

Załącznik nr 3
do wniosku o wszczęcie postępowania habilitacyjnego

'AUTOREFERAT'
Summary of professional accomplishments
(English)

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1. First and Last name

Magdalena Katarzyna Kąkol

2. Education and scientific degrees

- 5.07.2007 PhD in economics;
Faculty of Economics, Maria Curie-Sklodowska University in Lublin;
PhD thesis: *State aid in competition policy in the European Union*;
doctoral dissertation advisor: prof. dr hab. Bogumiła Mucha-Leszko.
- 2003 Masters degree in Law;
5-year Masters course in Law, completed with a 'very good' result;
Faculty of Law and Administration, Maria Curie-Sklodowska University in Lublin;
M.A. thesis: *Evolution of the monetary union concept in Europe*,
prepared in the European Union Law Chair under the direction of prof. dr hab. Ryszard Skubisz
- 1999 Masters degree in Economics;
5-year Masters course in Economics, completed with honors;
Faculty of Economics, Maria Curie-Sklodowska University in Lublin;
M.A. thesis: *Creation and development of the single financial market*;
prepared in the World Economics and European Integration Department under the direction of prof. dr hab. Bogumiła Mucha-Leszko.
- 1998 University of Kent at Canterbury: 3-month studies within the Project TEMPUS Phare T-JEP 09169-95 (European Studies – Curricula Development)

3. Employment in academic institutions (and scientific achievements before obtaining the PhD degree)

Faculty of Economics. Maria Curie-Sklodowska University in Lublin, World Economy and European Integration Chair (formerly: World Economy and European Integration Department)

- since 1.10.2007- Associate professor (adiunkt);
- 1.10.1999-30.09.2007 - Assistant lecturer (asystent);
- 2001-2002 - Coordinator for international programmes of the Faculty of Economics at M. Curie-Sklodowska University;
- 2002 - **Participation in a research project** of the European Commission „**The Euro and the enlargement. A single currency for a reunified Europe**”, realized within

the Eurall programme. (EC research grant Agreement no. 2001 – 1619/001 – 001 CEN CENTRE) coordinated by the Faculty of Economics in the University of Brescia (Italy). Local coordinator for the Faculty of Economics MCSU was prof. dr hab. B. Mucha-Leszko. Marmara University in Istanbul (Turkey) was also a partner in the project. Results of the research (selected papers) were published in an international scientific monograph (2003) that a year later was also published in Poland. I was a co-author of one of the chapters: M. Kałkol, B. Mucha-Leszko, *The economic situation of the Euro area on the background of present tendencies in the economies of the United States and Japan* [in:] A. Santagostino (ed.), *Europe: reunification, enlargement, single currency*, Edizioni CLUB, Brescia 2003, pp.113-127. The results were also presented during several seminars (I was tasked at preparing a report during one of them) and during a summary conference in Brescia and Verona where I was one of the speakers. **Giornale di Brescia published a feature** on the conference on Oct. 12th, 2002, *L'allargamento dell'Unione Europea ai Paesi dell'Est*, p. 11.

Grants and scholarships:

- | | |
|---------------|---|
| May 2001 | European University Institute in Florence, Italy: 2-week research grant within the Project TEMPUS JEP Contract N°: JEP - 13420 - 98 (<i>European Studies Curricula - Political Modules</i>) |
| November 2000 | European University Institute in Florence, Italy: 1-month research grant within the Project TEMPUS Phare Joint European Project Contract N°: JEP - 13420 - 98 (<i>European Studies Curricula - Political Modules</i>) |
| May 2000 | University of Regensburg: 1-month research grant obtained within the Project TEMPUS Phare Joint European Project Contract N°: JEP - 13420 - 98 (<i>European Studies Curricula - Political Modules</i>) |

I started to develop my scientific interests during my studies at the Faculty of Economics, MCSU when I decided to focus on international economics and that was the rationale behind my choice of the master thesis seminar. As a result of prof. B. Mucha-Leszko's international cooperation I was given an opportunity to study in the United Kingdom for 3 months (University of Kent), where I mainly attended classes that improved my knowledge on the functioning of the European Union, including prof. R. Vickerman's Monetary Union lecture. This particular class and the renown teacher determined to a large extent my future job and scientific specialization.

Even before leaving for the scholarship I started other field of studies - law - mainly to obtain better understanding of the legal basis of the European Union. I believed that knowledge on *acquis communautaire* would help me view the European integration process from a wider perspective and be helpful in conducting an in-depth analysis of the various issues within the integration process, in particular EU institutions and common policies.

Despite being interested during my studies in all the mechanisms and phenomena connected to the EU economy, I chose to focus on the financial integration. That interest was reflected in the themes of both my master theses (they discussed single financial market being constructed in the EU and the concept of monetary union). Some selected issues from the second thesis were developed and turned into a publication in „Annales UMCS. Sectio H, Oeconomia” (Kąkol, M. 2004)¹ on historic experiences in creating monetary unions in various countries. Two other papers I prepared in co-authorship pertained to the issue of common currency area. They assessed economic situation in the euro area and role of the euro as an international currency (Kąkol, M., Mucha-Leszko, B. (2003) and (2005)²). The paper from 2003 was resulting from research within the European Commission project „The Euro and the enlargement. A single currency for a reunified Europe”, realized within the EURALL programme (Agreement no. 2001 – 1619/001 – 001 CEN CENTRE). My knowledge was also increased as a result of 3 foreign scholarships I was awarded in 2000-2001 at the University of Regensburg and European University Institute in Florence (2.5 months in total). An important motivator for my further research stemmed from the necessity to prepare for lectures on monetary integration I gave for postgraduate students at the Faculty of Political Sciences, MCSU.

Shortly before starting my job at the Faculty of Economics, MCSU I started in-depth studies on some common EU policies (including budgetary, social, research and technology) due to the fact that the employees of World Economy and European Integration Department were working on a monograph entitled *Polityka społeczno-ekonomiczna Unii Europejskiej. Zakres Sektory Dziedziny (Socio-economic policy of the European Union. The scope, sectors and areas)* edited by professor B. Mucha-Leszko (1999). I was invited to be part of the publication and contributed to three chapters - in one I was a sole author, and in two - a co-author. **I wish to emphasize that studies at the University of Kent and an opportunity to work on research papers during my final year of studying were the main determinants of my choice to work at MCSU.** In a way, I felt more prepared to take on the responsibilities of an academic. I kept up with my interest in common EU policies during my work as assistant lecturer at the Faculty of Economics since they coincided with the classes I was tasked to teach. Apart from a workshop on International economics, Economics of European integration and Microeconomics I was granted permission from the Faculty Board to conduct part of the lecture on Socio-economic policy of the EU (I also taught classes on some of the policies for the postgraduate students at the Faculty of Political Science, MCSU). **In 2005 I started to widen my interests and looking into the area of common market and its steering mechanisms, specializing in the competition policy that determines the smooth functioning of the EU market.** I was mainly focusing on state aid policy, which is a specific area of the EU competition policy. Internal market requires protection from the distortions in competition, that can be caused not only by enterprises, but also member countries offering state aid to enterprises. That is why I made state aid in the EU the main subject of my doctoral thesis (both in the theoretical and empirical aspects). Before the

¹ Publication II_B)_61 according to Annex 4 of the application.

² Publications II_B)_59 63.

defence of my thesis I prepared 3 chapters in monographs and 1 journal paper on that issue (co-authored with prof. B. Mucha-Leszko). One of our papers pertained to competition policy. The results of our research were also presented during scientific conferences in Warsaw (Polish Economic Society, Warsaw School of Economics) and Gdańsk (University of Gdańsk).

4. Scientific achievement, according to art. 16 sec. 2 of the bill from 14 March 2003 r. on scientific degrees and title and degrees and title in the domain of arts (J. Laws 2016, item 882 with modif. in J. Laws 2016 item 1311):

A) Title of the scientific achievement:

As a scientific achievement after obtaining a PhD degree I indicate a series of 15 thematically connected scientific papers entitled:

The role of the EU internal market mechanism and competition policy in achieving comparative advantage by member countries and the EU in merchandise and services trade. Theoretical aspects and results of empirical studies.

The main themes of the papers comprising the scientific achievement are the following: 1) theory of competition and EU competition policy - comparative analysis with the extent of market freedom and competition policy in the United States, 2) liberalization and rules of the EU internal market, in particular the degree of integration and benefits, 3) analysis and evaluation of the competitiveness in merchandise and services trade of the EU and member countries.

The order of the publications' presentation was determined by the above-mentioned thematic tiers.

B) List of publications comprising the scientific achievement:

I Theory of competition and EU competition policy - comparative analysis with the extent of market freedom and competition policy in the United States

1. Kąkol, M. (2008), *Analiza teoretyczna form konkurencji rynkowej* [in:] E. Skrzypek, Z. Szymański (ed.), *Między historią a teraźniejszością*, Wyd. UMCS, Lublin, pp. 259-290; ISBN 978-83-227-2935-9. [*Theoretical analysis of market competition forms*]
2. Kąkol, M. (2010), *Economic rationale for supporting enterprises from public resources – economic efficiency assessment* [in:] M. Krasnodębska-Tomkiel (ed.), *Changes in Competition Policy over the Last Two Decades*, UOKiK, Warsaw, pp. 339-361; ISBN 978-83-60632-52-9.
3. Kąkol, M. (2007), *Nowe zasady w polityce konkurencji - zmiana regul kontroli koncentracji przedsiębiorstw w Unii Europejskiej* [in:] B. Mucha-Leszko (ed.), *Biuletyn*

Europejski - Wydanie Specjalne, 50 lat Traktatów Rzymskich. Sukcesy i trudne realia integracji europejskiej, **Wyd. UMCS, Lublin, pp. 111-144**; ISBN 978-83-227-2558-7; ISSN 1733-2508. [*New principles in the competition policy – recent reform to the EU merger control regime*]

4. Kąkol, M. (2014), *The evolution of US merger control policy – part 1: 1890-1973*, “**Economics and Law**” Vol. 13, No. 3, **pp. 403-415**; ISSN 1898-2255, <http://dx.doi.org/10.12775/EiP.2014.029>.
5. Kąkol, M. (2014), *The evolution of US merger control policy – part 2: 1974-2013*, “**Economics and Law**” Vol. 13, No. 3, **pp. 417-430**; ISSN 1898-2255, <http://dx.doi.org/10.12775/EiP.2014.030>.

II Liberalization and rules of the EU internal market, in particular the degree of integration and benefits

6. Kąkol, M. (2015), *Theoretical versus Real Benefits of the EU Internal Market* [in:] Proceedings ICABR 2015: X. International Conference on Applied Business Research, 14-18 September, **Madrid, Spain, pp. 439-455**; ISBN 978-80-7509-379-0 (indexed in Web of Science database).
7. Kąkol, M. (2015), *Stopień zintegrowania wewnętrznego rynku usług UE*, „**Annales UMCS. Sectio H, Oeconomia**” Vol. 49/2, **pp. 73-89**; ISSN 0459-9586, DOI:10.17951/h.2015.59.2.73. [*Degree of integration of the EU internal market for services*]
8. Kąkol, M. (2015), *Prowzrostowy potencjał wewnętrznego rynku usług Unii Europejskiej*, "Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania Uniwersytetu Szczecińskiego" nr 41, t. 1, **pp. 111-126**; ISSN 2080-4881. [*Growth potential of the EU internal market for services*]
9. Kąkol, M. (2017), *Building the genuine single market for services* [in:] A. Santagostino (ed.), *The Single European Market and Trade Policy*, **Cambridge Scholars Publishing**, Cambridge, **pp. 55-99**; ISBN-13: 978-1-4438-7902-6; ISBN-10: 1-4438-7902-9.

