



Academic aspects of management accounting and *controlling* in Poland since the 1990s

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Abstract

Management accounting (MA) systems in enterprises in Poland are shaped by numerous economic and institutional factors. Normative drivers such as teaching at the university level, academic research and publications of Polish academics (which are, in turn, influenced by the development of MA and *controlling* in Western countries) are of major importance. The aim of the paper is to recognize and present the scope of the impact that the Anglo-American concept of management accounting, and the *controlling* concept according to the approach in German-speaking countries, have had on the academic aspects of MA in Poland since 1990. The authors answer in the paper six explorative research questions. The basis for the answers to these questions is a literature study, a review and thematic classification of articles concerning MA and *controlling*, published in the two main Polish journals in this area, and a survey conducted by the authors among heads of accounting departments at universities and other entities of further education in Poland. The paper provides arguments confirming that there is no uniform perception of the relationship between MA and *controlling* among Polish accounting researchers, that research topics in Poland are dominated by the Anglo-American concept of MA, and that educational programs on accounting at university level have a preference for the term *management accounting*, although they also offer courses on *controlling*.

Keywords: management accounting, *controlling*, research, accounting journals, teaching, Poland.

Streszczenie

Akademickie aspekty rachunkowości zarządczej i *controllingu* w Polsce od lat 90. XX wieku

Na kształtowanie systemów rachunkowości w przedsiębiorstwach w Polsce wpływa wiele czynników ekonomicznych i instytucjonalnych. Spośród tych drugich decydujący wpływ mają takie normatywne czynniki, jak nauczanie uniwersyteckie, badania naukowe i aktywność publikacyjna polskich pracowników naukowych, które z kolei pozostają pod wpływem rozwoju rachunkowości zarządczej i *controllingu* w krajach zachodnich. Celem tego artykułu jest określenie i prezentacja zakresu wpływu anglo-amerykańskiej koncepcji rachunkowości zarządczej i koncepcji *controllingu* rozwijanej w krajach niemieckojęzycznych na akademickie aspekty rachunkowości zarządczej w Polsce od 1990 roku. Autorki odpowiadają na sześć pytań badawczych. Podstawę do tych odpowiedzi stanowią studia literaturowe, przegląd i tematyczna klasyfikacja artykułów dotyczących rachunkowości zarządczej i *controllingu*,

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opublikowanych w dwóch polskich czasopismach z tego zakresu, oraz badania ankietowe przeprowadzone wśród kierowników instytutów i katedr rachunkowości na uniwersytetach i w innych szkołach wyższych w Polsce. Artykuł jest potwierdzeniem, że nie ma jednolitego postrzegania relacji między rachunkowością zarządczą a *controllingiem* wśród polskich autorów publikacji i pracowników naukowych w dziedzinie rachunkowości, badania w zakresie rachunkowości zarządczej w Polsce pozostają pod dominującym wpływem anglo-amerykańskiej koncepcji *management accounting*, a programy edukacyjne na poziomie uniwersyteckim są ukierunkowane na rachunkowość zarządczą, ale są także oferowane przedmioty dotyczące *controllingu*.

Słowa kluczowe: rachunkowość zarządcza, *controlling*, badania, czasopisma w zakresie rachunkowości, dydaktyka, Polska.

Introduction

Along with the restoration of the market economy and the democratic system in Poland, as a consequence of the crucial events of the socio-political transformation in 1989, a period of dynamic changes began, both in the practice of accounting as well as in teaching and research in the field of accounting. Since the beginning of the 1990s, large and medium-sized companies in particular have started to see the need to implement budgeting, new cost accounting and performance measurement techniques, and other methods of management accounting (MA). Certainly, the processes of development in the area of MA in Poland in the past 25 years or so are similar to the changes in other post-communist countries of Central and Eastern Europe (CEE), as they occurred under the influence of two major challenges, i.e. the socio-economic restructuring in a given country and the dynamic development of MA in the globalizing world. With these challenges there are many different related factors that affect the implementation of MA techniques in Polish business entities. There are both economic factors and institutional drivers (coercive and normative pressure and mimetic processes), which Granlund and Lukka (1998) identified when analyzing forces causing convergence in (macro-level) management accounting practices around the world.

In our opinion, what influences the perception of MA by management and accounting practitioners, as well as the shape of MA systems in Polish enterprises, is normative factors such as university and outside-university teaching, academic research, and publications as well as popular science publications. Many academics were, in fact, the first designers and implementers of MA or *controlling* systems in companies at the beginning of the systemic transformation in Poland in the 1990s (see e.g. Sobańska, Szychta, 1995; Sobańska, 2002). Currently, many academics in Poland run courses for management accounting practitioners as well as designing and improving MA systems for different entities.

A special feature of MA in Poland is that it formed when two approaches converged: „management accounting in the Anglo-American manner, and cost controlling according to the German approach” (Jaruga, Ho, 2002, p. 376). The influence of these approaches

is manifested by the use of both terms *management accounting* and *controlling* in business practice, teaching, and scientific research, and the differentiated perception of the relationship between MA and *controlling* by different people. It also means introducing the profession of management accountant (code 241106) and the profession of controller (code 241102) into the elementary occupational group of bookkeeping and accounting specialists (code 2411) in the classification of professions and specializations, binding in Poland from 2010 (*Rozporządzenie*, 2010) (see Szychta, 2011, pp. 304–307).

These two approaches have had a varied impact on the practice and the academic sphere in Poland. It seems that scientific research on accounting in Poland is dominated by the Anglo-American concept of MA, while business is mostly under the influence of the concept of *controlling*, which has its origins in German-speaking countries, especially in Germany – the western neighbor of Poland. Empirical research carried out so far in Poland (e.g. Goliszewski, 2002; Szychta, 2007, 2009; Zarzycka, 2016) confirms that the number of employees performing MA tasks in business entities is growing steadily. Their posts are given various titles, such as controller, financial controller, financial analyst, expert in analysis and planning, or management accountant. As regards the organization of MA in enterprises in Poland, the influence of the German tradition is stronger than the Anglo-American tradition, which is indicated by a greater number of *controlling* departments than MA departments in the surveyed companies (Szychta, 2009, p. 82). The idea of *controlling* is promoted among practitioners mainly by training and consulting companies that have the word *controlling* in their name such as Akademia Controllingu (Controlling Academy) Oditk (Gdańsk), Akademia Controllingu (Poznań), Controlling Practitioners Circles [the Circles operate in major cities and are members of the Polish Division of the International Controller Association (*Internationaler Controller Verein* – ICV) which has operated in German-speaking countries since 1975 and in Poland since 2005] as well as publishers targeting practitioners, e.g. Infor, Oditk.

The aim of this paper is to recognize and present the scope of the impact that the Anglo-American concept of management accounting and the *controlling* concept according to the approach of German-speaking countries have had on the academic aspects of management accounting in Poland since 1990. The academic aspects consider the issue of how the relationship between management accounting and *controlling* by Polish accounting researchers is perceived, the orientation of the main research, and how publications and teaching at the university level are important institutional factors shaping MA practices in business entities in Poland.

To achieve this goal, we answer the following explorative research questions:

1. How do the authors of Polish publications and the heads of research and teaching units on accounting at Polish universities interpret the nature of *controlling*?
2. How do the authors of Polish publications explain the relationship between MA and *controlling*?
3. How often have MA and *controlling* been discussed in habilitation dissertations and PhD theses in the field of accounting in 1990–2016?

4. What was the thematic scope of the MA and *controlling*-related articles in the Polish academic journal *Zeszyty Teoretyczne Rachunkowści (Theoretical Journal of Accounting)* and in a journal for practitioners entitled *Controlling i Rachunkowość Zarządcza (Controlling and Management Accounting)*?
5. What and how many units at Polish universities and other higher education institutions have the term „management accounting” and/or „controlling” in their name?
6. At which faculties at higher education institutions in Poland can students gain knowledge in the field of MA and *controlling*?

The basis for the answers to these questions is a relevant subject-based literature study, a review and thematic classification of articles concerning MA and *controlling* published in the two main Polish journals in this area, and a survey conducted among heads of accounting departments and institutes at universities and other higher education institutions in Poland.

The paper makes a preliminary contribution to the existing literature concerning the development of MA in CEE countries. Firstly, the paper extends the information about the characteristics of the development of MA from the academic point of view in Poland, which is the largest country among the post-communist countries in CEE and in which socio-economic changes have occurred dynamically so far. Moreover, it is a country that for geographical reasons „feels” the strong influence of the German economy on various areas of its own economy, including accounting. Secondly, the number of studies and publications in English on MA in the transition countries in Europe is still very limited, despite the passage of a quarter of a century since the start of the implementation of a market economy in these countries. Our paper provides a basis for a future comparison of research and teaching aspects of MA with those aspects in other post-communist countries in Europe.

The paper is structured as follows. Section 1 briefly presents a literature review. Section 2 provides information about the background of considerations. Section 3 informs about applied research methods. Section 4 contains information on the perception of MA and *controlling* by Polish authors and researchers in the field of accounting in Poland. Section 5 deals with the number and themes of habilitation dissertations and PhD theses in Poland since 1990 compared to the period of the centrally planned economy. Section 6 provides an overview of the topics of articles on MA and *controlling* published in two Polish journals, and section 7 refers to educational issues of MA and *controlling* at Polish universities. The last section contains concluding remarks.

