Abstract

Systemic transformation, international economic integration and globalisation have been, without doubt, the most important socio-economic processes of the last decades. These processes have a huge impact on the economies of individual countries, as well as the contemporary system of the world economy. The subsystems of the world economy are also changing. The subject of discussion in this paper is to show their impact on changes and the emergence of new subsystems of the world economy. These considerations are preceded by a short presentation of the system and subsystems of the world economy, and a discussion of subsystems of the world economy in the past. At the end, conclusions drawn from the study are included.

JEL Classification Code: F01, F02.

Keywords: world economy, subsystems of world economy, systemic transformation, international economic integration, globalisation.

Introduction

The world economy, which emerges at a certain stage of economic development, has become a subject of research. Economists are interested in its emergence and development, change factors, the main trends and directions of change, as well as its structure. Its subsystems are also the subject of interest. For the world economy (world economic system) is not homogeneous. Within its framework, we can identify many groups of countries with similar characteristics, which are treated as downstream systems.

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In recent decades, many new developments and socio-economic processes have taken place in the world economy. The most important ones include: systemic transformation, the development of international economic integration and globalisation. These processes affect the nature of the world economy and its subsystems.

The goal of this paper is to show the influence of these socio-economic processes on the changes in the subsystems of the world economy.

1. The system and subsystems of the world economy

Different definitions of the world economy are presented in the literature. One of them is: ‘[...] historically shaped, varying in time, system of the production, technological, commercial, financial and institutional links among various countries of different social systems and levels of economic and social development, integrating them into the global process of production and exchange’ (Sołdaczuk, 1987, p. 7). Others define the world economy in a similar way.

Hence, the world economy is treated as a system, and, therefore, it should be borne in mind that:

- The world economy is a whole (arrangement) consisting of many elements between which occur various links, including feedback. These elements interact. They also have an impact on the whole that they create.
- The world economy is part of a large social system, where a political and cultural system can be distinguished as well. Therefore, non-economic factors also affect the world economic system.
- The world economy is dynamic. This system is in constant motion and development, as its elements (entities of the world economy) are constantly changing. Economic links occurring between them are also changing (e.g. forms of economic exchange). This system is constantly evolving.
- This category has also a historical character, namely it emerged at a certain stage of development (with the rise of the capitalist economy and the indus-

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3 The world economy is also defined as ‘[...] a community of diverse organisms and institutions functioning both at the national and at the international level, thus, for example regional, trans-regional or global (such as, among others, domestic and international/ transnational enterprises, national economies, states, integration groupings, international organisations) directly or indirectly engaged in economic activity and interrelated in a complete system through a network of international economic relations’ (Oziewicz, 2006, p. 13).

4 For more on this topic see: Swadźba (2008).
trial revolution, and so the development of the production on a mass scale on the market, for unknown recipient; at the same time then the international exchange develops on a large scale). Since then, the world economy has evolved and passed through various stages.

- The world economy is also a stochastic system, so we can only talk about the directions of development and trends that exist in the world economy. It is impossible to predict its future accurately.
- The world economy is not just a simple sum of its constituent elements (national economies). It is something more. This is a new quality. Interrelationships between components of the system cause the emergence of the new features of the system.

Within the system one can distinguish subsystems (downstream systems). This also applies to the system of the world economy. For presenting the world economy as a system, its components can be regarded as subsystems. They can be understood as ‘[...] separate parts of the system, subordinated to the regularities of two types: internal regularities and external regularities from the perspective of each of the subsystems, which are the general regularities of the system’ (Kleer, 1981, p. 83).

If national economies are recognised as subsystems of the world economy, then their total would be of over 200. For this reason, the division of the world into groups of countries is created in the literature and – in this way – there are much fewer subsystems of the world economy (a dozen or so). Sometimes, the notion of the regional structure of the world economy (regions of the world economy are regarded as subsystems) is used instead of the term subsystems. It is believed that some countries have many common characteristics and can be included in one group. A variety of criteria are used for their disgregation. The most common are: geographic location, level of economic development of individual countries (GDP/GNP per capita or HDI are frequently used), the socio-political system in given countries (it can be the division into two main systems, namely capitalism and socialism, or the market economy and centrally planned economy), as well as many others (history, tradition, culture, religion, lifestyle etc.).