III Analysis and evaluation of the competitiveness in merchandise and services trade of the EU and member countries

10. Mucha-Leszko, B., Kąkol, M., Białowąs, T. (2009), *Analiza handlu towarami Unii Europejskiej w latach 1995-2008 i ocena konkurencyjności* [in:] B. Mucha-Leszko (ed.), *Pozycja Unii Europejskiej w handlu międzynarodowym. Dynamika i struktura obrotów, konkurencyjność, główni partnerzy*, **Wyd. UMCS, Lublin, pp. 19-50**; ISBN

978-83-227-3042-3 (author contribution 20%). [*Analysis of the European Union's trade in goods in 1995-2008 and competitiveness assessment*]

11. Mucha-Leszko, B., Kąkol, M., Białowas, T. (2009), *Analiza handlu usługami Unii Europejskiej w latach 1995-2008 i ocena konkurencyjności* [in:] B. Mucha-Leszko (ed.), *Pozycja Unii Europejskiej w handlu międzynarodowym. Dynamika i struktura obrotów, konkurencyjność, główni partnerzy*, Wyd. UMCS, Lublin, pp. 51-92; ISBN 978-83-227-3042-3 (author contribution 20%). [*Analysis of the European Union's trade in services in 1995-2008 and competitiveness assessment*]
12. Mucha-Leszko, B., Kąkol, M. (2010), *EU economic frontiers determined by its international trade position and trade policy* [in:] D.I. Dolghi et al. (eds), *The Geopolitics of European Frontiers*, University of Oradea & University of Debrecen, "Eurolimes" Vol. 10, pp. 160-178; ISSN 1841-9259 (author contribution 35%).
13. Kąkol, M. (2018), *Poland's Competitiveness in Services Trade on the European Union Internal Market* [in:] Proceedings of the 4th International Conference on European Integration, 17-18 May, Ostrava: VŠB-TU Ostrava, Faculty of Economics, Czech Republic, pp. 627-641; ISBN 978-80-248-4169-4; ISSN 2571-029X (awaiting indexation in Web of Science database).
14. Kąkol, M. (2018), *Evaluation of Poland's revealed comparative advantage in international trade in services* [in:] 5th International Multidisciplinary Scientific Conference on Social Sciences & Arts SGEM 2018. Conference Proceedings Volume 5. Modern Science Issue 1.1, 19-21 March, Vienna, Austria, Hofburg Congress Centre, pp. 641-652; ISBN 978-619-7408-30-0; ISSN 2367-5659; DOI: 10.5593/sgemsocial2018H/11 (awaiting indexation in Web of Science database).
15. Kąkol, M. (2018), *Poland's Export Specialization Pattern in Trade in Services* [in:] K.S. Soliman (ed.), Proceedings of the 31st International Business Information Management Association Conference (IBIMA): Innovation Management and Education Excellence through Vision 2020, 25-26 April, Milan, Italy, pp. 3623-3636; ISBN: 978-0-9998551-0-2 (indexed in Web of Science database, awaiting indexation in Scopus database).

C) Scientific aim of the series of papers mentioned above and the results achieved with the proposal of their potential usage.

Basic information on the publications in the series.

The series comprises 15 scientific papers including:

A) classified by the language of publication:

9 - in English (including 6 published abroad)

6 - in Polish

B) classified by the type and place of publication:

5 journal articles:

- "Economics and Law" (Nicolaus Copernicus University in Toruń, Poland) – 2;
- "Eurolimes" Journal of the Institute for Euroregional Studies (University of Oradea & University of Debrecen, Hungary) – 1;
- "Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania Uniwersytetu Szczecińskiego" (University of Szczecin, Poland) – 1;
- „Annales UMCS. Sectio H, Oeconomia” (MCSU in Lublin, Poland) – 1.

4 papers and chapters published in conference proceedings abroad:
- Conference Proceedings - indexed or awaiting indexation in the Web of Science database (Madrid, Vienna, Milan, Ostrava);

6 monograph chapters:

- MCSU in Lublin Publishing, - 4;
- Office of Competition and Consumer Protection in Warsaw (UOKiK) - 1
Cambridge Scholars Publishing - 1.

Main research goal of the series is to assess the impact of the common market on economic efficiency, economic welfare as well as competitiveness and economic position of the European Union in international trade. The analysis focuses on the benefits of competitive advantage in the services market (one of the least integrated segments of the EU market), and the country chosen to demonstrate benefits resulting from specializing in services exports to the EU and to the world market was Poland - 3 of the papers pertain to Poland (pos. 13, 14 and 15). In total 6 of the papers in the series were devoted to the services market (pos. 7-9 and 13-15).

The research I carried out to prepare the series allowed me to address the following research questions:

- 1) Does the EU conduct the right competition policy in terms of efficiency of the internal market mechanism and do the adopted regulations and methods of assessing the market distortions appear to be in accordance with the current state of knowledge on the functioning of markets and are they adjusted to changes in the theory of competition?
- 2) Does the EU's internal market mechanism cause increase in competitiveness and innovativeness, deepen intra-industry specialization and affect growth in labour productivity?
- 3) How effective are EU's internal market mechanism and competition policy compared to the US market mechanism and competition policy in terms of providing economic benefits?

4) What is the degree of integration and the extent of market freedom on the internal services market and what is its impact on economic results in the EU and member countries?

5) How has Poland's competitiveness and specialization within services exports changed after joining the EU and which factors contributed to the creation of competitive advantage?

The responses to these research questions were included in the following publications:

Question 1: publications 1-5.

Question 2: publications 6, 8, 10-15.

Question 3: publications 2-6 and 8-12.

Question 4: publications 7-9, 11, 13-15.

Question 5: publications 13-15.

I Theory of competition and EU competition policy - comparative analysis in terms of extent of market freedom and competition policy in the United States

Pos. 1: *Theoretical analysis of market competition forms*

The first publication in the series (pos. 1) constitutes an introduction to my further research on the role of market mechanism and competition policy in the EU in improving trade competitiveness of the entire area as well as individual member states. **Performing a theoretical analysis of the types of competition was used to verify which market structure was optimal in terms of ensuring benefits in the form of the highest economic effectiveness (of various types e.g. allocative, production or dynamic efficiency) and social welfare.**

The research confirmed that using the traditional approach to the phenomenon of competitiveness neither allows for the creation of a universal concept and set of rules for competition policy nor for the definite identification of the market situations that require intervention to secure public interest and those when it is better off not to intervene. Perfect competition is considered to be characterized by a higher economic efficiency (allocative and production) and social welfare from the static viewpoint. However, if we take into account the dynamic viewpoint that includes an impact of a given market structure on the implementation of innovations - the results are not as straightforward. In the paper I discuss the views of major contributors to the theory of competition (among others: W.J. Baumol, R.E. Caves, G. Grossman, A. Harberger, H. Leibenstein, E. Mansfield, A.J. Meese, J. von Neumann, O. Morgenstern, F.M. Scherer, D. Ross, E.J. Solberg, G.J. Stigler, P.M. Sweezy, J. Tirole, R.D. Willig) and compare their arguments. Moreover, *I point to the main paths of the competition theory development taking into account the most recent trends within the 'new*

industrial economy' (that combines approach of the Harvard and Chicago schools and thus derives from both the structural approach as well as the one oriented on the analysis of economic efficiency) that should be drawn from by the creators of competition policy and those implementing it (this issue is further discussed in paper 5). As I emphasized in the paper, having done an in-depth analysis of the market (using the newest microeconomic tools and advanced models of imperfect competition created on the basis of empirical studies), as well as the assessment of economic effectiveness, one should also look into market behaviour as thoroughly using a case-by-case approach which takes into consideration the way how a company is achieving and maintaining its market power position³. This new approach is better suited to the evaluation of competition in international markets, where an oligopoly usually occurs. It includes to a larger extent the particularities of the processes in international economic activity, the growing role of global value chains and functional integration in the world economy. The aforementioned processes justify the need to develop international competition policy and conceptualize its rules, which will be possible provided that a compromise between the European Union and the United States is achieved.

Pos. 2: *Economic rationale for supporting enterprises from public resources – economic efficiency assessment*

The second paper in the series is a chapter in the monograph 'Changes in Competition Policy Over the Last Two Decades' published (both in English and Polish) by Office of Competition and Consumer Protection in Warsaw (Urząd Ochrony Konkurencji i Konsumentów - UOKiK) to celebrate the 20th anniversary of the institution. The paper, on the justification of supporting enterprises from public resources from the point of view of its impact on economic efficiency, was prepared in response to a personal invitation from the UOKiK to contribute a paper on EU state aid policy and participate in the international conference organized by UOKiK (Warsaw 30.10.2008). The volume gathered a number of heads of competition offices and other officials from several EU countries, the US, Australia, representatives of the European Commission and world renowned experts on competition policy, among others: William E. Kovacic (Federal Trade Commission, USA), Philip Lowe⁴ and Barbara Brandtner⁵ (European Commission), prof. David Gerber (Illinois Institute of Technology, author of several well-known publications on competition policy) prof. Jacques Bourgeois (College of Europe, Bruges) and prof. Anna Fornalczyk (the first chairperson of the Antimonopoly Office in Poland in 1990-1995).

I adopted 4 research goals for the paper: 1) to present the most important economic arguments justifying the use of state aid from a theoretical perspective, 2) to characterize the EU approach to economic efficiency criterion at assessing state aid measures, 3) to evaluate

³ See more: Hildebrand D., *The Role of Economic Analysis in the EC Competition Rules*, Second Edition, Kluwer Law International, The Hague, London, New York 2002, p.131; Jacquemin A., *Theories of industrial Organization and Competition Policy: What are the Links?*, European Commission, Forward Studies Unit, Working Paper, 2000 and Wright J.D., *Abandoning Antitrust's Chicago Obsession: The case for Evidence-Based Antitrust*, „Antitrust Law Journal”, Vol. 78, No. 1/2012.

⁴ Director General of DG Competition in 2002-2010.

⁵ Deputy Head of Cabinet of Competition Commissioner Neele Kroes.

the legitimacy of state aid provided by selected countries from the point of view of economic efficiency and potential influence on distortions of competition and 4) to identify the efficiency conditions of state aid policy. To complete these goals I used the method of critical analysis of available literature on the matter, reports of the European Commission and foremost results of empirical studies. Empirical research was carefully selected to describe and explain the issue in the best, the most objective way. Results of the analysis revealed that, despite the theoretical arguments (confirmed by a number of empirical research results) in favour of granting of the state aid or refusing certain types of aid due to its potential to correct market failures, the impact of aid on economic efficiency can vary and ultimately is dependant on the rules and effectiveness of state aid policy itself. Therefore, the latter should: be based on the competition for funds by enterprises applying to get aid, formulate clear and detailed goals to be attained by aid measures and take into consideration the side effects of the measures. The ultimate criterion of determining whether the aid was rewarded and used in a right way should not solely be the increase in economic efficiency, rather an assessment whether a measure has contributed to increased competitiveness of enterprises and economy sectors or industries which received it, both in the domestic and international markets. **The input into the realization of the abovementioned research goals and the verification of the theory of competition assumptions using various cases of state aid awarding in the EU (and Norway) constitutes the main added value of the paper that enriches the set of arguments for and against interference into the freedom of the market.**

Pos. 3: New principles in the competition policy – recent reform to the EU merger control regime

The theme of the third publication (pos. 3) is an evolution of the concentration of enterprises policy within the context of evolution of the overall competition policy of the EEC/EU and the emergence of its new goals due to: changes in the economic situation of the member countries and their economic policy priorities, the degree of advancement of the market integration process, changes in the competition conditions on the EU market as well as international markets. The research on the transformation of the control of enterprise concentration policy includes a wide spectrum of issues: 1) material and procedural regulations, 2) EU institutions competences in this regard and their sometimes inconsistent interests affecting their interactions and regulations in the area of merger control (or lack thereof), 3) foremost the deepened characteristics of changes in the economic analysis used to assess merger control on the EU market pointing to the reasons behind those changes. In my research I focused in particular on the comparison of the enterprise concentration control rules in the EU in 1989-2003⁶ and since 2004⁷ - after a fundamental reform of this area of competition policy that included, among others, the creation of a new office of the head economist in DG Competition responsible for the quality of the economic analysis in any case

⁶ Since the entry into force of Council Regulation (EEC) No 4064/89 of 21 December 1989) [on the control of concentrations between undertakings] .