1. Literature review

Research on MA development in Poland and other CEE transition countries with a developing economy has grown gradually over the past 25 years, although few findings have been published in English in widely available international journals. The earliest

research published in English concerned the application of MA techniques and factors influencing MA practices in Polish, Estonian, and Hungarian enterprises in the first decade after the fall of communism (Sobańska, Wnuk 1999, 2000, 2001; Szychta, 2002; Haldma, Lääts, 2002; Vámosi, 2000). Next, Polish authors investigated changes in MA practices, and the tasks and role of management accountants (Szychta, 2007, 2009; Zarzycka, 2012, 2016), the implementation of e.g. Activity-Based Costing, investment appraisal methods (Wnuk-Pel, 2010, 2011, 2013), and the scope of applications of MA techniques in specific industries (e.g. Baran, 2013; Dobroszek, Szychta, 2015; Dobroszek, 2016) in the more dynamically developing market economy in Poland. The issue of changes in the scope of MA systems in a dynamic economic context on the example of Estonian companies in 2004–2007 was examined by Lääts and Haldma (2012). Only in the last few years have Romanian authors published articles relating to the status of MA in their country. For example, Jinga et al. (2010) showed that the most useful source of information for decision making in Romanian firms was the financial reporting system. Grosu et al. (2014) investigated the current status of MA in Romania according to accountants' perceptions, and showed factors influencing this perception. In turn Albu and Albu (2012) analyzed factors associated with the adoption and use of MA techniques in developing countries on the case of Romanian institutional settings.

The cited publications indicate progress in the development of MA practices in the CEE region but it is diverse in particular countries. This is caused by several factors which were considered through the lens of contingency theory by Haldma and Lääts (2002) in Estonia, and by Šiška (2016) in the Czech Republic. By contrast, Albu and Albu (2012) took into account in their paper contingency theory and several institutional drivers (e.g. the source of capital, the degree of competition, the development of financial reporting). The change in MA in Romanian company from an institutional and contingency perspective was also considered recently by Jinga and Dumitru (2015).

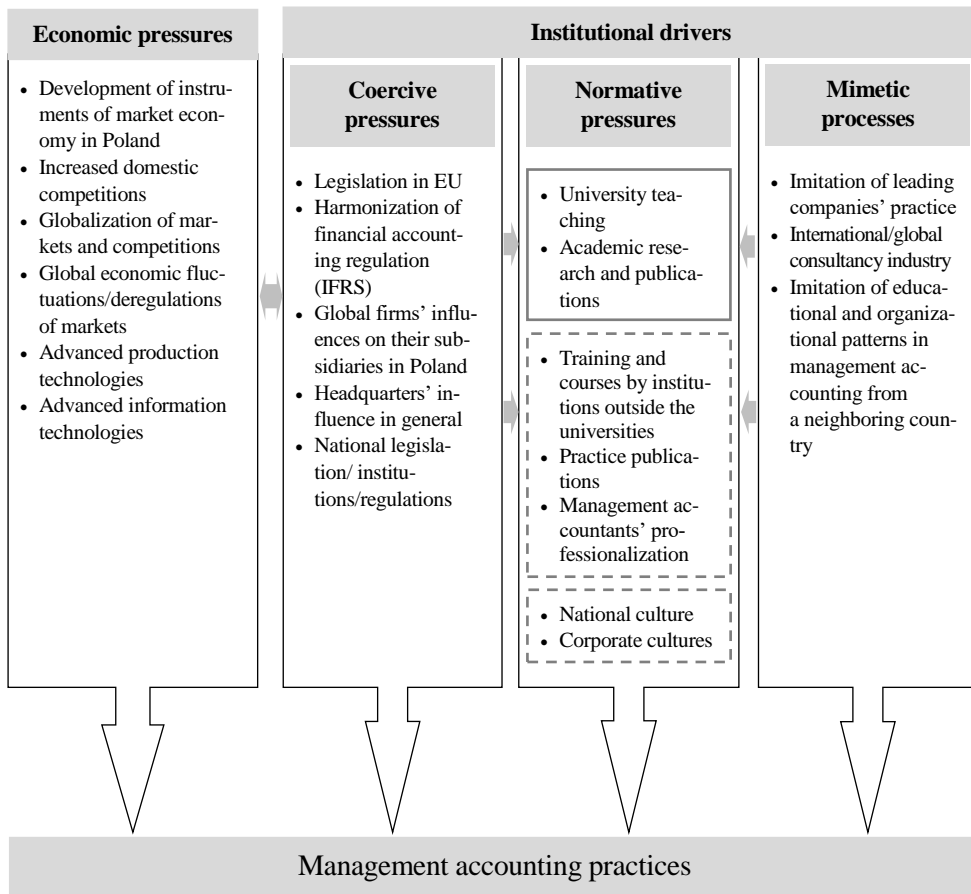
In the mentioned publications, research and teaching in the area of MA were not considered important factors influencing the development and changes in MA practices. Issues related to MA teaching in CEE countries has not yet aroused the proper interest of researchers. In Poland, research on MA education has recently been undertaken by Zarzycka (2014) and Zarzycka and Dobroszek (2015 a, b). Zarzycka (2014) analyzed the process of education in the field of MA in Poland and evaluated this process from the viewpoint of tasks faced by specialists in MA/*controlling*. Zarzycka and Dobroszek (2015, a, b) explored the process of education in the area of MA/*controlling* in Poland and Germany. The results of the research dealing with Polish higher education institutions indicated significant discrepancies between the education models used in Poland and in Germany. The knowledge provided to the students of studies in Finance and Accounting in Poland is, in most cases, insufficient to carry out the required tasks for management accountants and controllers. These two studies highlighted the presence of courses related to both MA and *controlling* in curricula in Poland.

2. Background of considerations

2.1. Analytical framework

The starting point for our considerations and analysis in this paper is the framework of the drivers influencing and shaping MA practices, developed by Granlund and Lukka (1998). Shaping MA practices in business entities in Poland occurs, as in other countries, under the influence of various economic and institutional factors (see Figure 1).

Figure 1. Main drivers of management accounting practices in Poland



Source: own elaboration based on a framework proposed by Granlund and Lukka (1998, p. 157)

Granlund and Lukka (1998) divided the institutional drivers into coercive, normative, and mimetic. In the era of the globalization of the market economy, these factors have led mainly to the convergence of MA practices at the macro level in different countries. The macro level of MA includes concepts, ideas, MA system designs, and,

at least partly, the purpose of using certain pieces of MA information, which form the basis or framework for the micro-level action to take place. By contrast, the micro level of MA means behavior patterns of management accountants and styles of MA information use by managers (Granlund, Lukka, 1998, pp. 153–154). Some of the factors belonging to the coercive pressures group (e.g. national legislation, national institutions) and to the normative group (national culture, corporate cultures) contribute to divergence of MA practices. Measuring the impact of these different factors is impossible. However, it needs stressing that they are interrelated, which makes present-day MA practices subject to diverse and complex influences.

There is no doubt that MA in enterprises in Poland is largely shaped by normative factors such as university teaching, academic research and publications, training sessions and courses conducted by institutions outside schools of higher education, popular science publications, and the professionalization of management accountants. These normative factors create norms for the perception of the nature, concepts, and methods of MA and the structure of MA systems in enterprises. In our opinion, a special factor in the case of Poland is the mimetic factor – imitating educational and organizational patterns in management accounting (*controlling*) from a neighboring country with strong historical and economic relations, i.e. from Germany. Given the great number of factors influencing MA practices in business entities in Poland, we focused on selected normative and mimetic factors, presenting and discussing the academic aspects of MA in Poland in 1990–2016.

2.2. The essence of management accounting and controlling

The literature explaining the essence and scope of MA and *controlling* is very extensive. The aim of this part of the article is not an exhaustive presentation of the MA and *controlling* definitions and their comparison but a synthetic indication of the changing nature and scope of MA and *controlling* and also to provide a reference point for analyzing the perception of the relationship between them in Poland.

Since the 1950s, when Anthony¹ used the term „management accounting” for the first time (in 1955) in the title of his textbook, it has denoted in Anglo-American circles a branch of accounting which meets the information needs of managers in an organization and helps them make better decisions. Horngren (1986, p. 42) expressed the idea behind MA in the simplest way, stating: „in its fullest sense, management accounting is well named. It connects *management* with *accounting*”. Since the 1980s, in conjunction with the changes taking place in the process of business entities’ management and in the socio-economic environment of enterprises in Western countries, more and more significance has been attributed to an approach to MA that explicitly highlights strategic issues and concerns, called strategic MA, and distinguished from conventional or operational

¹ R.N. Anthony published in 1955 a book entitled *Management Accounting* (Irwin, Homewood). In 1950, a handbook authored by W. Vatter entitled *Managerial Accounting* (Prentice Hall, New York) appeared. The latter had 18 editions (Anthony, 1989, p. 2).

