was recorded in Laos (257%) and Myanmar (226%). Outside of the Association, the above--average GDP per capita in 2017 was recorded in Japan (USD 39 thousand). Between 2007 and 2017, only Brunei declined in GDP per capita (around 3%). The downward trend occurred especially in the years 2012 – 2017, and then a decrease in GDP per capita by 36% was recorded in this country.

The second OCA theory criterion is inflation. In ASEAN+3, there is a diversified dynamic of changes in product prices (Tab. 3). In selected countries, apart from Japan, in 2005 and 2010 inflation was creeping or moderate.

In 2017, the Association countries recorded inflation in the range from -1% to 4.5%. The highest inflation in the last analyzed year in the ASEAN countries

Table 3

Inflation, consumer prices in ASEAN+3 countries in 2007, 2012 and 2017

Country		Inflation, consumer prices (% annually)		
		2007	2012	2017
ASEAN	Brunei	0.968	0.112	-1.261
	Philippines	2.900	3.027	2.853
	Indonesia	6.407	4.279	3.809
	Cambodia	7.668	2.933	2.891
	Laos	4.662	4.255	0.826
	Malaysia	2.027	1.664	3.871
	Myanmar	35.025	1.468	4.573
	Singapore	2.105	4.576	0.576
	Thailand	2.242	3.015	0.666
	Vietnam	8.304	9.094	3.520
China		4.817	2.620	1.593
South Korea		2.535	2.187	1.944
Japan		0.060	-0.052	0.467

Source: based on Inflation, consumer prices… Online (07.08.2021).

was recorded in Myanmar (4.6%), Malaysia (3.9%) and the Philippines (3.8%). The smallest price increases were recorded in Brunei (-1.3%), Singapore (0.6%) and Thailand (0.7%). Apart from the Association countries, in 2017 the highest inflation was recorded in South Korea (1.9%), and the lowest in Japan (0.5%). In the analyzed period, the most significant downward dynamic was recorded in Myanmar (-87%), with inflation falling from 35% to 4.6%. Between 2007 and 2017, the most moderate inflation was recorded in the Philippines (-1.6%). Beyond the association, the most significant dynamic was recorded in China (-67%) during this period.

An important indicator reflecting the economic situation is the unemployment rate. This indicator plays an indirect role in OCA theory. Unemployment in ASEAN+3 countries is relatively moderate (Tab. 4). The unemployment rate rarely exceeds 5%.

The highest unemployment rate observed in the Association countries in 2017 occurred in Brunei (9.3%), while the lowest were observed in Laos and Thailand (0.6%). In the analyzed period, the most significant increase in the unemployment rate was recorded in Brunei (it reached the level of 66%), whereas the largest downward trend was recorded in Indonesia (-48%). Beyond ASEAN countries, in 2017 the lowest unemployment rate was recorded in Japan (2.8%) and the highest rate was in China (4.4%). Between 2007-2017 the most stable unemployment rate was recorded in Cambodia (9%).

In selected countries, there is a differentiation in terms of economic openness formulated as the ratio of exports of goods and services as % of GDP (Tab. 5).

Table 4

Total unemployment as % of total workforce in ASEAN+3 countries in 2007, 2012 and 2017

Country		Total unemployment (% of total workforce) – ILO model		
		2007	2012	2017
ASEAN	Brunei	5.624	6.897	9.316
	Philippines	3.434	3.504	2.552
	Indonesia	8.060	4.468	4.185
	Cambodia	1.168	1.279	1.062
	Laos	0.865	0.690	0.603
	Malaysia	3.230	3.040	3.410
	Myanmar	0.837	0.870	1.551
	Singapore	3.900	3.720	3.907
	Thailand	1.180	0.580	0.632
	Vietnam	2.026	1.027	1.886
China		4.300	4.600	4.400
South Korea		3.200	3.200	3.700
Japan		3.900	4.300	2.800

Source: based on Unemployment… (2021).

Table 5

Export of goods and services as % of GDP in ASEAN+3 countries in 2007, 2012 and 2017

Country		Export of goods and services (% of GDP)		
		2007	2012	2017
ASEAN	Brunei	67.85	70.16	49.57
	Philippines	43.26	30.82	31.02
	Indonesia	29.44	24.59	20.19
	Cambodia	65.33	57.89	60.68
	Laos	33.61	37.88	34.60
	Malaysia	106.17	79.30	70.05
	Myanmar	0.14	11.50	19.96
	Singapore	212.78	196.72	171.42
	Thailand	68.87	69.76	68.18
	Vietnam	70.52	80.03	101.59
China		35.43	25.49	19.96
South Korea		39.18	56.34	43.09
Japan		17.49	14.54	17.77

Source: based on Exports of goods and services… Online (07.08.2021).