⁷ Since the entry into force of Council Regulation (EC) No 139/2004 of 20 January 2004.

before the European Commission pertaining to a distortion of competition in the EU internal market.

As emphasized in the paper, reform of enterprise concentration control policy in the EU was aimed at approximating it to the economic standards in the United States⁸ and was in accordance with a general trend of change within all other areas of the common competition policy - using a more economic approach that includes the most up-to-date achievements in the theory of competition (rules of economics), that were empirically confirmed⁹ (pos. 3, p. 118-119). In order to verify this thesis (spread by the European Commission officials): 1) I carried out a detailed analysis of the new community legal regulations (plus a number of documents that had no formal binding force, but were used in practice, like the EC guidelines) to verify whether they actually allow for the inclusion of efficiency benefits from concentration to a larger extent (provided that a significant part of it was passed on to consumers)¹⁰; 2) Analyzing economic standards and tools used to evaluate enterprise concentration in the EU, I attempted to compare them to the ones used in the US.

My research - based mainly on a critical analysis of the source documents - **confirmed that the policy of enterprise concentration control increasingly focuses on economic efficiency and consumer welfare which should in turn lead to improved competitiveness of the European economy.** The new test of significant impediment of effective competition (SIEC) is better suited for microeconomic analysis of mergers and allows to measure their impact on consumers better. Commission can also use additional tests - e.g. test of external effects, while evaluating the notified joint venture, which further improves the quality of the analysis. Economic tools and standards used to assess mergers in the EU (like the new SIEC test) are similar to the ones used in the United States, but there are some differences. **In the EU merger control and efficiency assessment is based on the consumer standard (price standard) while in the US formally it is the same, but Federal Trade Commission and Department of Justice sometimes use the standard of total surplus, and in the case of international markets the main issue for the US is welfare of the American consumer** (pos. 3, p. 120). There are certain diversities in the approach to some types of concentration. For example, conglomerate mergers are usually 'disregarded' by the anti-trust authorities in the US, while the EC actively strives to prevent them.

During the time when this paper was prepared, new regulations were just being introduced and Polish economic literature on the issue was non-existent (in contrast to legal literature)¹¹. In my research I used a different approach than the one used in legal analysis and tried to point to: 1) **changes in the economic analysis used to evaluate enterprise mergers**

⁸ Monti M., *Convergence in EU-US antitrust policy regarding mergers and acquisitions: an EU perspective*, Speech at UCLA Law First Annual Institute on US and EU Antitrust Aspects of Mergers and Acquisitions, Los Angeles, 28 February 2004.

⁹ Röller L-H, *Using economic analysis to strengthen competition policy enforcement*, speech of 1 September 2005, http://ec.europa.eu/comm/competition/speeches/index_2005.html.

¹⁰I also reviewed the EC decisions and the Court of First Instance decision-making practice in cases pertaining to mergers in the common market. However, a short time since the reform was introduced resulted in a modest empirical materials I could work on.

¹¹ See e.g. Pęczalska B., *Kontrola koncentracji w Unii Europejskiej* [in:] E. Piontek (ed.), *Reforma wspólnotowego prawa konkurencji*, Zakamycze, Kraków 2005.

on the single market (in connection with the solutions used in the US); and 2) impact of the new rules in the policy of enterprise concentration control for **economic efficiency** that affects **cumulative benefits of the common market** and, as a result, affects the EU competitiveness and position in the international markets. I believe that my contribution to the field of economics in the case of this paper was my analysis of competition's policy legal bases with regard to its impact on the economy, and in particular competitiveness and position of European corporations in international markets. The law can have a far-reaching influence on the economic situation. The legal regulations weaken the position of corporations in the global market, particularly because the American law does not limit mergers and acquisitions (to such an extent as the EU law). Taking into consideration competition law of other countries in the situation of limited possibilities to introduce international coordination can become a challenge for domestic law-makers.

Pos. 4: *The evolution of US merger control policy – part 1: 1890-1973 and*

Pos. 5: *The evolution of US merger control policy – part 2: 1974-2013*

Pos. 4 and pos. 5 are connected thematically with two research areas: theory of competition and the EU competition policy and refer to the issues that were discussed previously in two papers in the series (pos. 1 and pos. 3). further discussing them and adding a wider research perspective. Both papers (pos. 4 and 5) pertain to the evolution of the US merger control policy and complement each other constituting one entity. They discuss periods of 1890-1973 and 1974-2013, have the same goal and research methods which were mostly comparative analysis of source documents and critical assessment of arguments used by representatives of various schools of competition. The aim of the study was to present the changes in US merger control policy at different stages of development of competition theories and views on pro- and anti-competitive effects of mergers. Having explained various procedural issues, as well as the institutional framework for the enforcement of the antitrust legislation in the United States, I focused on the wide literature review that included mainly the works of significant contributors to the development of competition policy (among others J.S. Bain, R.H. Bork, H. Demsetz, W.G. Sheperd) and an in-depth analysis of US legislation, adjudication practice of federal courts and decisions of antitrust agencies. I distinguished a number of stages in the development of US policy of merger control and attempted to evaluate the policy during each of the stages.

In my research I attempted to find links between changes of the theory of competition and the appearance of new goals in merger control policy, changes in the restrictiveness of regulations and practice as well as improving economic analysis used to evaluate mergers and their impact on market competition. Analysis of the contemporary stage of US merger control policy development revealed that there is a predominance of interdisciplinary and flexible approach to the methodology used in the economic analysis - it is adjusted on a case-by-case basis. Antitrust analysis applied by the Federal Trade Commission and the Department of Justice is based more and more on new economic models better explaining the business conduct in the light of available data, derived from either Chicago, Post-Chicago or other

theories. On the other hand, in the federal courts so far the Chicago School approach and neoclassical methods of merger analysis have predominated owing to their relative simplicity.¹²

My research confirmed (and added to) the conclusions from the previous two papers in the series (pos. 1 and pos. 3). In pos. 5 I presented evidence supporting a thesis that both policies of enterprise concentration control (in the EU and the US) have been becoming more and more similar, both in terms of their current goals (consumer welfare and protection of the process of market competition) as well as used methods of economic analysis. I also noted that there is a process of material convergence between these economic centres. What is interesting, in recent years not only the EU adjusted its policy to the US economic standards, but also the other way - the United States utilized some solutions created in the European Union, for example in The 2010 Horizontal Merger Guidelines. This bilateral cooperation can contribute to shaping the future of international merger control policy provided that the United States change their foreign economic policy, since their current path threatens the bases of the multilateral rules of the world economy.

II Liberalization and rules of the EU internal market, in particular the degree of integration and benefits

Pos. 6: *Theoretical versus Real Benefits of the EU Internal Market*

In the sixth paper of the series I compared theoretical and real benefits of EU market integration and assessed efficiency of the internal market mechanism based on the actual economic effects compared to the corresponding results in the United States. In an attempt to evaluate the process of market integration in the EU I used the following measures: the level of GDP per capita, GDP per hour worked, standard deviation of GDP per hour worked, growth rate of Total Factor Productivity - TFP, ICT capital contribution to GDP growth, gross domestic expenditure on R&D as a percentage of GDP, share of business enterprise sector in gross domestic expenditure on R&D, percentage of gross domestic expenditure on R&D financed by industrial sector and other innovation indexes including exports of medium & high-tech products and of knowledge-intensive services, trade and FDI flows relative to GDP, share of intra-EU trade in total merchandise and services trade relative to GDP, share of intra-EU FDI flows relative to GDP, unit labour cost, various price indicators and price differentials both in merchandise and services' markets. In order to estimate major gains from the EU common market and whether it contributed to the increase in the size of enterprises due to the effects of scale and their higher productivity as a result of better factor allocation, I analyzed the non-financial enterprise sector categorized by the size of the enterprise (micro, small, medium and large) and took into consideration: number of enterprises in each category,

¹² See. Wright J.D., *Abandoning Antitrust's Chicago Obsession: The case for Evidence-Based Antitrust*, „Antitrust Law Journal”, Vol. 78, No. 1/2012.

number of persons employed, value added and value added in factor prices per person employed (apparent labour productivity).

In particular, my research goals were: 1) to compare theoretical gains from market integration with its real outcomes in the European Union and to assess the extent to which actual effects differ from potential benefits; 2) to identify the areas within the EU internal market where integration process is not complete and the market does not deliver potential benefits; 3) to explain the reasons of the EU common market's sub-optimal performance. I used the following research methods in the paper: critical review of literature, reports from the European Commission and OECD, other empirical studies, as well as an own empirical analysis of economic indicators measuring the internal market performance and its impact on the whole EU economy. As a result of my research I was able to point to certain areas of the economy, that can be considered 'success stories' of the market integration process, but mainly I identified the main obstacles to the efficient functioning of the EU internal market that constitute barriers to raising EU's economic competitiveness and achieving better results in the global market. I enumerate the areas of success and barriers in the functioning of the internal market in the conclusion (pos. 6, pp. 452-453). **I consider the results of empirical analysis as my contribution to the field of European integration economics - they were a verification of theoretical benefits of the common market with the real benefits.**

The research was part of the statutory research in the World Economy and European Integration Chair (under the direction of prof. B. Mucha-Leszko). The research theme was *Factors and structural changes in the world economy in 1995-2015*. I presented my results at an international conference in Madrid.

Pos. 7: Degree of integration of the EU internal market for services

Subsequent three papers in the series (pos. 7-9) were devoted to the rigorous analysis of: the creation process, principles, problems in the functioning and economic potential of the services market, which is considered to be the least integrated area of the EU internal market.

The goal of the first paper (pos. 7) is to evaluate: 1) the degree of integration in the EU services market regarding freedom to provide services and freedom of establishment (the degree of integration in the goods market is used as a main reference point) and 2) restrictiveness of regulations in that market which hamper its efficient functioning. To realise these goals I used analysis of selected economic indicators allowing to measure the degree of integration, restrictiveness and the differentiation of regulations (i.e. share of intra-EU trade flows in total foreign trade in services, share of intra-EU trade flows in relation to GDP, share of value added by service enterprises controlled by entities from other EU countries, various measures of price differentiation between member countries, OECD indicators - Product Market Regulation indices and Services Trade Restrictiveness Index. The analysis was supported by a review of economic literature, documents and reports by the European Commission and OECD as well as empirical studies carried out by various experts on the issue in hand. I carefully studied those to confirm my own findings. My research for this paper allowed to identify the most and the least integrated services sectors within the EU

common market. The most integrated in terms of cross-border trade were - business and transport services, and in terms of freedom of establishment - the financial sector. I indicated the most important actions that should be undertaken in order to achieve fuller integration in the services market and realize its potential benefits (I point them out in the conclusion to my paper, p. 88). As emphasized in the paper (pos. 7, p. 87), it is crucial due to the significant contribution of services sector to manufacturing sector and thus its impact on the competitiveness of the European industries and the entire EU economy. This train of thought was further discussed and argued for (using detailed data regarding the issue) in the subsequent paper in the series (pos. 8).