MA. In addition, for more than a decade, it has been claimed that the role of management accountants is to act as business partners rather than just providing the information needed to manage a company. These aspects are emphasized, for example, in the definition formulated by the Institute of Management Accountants in the USA: „Management accounting is as a profession that involves partnering in management decision making, devising planning and performance management systems, and providing expertise in financial reporting and control to assist management in the formulation and implementation of an organization’s strategy” (IMA, 2008, p. 1). As it was recently defined in *Global Management Accounting Principles*, MA is thus: „The sourcing, analysis, communication, and use decision-relevant financial and non-financial information to generate and preserve value for organizations” (CGMA, 2015, p. 50).

In different languages and cultural areas, specific terms are used to describe the concepts and methods which are part of this activity in an economic entity. In many countries, a direct translation of the English-language term „management accounting” is applied to denote this branch of accounting, for example in Poland the term „*rachunkowość zarządcza*” has been used since the early 1990s².

In German-speaking countries, the development of MA practices is connected with the term „*Controlling*”. This term, borrowed from the English language, became popular in Germany in the early 1970s. German authors (e.g. Horváth, 2006; Ewert, Wagenhofer, 2007) emphasize that the development of *controlling* in enterprises in Germany, and next in Austria and the German-speaking parts of Switzerland, was mainly caused by increased interest in the concepts and tools of MA of German authors of both scientific publications and publications addressed to practitioners and large enterprises which had subsidiaries in the German-speaking countries, and in which the positions of controllers were set up. Since that time there has been a continuing debate in the German-language literature about the definition and scope of *controlling*, as together with the dynamically developing markets and their socio-economic environment, the range of *controlling* has expanded, and the *controlling* systems in enterprises have varied and evolved.

An overview of a few works (e.g. Mayer, 1986; Schweitzer, Friedl, 1992; Franz, Kajüter, 2002; Becker, Messner, 2005; Horváth, 2006; Ewert, Wagenhofer, 2007; Küpper, 2008; Schäffer, Binder, 2008; Luther et al., 2010), selected from an abundance of publications on *controlling*, confirms that understanding the essence of *controlling* has changed. *Controlling* expanded its scope from cost accounting (or internal accounting), budgeting and reporting, through planning and management control at an operative and

² In the era of the centrally-planned economy in Poland (1945–1989) substantial literature on cost accounting and MA related aspects was written, although until the 1990s censorship did not accept the term „management accounting”. This literature resulted from extensive research conducted by numerous Polish academics since the 1950s and was the effect of an increasing demand for course books in which the principles of cost accounting laid down in dynamic legislation were explained. In the era of the centrally planned economy, the issue of cost accounting was gradually included in syllabuses designed for Economics courses. MA has been a separate course since the early 1990s although its aspects have been taught at some universities since the early 1980s, e.g. at the University of Łódź or University of Gdańsk (Szychta, 2007, pp. 217–218).

a strategic level, to „overall managerial coordination of management accounting, planning and control, organizational structure and the firm’s incentive system” (Schäffer, Binder, 2008, p. 35).

Despite many years of discussions in the German-speaking countries, „there is little disagreement in academia and practice on the core issues of *controlling*. They overlap widely with what is internationally considered management accounting and management control³,” as pointed out by Schäffer and Binder (2008, p. 35). Luther *et al.* (2010, p. I and p. XI) even explicitly state that „*Controlling*” is the German term for „Management Accounting” and according to „the literature, the German model of *Controlling* is characterized by:

- a separation of cost and management accounting from financial accounting,
- a separation of *Controlling* from operation,
- Controllers acting as coordinators rather than as members of management”.

After about fifty years of development of *controlling* in German-speaking countries it is interpreted on the one hand (i.e. from the practice side) as part of the joint activity of the manager and controller in decision-making, relevant not only for profit-oriented companies but also for not-for-profit and public organizations, as underlined in the statement of the International Controller Association (ICV) and the International Group of Controlling (IGC) (*Perspective*, 2012, p. 2). On the other hand, as it was widely presented by Schäffer and Binder (2008, p. 34), „*controlling* has become an established discipline of business administration (Betriebswirtschaftslehre) in German-speaking countries and can be considered a comparatively young field that has traditionally been highly practice-oriented, but also self-referential and for the most part not integrated into the international community”.

3. Research methods

To answer the six questions formulated in the introduction, we overviewed selected relevant, subject-based publications by Polish authors, and researched the topic by over-viewing articles published in two Polish journals (one academic and one practical), and carrying out a survey among the heads of research and teaching units at Polish higher education institutions in the field of accounting. Universities and other schools of higher education in Poland are traditionally organized into faculties, which are subdivided into departments and which are frequently further divided into sections. Sometimes institutes are established. An institute consists of several departments. The teaching of accounting at an academic level takes place at Faculties of Economics or Management.

³ Management control is understood as: „the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization’s objectives” (Anthony, 1988, p. 190); „the process by which managers influence other members of the organization to implement the organization’s strategies” (Anthony, Govindarajan, 2000).

Our survey questionnaire consisted of 15 questions divided into four parts. In Part One, the respondents were asked to indicate the institution they represented, provide details of the post, degree held, and the unit. Part Two consisted of questions concerning the number and titles of defended PhD theses and published habilitation dissertations in the field of MA in a given institution in 2013–2016. In Part Three, the respondents were asked to specify what courses on MA and *controlling* are provided at their institutions. In Part Four, the respondents were asked to evaluate the idea of *controlling* and its relationship with MA.

The survey was carried out among respondents from public and private higher education institutions in Poland supervised by the Ministry of Science and Higher Education⁴. In August 2016, the Ministry website listed 59 public higher education institutions of different types (Universities, Universities of Technology, Universities of Economics, Universities of Pedagogy, Universities of Agriculture, University Schools of Sport, Church Higher Schools) and 269 private institutions. Over a dozen public universities were excluded from the survey because they did not offer any teaching in the field of accounting, finance, economics, or management, and therefore they did not have the relevant institutes, departments, or sections. In the case of four public universities, the survey questionnaire was sent to the heads of two units operating at those universities. The survey comprised only 16 private, long established, and renowned business schools. Additionally, the study comprised a few state higher schools not listed on the Ministry of Science and Higher Education website. The empirical study covered 60 heads from 56 institutions in total (see Table 1).

Table 1. Categories of higher schools covered by the survey and the number of responses received

Category of higher school	Number of schools	Number of heads	Number of responses
Public higher schools, including:	40	44	20
Universities	14	15	6
Technical Universities	12	12	3
University of Economics	5	8	8
Agricultural Universities	4	4	0
State Higher Schools	5	5	3
Private higher schools	16	16	2
Total number	56	60	22

Source: own elaboration based on a list of public and private universities available on the website of the Ministry of Science and Higher Education in Poland

⁴ Public universities supervised by the Ministry of Science and Higher Education are listed on: <http://www.nauka.gov.pl/uczelnie-publiczne/wykaz-uczelni-publicznych-nadzorowanych-przez-ministrawlasciwego-ds-szkolnictwa-wyzszego-publiczne-uczelnie-akademicki.e.html> (access 23.08.2016). Private higher education institutions operating at the time of the survey are listed on: <https://polon.nauka.gov.pl/opi/aa/rejstry/run?execution=e2s1> (access: 23.08.2016).

The survey was conducted from the end of September till the end of October 2016. The survey questionnaire was e-mailed to the heads of university units (i.e. institutes, departments, sections) that specialise in the fields of accounting and corporate finance. Around 90% of the respondents were asked three or four times to complete the questionnaire. Out of 60 respondents (from 56 universities) only 22 (from 18 universities) completed it and sent it back. 14 respondents held the title of full professor, 5 held the position of associate professor (and Dr hab. degree) and 3 had a PhD degree. The survey return rate of 36.6% is not satisfactory given that the respondents were academics. However, in view of the fact that the survey questionnaire was completed by respondents from all public Universities of Economics and 6 main universities, the information gathered enables an analysis of the data in the subsequent sections of the paper, identification of the emerging tendencies with regard to the academic aspects of MA, and a formulation of conclusions.

4. The perception of management accounting and *controlling* by Polish authors and heads of accounting departments

Knowledge about the nature, methods, and accounting organizations which focus on the needs of management first came from abroad at the beginning of the political transformation in Poland in the 1990s, not only from the two language areas (English and German) but also in two ways – academic and practical-consulting. The academic way consisted of three stages: (1) considering the teaching and research publications of English-speaking and German-speaking authors by Polish authors writing their textbooks and scientific papers on MA and *controlling*; (2) publishing books in Polish and having articles translated from English and German (e.g. Mann, Mayer, 1992; Vollmuth, 1993; Drury, 1995; Kaplan, Cooper, 2000; Kaplan, Norton, 2001); (3) initiating and broadening cooperation with foreign research centers (e.g. the British program *Know How Fund – the Development of Accounting in Poland* carried out by several universities in the period 1991–1995, led by Professor Alicja Jaruga on behalf of the Minister of Science and Higher Education in Poland).

The practical-consulting way of getting and disseminating knowledge and skills in the field in question was based firstly on implementing the new methods in privatized enterprises or subsidiaries of foreign companies, and secondly, at open training sessions and courses organized by domestic training and consulting companies, and in-house training for employees of specific enterprises in which MA or a *controlling* system was planned or had already been implemented.

