

The Creation of Business Economics as a Discipline

Dieter Schneider

Ruhr-Universität, Bochum, Germany

262

Prussian university policy during the Althoff era did not pay any official attention to efforts towards an academic training for commercial and administrative jobs apart from jurisprudence. Business economics (*Betriebswirtschaftslehre*), as a discipline, developed outside the Althoff system. This article intends to show the reasons why, apart from Prussian university policy, business economics became a scientific community by separation from political economy.

The article is in three parts. The first compares the research and teaching schedules of today's business economics with its predecessor disciplines up until the efforts made to establish commercial high schools in the 1890s.

Next, attempts to organize commercial high schools are described. Business economics as a discipline has been crystallized in those institutions since 1912.

Finally, we examine reasons why a field of study called business economics separated itself from political economy as a consequence of a quarrel about value judgements.

The Field of Research and Teaching of Today's Business Economics Compared with Its Predecessor Scientific Communities

Business economics of today, in German-speaking countries, represents itself in at least two fashions: on the one hand as a part of economics and, on the other, as a management technology primarily standing alongside economic theory.

As a part of economics, business economics deals with the decisions of individuals and especially with the building of institutions by individuals in human society, from the point of view of making money, and of spending money by rational choice, as well as to reduce uncertainties in gaining and spending income. The leading paradigms of today's research in business economics, as a part of institutional economics, are methodological individualism, either by a market equilibrium approach (transaction costs, agency costs) or by a dynamic market process approach via entrepreneurial functions, influenced by modern Austrian economics.

In contrast to this modern institutional economics approach, old-fashioned textbooks use the term "economic" only in the context of aspects of rational decision making. Economics studies human behaviour as a relationship between objectives and scarce means which have alternative uses (Robbins, 1932, p. 16; analogous to a lot of leading textbooks, see esp. Wöhe, 1986, p. 28).

Traditional microeconomics (mathematical neoclassical economics), which is characterized by logical decision making and the co-ordination of individual plans by market exchange, excludes the variety of organizational and institutional problems, especially in its theory of the firm. The neoclassical theory of the firm concentrates on technical conditions (the so-called production functions) and market prices for the means of production and for products.

As opposed to this, business economics, via entrepreneurial functions, focuses on the fact of building institutions to reduce uncertainties in achieving income by producing services between markets of the means of production and products. In business economics, as a part of modern theoretical institutional economics, markets as well as firms and organizations of all kinds are viewed as institutions which have to be partly explained by the endeavour to reduce uncertainties in gaining and spending income.

Business economics as a management technology stands alongside economic theory and is not discussed here. Its scientific purpose is primarily to consult management by connecting behavioural, sociological and psychological techniques in order to influence buyers or personnel management. The positive theories underlying those management technologies are based on the social sciences, except for economic theory. These technologies are reinforced by catchwords that persuade stressed managers by calling for assent: corporate culture, corporate identity, behavioural systems approach or marketing approach.

Knowledge about practical training in the guidance of people, and in management control as well as rules for individual business behaviour, had been developed at a low level in ancient applied philosophy. Writings on *oikonomia* by Xenophon (1898), about 430-354 BC, were given emphasis by Roman agricultural writers (Varro, 35-30 BC, p. 224; Columella, AD 61-65, p. 69). They present the first thoughts on fixed costs, investment calculations and the span of control in an organization. Apart from that, ancient economics and its followers (especially the so-called commercial science from the thirteenth to the eighteenth century which is a neglected part of applied philosophy) remained on the level of non-committal truism.

As a consequence of the philosophies resulting from the Age of Enlightenment, Leibniz, Thomasius and others demanded independent economic chairs at universities. Friedrich Wilhelm I of Prussia was displeased with young people who did bad economics and followed juristical studies only, becoming advocates who starve and suck their country out. Because of this, Friedrich Wilhelm I established two chairs for cameralistics (*Kameralwissenschaft*) in 1727 at the University of Halle (founded 1694) and in the same year at the University of Frankfurt/Oder. Other German dynasties followed soon.