Pos. 8: *Growth potential of the EU internal market for services*

In this paper I carried out an analysis of the GDP growth in the EU at sectoral level, with particular focus on the growth factors connected with the services market using the United States as a reference country. The research issue is important from the point of view of the functioning of the EU economy since the combined input of services to the growth of EU's real GDP (value added approach) was the largest and amounted to 13.14 p.p. in 2001-2013 whereas in the case of manufacturing it was 1.76 p.p. (pos. 8, p. 114). I also identified the causes for further growth of economic importance of the services sector due to its specific features i.e. high income elasticity of demand, which moves the final demand on services with the growth of income at the expense of manufactured goods (pos. 8, p. 113). In my analysis I used the following indicators: real GDP growth, labour productivity, multifactor productivity MFP and the capital input in the ICT sector. Data used in the paper were derived from European Commission, OECD, UNCTAD and The Conference Board. The methods used in the paper included literature review and analysis of empirical studies evaluating the impact of integration in services on the EU's economic growth and the factors affecting it.

I conducted my research in a number of stages. First I compared the GDP growth rates of the EU and the US and factors affecting it from the point of view of the entire economy. This allowed for the conclusion that the major structural cause of the relatively weaker economic growth in the EU was the low labour productivity growth rate. Thus, in the next stage, I analyzed labour productivity growth in various sectors of the EU economy and their contribution to the total labour productivity. The results confirmed that manufacturing sector was the main contributor to labour productivity growth rate in the EU (with the contribution of 0.35 p.p. per annum in 2007-2013 compared with a meagre 0.05 p.p. in the case of services). Following that I carried out a comparative analysis of labour productivity growth factors in the manufacturing sector and in the commercial services sector in the EU and the US. It revealed that it was mainly **lower capital input in the ICT sector in market services and weaker dynamics of the multifactor productivity MFP in the services sector mainly contributed to lower labour productivity growth in the EU than "across the pond"**. As emphasized in the paper, wider use of modern technologies in the EU and closing the productivity gap compared to the US is contingent upon increased competition encouraged by market integration (pos. 8, p. 118). More integrated market creates incentives for services enterprises to invest in ICT due to the benefits of scale, but also in fear of competition. **One of**

the parts of the paper was devoted to the role of the integrated internal services market in strengthening the cross-border value chains in the EU economy, which, in turn, should contribute to the improvement of competitiveness and GDP growth. Despite increasing linkages between the services sector and other sectors - manufacturing in particular - manufacturing enterprises order services (as factors of production) mostly on the domestic market, which, as proven by various empirical studies¹³, limits productivity growth in manufacturing, as well as across the economy, and hinders growth of exports, employment and GDP especially in the long term. Therefore European Union and member countries should support liberalization of the common services market and focus on the removal of barriers, particularly in the sectors with the highest potential in increasing productivity (and its spillovers to related sectors) and as a result - increasing competitiveness of the entire EU economy. I indicated main features that these services sectors should have and provided some examples (pos. 8, p. 123).

Pos. 9: *Building the genuine single market for services*

This paper was created as a result of the research carried out at Ankara Yildirim Beyazit Universitesi Aybu in Turkey within the statutory research of the Economics Institute as well as a research project financed by the European Commission (Erasmus+ Jean Monnet programme). The project pertained to the Single European Market and EU trade policy (I described it in detail in Annex 4). I adopted the following research tasks for this paper: 1) to assess the degree of integration of the services sector within the internal market as compared to the goods sector based on various measures of market integration, e.g. intra-EU trade in relation to GDP and price convergence indicators; 2) to identify the most and the least integrated areas of the single market for services in terms of sectors and forms of activity as well as evaluating member countries in this respect; 3) to describe the main benefits from integration of the services market and to indicate the most important obstacles in attaining these potential gains; 4) analysis of the outcomes of selected empirical studies evaluating the impact of deepening integration of the services market on the EU economy (GDP, trade and investment in particular); 5) to characterize and assess the legislative regime of the internal market for services and economic effects achieved through different methods of its integration; 6) to compare the heterogeneity and restrictiveness of regulations in services sectors among EU member countries, and between the EU, the US and the OECD average; 7) to indicate the desirable action lines both for the EU and member states in order to achieve a genuine internal market for services. Some of these tasks I previously tackled in other publications (e.g. I discussed 1, 2 and partially 6 in pos. 7, and 4 in pos. 8). In this monograph chapter I used and updated the results of my previous research. Some issues were advanced (and measured by additional indicators e.g. I used ETCR index to assess the restrictiveness of regulations in energy, transportation and telecom sectors), other issues were abandoned or

¹³ See e.g. Guerrieri, P. and F. Vergara Caffarelli, *Trade Openness and International Fragmentation of Production in the European Union: The New Divide?*, "Review of International Economics", Vol. 20, Issue 3, 2012, pp. 535-551 and M. Falk and F. Peng, *The increasing service intensity of European manufacturing*, "The Service Industries Journal", Vol. 33, Issue 15-16, December 2013, pp. 1686-1706.

only synthesized conclusions from previous research were presented. Formulating the theme and title of the monograph chapter made it impossible to discard previously discussed issues since they are crucial to demonstrate the essence and fully characterize the process of services market integration. Analysis of the state of integration of the EU services market encompassed the following four areas: regulation, cross-border trade in the internal market, intra-EU FDI flows and price convergence. I based the research mainly on the Eurostat and OECD data, but I also used critical review of literature, source documents, reports of the European Commission and OECD, as well as empirical studies concerning the issue.

The research subject I'd taken on, due to its major impact on the area of European integration economics was previously discussed by other researchers, mainly foreign, although not to such an extent as in the case of the common market for goods.

A significant barrier to carry out research on services stems from a difficulty to obtain necessary data - they are often fragmented or non-comparable since various international organizations, or even Eurostat, use different approaches in their databases (this pertains in particular to sectoral data). Nevertheless, there have been some publications in Polish economic literature on the wide issue of common services market in various aspects. Comprehensive analysis of the issue was carried out by Alina Szypulewska-Porczyńska in a monograph entitled *Building of the internal services market in the European Union* (Budowa rynku wewnętrznego usług w Unii Europejskiej, Oficyna Wydawnicza SGH, Warszawa 2013). My paper has the same theme but was prepared later so it considers a wider research period. My main focus also differs and I present some issues from a different point of view. Due to the limited length of the monograph chapter I was not able to characterize the creation process of the internal market for services and all the regulations in force, I also did not discuss integration of the EU with the world economy in services trade, but **I concentrated on the functioning of the market and its effects within the EU.** I look into services market integration connected to cross-border trade and commercial presence using slightly different economic indicators (in the first case I added the value of intra-EU exports and imports in relation to GDP, and in the second - I studied intra-EU net flows and stock of FDI in services sectors instead of using statistics on dependant entities, which are better source of data on the freedom of establishment, but due to their fragmentation it is more difficult to make conclusions on the situation across the EU). I also performed analysis of heterogeneity and restrictiveness of regulations in various services sectors among EU member countries as well as barriers in the market integration process. I checked my statistical analysis against the results of other authors' empirical studies. **I thoroughly explained economic mechanisms of market integration in the services sector (realization of the freedom to provide services as well as freedom to establish) affecting economic results in the EU and member countries and leading to growth in trade, FDI, competition, productivity plus decline in prices and as a result increase in production, investment and employment.** In conclusion, I performed a comprehensive analysis of the functioning of EU internal market for services, identified main issues connected with integration in this area and pointed to crucial measures to be taken in order to complete market integration in services.

III Analysis and evaluation of the competitiveness in merchandise and services trade of the EU and member countries

Within the third research tier I verified efficiency of the EU internal market based on the results attained by the EU and member countries in terms of merchandise and services trade. First three papers (pos. 10-12) feature analysis and evaluation of the competitive position of the EU and all the member states in international merchandise and services trade including investigation into the factors of comparative advantage. The subsequent three papers (pos. 13, 14 and 15) contain empirical studies aimed at comparing the results of one of the EU members - Poland - in services trade, both on the internal EU market as well as internationally, taking into account its competitive potential which might have changed after joining the EU and the common market. The aforementioned publications were resulting from statutory research of the World Economy and European Integration Chair under the direction of prof. dr hab. B. Mucha-Leszko. The research themes were: *European Union in the system of global economy* (pos. 10-12), *Achievements and barriers of the European integration - a retrospective analysis and perspectives for future development* (pos. 13), *Growth factors and structural changes in the world economy in 1995-2016* (pos. 14 and 15). Conclusions from the final three papers were presented at international conferences in Ostrava, Vienna and Milan.

Pos. 10: Analysis of the European Union's trade in goods in 1995-2008 and competitiveness assessment

My author contribution to this paper was 20% and included preparation of part 5. which is entitled: **Factors of competitive advantage in international trade and assessment of the EU and euro area's competitiveness in merchandise trade**, pp. 37-46. To evaluate the competitive advantage on a national level I adopted the following assumptions: 1) division of competition factors into long-term and short-term, 2) including the conditions for the development of trade in 1995-2008 on a global and regional scale resulting from deep structural changes due to the ICT revolution, internationalization of production and the emergence of global value chains, globalization of markets and functional integration of the production and distribution processes worldwide, 3) as long-term factors of competitive advantage I adopted labour productivity and export specialization and as short-term factors - costs and prices, 4) to evaluate export specialization I used two criteria: a) share of production factors (resource-intensive, labour-intensive, capital-intensive, science-intensive, b) the degree of technological advancement of products. This multicriteria assessment of the EU/EA competitive advantage allowed for gaining knowledge on its main sources and reasons for the weakening of export position (merchandise) of the EU as well as individual countries. Basic conclusions from the analysis were as follows: 1) the main factor of the weakened EU/EA export position in 1995-2007 stemmed from the increased competition on the global market that was caused by the emergence of exporters from countries with lower costs of production, development of global production networks and lack of changes in the export specialization despite the technological revolution (innovation gap compared with major competitors) and lower labour productivity growth compared with major competitors (United States, Japan);

2) there were only two countries - Germany and Ireland - that did not experience an decrease in their shares in world exports in 1995-2007; 3) important factors of increasing divergence in terms of competitiveness were the following: prices of production factors, inflation, exchange rates, level and growth rate of labour productivity.

Evaluation of competitiveness was also performed at the enterprise level based on the analysis of F. di Mauro i K. Forster¹⁴. Four criteria were used: market accessibility, market size, technological leadership and the institutional set-up. Their results allowed to assess general competitiveness in terms of market openness, competitiveness in production based on the differentiation of labour productivity and political and institutional stability. In an era of globalization and development of international production networks, research in the micro-founded framework have gained in relevance. The research shows that the level of market liberalization creates favourable conditions for the differentiation of merchandise supply, increased competition and higher efficiency of production. Competition eliminates the less efficient participants from the market. EU countries in 1995-2007 significantly differed in terms of market accessibility, innovativeness and labour productivity. Potential of the EU market as a mechanism increasing efficiency of production and export position of members as well as the whole entity depends on the degree of integration and increase in competition that pushes towards innovation. To prepare the part of the chapter I used papers by (apart from the above-mentioned authors) G.I.P. Ottaviano, D. Taglioni i F. di Mauro¹⁵, WTO and ECB reports, The Conference Board database and the University of Groningen Growth and Development Centre resources.

Pos. 11: *Analysis of the European Union's trade in services in 1995-2008 and competitiveness assessment*

My contribution to the chapter was 20%. I prepared part 5. *EU competitiveness in services trade in relation to the United States and Japan*, pp. 60-64 and part 6. *Conclusions*, pp. 75-78.