Information about MA concepts and practices originating from Anglophone and Germanic countries has exerted a varied impact on the perception of MA by different groups of people interested in MA in Poland in the last 25 years, in both academia and in practice. During this time, MA has become a subject taught not only on economic courses in Polish universities and other higher schools all over the country but on

courses and training sessions organized by various institutions and training firms. Starting from the early 1990s, many textbooks, articles and conference papers dealing with MA have been published in the Polish language and their number is growing steadily. Research in this field has been expanded and intensified at many public universities and other schools of higher education. Since the beginning of the systemic transformation, MA has been explained in Polish scientific publications and academic textbooks (e.g. Jaruga, 1995, 1997a, b; Sobańska, 2006, 2010; Szychta, 2007, Dobija, 2008; Świdwerska, 2010, 2017; Wnuk-Pel, 2011; Jaruga et al, 2014) in accordance with its characteristics evident in English-language publications and the evolving perception of its nature presented in definitions of MA formulated by organizations such as AAA (1966), IFAC (1997, 1998) or IMA (2008). MA is explained in Polish publications according to systemic and process approaches, which is expressed by e.g. Sobańska (2006, p. 37): „Management accounting is, in fact, a formalised system of gathering, measuring and analysing financial and non-financial data as well as giving it to decision-makers and teams in order to enhance and coordinate the steps undertaken to achieve a global (strategic) goal of the business entity. This system is considered to be a central business information system”.

Simultaneously, the Polish literature on the subject began to explain the nature and methods of *controlling*. The discussion about the concepts and scope of *controlling* which had taken place in the German-speaking countries moved to the Polish scientific and consulting community. At the beginning of the 1990s, attempts to explain the nature and tasks of *controlling* were made by e.g. Goliszewski (1990), Sawicki (1992), Szychta (1992) and Sobańska (1992). Goliszewski (1990, p. 9) stated that *controlling* is the process of steering (oriented at an enterprise's result) realized by planning, control and reporting. Sawicki (1992, p. 24 and p. 27) explained that *controlling* should „support management in such a way that it combines (integrates) planning, control and information”, and it is „an elementary component (subsystem) of the management, steering the activities of an enterprise in the direction of a target by means of coordinating the whole process of planning, disposition and control, and providing useful information”. Meanwhile, Szychta (1992, p. 32) wrote that *controlling* is the „concept of steering an enterprise based on financial accounting and cost accounting, and is directed to the functioning of the enterprise in the future. The task of *controlling* is to steer the enterprise through planning, control, and communication of information”. On the other hand, Sobańska (1992, p. 9) stressed that the concept of *controlling* „was built on the basis of a methodology of creating information by financial accounting and management accounting with a focus on the future periods”. Different explanations of the nature of *controlling* in Polish authors' publications (e.g. Nowak, 1996, 2011; Kiziuiewicz, 2003; Fjałkowska, 2003; Sobańska, 2010; Dobroszek, 2011; Dobroszek, Szychta, 2009; Goliszewski, 2015) can be reduced to two essential, synthetic approaches. *Controlling* is:

- 1) a tool supporting management or an over-function management instrument,
- 2) a system of steering and coordination in an enterprise.

In order to find out how the heads of research and teaching units (institutes, departments or sections) at Polish universities specialising in accounting and related domains (finance, management) currently understand the nature of *controlling*, we conducted a survey among the heads in 2016. They were asked to:

- 1) choose a definition (out of 11 definitions provided by German-speaking authors) which best expresses the idea of *controlling*,
- 2) choose a term in the Polish language (out of a few terms suggested in the questionnaire) that best reflects the nature of *controlling* originating in German-speaking countries.

Table 2 shows the choice of the preferred definition of *controlling* by 22 accounting academics who completed the questionnaire.

Table 2. Preferred definitions of *Controlling* by the respondents of the survey

Authors	Explanation / definition of <i>controlling</i>	Number of responses
ICV & IGC, <i>Perspective</i> , 2012, p. 2	Controlling is a management activity. It means being objective-driven and directing all decisions towards achieving this end. Consequently, planning and calculative practices, as well as monitoring and control, are of central importance. This applies to each individual management decision as well as to the management of the corporation as a whole.	6
Horváth, 2006, p. 134	Controlling is a management subsystem; it means planning, control and objective-driven information coordination as well as the management of the enterprise as a whole. The aim of controlling is to support management i.e. enable the enterprise to adjust to the dynamic environment and to enhance its day-to-day running.	4
Busse von Colbe, 1990, p. 116	The aim of controlling is the outcome-oriented steering of the enterprise through planning, control and information. Controlling, based on financial accounting and cost accounting, is future-oriented.	3
Bramseman, 1990, p. 44	Controlling is an enterprise management system through planning, information, control and organisation.	2
Deyle, 1996, p. 157	Controlling means comparing actual performance against pre-determined standards and taking corrective action in the case of deviations. Controlling is a process of setting goals, planning and steering.	2
Reichmann, 1997, p. 12	Controlling means an objective-driven support of management tasks, which aids planning, coordination and control through information supply and dissemination. It is a system of accounting principles and principles supporting management that aim to enhance the quality of decision making at all levels of enterprise management.	2

Table 2. Preferred definitions of *Controlling* by the respondents of the survey (*cont.*)

Authors	Explanation / definition of <i>controlling</i>	Number of responses
Weber, Schäffer, 1999, p.731	The purpose of controlling is to ensure rational management, which takes on different forms at different stages. It is a foreseeing action, with diverse types of objectives, depending on the occurrence of bottlenecks.	2
Ewert, Wagenhofer, 2007, p. 1036	The most commonly held view is that the research object of <i>Controlling</i> is coordination in firms. Coordination includes, in particular, planning and control, information, delegation, performance measures, and incentives.	1
Franz, Kajüter, 2002, p. 128	Controlling is an outcome (profit)-oriented steering of an enterprise. Delegating makes controlling an important (institutional) tool that helps decision makers at the planning and control stages (through necessary information supply)	1
Total		23^{a)}

^{a)} One respondent indicated two explanations.

Source: authors' own elaboration based on survey

Out of 11 definitions of *controlling*, Polish professors chose 9. Most respondents (6) opted for the definition offered by International Controller Association and International Group of Controlling (ICV & IGC). Four respondents chose the definition proposed by German Professor Péter Horváth. 12 respondents chose among the remaining 7 definitions. Two definitions of *controlling* were not chosen.⁵ The choice of the first two definitions by Polish academics might have been due to the fact that the definitions are quite new (the first one is the newest one), they emphasize a practical approach to *controlling* (favoured by ICV & IGC – organisations with controllers also from non-German-speaking countries), Polish Professors of accounting are familiar with the publications of Professor Horváth, the first Professor of the *Chair of Controlling* at Darmstadt Technical University in 1973 (Schäffer, Binder, 2008, p. 38) and who has contributed enormously to promoting the idea of *controlling* in German corporate practice.

The fact that most respondents chose the first two definitions of *controlling* is incongruent with their choice of preferred term⁶ in Polish that best reflects the nature of *controlling*, practised and developed in German-speaking countries.

⁵ The explanations of *controlling* that were not chosen come from the publication Ziegenbein (2002, p. 22–23): „Controlling provides methods (technique, tools, models, ways of thinking) and information for the implementation of current planning and control processes and their coordination in the broad sense”, and Becker and Messner (2005, p. 418): „Controlling is a set of tasks clustering around decision support and management control”.

⁶ The respondents could choose from the following terms/expressions (English-language equivalents to Polish terms used in the questionnaire): management accounting & controlling, coordination and control (steering), management accounting, management accounting & management control, management control, analysis and control of costs, cost accounting, other expression.

Of the 22 professors and PhD holders, six of them indicated that the Polish-language equivalent to *controlling* (seen from the German perspective) should be the term (in Polish) „management accounting and controlling” and five respondents chose the expression „coordination and control”. Four professors were of the opinion that *controlling* is synonymous with management accounting and according to two professors, it is synonymous with management accounting and management control. Three respondents chose the option „other expression”, which means that none of the proposed terms in Polish reflects the nature of *controlling*. One of the respondents justified his choice in the following way: „Outside the German context, the definitions provided in the questionnaire do not reflect the idea of *controlling*. In my view, *controlling* is the measurement and correction of performance (concerning all aspects of the running of an enterprise, not only in the field of costs) and ensuring its short- and long-term goals are achieved. *Controlling* is not management accounting or cost accounting. *Controlling* is ex post and the conclusions are ex ante, management accounting is, on the whole, ex ante, with ideas for action being ex ante”.

The above analysis indicated that over half of the respondents (12 heads) chose a Polish-language equivalent to *controlling* that links it to management accounting. Aspects of coordination, control, and the achievement of corporate objectives prevail in the two most frequently chosen definitions (see Table 2). On the basis of the above data gathered from Polish professors in the survey conducted, it is impossible to define unequivocally a prevailing view on the relationship between MA and *controlling*. It is worth checking how the authors of Polish publications explain this relationship.

According to Sobańska (2010, p. 97), the influence of the information provided to Polish enterprises about the Anglo-American concepts of MA, and *controlling* derived mainly from Germany, led to the awareness in practice (particularly in managers and accountants) that these are two different concepts, therefore, in some enterprises both a *controlling* department and an MA department were set up (Szychta, 2009, p. 82). In the light of the foreign literature (i.a. Becker, Messner, 2005; Ewert, Wagenhofer, 2007; Schäffer, Binder, 2008, Luther et al., 2010), this approach is inappropriate.