There can be many more such disgregation criteria. In recent years – due to the rapid changes taking place in the global economy – there was a need to include new criteria for the division of the world economy subsystems. This can be a criterion of: the degree of globalisation, membership in particular integration groupings, international organisations, etc. It should be emphasized that a single criterion is not often used in practice, usually two or three criteria are used simultaneously. Existing divisions were mostly based on a few of them (mainly the criteria of geographical location and the level of socio-economic development are used).
2. The world economy subsystems in the past

In the history of the world economy we had to deal with various subsystems. Other subsystems were distinguished in the traditional economy, and other in the contemporary (post-war) the world economy.

The traditional system of the world economy was built at the turn of the eighteenth /nineteenth century and continued essentially until the end of World War II. It was associated with the emergence and development of capitalism, colonialism, the industrial revolution etc. It was closely associated with the international division of labour moulded in those days. At that time – in the literature there is a consensus on this – there were usually distinguished two subsystems: 1. Highly developed, industrialised countries, specialising in the manufacture and export of highly processed industrial products and 2. countries that were at a much lower level of development, specialising in agricultural production and exploitation of raw materials, and the export of these products. These were usually colonial countries that did not have their own sovereignty. These could have been independent countries, but politically and economically dependent on the first group of countries.

Three subsystems can be distinguished in the post-war period, namely: 1. highly developed capitalist countries, 2. socialist countries and 3. the third world countries (developing countries). In this case, there is an agreement as to the division in the economic literature. As for the causes of changes in this division, these were: the victory of the Soviet Union and the creation of a new socialist system in the world, the collapse of the colonial system and the emergence of many new countries on the world map), and the specific characteristics of individual subsystems (role of the state and the market economy, democracy – dictatorship, level of development, etc.). The so-called comparative economics dealt with the analysis of these subsystems. Most commonly discussed – within the individual subsystems – were: the goals of economic activity, economy, relationships within subsystems, regularities of their development, etc. (Kleer, 1981; Soldaczuk, 1987).

This division of the world economy into three subsystems become out of date at the turn of 80s/90s of the twentieth century. This was the result of a series of various events. The most important of these include: the collapse of the socialist system and the beginning of systemic transformation in these countries. The second reason is the development of integration processes in the world economy (regionalisation). During this period, a lot of changes also occurred as a result of increasing globalisation. It is the process which had the greatest impact on the changes in the world economy and its subsystems.
3. Systemic transformation and the subsystems of the world economy

Systemic transformation has led to the disappearance of one of three systems of the world economy – the socialist countries. The socialist countries were replaced by the countries in transition in one of the new divisions of the world economy characterising the so-called regional structure of the modern global economy. Among others, A. Makać distinguishes (Oziewicz, 2006, p. 23): economically developed countries (highly developed), developing countries (poor countries) and countries in transition. Each of these groups is treated as a separate region (subsystem) of the world economy. The countries are classified into one of these groups. This division refers to the post-war division of the world economy into three subsystems. A group of socialist countries replaced with the new term ‘countries in transition’, i.e. with economies in transition from a centrally planned to a market economy.

It should be stated that this division is a major simplification. The group of countries in transition is not homogeneous. The collapse of the socialist system showed that these countries were not monolithic, as it had often been shown. These countries have started the systemic transformation at about the same time, but its nature was different and its effects are different. This applies both to the countries of Central Europe (to a lesser extent), and the countries of the former Soviet Union (to a larger extent). As a result, this group has undergone significant diversification. On the one hand, we have a group of countries that have joined the EU, that is countries with a market and democratic economy (the criterion of membership), representing a relatively high level of economic development, and on the other hand, the former Asian republics of the USSR (5 new countries) – quasi-democratic countries or totalitarian regimes, often having more in common with a centrally planned economy or a feudal system, countries with completely different socio-cultural system and which are at a much lower level of economic development (GDP per capita). Among them there are the European countries of the former USSR (excluding Lithuania, Latvia and Estonia), which more or less represent the European standards of democratic market economies (hybrid economic systems)\(^5\). As it can be seen, within this group (subsystem) there should be distinguished at least three subgroups (downstream subsystems).