Assessment of competitiveness in services trade was based on revealed comparative advantage indicators (RCA) calculated by R.J. Langhammer for 1989-2000¹⁶ and selected indicators from the OECD database for 1996-2005 which were presented in the form of charts (8-15) for selected countries. In order to obtain the most credible results the authors' team used two research methods. Analysis and assessment for 1989-2000 was based on R.J. Langhammer's study¹⁷ that compared RCA indexes for the United States and Japan with the averages for the EU. This approach resulted in an underestimation of the European Union's RCA indexes due to the considerable differentiation of the commercial services sector development in member countries and lack of specialization in services exports in some of

¹⁴ F. di Mauro, K. Forster, *Globalisation and the Competitiveness of the Euro Area*, ECB, "Occasional Paper Series", No. 97, September 2008

¹⁵ G.I.P. Ottaviano, D. Taglioni i F. di Mauro, *The euro and the competitiveness of European firms*, "Economic Policy", January 2009, pp. 5-53.

¹⁶ R.J. Langhammer, *Revealed Comparative Advantages in Service Trade of the US, EU and Japan. What Do They Tell Us?*, "Journal of World Investment and Trade", Vol. 5, No. 6, December 2004, pp. 887-896.

¹⁷ Ibidem.

them. The second method - analysis of individual countries RCA indicators allowed for the assessment of specialization and competitive advantage in services exports of EU member countries in 1996-2005 and changes in comparison with the US and Japan. Analysis includes various commercial services (transportation, travel, finance, insurance, other business services, communication, computer and IT, trade in patents, copyrights and licenses). The issue under assessment was the change in competitive position of the most specialized EU countries in relation to the US and Japan. Analysis based on the OECD database indicators revealed the impact of the EU enlargement on services exports specialization in the EU. New member states since 2005 were characterized by specialization in low-tech services (Czechia, Poland, Slovakia and Hungary). Comparative advantage in the most important service categories was held by: 1) UK and Ireland in financial services, 2) Ireland, Luxembourg and Austria in insurance services, 3) Netherlands, Sweden and Finland in trade in patents, copyrights and licenses. Detailed results were discussed in part 6 of the chapter (Conclusions). Services market before the adoption of Directive 2006/123/EC was subject to national regulations to a large extent. This limited the level of competition and thus innovativeness in this sector of the economy. Potential capacity for greater competitive advantage provided by the common market was not attained during the analyzed period.

The chapter also pointed to various other opportunities to gain comparative advantage in the services market. Cross-border flows of services constitute just one of the modes of services trade. Another way that continues to gain importance is commercial presence in foreign markets. In part 4 of the chapter I asked how significant the mode of providing services is for the competitive advantage in trade? This question remains unanswered, but the free movement of production factors, internationalization of businesses and ongoing globalization process inspire to focus further research within the cross-border aspect.

Pos. 12: *EU economic frontiers determined by its international trade position and trade policy*

My contribution to this paper was 35% and it included part 1. *Introduction* and Part 2. *The configuration of economic powers and its influence on the functioning of the world economy and the framework of international trade*. I also took part in the preparation of the paper's concept which is an original approach to economic frontiers of the EU against the backdrop of increasing cross-border business activity and economic openness of countries, globalization of markets and economic activity. Regulatory power of domestic markets, meaning their impact on demand, supply and prices depends on production and technological capacity of economies and ability to innovate. The global dimension of market mechanism and increased economic interdependence result in reduced effectiveness of national economic policy instruments. In the conditions of growing competition in the global market, countries and regional blocks support competitiveness of their economic entities. And this was the purpose of the EU's Lisbon Strategy as well (2000-2005). Authors analyze EU position in international trade compared to the major trading nations and assess widened economic frontiers of the European Union understood as an increase in the force of impact on world trade relations coinciding with the development of the Community and in particular

opportunities and results in creating and strengthening international trade policy. Authors asked 3 research questions: 1) Has the European Union gained influence on the principles of functioning of the world economy proportionally to the increase in its economic and market potential? 2) Is the EU, with its greatest share in international trade, able to bring about strengthening of multilateral trade system? 3) What are the main difficulties in the implementation of the EU external trade policy aims? In the assessment of EU's economic position we used an index analysis, apart from quantitative measures we also applied qualitative measures characterizing the economy's effectiveness and its technological and competitive advantage. As an introduction to the main analytical part, there is some discussion on the functioning of the world economy, including major principles and their efficiency in terms of creating favourable conditions for development of cross-border economic activity and growth during Pax Britannica and Pax Americana periods. I authored this part of the paper. To obtain the best possible credibility of the assessment I performed a comprehensive review of foreign literature and referenced mainly the following authors: J. Agnew, J.M. Destler, J.A. Frieden, P. Kennedy, H. James, D. A. Lake, J.D. Levy, T. Oatley and L. Tsoukalis.

The results of our study are not positive for the European Union. The indicators of labour productivity, TFP and the structure of exports reflect a deepening technological gap in relation to the United States (which continues to grow since 1995). Potential benefits of the large EU internal market have not been used so far to increase competition and technological advancement.

Pos. 13: *Poland's Competitiveness in Services Trade on the European Union Internal Market*

The subject of the next paper (pos. 13) is Poland's competitiveness in intra-EU28 trade in services. The timeframe of the assessment is 2008-2016 (or earlier starting from 2004, depending on the availability of data). I examine the country's competitive capacity, compared to the EU28, in order to identify main factors that determine its export specialization and competitiveness on the internal market for services.

To assess Poland's competitive position in intra-EU28 trade in services I used the following measures: market shares in exports of services (in total intra-EU28 trade in services and at sectoral level) and their changes, trade balance, the Revealed Symmetric Comparative Advantage (RSCA) indicator as well as labour productivity measures (such as gross value added per hour worked, apparent labour productivity and wage adjusted labour productivity) as well as some profitability indicators (like gross operating rate) presented by certain services sectors. Due to the lack of data on multifactor productivity or total factor productivity for services at sectoral level, evaluation of Poland's competitive capacity was conducted to a great extent based on cost and price indexes and their changes (e.g. unit labour costs, wages and salaries or labour compensations per hour worked as well as price level indices in relation to the EU28). Other input measures used in this study included: share of personnel costs in production, personnel costs per employee, investment rate, employment in technology and knowledge-intensive sectors by persons with tertiary education as percentage of total

employment and enterprises in services sectors that provided training to develop ICT skills of their personnel as percentage of all enterprises in a given sector. Especially the latter indicators let to assess Poland's ability to enhance its potential in high-tech knowledge-intensive services (KIS).

Statistical analysis involved data on services trade in accordance with BPM6 methodology of trade balance developed by International Monetary Fund (I described it in more detail in pos. 12, p. 643), as well as data from various international institutions, in particular the International Trade Centre (ITC), the United Nations Conference on Trade and Development (UNCTAD) and the World Trade Organization (WTO) as well as the Organisation for Economic Co-operation and Development (OECD). The evaluation of Poland's competitive capacity was based on Eurostat or OECD data.

Based on the analysis conducted in this paper I attempted to determine the sectors in which Poland has comparative advantage and has been developing export specialization (mostly in labour-intensive and to a lesser extent capital-intensive services, among the high-tech KIS sub-sectors the best competitive positions occurred in information and computer services). The study revealed, that in terms of different labour productivity measures of competitive position, Poland's levels have been increasing alongside with the processes of economic convergence, but gross value added per hour worked in absolute terms was from two to six times lower in certain services sectors than in the EU28 in 2016, with the biggest differences in: real estate activities; non-market services as well as financial and insurance activities. Examination of competitive capacity based on price and labour costs confirmed Poland's advantages **in relation to the EU28** generally in all services sectors. In terms of price indices, in 2016 **Polish predominance was the greatest in: communication, education, transport and recreation and culture services**. Despite rising labour costs and compensations per employee in all services sectors their absolute levels in Poland were still on average three times lower than in the EU28. However, research on Poland's potential to enhance trade in high-tech KIS based on technology and human resources measures gave an ambiguous picture. Apart from relatively good assessment of Polish employment structure compared to the EU28 as regards persons with higher education employed in knowledge-intensive sectors, all other indicators were below the EU28 average (i.e. the degree of ICT training for personnel in all categories of services as well as the relatively low level of R&D expenditure by enterprises in high-tech KIS). As emphasized in the paper, further research is needed that would supplement the analysis by incorporating such efficiency indicators as total factor productivity or multifactor productivity, as well as a more detailed analysis of factors affecting labour productivity level. However, this research is contingent upon the availability of sectoral data allowing for comparisons of the competitive capacity in services both for Poland and other EU member countries.

Pos. 14: *Evaluation of Poland's revealed comparative advantage in international trade in services*

In this next paper (pos. 14) I analyze the changes in Poland's comparative advantages in international services trade in 2005-2016 in relation to the world and the EU28. Although,

the concept of comparative advantage has been used to analyze trade in goods for a long time, but there are relatively less studies that apply it to trade in services due to the specifics of services and limited availability of full and comparable disaggregated data. Due to the limitations of available data, the research was conducted for 12 main services categories (according to the level 1 of BPM6 classification), and to a certain extent also for those with a larger degree of disaggregation (BPM6 level 2).

The empirical analysis of Poland's competitive position in trade in services was conducted using such economic indicators like: Balassa's Revealed Comparative Advantage Index (RCA) and Revealed Symmetric Comparative Advantage Index (RSCA), Trade Balance Index (TBI) as well as services sectors' shares in total trade in services and their changes. RCA and RSCA were calculated for Poland vis-à-vis the world and EU-28 services trade flows while in the previous paper I calculated Poland's RSCA taking only the trade in the common market into account.

To a large extent, the results were consistent with the conclusions in pos. 13. **Poland's export specialization in services trade, both versus the world and EU28, appears the same and is based mainly on labour-intensive services sectors**, although the degree of the advantage and the order of various categories of services was slightly different. For most of the competitive sectors (with the exception of manufacturing services on physical inputs owned by others) the advantage was not significant. Despite an increase in Poland's comparative advantage in global services trade of some Knowledge Intensive Services (KIS) sectors (like telecommunications or computer, and information services), these services share in total exports is small, and interestingly enough results were better compared with the world than EU28. Generally speaking, Poland's comparative advantages in services trade are smaller in relation to the EU28 than to the world. In 2013-2016 the only services sector in which Poland had comparative advantage in relation to the EU, and did not have it vis-à-vis the world, was travel. The country also had a somewhat higher comparative advantage versus the EU28 than the world in transport and construction. The research in the paper revealed that Poland's export specialization in services trade, both versus the world and EU28, is based mainly on labour-intensive services sectors, to a lesser extent capital-intensive ones and least on those demanding the use of knowledge and modern technologies. The answer to the question posed in the introduction - whether Poland has fully used accession to the EU to improve its competitiveness in trade in services - was not entirely clear, even though I noticed that the results were positive in terms of some labour-intensive services. Therefore this issue was the main theme of my further research. My results are included in the next paper within the series (pos. 15).

Pos.15: Poland's Export Specialization Pattern in Trade in Services

In this paper I took on the following goals: 1) to indicate main tendencies in Poland's exports in services against the background of global exports; 2) to analyze Poland's comparative advantages and disadvantages in international trade in services as well as their changes in 2005-2016, 3) to specify services sectors where Poland revealed export specialization based on "services mapping" tool and to assess the degree of this specialization

for different categories of services, 4) to confirm whether Poland managed, or not, to strengthen its export specialization in services in 2005-2016.