The review of publications that we carried out indicates that Polish authors of scientific papers and popular science publications do not share a uniform opinion on the relationship between MA and *controlling*. One can point out three positions in this respect:

- 1) *controlling* is wider than MA,
- 2) MA and *controlling* have common elements but MA is, for instance, a tool or a basis for information for *controlling*,
- 3) MA and *controlling* overlap.

The first group of authors is represented by, for instance, Brzezina (1998). After analyzing several definitions of *controlling* formulated by German authors, Brzezina (1998, p. 6), proposed his own definition: „Controlling is a profit-oriented decentralized system of planning, steering, and control, which widely uses the methodology of management

accounting and the modern methodology of financial management”. Explaining the relationship between MA and *controlling*, the author claimed that *controlling* „is a broader concept because it creates a management subsystem focused on profit-making through creating positive relationships between the aims and means used to achieve these aims. And MA ‘is to secure’ economic accounts prepared in a modern manner which will be used both in planning and making ad hoc and strategic decisions”.

The second of these views is supported by, for example, Sawicki (1992), Olech (1999), Kiziukiewicz (2003), Dobija (2008), Świdarska (2010) and Goliszewski (2015). When referring to the characteristics of financial accounting and MA, Sawicki (1992, p. 32) concluded: „there are close links between controlling and accounting” because the accounting of an enterprise is „an important tool supporting controlling” (p. 33) and „controlling is the most closely related to management accounting, which developed from cost accounting” (p. 28). Dobija (2008, p. 61) maintains that *controlling* has a large common part with accounting systems (both financial and management accounting systems) and it uses relevant procedures and data from these systems. However, according to Olech (1999, p. 2), MA has become the first toolbox for *controlling*. On the other hand, Świdarska (2010, p. 25) believes that MA and *controlling* „use the same tools of information, but controlling is a kind of philosophy of the use of information from management accounting to effectively support the work of a controller”, and accounting, especially MA, is the information base for the work of a controller. She believes that in realizing two main objectives (providing information to management and participating in the management process), MA becomes an integral part of the key management processes in an organization – planning, organizing, leadership and control. It supports managerial operations – decision making, communication, and change management. Kiziukiewicz (2003, p. 275) interprets this relationship differently, claiming that the MA system and *controlling* system have „common areas and activity objectives. The difference remains in their philosophy – management accounting is there to help in decision making and problem solving, and achieving the aim from the substantive point of view, while controlling should help in achieving the aim through an efficient management system”.

Jaruga (1995), Sobańska (2010) and Sobańska et al., (2010) are primarily supporters of the third method of determining the relationship between MA and *controlling*. On the basis of the characteristics of *controlling* and concepts of MA, Sobańska (2010, p. 98) concludes that „the objectives, tasks, methods, and techniques do not now show any differences, and even specialists performing these professions in reality are named identically i.e. controllers. In the life of large international companies with German and Anglo-American capital, and in which both concepts are present, we do not observe any differences or problems in cooperation between these specialists”. The author emphasizes that „controlling is only a historically and culturally conditioned name for the knowledge and practice of management accounting” and in her publications she often uses the term „management accounting/controlling”. This approach to the perception of the relationship between MA and *controlling* was supported by the Management

Accounting and Controlling Commission (MACC)⁷, operating under the Research Council of the Accountants Association in Poland (AAP) in the years 2003–2015. The members of this Commission published their opinion in the journal *Rachunkowość (Accounting)*, which has a high reputation among practitioners (see Sobańska et al., 2010).

In the above opinions, we cannot find explanations of the scope of *controlling* which are provided by German researchers Schäffer and Binder (2008, p. 35), who state that the issues of controlling „overlap widely with what is internationally considered management accounting and management control”, which indicates that *controlling* goes beyond the scope of MA.

In the light of the data obtained from the survey and an overview of major Polish publications, it needs stressing that despite the idea of *controlling* being promoted in Poland since the 1990s, and MACC publishing a uniform stand on the relations between MA and controlling, there are still considerable differences in the perception of the idea of *controlling* by Polish academics (represented by the authors mentioned, and heads of departments and institutes conducting research on accounting). The vast majority of respondents link *controlling* directly or indirectly to MA. However, there are other researchers who see *controlling* as a form of coordination and control, or management control, or management control combined with MA. This means there are different approaches to the nature and scope of *controlling* among Polish academics. Many of them usually held the functions of advisors to managers or designers of MA systems or *controlling* systems for companies. It is visible that they perceive the relationship between MA and *controlling* in a variety of ways, and so they influence the shape and the image of MA and *controlling* among practitioners of accounting and management in Poland.

5. Habilitation dissertations and PhD theses on management accounting and *controlling* written in Poland

In order to identify the extent to which MA related research has been of interest to Polish academics since 1990, we did an overview of the subject matter of habilitation and PhD dissertations (on the basis of which the degree *doktor habilitowany* and a PhD degree in the field of economics are awarded). Dissertations in the field of accounting were written and defended at 21 public universities and Kozminski University (a leading private school of higher education, conducting research in this field since at least the late 1990s). Table 3 shows figures concerning habilitation dissertations starting from 1962, when the first academics were awarded the degree of *doktor habilitowany* on the basis of their dissertation and academic performance in the field of accounting.

⁷ This Commission took initiatives to develop research and practice in the area of MA in Poland. After changing its priorities, the Scientific Council of AAP did not establish a Commission in 2015 for the next term of office.

Table 4 presents the data related to the number of PhD theses defended until 2016 at the same universities, including the first PhD thesis from the year 1948 written by Stanisław Skrzywan in the School of Economics in Warsaw. The thesis was based on the dissertation *Accounting in a company in the centrally planned economy*. Both lists show the number of works concerning cost accounting (CA), MA, and *controlling* in total, and in the two main periods of socio-economic development in Poland after World War II, i.e. in the period of the planned economy (until 1989), and the period of the market economy (in years 1990–2016). This method of data presentation allows us to show the issues in question in comparative terms.

Table 3. Habilitation dissertations in the field of cost accounting and management accounting (CA and MA) in Poland 1962–2016

Period	Number of habilitations concerning accounting in total	Number of habilitations concerning CA and MA	The share of habilitations in the field CA and MA (%)
Period of planned economy: 1962–1989	26	13	50.0
Period of market economy: 1990–2016	76	25	32.9
Total	102	38	37.3

Source: authors' own elaboration based on Sojak et al. (2007, pp. 9–14), Sojak, Czarska (2013, pp. 198–199; 2017, pp. 229–234)

In the period of the centrally planned economy in Poland, there were at least 26⁸ post-PhD works on issues of accounting published (Table 3). They included 50% of the monographs which had the terms „cost” or „cost accounting” in their titles, or whose titles indicated the link between accounting and managing a company. The first work connected with cost accounting⁹ (*Essence of costs and their division into fixed and variables in shipping*), which became the basis for granting a degree *doktor habilitowany*, was published by Władysław Nowaczek in 1962. The terms „management accounting” and „controlling” were not present in the titles of dissertations published before 1989. However, the authors of post-PhD works considered the issues belonging to the field of MA, entitling their monographs e.g.: *Cost Control as Means of Company Management* (Z. Messner in 1969), *Cost Control in Company Management* (H. Sobis in 1971), *Indirect Cost Control in an Industrial Company* (A. Jaruga in 1971).

⁸ On the list prepared by Sojak et.al (2007, pp. 9–14), there are 25 post-PhD theses published before 1989. This list does not include e.g. the work entitled. *Normative Costs in Road Transport*, by Tadeusz Wierzbicki, who was awarded a PhD on 14.12.1965. This publication is included in Table 3.

⁹ In 1962, Tadeusz Peche obtained his habilitation on the basis of the dissertation *Company Accounting and Social Accounting*, published in Warsaw in 1959. The work's content does not include MA.

In the years 1990–2016, 76 monographs in the field of accounting were published, which constituted a basis for granting a habilitated doctor degree. 25 out of these monographs referred to costing, management accounting, and *controlling*. In four titles of habilitation publications, the term „*controlling*” was used. In other books different terms were applied, such as „management accounting”, „costing”, „activity-based costing”, „cost management,” and „budgeting”.

Despite the increase in the number of habilitation dissertations in the field of CA and MA in the period of the market economy, their share in the total number of habilitation dissertations in the field of accounting decreased (to 32.9%). This is consistent with the general trend of the publication of books of accounts in Poland after 1990, as demonstrated by Sobańska and Kabalski (2016). The authors calculated that the books on financial accounting outweighed those on MA in the years 1990–2015. In the years 1990–2010, the books on MA accounted for 34%, but in 2011–2015, only 16% of the total number of monographs and textbooks concern accounting.