A similar division into three groups of countries is proposed in UNCTAD studies (Development ..., 2004). It is a division into: (1) developing countries, (2) Central and Eastern European countries and (3) developed countries. Up to 184 countries and territories were included in the first group (Africa – 58, America – 49 Asia – 49, Oceania – 28). The second group includes 19 European countries – the former socialist countries. These are: Albania, Belarus, Bosnia and Herzego-\(^5\) For more on this topic see: Swadźba (2003, 2004).
vina, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russia, Serbia and Montenegro (now it will be Serbia, Montenegro and Kosovo), Slovakia, Slovenia and Ukraine. The third group consists of 32 countries, including 26 countries and territories in Europe (other countries) and Canada, the USA, Australia, New Zealand, Japan and Israel. This division, which takes into account the level of development and geographical location seems to be better (due to previous reservations), although it can also be the subject of criticism (due to the very large differences in income levels in a group of European countries). The former socialist countries (countries in transition) have not been thrown into one bag in this division.

In turn, for practical purposes, the IMF distinguishes two groups of countries in the world economy, namely advanced countries – 37 countries and emerging markets and developing economies – other countries (152). The second group consists of 6 sub-groups: European countries (13 countries), Commonwealth of Independent States - CIS (12 countries), developing countries in Asia (29 countries), developing countries in Latin America and the Caribbean (32 countries), the Middle East and North Africa (20 countries) and Sub-Saharan Africa (45 countries). In this division, the first group of countries includes the Czech Republic, Estonia, Lithuania, Latvia, Slovakia and Slovenia. Other post-socialist countries – including Poland – are in the second group. This division further takes into account the diversity of the former socialist countries.

Another classification is used by UNCTAD, which – also for practical reasons – distinguished three groups of countries: 1. developed or industrialised countries: OECD (except for Mexico, South Korea and Turkey), the new EU countries and Israel; 2. the countries in transition in South East Europe and the CIS countries; 3. developing countries (other countries). This latter group is divided into groups according to geographical criterion (Trade, 2014). It can be noticed that in this division the former socialist countries are classified in the first or second group depending on the EU membership.

At this point one might mention one more possible classification. In the past, the primary classification criterion was the existing socio-economic system (capitalism and socialism) in given countries. Currently, the dominant system is capitalism with its specific market economy. However, there is no one capitalism and one market economy. Thus, their type, kind, nature can be the basis of distinctions of various subsystems of the world economy. In the literature, Polish and foreign, there were different models of the market economy (capitalism).

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6 As the first country in this group was included the Czech Republic. Other countries have been qualified later. It is worth noting that these are the countries of the euro zone (www.imf.org).

7 Note, however, that capitalism is a broader concept than a market economy. Capitalism is not just the economy (economic system), but also the political, cultural system.
Their number is quite substantial. Most often, depending on the degree of state interference in the economy and the level of social security of citizens, there are distinguished: liberal economy model, social market economy model, model of the welfare state and Asian model. One can also come across the concept of the Mediterranean model, the EU model, as well as other terms.

Assigning all countries to specific models of the market economy (capitalism) would be extremely difficult and debatable. However, the possibility of such a classification and distinction of new subsystems of the world economy should be mentioned in theoretical considerations. The post-socialist countries also vary in this respect. In Europe, some countries represent the liberal model (neoliberal), while others are moving towards a social market economy or the Mediterranean model. The Asian model (Asian Tigers) is close for China and Vietnam, but for other countries (Asian republics of the former Soviet Union) it might be the Islamic state model.

4. Economic integration and world economy subsystems

International economic integration has become one of the major socio-economic processes of the last decades. Its origins date back to the 50s of the twentieth century and were referred to Europe only. The development of European economic integration and its positive effects meant that the process has moved to other regions of the world economy. Hence, we talk about regional economic integration. Now, we have to deal with it on all continents. Integration groupings are treated as new actors of the world economy. This is not a simple sum of national economies, it is a new quality. There are new institutions which give the world economy a new character (Oziewicz, 2006). Does economic integration effect, and if so how, changes in world economy subsystems? Have the integration groups became (are they becoming) its new subsystems?