Empirical analysis in the paper was partially based on economic measures used in the two previous publications (RSCA, TBI and shares of various sectors in the total services trade) due to the similarity of the subject matter as well as to maintain comparability of the results of all three papers. In this paper I used additional research method - so called 'product mapping' approach developed by Widodo (2008)¹⁸ to identify sectors both with comparative advantage and positive trade balance confirming the country's export specialization (or other variations of those two features or lack thereof). Even though this tool is often used to investigate merchandise export specialization, only recently some papers emerged attempting to adapt it to trade in services¹⁹. The detailed construction of the method that I called 'services mapping' was explained in the paper (pos. 15, p. 3625-3626). In order to assess the stability of Poland's export specialization pattern and specialization trends the regression function was used that was developed by Cantwell (1989)²⁰, Dalum et. al (1998)²¹ and a couple of other referenced authors (pos. 15, p. 3626). Following the suggestion of Laursen (2015)²² who studied pros and cons of various versions of RCA as well as alternative methods of measuring international specialization, I decided to select the RSCA index to evaluate export specialization stability.

Examination of "services mapping" for Poland allowed for indicating 6 sectors at the BPM6 level 1 of services classification and 2 sub-sectors of high-tech KIS services (classified at the BPM6 level 2) both with comparative advantage and positive trade balance confirming the country's export specialization. I also pointed to the services sectors in Poland with positive trends connected with simultaneously improving comparative advantage and trade balance index (TBI) as well as fast growing exports value and the share in total Poland's exports in services in 2005-2016. These were mainly sectors classified as Knowledge Intensive Services. Especially in the case of personal, cultural, and recreational services Poland has big potential for the growth of exports and chances to develop its specialization in this field (currently Poland has comparative advantage, but negative trade balance). Analysis carried out in the paper also concluded that in 2005-2016 de-specialization in Poland's exports in services occurred on average (as regards β -specialization) as sectors with high (low) RSCA values in 2005 represented relatively low (high) RSCA values in 2016. An assessment of changes in the degree of so called σ -specialization allowed for the affirmation that there was a change towards a more "broad" specialization patterns in services exports.

¹⁸ Widodo T., *Dynamic Changes in Comparative Advantage: Japan "Flying Geese" Model and Its Implications for China*, "Journal of Chinese Economic and Foreign Trade Studies", 1 (3), 2008, 200-213 and Widodo T., "Products Mapping" and Dynamic Shift in The Patterns of Comparative Advantage: Could India Catch Up China?, "HUE Journal of Economics and Business", 31 (2), 2008, pp. 51-78.

¹⁹ See e.g. A.A. Ambroziak, *Manufacturing vs Services: Changes in Intra-EU Trade. The Case of the Visegrád Countries* [in:] Proceedings of the 4th International Conference on European Integration, 17-18 May 2018, Ostrava: VŠB-TU Ostrava, Faculty of Economics, Czech Republic, p. 59-66.

²⁰ Cantwell J.A., *Technological Innovation and Multinational Corporations*, Oxford Basil Blackwell, 2018.

²¹ Dalum B., Laursen K. and Villumsen G., *Structural change in OECD export specialization patterns: de-specialization and "stickiness"*, "International Review of Applied Economics", 12 (3), 1998, pp. 423-44.

²² Laursen K., *Revealed Comparative Advantage and the Alternatives as Measures of International Specialization*, "Eurasian Business Review", 5 (1), 2015, pp. 99-115.

While performing empirical analysis during preparation of the final three papers in the series (pos. 13-15) I used a multifaceted approach in order to evaluate Poland's comparative advantage in services trade to the widest extent possible, taking into account the common market, the world market and the EU results in international trade in services. The latter in particular, revealed Poland's weaknesses in terms of export specialization. I also undertook a comprehensive analysis of Poland's competitive capacity in the EU internal market considering the sectoral structure of the services market.

In conclusion, I believe the following are my major achievements of the publication series that - in my opinion - constitute a significant contribution to the development of the science of economics, and in particular economics of European integration:

I In the theoretical aspect:

- Verification of the theory of competition assumptions in terms of arguments in favour of granting some categories of state aid and confirmation that rules of conduct and efficiency of state aid policy are as important as the potential of an aid measure to correct market failures and increase economic efficiency.
- In-depth analysis of the changing legal bases for the EU merger control policy in terms of its impact on economic efficiency that affects cumulative benefits of the common market and in turn competitiveness and economic position of EU corporations in international markets. (also a practical aspect)
- Improving knowledge on the linkages between changes in the theory of competition and appearance of new goals in merger control policy as well as perfecting the economic analysis used to evaluate mergers and their impact on market competition, using the case study of the United States.
- Presentation of evidence that merger control policies in the EU and the US are growing in similarity in terms of goals and methods of economic analysis, convergence of material regulations also progresses between the two economic centers.
- Enhancing knowledge on the degree of integration in the EU services market within various sectors of services and on the major barriers to further integration, including restrictiveness and differentiation of regulations to access various services markets in the EU countries.
- Comprehensive assessment of the EU's internal market for services including economic mechanisms of integration in the services sector that affect economic results and in particular GDP and competitiveness of the EU and member countries.
- Verification of the efficiency of the EU internal market mechanism based on the results of the EU and member countries in merchandise and services trade.
- Broadening the scientific works on Poland's competitive potential, comparative advantages and export specialization in trade in services on the EU internal market and the global market.

II In terms of methodology:

- The use of multi-dimensional approach to compare and assess merger control policies in the EU and the US - combining legal methods (in particular analysis and comparative review) with economic methods (e.g. comparison of economic systems in terms of competition policy, critical review of economic arguments by various schools of competition and various economic standards used in the analysis of mergers in terms of their impact on the situation on the market) and methods used in various scientific disciplines (including retrospective analysis and the method of following processes to define the causes of changes in the competition policy).
- The use of analytical tool called 'product mapping' developed by Widodo to identify and evaluate changes in country's export specialization in merchandise trade to analyze Poland's export specialization in international trade in services. The tool was not used to research trade in services until recently.

III In empirical terms:

- Empirical verification of theoretical benefits of the common market in comparison with real benefits and pointing to major barriers to efficient functioning of the internal market mechanism that hinder improving economic competitiveness of the area and achieving better results in the global market.
- Design and conduct of empirical research comparing Poland's results in trade in services on the EU internal market and on the international market, including in particular the assessment of comparative advantages, export specialization and factors of competitiveness.

IV In practical terms:

- Identification of major features of efficient state aid policy, that can be used as recommendations for policymakers in the EU.
- Assessment of convergence between the EU and the US in terms of merger control policy, that can be a starting point for further research in order to work out common legal solutions and methods of market analysis that could become applicable internationally.
- Definition of major actions that should be taken by the EU and member states in order to achieve fuller integration of the internal market for services and realize its potential benefits.
- Analysis of services sector impact on the GDP growth in the EU compared to the US (based on various sources of data such as Eurostat, OECD, the Conference Board and various empirical studies I used to verify my own results, deepen the analysis and confirm my conclusions), explanation of the reasons for EU's weak results in this respect and pointing to those sectors of services that are the most important for the increase in EU's productivity and competitiveness if liberalized.
- Research results on the market mechanism effects in the EU and the US, that reveal the weaknesses in many areas of the internal market, could become rationales for

conducting structural reforms in the EU and some member countries allowing for more efficient markets and in turn better economic results of European enterprises.

- Proposing of the directions for further research on Poland's competitive potential within the services sector.

5. The remaining scientific achievements

5.1. Characteristics of scientific achievements - themes and areas of research

After obtaining the PhD degree my research was focused on the issues of European integration economics. Apart from the aforementioned scientific achievement in the form of the series of publications entitled: *The role of the EU internal market mechanism and competition policy in achieving comparative advantage by the member countries and the EU in merchandise and services trade. Theoretical aspects and results of empirical studies.* my research was comprised of the following research areas/themes:

I Competition theory and policy - papers and chapters: II_B)_19, 20, 21, 22, 25, 31, 38 and 47 according to Annex 4 of my application (including co-authored papers: II_B_22, 47).

The publications within the first area are connected with the theme of my main scientific achievement and are complementary (in particular publications II_B_19, 21, and 31). Some of them resulted from research I began while working on my doctoral thesis - pertaining to the changes in the EU state aid policy and evolution of the theory of competition (e.g. II_B_19, 20 and 38), others discuss entirely new issues such as international competition policy (II_B_22, 25). All the papers within this theme can be further divided into 3 relatively connected research areas:

a) Theory of competition - publications: II_B_20, 21 (to a certain degree) and 38.

In the papers on theory of competition I compared the concepts of competition according to the Austrian and Chicago schools of economics [20] and tried to explain the issue of social welfare as understood by Chicago school of economics [38]. I also discussed major economic arguments in favour of using state aid as an instrument of preventing market failures by the state and threats connected with that [21].

b) State aid policy - publications: II_B_19, 21, 31 and 47 (including co-authored paper: II_B_47).

Within this area I published 3 papers on state aid policy in the European Union. In particular, these pertained to pro-competitive changes in the policy [19], economic justification for the use of this aid in the EU [21] and the significance of state aid for small and medium-sized enterprises [31]. The last paper [47] contains a comparison of agricultural support policies in the Quad countries in the form of domestic subsidies, including various categories of support and economic consequences of their implementation.

c) International competition policy - publications: II_B_22 and 25 (including co-authored paper: II_B_22).

In the paper entitled *Growing role and forms of international competition policy* [Wzrost znaczenia i formy międzynarodowej polityki konkurencji, „Gospodarka Narodowa” Nr 5-6, 2009, pp. 21-38 (co-author: B. Mucha-Leszko)] [22] we looked into the impact of regional integration and bilateral agreements between the EU and the US on internationalization of the competition policy. We also tried to justify the need to introduce the policy on the multilateral level and investigate barriers to a compromise in this matter among the major players on the global market. I further analyzed this issue in the subsequent paper entitled *Competition policy multilateralization within the WTO* [Multilateralizacja polityki konkurencji w ramach WTO [w:] J. Sokołowski (red.), *Problemy ekonomii, polityki ekonomicznej i finansów publicznych*, "Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu" nr 39, tom 1, 2009, pp. 634-645] [25]. Here I focused on the possibilities to introduce multilateral rules of competition policy within the World Trade Organization and differences in the positions of various countries on this matter. Publications II_B_22 and 25 were created as a result of a research subject *European Union in the system of global economy* (under the direction of prof. dr hab. B. Mucha-Leszko) - a statutory research theme for the World Economics and European Integration Chair MCSU in 2009.

II Functioning of the euro area and economic results of member countries - publications: II_A)_16; II_B)_18, 28, 29, 32, 33, 34, 36, 39 (to a certain extent), 41, 42, 45, 46, 48b, 49 (including co-authored papers: II_A)_16; II_B)_18, 28, 29, 32, 33, 34, 36, 39, 41, 42, 45, 46).

The second area constitutes an important part of my scientific interests - 15 of my post-doc publications pertained to the theme of the euro area's functioning. Within this part of my research I tried to verify benefits of adopting the common currency based on an analysis of markets and economies of selected member countries in order to confirm the validity of the assumptions of optimum currency area theory and the correlation of these benefits with the fulfilment of the economic cohesion requirements within the euro area. I also assessed the consequences of diverse competitiveness in the euro area and the consequences of leaving the fiscal policy with national competence. Apart from that, I evaluated the perspectives of introducing the fiscal union as a precondition of increased efficiency within the common currency area and the role of the euro as an international currency. Publications in this area can be divided into 5 groups:²³

a) Evaluation of economic results of the euro area and member states taking into account the benefits of monetary integration - publications: II_A)_16; II_B)_18, 46, 49 (including co-authored papers: II_A)_16; II_B)_18, 46).

²³ Remark: due to multiple threads some of the papers were qualified into more than one group.