Table 4. The number of PhD theses in the field of CA and MA in Poland in 1948–2016

Period	Number of PhD theses concerning accounting in total	Number of PhD theses concerning CA and MA	The share of habilitations in the field CA and MA (%)
Period of planned economy: 1948–1989	243	116	47.7
Period of market economy: 1990–2016	456	145	31.8
Total	699	261	37.3

Source: authors' own elaboration based on Sojak et al. (2007, pp. 9–14), Sojak, Czerska (2013, pp. 198–199; 2017, pp. 234–278)

During the period of socialism in Poland, there were 116 dissertations whose authors presented issues connected with cost accounting (Table 4). Most PhD dissertations in this field at that time were defended in the Academies of Economics (now called Universities of Economics) in Wrocław and Katowice (40% of the total). A significant number of these works concerned the application of the standard costing in enterprises belonging to different industries (about 15%). In none of the dissertations was the term „management accounting” or „*controlling*” present. However, in several publications one can find phrases such as „cost accounting in management”, „the use of cost accounting in management”, „cost accounting as a source of information for management”, „modernization costing”, or „measurement and evaluation of cost reductions”. This means that the authors of these works conducted research that featured management aspects of cost accounting. It usually concerned a specific type of industrial enterprise in Poland, rarely commercial or trade enterprises.

PhD dissertations referring explicitly to the issue of MA and *controlling* appeared at the same time as the habilitation monographs, in the second half of the 1990s. The works containing the term „*controlling*” in their title were created under the supervision of mentors, mainly at the University of Economics in Wrocław (17 theses). In five other universities, this term was used in 1–3 titles of PhD theses written in Accounting Departments¹⁰. The other titles of PhD dissertations contained the terms „management accounting”, „cost accounting”, „cost management” and „budgeting”.

Our overview of the titles of habilitation and PhD dissertations written by Polish accounting academics and PhD students in the years 1990–2016 shows that the concept of *controlling* was researched not as much as the concept of MA. The issue of *controlling* was discussed in scientific works primarily in Wrocław, where the theses were also defended by several graduate students from Germany. The very good knowledge of German by some professors (mainly by Andrzej Kardasz) in Wrocław University of Economics also had an impact on the largest number of works on *controlling* issues.

6. Management accounting and *controlling* on the pages of leading journals in Poland

In the perception of the nature and scope of MA and *controlling* by Polish accounting and management researchers and practitioners, an important role was played by articles published in scientific and professional journals, in which conceptual and application issues of MA and *controlling* were explained. In our opinion, the greatest impact in this regard belonged to two Polish journals – *Zeszyty Teoretyczne Rachunkowości* (*Theoretical Journal of Accounting* – in brief ZTR) and *Controlling i Rachunkowość Zarządcza* (*Controlling and Management Accounting* – in brief CRZ)¹¹. Both magazines are nationwide, have a relatively long history, and are systematically issued. ZTR is a scientific periodical published since 1977 and CRZ is a monthly magazine designed for practitioners, issued since 1999.

6.1. The journal *Zeszyty Teoretyczne Rachunkowości* (ZTR)

The journal ZTR has been published by the Research Council of the Accountants Association in Poland (AAP) since 1977. This journal was initially (until 2000) entitled

¹⁰ There were 3 PhD dissertations in Częstochowa University of Technology, 2 at the University of Lodz, 2 at the University of Szczecin, 2 at the University of Economics in Poznań, and 1 at the University of Warmia and Mazury.

¹¹ The journal *Rachunkowość* (*Accounting*) has been published in Poland since 1949 and is aimed at practitioners. It is a monthly magazine designed mostly for accountants and auditors. From time to time it includes texts from the field of MA and *controlling*. In 2015, a new magazine, *Controlling and Management*, was released. It covers MA, *controlling*, financial analysis, and management reporting. In addition, Polish authors publish articles on the topics of *controlling* and MA in economic journals published by universities or other scientific institutions.

Zeszyty Teoretyczne Rady Naukowej (*The Theoretical Journal of Research Council of AAP – ZTRN*). The purpose of ZTR is to publish articles written by Polish and foreign authors, thus contributing to the development of accounting studies. ZTR provides a platform for presenting concepts, analyses, and results of research on past and current solutions in the areas of accounting theory, didactics, and practice. In the last few years, ZTR has published articles written in both Polish and English¹². ZTR was published in two different political and socio-economic periods in Poland (1977–1989 and 1990–2016), so the analysis of the topics of the articles published in these periods allows us to identify certain research trends in accounting, including the field of MA.

We conducted a review of the content of all (147) issues of ZTR, which were published between 1977 and 2016, i.e. from volume 1, issued in 1977 to volume 90 (146) published in 2016, and a volume issued in 1985 as a special edition without a number. In total, there were about 1890 scientific articles published in ZTR, including 327 on CA, MA, and *controlling*, which amounts to about 17% of the total number. It means that the majority of the articles referred to financial accounting and auditing. We focused our attention on the texts whose topics revolve around MA and *controlling*. The review of the journal's content and the analysis of the articles were conducted in the following three subperiods encompassing the years:

- 1) 1977–1989, i.e. the period of the centrally planned economy, when 16 volumes of ZTRN were issued: No. 1 – No. 15 and a special issue in 1985;
- 2) 1990–2000, i.e. the period of socio-economic transformation, when 42 volumes of ZTRN were issued: No. 16 – No. 56 and ZTR No. (1) 57;
- 3) 2001–2016, called the period of reinforcement of the market economy in Poland, when 89 volumes of ZTR were issued: from No. 2(58) to No. 90 (146).

The above breakdown results from the political and socio-economic changes in Poland. The first subperiod covers the last years of the policy of the centrally planned socialist economy. The second subperiod encompasses the first years after the market economy had been reestablished in Poland, a period which included the privatization of national enterprises and the building of a capital market, among others. The first two subperiods fall in the 20th century. The third subperiod, which began with the dawn of the 21st century, is characterized by the strong influence exerted on the market economy in Poland by globalization processes, the growing influence of international and transnational companies, and the integration of the domestic economy with the European market (Poland joined the European Union in 2004).

In the further analysis and classification of the articles' topics concerning CA, MA, and *controlling* which appeared in ZTR, the authors focused on the texts published in the second and the third subperiods, however, to maintain consistency of presentation, the first subperiod was also included. The review of 147 issues of ZTR shows that during the 40 years that the journal has been published, it has contained 327 scientific

¹² See more: *Zeszyty Teoretyczne Rachunkowości*, <http://ztr.skwp.pl/resources/html/cms/MAINPAGE>.

articles which relate to cost accounting, MA, and *controlling*. Most of them (303 articles, i.e. approx. 92%) refer to the concept of MA, and in only 25 texts did the authors write about the concept of *controlling* (Table 5). This fact confirms that Polish accounting scientists are generally under the influence of Anglo-American trends – they more willingly use the term MA in their works.

Table 5. The number of articles in ZTR concerning MA and in the years 1977–2016

Subperiods of the analysis	Management accounting (MA)	Controlling (C)	Total MA & C
1977–1989: Period of the planned economy	36	0	36
1990–2000: Period of socio-economic transformation	93	17	110
2001–2016: Period of reinforcement of the market economy	174	8	182
Total 1977–2016	303	25	328^{a)}

^{a)} In the years 1977–2016, 327 articles were published in ZTR, but one of them (in volume 56 of 2000) referred to both MA and *controlling*, so it was assigned in the table to both topics, which resulted in the increase in the total number by 1.

Source: authors' own elaboration

In the period of the last 13 years of the centrally planned economy in Poland, only 36 articles which presented the issues of cost accounting were published in ZTR, while *controlling* was not a subject of scientific description. It is justified because this concept was only starting to gain influence in practice and didactics in German-speaking countries, and it would have been known in Poland only to a narrow group of academic workers who were in contact with German professors. The systemic transformation in 1989 gave rise to the growth of publications which referred mainly to MA and – to a lesser extent – to *controlling*. The use of the term „*controlling*” in the titles of publications was connected with the fact that German companies started operating in the Polish market and German-speaking investors made various investments in Poland. So, the need to explain the concept of *controlling* arose.

The biggest number (182) of articles concerning MA was published in ZTR in the third subperiod of the analysis. They constituted nearly 56% of all texts in the scope of MA and *controlling* published during the 40 years of the journal's existence. In order to determine the detailed topics of articles concerning MA and *controlling* published in ZTR in the three distinguished subperiods, they were divided into 17 thematic groups, shown in Table 6. The division into thematic categories applied is similar to the topics in Polish academic handbooks on MA (e.g. Sobańska, ed., 2010; Świdorska ed., 2010; Jaruga et al., 2014). If the article referred to more than one thematic group, it was assigned to one group on the basis of a subjective decision.