The cameralists' teaching concentrated on the improvement of the sovereign's acquisitions so that planning as well as calculation methods were taught. Dealing with practical questions concerning agriculture, forestry and veterinary medicine, in context with economical problems of planning and

control, led to the neglecting of establishing economic theories (Schneider, 1987, pp. 107-18). Later professors in cameralistics widened its field to economic policy in a mercantilistic sense and to taxation problems (i.e. von Justi, von Sonnenfels): the widening of the fields of application engendered the decay of cameralistics. In the first decades of the nineteenth century *Kameralwissenschaft* faded away and has been substituted primarily by jurisprudence and partly by classical British and French political economy.

The last encyclopaedist of cameralistics, Baumstark, who primarily is now known as a translator of Ricardo, was the first who used the term *Betriebswirtschaft* as an explanation for receiving, spending and calculating property and income in certain businesses (Baumstark, 1835, pp. 60, 155).

The cameralistic way of thinking disappeared in Prussia almost totally. Outside Prussia's borders an accounting science for sovereigns (*Staatsrechnungswissenschaft*) stayed alive in the Habsburg monarchy. In Prussia only one branch of cameralistics survived, the agricultural business economics founded by Albrecht Daniel Thaer, an adherent of the political reformer Freiherr von Stein. Thaer was the teacher of Germany's famous theoretical economist in the nineteenth century, Johann Heinrich von Thünen. His work develops the best rational decision rules for (agricultural) business in the nineteenth century because of consequently using the marginal principle in decision making (especially for the production programme in relation to the distance of a marketplace – *Thünens Kreise*), and simultaneously discussing the premises of its application in reality.

Not only the imported classical political economy, in Germany, but also the older and younger historical school in economics looked down on the problems of business economics as a kind of vulgar science. Even Schmoller's purpose of building up the psychological foundation of a social science failed in constructing convincing hypotheses about the theory and development of the firm and the institution of businesses (Schmoller, 1890-1893). In retrospect, Schmoller's research on the constitution of business has appeared broader and rather better than a lot of papers on the same subject written by management technologists a century later (Schneider, 1988, chapter II).

Apart from this, only a few special questions have been discussed at an acceptably high level, e.g. Schäffle's types of the organization and structure of the firm within researches on capitalism and socialism (Schäffle, 1873, 1. Band, pp. 25-125, 2 Band, pp. 261-74). Some approaches, for example on banks and their publicity, like those established by Adolph Wagner (1873, pp. 74, 85, 119) are still actual problems in modern business economics. After the official sanction of stockholder companies was abolished, even valuation in balance sheets became a subject developed by advocates (esp. Simon, 1884; for an overview see Schneider, 1987, pp. 426-58).

Because of the friendship between Althoff and Schmoller, the younger historical school dominated the university chairs of economics in Prussia and the German empire, Breslau (Julius Wolf) and Freiburg (Badenia) excepted. The economics of marginal utility had no influence in the German empire and

mathematical economics had not been recognized in Austria, apart from Schumpeter's now famous *Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie* (1908). Therefore we can only speak of a rudimentary economic theory taught in German universities in the Althoff era.

From this development the Japanese business economist Okada (1978; see also Schneider, 1979, p. 799) explained the origin of German business economics as follows: "During the age of industrialization the ideas on economic policy by the 'Rhine-bourgeoisie' stood contrary to those of the political economy taught from university chairs and presented by the younger historical school of economics and public finance like Adolph Wagner". This political economy had been denounced as *Kathedersozialismus*. The "Rhine-bourgeoisie" wanted a better education in commercial law, languages and political economy distant from *Kathedersozialismus*. Therefore they supported the establishment of commercial high schools as the "germ-cell of modern business economics." But this sociological explanation simplifies too much.