Within this area I analyzed the factors of low economic growth in the euro area compared to the United States in 1999-2007 [II_B)_18], I pointed to some causes of the declining GDP growth rate and economic efficiency of the Portuguese economy after the adoption of the common currency [II_A)_16], I evaluated economic effects of Finland and Sweden in relation to the membership (or non-membership) in the EMU [II_B)_46] as well as changes in Germany's current account after the introduction of the euro - taking into account various factors contributing to those changes [II_B)_49]. The above-mentioned publications were created as a result of statutory research in the World Economy and European Integration Chair, MCSU (under the direction of prof. dr hab. B. Mucha-Leszko), precisely the following three research subjects: *European Union in the system of the global economy* (2008): [II_B)_18], *Convergence and divergence in the euro area* (2011, 2013): [II_A)_16; II_B)_46] and *Factors and changes in the world economy in 1995-2016* (2018): [II_B)_49].ś

b) Competitiveness of the euro area and member countries, including the issue of competition differentiation within the area - publications: II_B)_29, 34, 49 (including co-authored papers: II_B)_29, 34).

In the publication II_B)_29 I researched the level of innovativeness in the euro area countries and its differentiation within the group including the innovation gap towards the United States and Japan. The main publication from this area is the paper entitled ***Causes and consequences of competitiveness differentiation in the euro area*** (*Przyczyny i skutki różnicowania konkurencyjności w strefie euro* [in:] *Dylematy kreowania wartości przedsiębiorstw w okresie wychodzenia z kryzysu*, „Prace i Materiały Wydziału Zarządzania Uniwersytetu Gdańskiego” nr 4/2, 2010, Sopot, pp. 361-377 (co-author: B. Mucha-Leszko)), in which we explained in detail the economic mechanism leading to competitiveness differentiation of the countries functioning within the common currency area, in the reality of not fulfilling the real convergence criteria. This is a key issue in the functioning of the EMU. I looked into economic consequences of growing divergence in competitiveness between the euro area countries and their competitiveness levels as well as changes in their current accounts during the crisis (2008-2009). The latter I also analyzed using a slightly different approach in the paper II_B)_49, in which I identified main factors contributing to Germany maintaining the long-term surplus of current account balance as well as its consequences for the euro area countries and third countries. Results of my research were presented during the SGEM Florence Conference co-organized by over a dozen of Academies of Science from various European and non-European countries.

c) Fiscal policy in the euro area and the public finance crisis - publications: II_A)_16 (partly); II_B)_33, 36, 42 (including co-authored papers: II_A)_16; II_B)_33, 36, 42).

Among a couple of papers in my body of works on the issue of fiscal policy in the euro area I believe the following are the most worthwhile and mature: ***From the financial crisis to the***

public finances crisis - the consequences of the euro area fiscal policy in 2008-2010 (*Od kryzysu finansowego do kryzysu finansów publicznych, czyli skutki polityki fiskalnej w strefie euro w latach 2008-2010* [in:] B. Mucha-Leszko (ed.), *Gospodarka i polityka makroekonomiczna strefy euro w latach 2008-2010. Skutki kryzysu i słabości zarządzania*, Wydawnictwo UMCS, Lublin 2011, pp. 221-262) (co-author: B. Mucha-Leszko) [II_B)_36] and ***Efficiency of automatic economic stabilizers in the European Union*** (*Efektywność automatycznych stabilizatorów koniunktury w Unii Europejskiej*, "Annales UMCS" Vol. 47/2, 2013, pp. 123-132) (co-author: B. Mucha-Leszko) [II_B)_42]. In paper II_B)_36 I explained how fiscal policy affects the economy and I investigated the conduct of fiscal policy in the euro area during the financial and economic crisis (2008-2010), mostly taking into account its impact on stimulating economic growth. The monograph that the chapter II_B)_36 was published in, was reviewed in "Gospodarka Narodowa" 10/2012 vol. 259, p. 127 (reviewer: prof. dr hab. Marek Lubiński). It was also appreciated by the Rector of MCSU - the employees of the World Economy and European Integration Chair were awarded a team award of 3rd degree for outstanding scientific achievement in the academic year 2011/2012. In paper II_B)_42 I presented theoretical foundations of passive fiscal policy. Both publications resulted from statutory research of WEEI Chair MCSU, under the direction of prof. dr hab. B. Mucha-Leszko and the themes were: *Convergence and divergence in the euro area* (2011) and *Economy of the European Union and the euro area in 1999-2013* (2013).

d) International role of the euro - publications: II_B)_32, 39 (to a certain extent), 41 (including co-authored papers: II_B)_32, 39, 41).

In papers II_B)_32 and 41 I analyzed the position of the euro on the global financial market and assessed the use of the common currency in an official capacity. In the chapter entitled ***Globalization and changes in the configuration of economic powers and the international monetary system*** (*Globalizacja i zmiany w układzie sił gospodarczych a międzynarodowy system walutowy* [in:] E. Molendowski (ed.), *Globalizacja i regionalizacja we współczesnym świecie*, Księga jubileuszowa dedykowana Profesor Irenie Pietrzyk, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków, pp. 313-322) (co-author: B. Mucha-Leszko) [II_B)_39] we evaluated the role of the euro as a global currency in relation with other key currencies and taking into account the current balance of economic powers and the position of various centres of the global economy. We also attempted to predict the future role of the common currency in the international monetary system depending on the paths of its transformation and changes in the global balance of economic powers. Publications in this area were realized as part of the statutory research in the WEEI Chair, MCSU (under the direction of: prof. dr hab. B. Mucha-Leszko). The research themes were: *Economic development of the euro area in 1999-2010* (2010), *Economics of the European Union and the euro area in 1999-2012* (2012) and *Consequences of globalization in the area of international finance* (2013).

e) Euro area enlargement and perspectives of deepening the monetary integration, including the impact of financial and economic crisis of 2008-2009 for the acceleration of monetary integration - publications: II_B)_28, 45, 48b (including co-authored papers: II_B)_28, 45).

The issues I researched included the following as well: impact of global crises and their consequences on acceleration of the European integration process as well as opportunities, benefits and problems connected with enlargement of the EMU [II_B)_28]. I also performed an analysis (in co-authorship) of factors affecting Polish zloty to euro exchange rate [II_B)_45] and investigated the possibility of introduction of a fiscal union in the euro area, emphasizing the pros and cons of various potential forms of the union [II_B)_48b].

III External economic policy of the EU, trade relations with third countries and position of the EU in the global balance of powers - publications: II_B)_17, 26, 27, 39, 40 (including co-authored papers: II_B)_17, 26, 27, 39, 40)

Within the third research area I conducted an evaluation of: EU initiatives in favour of competition policy internationalization [II_B)_17], trade relations with major global market players (China and Japan) [II_B)_26, 27] and the position of the EU economy, as well as selected countries, in the global balance of powers [II_B)_40]. I also explored role of the key currencies (including the euro) in relation to changes in the world economy's balance of powers and evolution of the international monetary system [II_B)_39] which I mentioned previously. The aforementioned publications were part of the statutory research in WEEI Chair MCSU, carried out under the direction of prof. dr hab. B. Mucha-Leszko. The research themes were: *The European Union in the global economic system* (2008,2009) and *Economics of the European Union and the euro area in 1999-2012* (2012). The monograph entitled *European Union's position in international trade. Dynamics and structure of trade flows, competitiveness, major trading partners (Pozycja Unii Europejskiej w handlu międzynarodowym. Dynamika i struktura obrotów, konkurencyjność, główni partnerzy*, edited by B. Mucha-Leszko, Wyd. UMCS, Lublin 2009, pp. 218), that included chapters on EU trade relations with China and Japan [II_B)_26, 27] (as well as chapters on EU merchandise and services trade that are part of the series constituting my scientific achievement in this application [I_B)_10,11]), was rewarded during the International Book Fair in Cracow, and the employees of the Chair received a team award of 2nd degree from the Rector of MCSU for outstanding scientific work in 2009/2010 academic year. My contribution to the monograph was significant (around 45%).

IV Functioning of the world economy - publications: II_B)_23, 35, 37, 43 (including co-authored papers: II_B)_23, 35, 37, 43)

The fourth research area consists of papers on issues of the global market and policy affecting its functioning as well as other areas of the world economy. In the paper II_B)_23 authors perform an in-depth analysis of the realization of Fed's monetary policy in 1995-2008

focusing on the economic mechanisms implemented via decisions of the Federal Reserve that contributed to the financial and economic crisis in the United States and later on in the world economy. I also conducted research in co-operation with other authors on: impact of the monocentric balance of economic powers on the liberalizing tendencies in trade policy and strengthening of the global trading system [II_B)_37], development of trade between the United States and China in 1978-2008 [II_B)_35] as well as causes and forms of expansion on foreign markets in connection with the strategies of internationalization [II_B)_43].

Remaining publications: II_B)_24, 30, 44 (including co-authored publications: II_B)_24, 30, 44)

In the remaining papers I focused on: evaluation of economic consequences of migrations within the common market after the last enlargement of the EU [II_B)_24] (this paper supplements the scientific achievement), extent and stages of the welfare state in the EU [II_B)_44], identifying the impact of transport infrastructure on the economic convergence, especially in Portugal [II_B)_30].

In Annex 4 part II_G) I included the full list of realised research themes with corresponding publication numbers.

5.2. Participation in research, scientific conferences and other achievements

After obtaining the doctoral degree I took part (and still participate) in the statutory research of a Turkish university - the Ankara Yildirim Beyazit Universitesi - and two international research project, coordinated by that university and financed by the European Commission, under the direction of prof. Angelo Santagostino. In the first of the projects entitled *Building bridges with Europe and with the World* (Erasmus+ Jean Monnet programme, realized in: 2014-2017) I cooperated with more than a dozen of researchers from various institutions in Turkey and Romania (plus colleagues from my own university) to complete a research theme: *The Single European Market and trade policy*. Results of our research were disseminated in a monograph published by Cambridge Scholars Publishing in 2017. I contributed one of the chapters (45 pages in total) [I_B)_9]. The second project financed by the European Commission entitled *Heart of Anatolia European Centre of Excellence* (Erasmus+ Jean Monnet programme, realized in: 2017-2020) is currently being realized by a team of 20 scientists from Turkey, Poland, United Kingdom, United States and Brazil that continue research on European Union's internal market and trade policy in relation to their impact on economic growth in the European Union. The culmination of this research is going to be another monograph (planned to be released by Cambridge Scholars Publishing in 2020). I was tasked with preparing the first chapter entitled *Assessment of benefits from market integration in the European Union*, which has already been prepared and accepted by the head of the project (confirmation is attached to the application).

Furthermore, for many years, I regularly participated as a researcher in statutory research projects of the World Economy and European Integration Chair MCSU under the direction of prof. dr hab. B. Mucha-Leszko. In 2007-2018 I worked on the following research

projects i.a.: *Achievements and barriers of the European integration - a retrospective analysis and perspectives for future development; Growth factors and structural changes in the world economy in 1995-2017, Convergence and divergence in the euro area or The European Union in the global economic system* (full list in Annex 4 p. II_G).

To contribute to the dissemination of research results I presented them during a number of domestic and foreign scientific conferences. After obtaining my doctorate I participated in 21 conferences and seminars (as author or co-author of the papers) and gave 18 presentations (including 6 in English) during domestic and international conferences, out of which 5 were abroad. I believe my most important presentations were during the European forum in state aid in Office of Competition and Consumer Protection in Warsaw (Urząd Ochrony Konkurencji i Konsumentów - UOKiK) (by personal invitation from the organizers) *10th International Conference on Applied Business Research entitled "Globalization and Regional Development"* at the University of Technology in Madrid and *31st International Business Information Management Association Conference: Innovation Management and Education Excellence through Vision 2020* in Milan. Two publications presented during foreign conferences are indexed in the *Web of Science Core Collection* database, and two more are under evaluation to be indexed in *WoS*. One of the papers is also undergoing evaluation to be indexed in *Scopus* database.