This can happen, but only when we deal with the process of its ‘deepening’, namely the transition to a higher and higher level (degree) of integration: from the free trade zone and customs union to a common market, and next to an economic and monetary union. Such is the case of the mainstream of the European integration. The development of European integration has led to the transfer of some powers of nation states to the EU institutions, which – leading common policy – have led to systemic convergence (assimilation of national economic systems, their differentiation is becoming smaller). Its scope gradually grew and began to cover new areas. Hence, we are dealing with the construction of a single economic model of the European Union (EU). This is identical with the formation of a new subsystem of the world economy (Swadźba, 2007).

The process of ‘widening’ the European economic integration should also be mentioned. The EU (formerly the European Communities) has become attrac-
tive to European countries that are not Member States. Successive enlargements have caused that its composition changed from six to nine, then to ten, twelve and fifteen countries (EU-15). After the collapse of the socialist system, the EU has grown by further countries: EU-25, EU-27 and EU-28. Additional European countries are waiting in line for the EU membership. This means that the EU is a growing area of the global economy in terms of population, area, and, above all, the economic potential (size of the generated GDP). Thus, it aspires to become a new subsystem of the world economy.

Is that also the case of other continents? Well, no, and if it does, it is experienced on a much smaller scale. This is due to the fact that integration groupings occurring there are most commonly free trade zones. Less frequently, it is a customs union or common market, not to mention the economic union. These groupings (with few exceptions) do not provide for unification or even coordination of the economic policies of their member countries. There are no developed institutions that take specific action in this direction. At this point it is worth to mention some integration groupings in which the convergence is taking place in the real economy, and to some extent in the regulatory sphere. These groupings claim to be the world economy subsystem (Swadźba, 2007).

In the first place there should be mentioned the North American Free Trade Agreement (NAFTA) which includes: the US, Canada and Mexico. From the standpoint of economic potential it is the largest integration grouping, comparable to the EU. The economies of the USA and Canada had already been integrated (informal integration). Mexico's accession to the agreement was made possible as a result of the reforms carried out there towards more democratic, market and liberal system. Mexico is moving towards the American model. In this sense, NAFTA contributes to the systemic convergence, not only in the real economy (there are still big differences in the level of development), but mainly in the regulatory sphere. Although NAFTA is only a free trade zone, it also contains elements relevant to higher forms of integration (the issues of environmental protection, movement of capital, labour, services, etc.). Thus, NAFTA is increasingly becoming a new subsystem of the world economy.

The second group in America which should be mentioned is the Southern Common Market (Mercado Common del Sur – MERCOSUR). It only consists of 4 countries of South America, including two largest (Argentina and Brazil). In addition, several other states are associated with this grouping. MERCOSUR is a customs union (with some exceptions), and in addition it also has some elements of common market and economic union. It is the most dynamic and promising grouping which can be an important subsystem of the world economy in the future. In practice, it is already treated as a separate regional group of countries.

From Asian groupings, a special attention should be paid to the Association of South-East Asian Nations (ASEAN). Although its origins were political, it is now
dominated by the economic factor. The scope of ASEAN’s activity is not only the liberalisation of trade, which has become a reality. It is also cooperation in the field of industrial development, financial services, agriculture, energy, transport etc. ASEAN, to some extent, is already treated as a recognisable subsystem of the world economy. It is in fact identified with the Asian Tigers. Attention should be paid to the informal cooperation of ASEAN with Japan, South Korea and China. The term ASEAN + 3 has already been coined. It would be the largest integration grouping in the world.

Attention should also be paid to the Gulf Cooperation Commission (GCC). It consists of 6 countries of the Arabian Peninsula, which have many features in common (religion, language, hereditary governments, high level of GDP per capita, alliance with the USA, avoiding war conflicts, etc.). A customs union has already been in operation there. Moreover, these countries also cooperate in the development of the oil industry (common interest), as well as have already announced the introduction of the single currency (‘Arabic euro’). These countries have already been included in the new subsystem which are oil countries, but the concept is broader. The GCC countries are its strong backbone.