Table 6. Thematic groups of articles on MA and *controlling* in ZTR in the years 1977–2016

No.	Topic	All articles in the years 1977–2016		Number of articles in the years		
		Number	%	1977–1989 Period of planned economy	1990–2000 Period of socio-economic transformation	2001–2016 Period of reinforcement of market economy
1.	Nature, development and implementation of management accounting (51 articles) and <i>controlling</i> (25 articles)	76	23.2	0	16	60
2.	Traditional costing systems (absorption costing and variable costing based on actual costs)	47	14.4	10	22	15
3.	Activity-Based Costing and Activity-Based Management	34	10.4	0	16	18
4.	Performance measurement	33	10.1	2	7	24
5.	Costs and their concepts	31	9.5	4	11	16
6.	Budgeting	18	5.5	1	11	6
7.	Quality costs and environmental costs	16	4.9	6	4	6
8.	CVP analysis	15	4.6	2	5	8
9.	Methods of cost calculation	12	3.6	7	4	1
10.	Life-cycle costing, target costing, and kaizen costing	10	3.1	0	5	5
11.	Transfer pricing	9	2.8	0	4	5
12.	Standard costing	8	2.4	4	0	4
13.	Decision making in the short term	7	2.1	0	2	5
14.	IT aspects in management accounting	4	1.2	0	0	4
15.	Capital budgeting	3	0.9	0	2	1
16.	Management accounting and IRFS	2	0.6	0	0	2
17.	Lean management and management accounting	2	0.6	0	0	2
18.	Total	327	100	36	109	182

Source: authors' own elaboration, published also in Szychta, Dobroszek (2016)

The overview of the articles in ZTR reveals that the biggest number of texts (76, which is 23.2%) focused on different theoretical aspects of the development of MA and *controlling* or their application in practice (the presentation of various research results on the implementation of MA and *controlling* methods). The articles exploring these topics were initially published in the period of socio-economic changes in Poland (16 articles), and their number has increased nearly fourfold in last 16 years. Traditional costing systems (full costing, variable costing, multi-stage, and multi-block variable costing based on actual costs) are the second most frequently chosen topic by the authors of articles in ZTR. The scientists were similarly interested in Activity-Based Costing (ABC) and Activity-Based Management (ABM), performance measurement, included by way of the Balanced Scorecard (BSC), as well as costs and their concepts. However, in the third subperiod of ZTR's existence, performance management prevailed. Budgeting attracted the interest of scientists in 18 articles; most (11 articles) were published in the years 1990–2000. It was connected with the characteristic of the rules and different aspects of the implementation of the conventional MA method (i.e. budgeting) which was most frequently applied and subject to empirical research in Western countries in the late 20th century (see e.g. Covaleski et al., 2003). In comparison with budgeting, less attention was devoted to the issues of CVP analysis, cost calculation methods, short term decision making, environmental costs, and quality costs as well as methods of strategic MA (life-cycle costing, target costing, and kaizen costing). Classic issues of MA such as standard costing, transfer pricing and, capital budgeting were rarely explored in articles published in ZTR.

The review of the topics of articles in this scientific journal shows that in the period of the planned economy in Poland, authors were focused on such issues as: costing systems, methods of cost calculations, environmental costs, and quality costs. By contrast, in the period of the systemic transformation and beyond, the topics that attracted the greatest attention included new concepts and methods of MA, which a few years earlier had appeared in foreign literature, such as strategic MA, ABC, ABM, target costing, BSC, and lean accounting. The concept and application of *controlling* was present in scientific articles in ZTR quite rarely (in 7.65% of all articles).

6.2. The journal *Controlling i Rachunkowość Zarządcza* (CRZ)

The journal CRZ is a monthly magazine aimed at practitioners, including financial directors, chief accountants, controllers, financial analysts, and managers. It contains popular science articles, advice, and the opinions of experts in the field of *controlling*, MA and management. CRZ features, among others, „case studies describing the implementation of *controlling* tools in enterprises operating in the market, advice of the most prominent Polish and foreign experts, descriptions of IT tools supporting *controlling* and budgeting, and modern methods of costing and management accounting” (*O miesięczniku*, 2016). The magazine has been issued since 1999, although its first issue was published in December 1998. In late 1999, three other issues of CRZ were published, and since 2000 the magazine has been issued regularly as a monthly journal.

Until 2003, it came out only in paper form, and from that year it is published in both physical and electronic versions. The characteristic feature of CRZ is that most of the texts contained in this journal are written *by practitioners for practitioners*.

In order to identify the detailed topics popularized among practitioners in Poland in CRZ, we conducted a review of the magazine's content, beginning with the promotional edition issued in 1998 up to the latest issue in September 2016. The content of 203 issues of the journal was reviewed. We took into consideration texts in thematic sections distinguished by the editors, such as *controlling*, MA, strategies and management, experience and knowledge of experts, controllers' tools, special supplements, and investment financing. The sections informing readers about new books, conferences, and other events important for readers, as well as the manager's dictionary, were omitted.

We assigned over 2200 texts to 18 thematic groups, including 15 groups which are analogical to those in ZTR, and three further groups called:

- 1) *controlling*: articles presenting concepts, types, systems, and implementations of *controlling* in enterprises;
- 2) development of management accounting (MA): texts on the essence and evolution of MA and management accountants;
- 3) other topics, i.e. referring to the concept and methods of management, finance, financial management, and internal control.

The classification of a certain number of articles to one group was subjective because sometimes the authors presented issues referring to two or three topics in one article. The quantitative list of texts published over 18 years in CRZ broken down by thematic groups is shown in table 7.

Table 7. Thematic groups of the articles published in CRZ in the years 1998–2016

No.	Thematic groups	Number of articles	%
1.	IT aspects in <i>controlling</i> and management accounting	318	14.34
2.	<i>Controlling</i> (concepts and implementation)	286	12.89
3.	Performance measurement (including BSC – 150 articles)	269	12.13
4.	Budgeting and operational planning	266	11.99
5.	Activity-Based Costing and Activity-Based Management	126	5.68
6.	Decision making in the short term	85	3.83
7.	Cost calculation methods, pricing methods and cost settlement of auxiliary activities	85	3.83
8.	Costs and their concepts	79	3.56
9.	Traditional costing systems (absorption costing and variable costing based on actual costs)	77	3.47
10.	Development of management accounting	30	1.35

Table 7. Thematic groups of the articles published in CRZ in the years 1998–2016 (*cont.*)

No.	Thematic groups	Number of articles	%
11.	Standard costing	17	0.77
12.	Life-cycle costing, target costing and kaizen costing	17	0.77
13.	CVP analysis	14	0.63
14.	Quality costs and environmental costs	14	0.63
15.	Transfer pricing	12	0.54
16.	Capital budgeting	8	0.36
17.	Management accounting and IRFS	4	0.18
18.	Other issues	511	23.04
19.	Total	2218	100

Source: authors' own elaboration, published also in Szychta, Dobroszek (2016)

The quantitative list of topics of articles in CRZ shows that articles classified as „other issues”, i.e. those concerning finance and management of business entities, have the biggest share (23.04%) of all topics. Issues connected with MA and *controlling* were touched upon in 1707 articles, which constitutes nearly 77% of all the articles in this magazine. In this field, the authors mostly wrote about IT aspects of MA and *controlling*. The second most frequent subject (explored in 286 texts) was *controlling*, and especially its concepts, tools, and application in Polish enterprises. The authors used the word „*controlling*” in almost 13% of all the articles, while the issues of the development of MA and management accountants were considered in 30 articles (1.35% of the total number). Third place in the list of topics went to the performance measurement of business entities, which was discussed in 269 articles, including 150 texts about different aspects of performance measurement with the use of BSC. A similar level of attention from the authors was given to operational budgeting and planning in enterprises (266 texts). Among the five thematic groups with the biggest number of articles, there were also issues of ABC and ABM (126 texts). Other thematic groups comprised much fewer articles.

In comparison with the area of MA and *controlling* in ZTR, the authors writing for CRZ were focused on presenting ways to support *controlling* with IT tools, a description of *controlling* implementation in different cases, and performance measurement in enterprises. Only to a small extent were they interested in the concepts and development of MA (1.35% of all articles).

The list of topics of articles published in ZTR (Table 6) and CRZ (Table 7) indicates that, since the 1990s, scientists in Poland in most cases have used the term „management accounting” and carried out research within the concept of MA. On the other hand, the authors of popular science papers have mainly addressed issues of the implementation of *controlling* in the enterprises. The opinions adduced earlier and the comparison presented

in this section of the paper confirm that scientific research on accounting in Poland is dominated by the Anglo-American concept of MA, while business is mostly under the influence of the concept of *controlling*, which has its origins in German-speaking countries.

7. The educational aspect of MA and *controlling* at Polish institutions of higher education

In this section of the article, we aim to answer the last two questions posed in the introduction of the paper, i.e., how many and what organizational units at Polish universities and other higher education institutions have in their names the terms „management accounting” and/or „*controlling*”, and in which departments and specializations can students gain knowledge of management accounting and *controlling*?

The results of the survey can only partially answer these questions because the questionnaire was filled in by 22 (36.6%) heads of research and educational institutions specializing in accounting at Polish universities. In most cases, the respondents represented departments (19 cases), institutes (5 cases) and sections (4 cases). In four cases, the respondent was a head of both an institute and a department; in two cases, a head of a department and a section; and in one case a head of a department and a laboratory.

The analysis of the obtained data indicated that „Accounting” was a commonly used name for the 29 units at 18 universities surveyed [e.g. mainly for departments (7) but also for institutes (3)]. Only in three cases was a Department of Managerial Accounting established. In one of the departments of a public university, there is a Management Accounting Section in the Department of Accounting and in the other there is a Lab (laboratory) of Managerial Accounting next to the department under the same name. The term „*controlling*” is used only in the name of one unit, together with other terms (Wrocław University of Economics).