My presentations during conferences in Poland included the following institutions: Cracow University of Economics, Wrocław University of Economics, Katowice University of Economics, University of Gdańsk, Nicolaus Copernicus University in Toruń, University of Szczecin, Warsaw University of Life Sciences, Catholic University of Lublin.

Apart from presenting my research I was also a session chair 3 times during foreign conferences (in Vienna, Milan and Florence). I was a member of the scientific committee once and program committee/ council three times (including twice in program committees during conferences in Seville and Grenada). A detailed list of the conferences I participated in was attached to this application (in Annex 4).

My scientific activity also included reviewing publications by other researchers. I prepared a number of reviews, including 2 papers in a journal „*Studia Oeconomica Posnaniensia*” and 2 chapters in conference proceedings (from foreign conferences) that are to be indexed at the *Web of Science* database. Recently I also became a member of the editorial committee of “*American Journal of Theoretical and Applied Business*” (ISSN: 2469-7834).

In order to improve my knowledge on the functioning of the European Union and the euro area, as well as to raise my skills and the quality of research, I took part in a number of workshop and study trips, both domestic and abroad, that were often connected to the participation in conferences and seminars, including library queries. The institution I visited the most during my short-term scientific trips was European Commission (mainly DG ECFIN). I also visited National Bank of Poland, National Bank of Romania, Polish Ministry of Finance and Warsaw Stock Exchange. My study visits were often connected to my participation in the team of European Commission (DG ECFIN) experts called EuroTeam Network which was tasked with promoting reliable knowledge on the Economic and Monetary Union in new member states (2009-2012). The team consisted of specialists from

all over the EU (scientists, employees of EU institutions, central banks, ministries of finance in various member states). The meetings of EuroTeam were held a couple times of the year at the EC office in Brussels and in various member states. During those seminars/conferences/workshops experiences were exchanged on the functioning of the euro area economies after the introduction of the common currency. There was plenty of opportunities for discussion on major economic issues of the euro area and the European Union. During my visits to the European Commission I also participated in *Brussels Economic Forum* (DG ECFIN) three times, as well as *Global Jean Monnet Conference* (organized by the DG Education and Culture) also three times. I took part in *the Single Market Forum* in Cracow (Jagiellonian University) organized by the European Parliament, Polish Presidency and the European Commission in 2011. All the stays allowed me to enhance my knowledge on the EU economy and the process of European integration.

I was rewarded a number of times for my research achievements after obtaining my PhD - I received 4 awards of the MCSU Rector (3-times a team award of the third degree and once a team award of the second degree) and once by the Dean of the Faculty of Economics (individual award).

Since April 14th 2010, I am a member of the Polish Economic Society and I participate in the Lublin division activities on promoting economic knowledge in my region. In the past, I was a member of the Review Panel, member of the Board and currently I am a member of the Board and the Vice-President of the regional division.

6. Information on the number, type and impact of all the scientific publications

I am an author or co-author of a total of 63 scientific publications and 5 popular-science publications. Excluding the monograph that was a published version of my doctoral thesis, I published 49 scientific works and 5 popular-science publications after obtaining my doctoral degree. Among the evaluated publications one was indexed in *Journal Citation Reports* (JCR) database and has an *Impact Factor* (IF). Taking into account the need to internationalize knowledge over 1/3 of my papers (17) was published in English, and 11 of them were published abroad. In order to produce better scientific work, I cooperated with other researchers from my own university and other academic centres. As a result, a number of my papers were co-authored (29).

Papers published in domestic and international journals are prevailing in my body of works (see table 1). These journals were: „Gospodarka Narodowa”, „Polityka Społeczna”, „Economics and Law”, „Prace i Materiały Instytutu Handlu Zagranicznego Uniwersytetu Gdańskiego”, „Prace i Materiały Wydziału Zarządzania Uniwersytetu Gdańskiego”, „Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu”, „Studia Ekonomiczne. Zeszyty Naukowe Wydziałowe Uniwersytetu Ekonomicznego w Katowicach”, „Scientific Journal Warsaw University of Life Sciences - SGGW: Problems of World Agriculture”, „Eurolimes”, „Zeszyty Naukowe z cyklu Nierówności społeczne a wzrost gospodarczy”, „Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania Uniwersytetu Szczecińskiego” and „Annales UMCS. Sectio H, Oeconomia”.

Out of my 22 monograph chapters, 5 were published in conference proceedings indexed in the *Web of Science Core Collection* database (3 of them are still undergoing the procedure). The remaining ones were released by the following publishing houses: Cambridge Scholars Publishing, CeDeWu (Warsaw Office of Competition and Consumer Protection in Warsaw, Cracow University of Economics, , Publishing house and Foundation for the Development of the University of Gdańsk, Poznań School of Banking Press, Adam Marszałek Publishing (Toruń) and MCSU Press (Lublin). In conclusion, 15 out of my publications (journal papers as well as monograph chapters) were published by MCSU Press and the rest by other domestic and foreign publishing houses.

Total number of points according to the Ministry of Science and Higher Education evaluation system for my post-doctoral publications was 329, and taking the correction due to co-authored papers into account - 236,35.²⁴ Points were calculated based on the rules in force in the year of the publication²⁵.

According to *Publish or Perish* database my papers were cited a total of 125 times (excluding self-citations), and the Hirsch index is 6. According to the *Web of Science* database my papers were cited 11 times (excluding self-citations) and the Hirsch index is 2. The results of bibliometric analysis by the MCSU Library confirming the number of citations were attached to my application.

²⁴ In cases of co-authorship with employees from the same institutions the number of points was calculated as a percentage share of author's contribution. In one case - a paper with an employee of a different institution - the full amount of points was included. The rules adopted to calculate the points were as used for awarding points during the evaluation of scientific institutions.

²⁵ With 4 exceptions, if for a given year there was no regulation on points for a certain publication for that year. A detailed explanation of that is in the list of publications in Annex 4.

**Table 1. Aggregate statistics of the post-doctoral body of works:
quantitative summary of publications and their impact**

Total number of scientific publications	49
• Sole-authored publications	20 (40.8%)
• Co-authored publications	29 (59.2%)
Publications in Polish and in foreign languages	
• Number of publications in Polish	32 (65.3%)
• Number of publications in a foreign language (English)	17 (34.7%)
○ including publications abroad	11 (22.4%)
Monograph chapters/ Journal papers	
• Monograph chapters	22
○ including international conference proceedings indexed or under the procedure of indexation in the <i>Web of Science</i> database	5
• Papers in scored journals	27
○ including journals in JCR database	1
Total number of points for the publications (accounting for the co-authorship)	329 236.35
Citations (as at 4.02.2019)	
• <i>Web of Science</i>	h-index: 2 number of citations 14
• <i>Publish or Perish</i>	h-index: 6 number of citations 138
• <i>Scopus</i>	h-index: 2 number of citations 8
• <i>Google Scholar</i> (according to author's profile)	h-index: 6 number of citations 126
Citations excluding self-citations (as at 4.02.2019)	
• <i>Web of Science</i>	h-index: 2 number of citations 11
• <i>Publish or Perish</i>	h-index: 6 number of citations 125
• <i>Scopus</i>	h-index: 2 number of citations 8

Additional remarks: The number of publications and points excludes the monograph that was my doctoral thesis in a published form; The number of points includes 3 chapters in international conference proceedings that are still undergoing the indexation procedure for Web of Science database (appropriate confirmation letters have been attached); In case of papers published both in Polish and English - they were included only once as foreign language publications; The table does not include a proceedings chapter mentioned as pos. 48a in the list of publications, but the extended version published as a journal paper (pos. 48b). Due to the lack of *Scopus* profile, Hirsch index was calculated based on the citations in the database (the list is attached).

7. Teaching activities and the dissemination of knowledge

After obtaining my PhD I was giving lectures and teaching classes at the Faculty of Economics MCSU for the following BA and MA courses: Economics, Finance and Accounting. The courses I taught included: *International economics, International economic relations, International finance, International finance and settlements, International competitiveness, Economics of European Integration, EU competition policy, Economic policy of the EU, Functioning of the euro area, International monetary system, Internationalization of businesses, Introduction to the EU law, International law*. For a number of years I have been co-teaching a class for PhD students in economics: *Global economy and financial markets* (workshop).

My teaching activity also includes lectures in English for Erasmus students. I taught classes on *EU Internal Market and Competition Policy* and *Market and Monetary Integration in the EU*, and in the current academic year on: *Economics of European Integration*.

I took part in various teaching projects, both domestic and international realized by my Alma Mater or outside.

In 2008 I taught a class at the West University in Timisoara (Romania) on: *The EU Competition Policy*. It was a part of summer school programme "SME's growth as a condition for success in the EU and the global Economy. The experience of the district of Brescia" organized by the University of Brescia and the West University in Timisoara plus various business associations.

I was also a participant in the project Tempus ELISAA (E-Learning Innovation and Sustainable Albanian Agriculture) 530531-TEMPUS-1-2012-1-IT-TEMPUS-JPHES, financed by a grant from the European Commission (2012-2015). Main coordinating institution for the project was Università degli Studi di Bari Aldo Moro (Italy). I took part in the preparation of training courses for agri-food businesses in Albania, for which MCSU was responsible as the partner in the project (they pertained to the EU law and institutions as well as functioning of the common market) I also prepared lectures in English for the e-learning platform.

In 2009-2012 I taught classes and seminars for the post-graduate studies on 'Project management and EU policy', 'Management of the EU Funds' and 'Administration and Management' financed from the European Commission funds within the ESF Operational Program Human Capital, project no. 1.45 'Educating the management of social care institutions' at the Faculty of Economics MCSU. I was the studies supervisor for the 'Management of the EU Funds' course (prepared the programme of the studies and the grant application).

I also participated in 7 editions of the post-graduate studies on 'Mechanisms of the euro area functioning' realized at the Faculty of Economics in 2009-2016. The courses were financed by the National Bank of Poland in all the administrative regions of Poland according to the same programme prepared at the NBP. I gave a number of lectures and seminars during all the editions organized by MCSU. I was also the supervisor of the studies during 3 editions: IV (2012/2013), VI (2014/2015) and VII (2015/2016). I also taught one or two blocks each year at the University of Zielona Góra in 2009-2015, and in 2010 - one block at the University of

Rzeszów. I contributed to the preparation of the application for the MCSU to get the funds from NBP and organized conferences for students concluding two final editions of the studies. In 2009 I participated in the preparation of workshops for journalists on the 'Polish road to the euro' as a part of the project 'Regionally on the euro' organized by the Foundation for the Development of Journalism Education in Warsaw and National Bank of Poland. I taught classes in Sandomierz and Poznań as well as prepared teaching materials on *Practical aspects of joining the euro area - the cases of Slovenia and Slovakia* [II_B)_51].

As a result of my seminars around 30 bachelor theses and 60 post-graduate papers were prepared. I also reviewed around 60 theses both bachelor and masters, and about 140 post-graduate papers.

I undertook various activities to disseminate economic knowledge to the public. I prepared 5 popular-science papers (II_B)_50, 51, 52, 53 and 54) and took part in the Lublin Festival of Science a number of times, as a supervisor of the project, co-organizer and speaker (3 projects were realized in cooperation with my students). In 2013 I gave a lecture during the MCSU promotional event on 'MCSU creates Your future'. I also gave multiple interviews to local press, Lublin Radio, Centrum Radio on current economic issues (in Poland, the European Union and world economy).

Magdalena Kąkol