In practice, there are already classifications of the world countries according to their membership in integration groupings (commercial). This type of classification emerged in UNCTAD and the WTO studies. There is no doubt that this is a new division and it is becoming increasingly important with the development of regional economic integration. Its disadvantage, however, is that it cannot take into account all countries (not all the countries are members of integration groupings), and some of them are counted more than once (in the case of belonging to two or more groupings that takes place in Africa or South America).

5. Globalisation and the world economy subsystems

Globalisation is also an important, if not the most important, socio-economic process. This is nothing else but international integration on a global scale – not regional. This is a growing integration (merging) of national economies. This is rapid acceleration of the process of internationalisation of management. It is

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8 The processes of regional integration in the world economy more broadly, among others, in: (Orłowska,& Żołądkiewicz, 2012).
9 See also: World Investment Report. See: www.unctad.org
10 E.g. in International Trade Statistics. See: www.wto.org
a very broad and complex process with an economic, social and political dimension. It is a process that produces positive and negative effects\textsuperscript{11}.

Globalisation understood in such a way should lead to the systemic convergence, to a ‘borderless world economic order’. In such a uniform world, there would be no room for subsystems. That would be a single model of the world economy – capitalist, liberal and democratic economy. That is not so. In addition to the theoretical and practical arguments in favour of the systemic convergence, there are also arguments in favour of divergence. It has been emphasized that globalisation and its positive effects can only occur in some parts of the world. The negative effects of globalisation lead to polarisation of the world, and thus to the diversification of the world economic system (Swadźba, 2007). In such a world there is a place for its subsystems.

The ongoing process of globalisation has caused that one of the criteria for allocating countries to subsystems is their participation in the globalisation process. At first, this division appeared in the report of the consulting firm A.T. Kearney ‘Globalization Ledger’ which shows the degree of globalisation of 34 selected countries. These countries are divided into 6 groups depending on the level of the so-called index of globalisation (Globalization Ledger). In the following years A.T. Kearney measured the level of globalisation in a much larger number of countries – The Globalization Index\textsuperscript{12}. The division of countries according to the degree of globalisation also appeared in the World Bank’s reports. In one of them, the developing countries – depending on the relationship of foreign trade to GDP – were divided into two groups: ‘more globalised’ (24 countries) and ‘less globalized’ (49 countries) (Globalization, Growth and Poverty). Similar rankings represent other research centres\textsuperscript{13}. Their main drawback is that – unlike in the previous divisions of UNCTAD and the World Bank – they cover a narrower group of countries in principle.

The level of globalisation is measured by a new index developed by the Swiss Economic Institute in 2002. KOF index (Ger. Konjunkturforschungsstelle) measures the economic, social and political dimensions of globalisation (scale 1-100). It takes into account changes that have occurred in the economy since 1970. In a report from 2015 (based on data from 2012). were included up to 207 countries.

\textsuperscript{11} Due to the purpose of the paper it does not make sense to develop the above issues. The literature on the subject is very extensive. On this subject writes, among others: Swadźba (2007). See also: Orłowska & Żołądkiewicz (2012).

\textsuperscript{12} See: www.atkearney.com

\textsuperscript{13} Extensive research on this topic was led by the Centre for the Study of Globalization and Regionalization in the years 1982-2004, which presented an index of globalisation, including economic, social, political globalisation (CSGR Globalization Index).
The most globalised countries are: Ireland, the Netherlands, Belgium, Austria and Singapore.\footnote{www.globalization.kof.ethz.ch}

Globalisation has contributed to many changes in the global economy and thereby – indirectly – to the emergence of new subsystems of the world economy. It cannot be divided into 2 or 3 subsystems, and if it is done, then these divisions are highly debatable. Hence, there are listed 5 or 6 subsystems, and even then this number less accurately – than in the past – reflects the existing differences between subsystems. The rapid development of the world economy has contributed to its diversification. Currently, speaking of subsystems of the world economy, one has in mind such subsystems as newly industrialising countries (NIC), the countries of Southeast Asia (the so-called ‘Asian Tigers’ of I as well as II generation), newly emerging markets, the oil states (distinguished from developing countries due to their specificity – countries with very high GDP per capita), developing countries (former countries of the so-called ‘Third World’), developing countries at a very low level of development (i.e. ‘Fourth World’) and others. Also in this context, the emergence of the BRIC group, the G-7 or the G-20 should be analysed.