Among the 29 organizational units, 41% have a wider scope of their interests (as evidenced by their extensive names such as: the Department of Finance and Accounting, the Department of Economy, Finance, and Accounting, the Department of Banking, Finance and Accounting, the Institute of Finance, the Department of Management and Leadership, the Department of Financial Accounting and Management Accounting) or they are more focused on financial accounting, e.g. the Department of Financial Accounting or the Department of International Accounting. The average number of people employed in the institutes is 32–33, in the departments it is 17–18, while in sections, approx. 4–6. While at some universities, departments of accounting have existed for more than 60 years (e.g. the Department of Accounting at the Economic University in Poznan since 1931, the Department of Accounting at the University of Łódź since 1848), the departments or sections with the terms „management/managerial accounting” and „*controlling*” in their names were created in the last few years.

When answering the question on the courses of study and specializations where students can gain knowledge and skills of MA, 82% of respondents claimed that their entity offers such courses of study while 18% of them declared there was no such possibility. At 17 universities, students can learn MA when enrolling for undergraduate studies, at 15 universities for graduate studies and at 13 universities for postgraduate studies. Respondents from only three universities (the Economic University in Krakow, Szczecin University, the University of Lodz) also suggested PhD studies. Master's and bachelor's studies are divided into regular and weekend mode, a structure which is widespread in Poland.

The data analysis shows that the predominant field of study at the undergraduate and graduate level for both modes is Finance and Accounting (11 indications for master's degree in both modes, 12 indications for bachelor's degree in part-time study and 13 for the same degree but in full-time study mode). Other fields are less important, for example Accounting, or Accounting and Controlling (one indication for every listed degree of study and modes). At some universities, the knowledge of MA and *controlling* can also be gained in the field of study of Management and/or Economics (three indications for both modes at the level of master's degree, two indication in the case of bachelor's degree in full-time study). The Warsaw School of Economics offers interdisciplinary courses that include subjects of MA and *controlling*, and courses under the auspices of CIMA.

Only 8 of those surveyed indicated that their university offers specialization in MA and *controlling*, in the following 8 cases such specialization does not exist, and 4 respondents did not answer the question. At 5 universities, such specialization is present at undergraduate studies, and at 7 universities at graduate studies. In most universities, such specialization may be obtained at the study of Finance and Accounting, as well as in the study of Accounting, Accounting and Controlling, Financial Accounting, and Management.

Students of postgraduate studies have more opportunities to expand their knowledge of MA and *controlling*. The institutions the authors researched offer a total of 28 such courses of study. Among them, 4 are called Finance and Accounting, 2 are called Accounting, or Controlling, or Management Accounting. In addition, respondents gave other names of postgraduate courses (18 courses) containing the subjects of MA and *controlling*, e.g.: Management Accounting & Controlling, Accounting & Taxes, Controlling in IT, Management Control, Financial Analysis and Performance Management, Project Controlling, Tax Advice and Tax Management, Bookkeeping and Taxes in IT, Accounting for Non-Bookkeepers, Accounting for Independent Accountants and Financial Managers (in cooperation with PwC), Accounting in IT, Finance Accounting and Audit, Accounting and Finance Management, Audit, Management Control and Accounting, Financial Controlling, or Accounting with ACCA.

In order to extend our analysis of the educational aspect of MA and *controlling* in Poland, we refer to Zarzycka (2014), and Zarzycka and Dobroszek (2015a) who conducted a study concerning higher education in the field of MA and *controlling* at the

level of first-cycle (bachelor) and second-cycle (master's) studies in Poland. These authors examined curricula of courses offered in the academic year 2013/2014 in the area of MA and *controlling*, taking into account 60 higher education institutions. They showed that in the name of the courses, only 13 courses had the term „*controlling*” during bachelor's studies in Finance and Accounting and related fields. The higher education institutions preferred to use a name for the subjects such as „management accounting” or „cost accounting” rather than „*controlling*”. In addition, the analysis showed that the term „*controlling*” is mostly connected with other words, such as „financial”, „operational”, „strategic”, „eco” or „IT”. The analysis of teaching hours showed that for subjects with the term „*controlling*” in their names, academic teachers spend relatively a lot of hours.

On master's studies in Finance and Accounting and related fields, there were more types of courses which had in their name the term „*controlling*” than on bachelor's studies in the same fields. The term „*controlling*” was connected mainly with other attributes, e.g. „tools”, „financial”, „value”, „organisation”, „production”, „marketing”, „investment”. The analysis of the number of higher education institutions during the master's studies showed that courses with term „*controlling*” in their name were not as popular in the syllabi as subjects of MA or cost accounting. Furthermore, the academic teachers spend fewer teaching hours on subjects of *controlling* than the courses of MA or cost accounting.

To sum up, for bachelor's and master's studies in Finance and Accounting and related fields in Poland, courses with terms equivalent to Anglo-American names in the program title were far more popular, although there are subjects concerning *controlling* which originate from German-speaking countries. This is confirmation of our previous findings.

Concluding remarks

The aim of this paper was to recognize and present the scope of the impact of the Anglo-American concept of MA and the *controlling* concept according to the approach in German-speaking countries with regard to the academic dimension of MA in Poland since 1990, i.e. in the period of socio-economic transformations and the reinforcement of the market economy. Both the research and the publications of Polish accounting academics and university education, under the influence of these two approaches, are in fact crucial institutional factors influencing the use of methods and accounting systems targeted at management in enterprises.

Since the early 1990s, a scientific debate has been taking place in Poland regarding whether the terms „management accounting” and „*controlling*” mean the same, or on the contrary, they should be considered separate concepts, or concepts sharing common features. In order to clarify the issue, the opinion of the Commission of Management Accounting and Controlling operating at AAP, chaired by Prof. Sobańska, was developed in 2010. MA and *controlling* in business practice use the same tools and methods,

so „management accounting” equates with „controlling” (Sobańska et al., 2010). We conducted an empirical study which revealed that despite more than 25 years since the breakthrough in the socio-economic development in Poland, and the publication of opinions formulated by accounting researchers, who are academics, *controlling* is still treated in various ways. Most respondents regard this German concept as „management accounting and controlling” or „coordination and control (steering)”. On the one hand, it suggests that they separate MA from *controlling* and, on the other, they perceive *controlling* as a function of management. The opinion of the respondents who equate MA and *controlling* is less popular. The analysis of this aspect seems to be interesting in relation to the approach in Germany, where *Lehrstuhl für Controlling* translates into English as „Chair of Management Accounting & Management Control”, which means that the term *controlling* embodies both concepts.

The analysis of definitions or explanations of *controlling* preferred by the respondents of the survey also revealed some discrepancies. Polish scientists frequently pointed to the definition provided by practitioners and the business-oriented definition formulated by Professor Horváth – the guru of studies on *controlling* in Germany. This is surprising, because in the explanation of ICV & IGC there is no phrase „management accounting” and there is no emphasis on „accounting”, but a clear focus on management. Similarly, in the second definition, the concept means management support through certain processes. There is also no emphasis on excluding the methods or tools of „management accounting”.

Further analysis of the collected research material, i.e. the names of academic units, themes of PhD dissertations, and topics of scientific articles published in the highly rated Polish journal of accounting – *Zeszyty Teoretyczne Rachunkowości* – confirmed that Polish academics prefer the Anglo-American scientific approach. On the other hand, there is a group of Polish practitioners whose views are presented e.g. in the journal *Rachunkowość Zarządcza i Controlling*. The review of the articles in this magazine shows a different approach compared to the accounting research. The articles published in this magazine deal with titles and topics related to the concept of *controlling*, or to the measurement of achievements, budgeting, and cost accounting. In contrast, only 1.35% of publications in this journal concern the concept of MA directly.

These considerations lead to the conclusion that if there are still discrepancies in interpreting the scope of the concept of *controlling* by researchers in Poland, despite the designated common opinion, a reassessment of the scientific discussion should be considered in this area. *Controlling* is a social reality that is constructed in an unclear and multifaceted way in Poland, as some researchers identify *controlling* with MA, others as the process of coordination and control, or management, without mentioning MA. Other respondents identify *controlling* with MA and management control.

In turn, the research and education institutions at universities identify more with MA than *controlling*, offering courses of study related to MA rather than *controlling*. However, the same faculties prepare students to work as *controllers* in the future. Therefore, some questions arise: Do academic institutions properly apply the terminology in the

content of their curricula and syllabuses? Does the presence of a subject or course called *controlling* involve the acquisition of knowledge and skills related primarily to accounting, or a broader aspect of management and supporting management? The answers to these questions may be the subject of further research. Going back to the explanations of *controlling*, the respondents surveyed identified themselves with a broader approach of the concept of *controlling*, and the narrowing of the concept of the aspects of accounting can be observed in their teaching practice, namely a certain segment of *controlling*, i.e. financial *controlling*.

Summarizing, authors of publications, teachers, and researchers on MA and *controlling* in Poland create a social reality in this area in the Polish environment at the level of: (1) determination (words, the signifier) and (2) meaning (the idea signified). Polish academics perceive the relationship between *controlling* and MA in a variety of ways, and so they influence the varied shape and the image of *controlling* among students and practitioners.

The research and discussion carried out by us are characterized by certain limitations resulting from the fact that not all institutions considered sent their questionnaires filled in. Despite the limitations, we carried out an empirical study that is the first step taken to focus closely on the problem not only in Poland, but also in other countries of CEE. We believe that this paper provides an insight which may be a basis for comparative studies on the actual state of teaching and research in the field of MA in the countries of CEE as important factors influencing MA practice in these countries.

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