The largest export of goods and services as a percentage of GDP in 2017 was in Singapore (171%), while the lowest level of exports were in Myanmar and Indonesia (20%). Between 2007 and 2017, there was a downward trend in dynamics in seven countries of the Association: Brunei, Philippines, Indonesia, Cambodia, Malaysia, Singapore and Thailand. The most significant downward dynamics were observed in Malaysia and Indonesia (-34% and -31% respectively). The greatest increase in openness occurred in Myanmar, which in the analyzed period achieved dynamics at the level of 14,348%. Outside of the ASEAN countries, South Korea achieved the highest export of goods and services as a % of GDP in 2017 (43%), whereas the lowest level of export was recorded in Japan (17.7%). Between 2007-2017, there was a decrease in openness in China (-44%).

The OCA theory criterion concerning trade is trade openness of individual countries towards other members of the Association. Bilateral trade relations indicate differentiation in this respect in selected countries (Tab. 6, 7)[2].

Table 6

ASEAN+3 country codes according to the ISO 3166 standard

Brunei	BRN
Philippines	PHL
Indonesia	IDN
Cambodia	KHM
Laos	LAO
Myanmar	MMR
Malaysia	MYS
Singapore	SGP
Thailand	THA
Vietnam	VNM
China	CHN
South Korea	KOR
Japan	JPN

Source: based on the ISO 3166 standard.

[2] Table 6 presents abbreviations of the countries according to the ISO 3166 standard, which facilitate the reading of Table 7.

Table 7

Trade openness towards ASEAN+3 partners in 2018 expressed in %

	BRN	PHL	IDN	KHM	LAO	MMR	MYS	SGP	THA	VNM	CHN	KOR	JPN
BRN	X	0	0	0	0	0	0.23	0	0.04	0	0	0.11	0.02
PHL	0.59	X	3.9	0	0	0.27	1.8	2	3.2	1.3	1.4	2.1	1.6
IDN	0.71	1.3	X	0	0	0.74	3.3	8.3	4.1	1.4	1.8	1.5	2.1
KHM	0	0	0	X	0	0.05	0	1.2	3.1	1.3	0	0	0
LAO	0	0	0	0	X	0	0	0	1.7	0.25	0	0	0
MMR	0	0.01	0.51	0	0	X	0.29	0.7	1.9	0.33	0	0	0.1
MYS	8.1	3	5.4	0	0	1.6	X	11	4.7	2	1.9	1.5	2
SGP	9	6.5	7.4	0	0	2.9	14	X	3.8	1.4	2	2	3
THA	11	4.2	3.9	0	0.49	18	5.9	3.9	X	2.3	1.8	1.5	4.6
VNM	0.4	1.5	2.6	0	0.15	1.3	3.5	3	5.2	X	3.4	8.3	2.5
CHN	3.8	13	15	0	0.26	33	14	13	12	17	X	28	20
KOR	10	3.9	5.4	0	0	2.7	3.5	4	2	7	4.5	X	7
JPN	37	15	11	0.01	0.01	8.3	7.2	5.1	10	8	6	5.2	X
ASEAN	29.81	16.51	23.71	0.01	0.64	24.86	29.02	30.1	27.74	10.28	X	X	X
ASEAN+3	80.61	48.41	55.11	0.02	0.91	68.86	53.72	52.2	51.74	42.28	22.81	50.21	42.92

Source: based on Open economy tools… Online (07.08.2021).

About 20-30% of export from the majority of ASEAN countries goes to the remaining members of the Association. The exceptions are Vietnam and Cambodia, since only 10% of their export goes to other members of the group. The main export directions of the surveyed countries are: Malaysia, Singapore, Thailand and Vietnam. The largest share in trade to ASEAN+3 members was recorded in Brunei (an increase in the share of export from 30% to 80%) and Myanmar (from 25% to 68%). The share of trade with ASEAN+3 in the rest of the countries ranges from 42% to 53%. The remaining directions for export goods are: the USA, Hong Kong, India and highly developed European countries (including Germany and the Netherlands). It should be noticed that the greatest trade openness is towards the most developed countries in the association (China, Korea and Japan). The main reason for that is the depreciation of money in highly developed countries, which makes exporting cheaper and more competitive. However, this is not a desired state for developed countries since they suffer under such circumstances.

Conclusions

The economic crisis of the 1990s changed the paradigm of the monetary system. Researchers are more and more often wondering if Asia or ASEAN+3 (i.e. ASEAN member countries plus China, South Korea and Japan) could be introduced to a single currency. Economists note that a single currency could contribute to the increase of the monetary security of the entire Southeast Asian region, which means that monetary integration may be a long-term idea. Introducing a single currency would benefit both highly developed and underdeveloped countries. Already developed countries are interested in stopping the depreciation of their currency in relation to the appreciation of currencies from developing markets. On the other hand, developing countries try to stop the appreciation of their currency, which, together with the depreciation of the currency of the importing countries, leads to trade barriers. The introduction of a single currency does not generate only positives. It may also cause some problems, not only during the functioning of this currency, but also during its introduction. Considering the conducted analyses, which took into account the assumptions of the theory of optimal currency areas, ASEAN+3 should not introduce a single currency for four reasons: failure to meet the optimization criteria, diversification of socio-economic development, lack of an institutional framework and an inconsistency in the perception of monetary integration. The single currency is the future of Southeast Asia, but it should not be introduced yet.

Translated by Beata Brzostek
Proofreading by Michael Thoene

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