The term ‘emerging markets’ appeared at the beginning of the 80s of the twentieth century. This term – according to its author, a World Bank economist Antoine van Agtmaela – was to replace the term ‘Third World’. This term was adopted in the literature and world politics, pointing to the end of the era of dividing the world economy into the aforementioned three subsystems. The last of them diversified to such an extent that its continued use does not reflect the existing reality (Zielińska-Głębocka, 2012).

The successive waves of industrialisation led to the emergence of a group of newly industrialising countries (NIC) in the 80s of the twentieth century. The OECD included in this group: Brazil, Mexico, Hong Kong, South Korea, Singapore and Taiwan. In the 90s they were accompanied by the countries of Southeast Asia (i.e. second generation Tigers) as well as China and India. Currently, some of these countries have reached a high level of development and have become members of the OECD. Others are included in the new world economy subsystems (Zielińska-Głębocka, 2012).

Noteworthy is another term that has emerged in recent years, namely the BRIC countries. The abbreviation is derived from the names of the four most dynamically developing countries classified as emerging markets: Brazil, Russia, India and China. It was introduced by Jim O’Neill, an economist at Goldman Sachs, in 2001. With time, other countries were attempted to be entered to this group, including South Africa. Therefore, the literature shows the term of the BRICS...
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(S – South Africa). The creator of this term proposed a new one, namely ‘growth markets’ and referring it to new countries (Zielińska-Głąbocka, 2012).

It is not a binding division of the world economy subsystems. These are just the terms – appearing in the economic literature – of various modern subsystems distinguished according to different criteria. Some of them refer to the same countries and are used interchangeably. In case of the others, they are not synonymous. It would be difficult to qualify many countries into individual subsystems. Therefore, it seems necessary to create different subgroups or increase the number of subsystems that better reflect the existing reality.

From the foregoing considerations it follows that we have had to deal with many new divisions of the world economy into its subsystems in recent years. It should be noted that these divisions do not always use the term subsystem. They are often referred to as: the regions, groups of countries etc. These breakdowns are presented by economists dealing with the world economy. Sometimes these are the divisions created on the side of other research. Own divisions are also employed by international economic organisations.

Conclusions

The conducted research of the world economy system and its subsystems allow for drawing the following conclusions:

• Subsystems of the world economy, as the world economy system, are constantly evolving.
• These changes affect different phenomena and socio-economic processes that appear or disappear at certain times. In recent decades, these have included: systemic transformation, international economic integration and globalisation.
• The transformation has contributed to the disappearance of socialist economic system, as one of the three post-war subsystems. The post-socialist countries have gone in a different directions. Currently, they are a part of many different sub-systems or create a new hybrid system (China). In addition, it should be remembered that this system is still functioning (Cuba and North Korea) in a very truncated form.
• There has been the development of international economic integration. If it had previously been characteristic for Europe only, now it encompasses all other continents. A membership in the integration groupings is a new criterion to distinguish economic subsystems. Countries belonging to the most developed integration groupings, which share common characteristic features, undoubtedly are a new subsystem of the world economy (European Union countries).
The impact of globalisation is also large, both direct (there are newer classifications of countries according to the degree of globalisation) and indirect (through the impact of globalisation on the development and liberalisation of international trade, the development of scientific and technological progress, economic growth, and many others – both positive and negative – effects). The latter manifests itself in the emergence of such subsystems, as newly industrialising countries (NIC), emerging markets, BRIC and others.

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CSGR Globalization Index. Centre for the Study of Globalization and Regionalization from www.csgr.org


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