The Establishment of Commercial High Schools (*Handelshoch-schulbewegung*)

The idea of giving merchants the possibility of getting a higher education came to pass in the eighteenth century. The demand for a *Kaufmanns-Akademie* by Marperger (cited by Apt, 1900, p. 1; see also Penndorf, 1907/08, p. 277) was the origin of thoughts concerning the building of commercial high schools. Some private commercial high schools had been founded especially by Johann Georg Büsch at Hamburg and Johann Michael Leuchs at Nuremberg at the end of the eighteenth and the beginning of the nineteenth century with varying success. In the last third of the nineteenth century, movements to improve commercial education in order to get better general and special training, culminated in the foundation of commercial high schools in 1898. In 1898 the first commercial high school opened in Leipzig. Additional schools in Aachen (soon abandoned), Frankfurt, Cologne, Berlin and Vienna followed. The schools in Frankfurt and Cologne were the first faculties of later established universities.

Commercial high schools were institutions which had been founded by the chambers of commerce and the municipal councils of the cities. They are no kind of state institution, although they were subsidized from public funds as well as private funds (Huber, 1969, pp. 938, 948). The *Deutscher Verband für das kaufmännische Unterrichtswesen* took over the responsibility for the organization of commercial high schools. Although the German Empire had to recognize the foundation of commercial high schools it had neither legislative nor administrative authority (Huber, 1969, p. 938).

Because of this complex legal situation, Althoff's influence was restricted to taking counsel in making arrangements before the foundation of some commercial high schools. Althoff was acquainted with Mevissen, the main donor of the commercial high school at Cologne. But Althoff exercised influence only during the foundation of the Frankfurt *Akademie für Sozial- und Handelswissenschaften* (vom Brocke, 1989, p. 160; Wachsmuth, 1929, pp. 10, 11,

14, 116), Althoff recommended founding the *Akademie* and announced this act to the Prussian government. He announced initially that Prussian professors would have a vacation for years spent teaching at the *Akademie*. But later on this was not realized.

Commercial high schools were founded especially to improve the general commercial education of the merchants. The question of how far a better special training on the subject of economics could be achieved was seen as the more difficult but less urgent problem (Ehrenberg, 1899, p. 371). Therefore, during the first ten years of the commercial high schools, we find no subjects that today belong to business economics. In Leipzig the following subjects were taught up to examination: 17 hours political economy (as seen by the businessman), 13 hours law, 12 hours technology of commodities, 32 hours foreign languages, six hours book-keeping and business correspondence (Raydt, 1898, p. 20 ff).

Apart from giving a general economic education, another purpose of commercial high schools was to train in practice. Specialists, teachers and organizers of the schools could not agree about the final aims of commercial high schools (Arndt, 1905, p. 7). It remained open as to how the influence of economical and legal questions on commerce could be integrated into discussion (Apt 1900, p. 13). This especially became a problem as there was no scientific theory to return to, when discussing problems of commerce or business economics.

Eugen Schmalenbach (professor at the Cologne commercial high school and later at the university 1906-1933), the best known business economist of the first generation, proclaimed the missing theoretical basis as a methodological dogma: business technology (*Kunstlehre*) but not science was his scientific aim (Schmalenbach, 1911/12). The missing theoretical basis may have caused Schmalenbach to vote against the right to confer a doctor's degree for the commercial high schools a dozen years later (Nicklisch, 1933, p. 243). In the Weimar Republic the commercial high schools gained the right to confer a doctor's degree and, by that, a formal levelling up to university (Huber 1969, p. 948).

At the University of Zurich in 1903 the first chair for commercial science was established and Johann Friedrich Schär became professor there. His view of business economics goes back to *le parfait négociant* by Jacques Savary (1675), the leading business textbook in European countries in the seventeenth and eighteenth centuries.

Freiburg (Badenia) was the first university in the German Empire to set up a chair for business economics. This development might have been influenced by the ideas of Weyermann and Schönitz which will be discussed below.

The Reasons for Business Economics Parting from Political Economy

In contrast to the descriptions in most of the textbooks, the birthplace of business economics cannot be seen in the foundation of the commercial high schools itself. The *Deutsche Verband für das kaufmännische Unterrichtswesen*

supported those schools as an appropriate type of commercial education. It was above the middle school level and connected commercial education with a scientific high school level that does not stand behind political economic "erudition" (Bráf, 1912, p. 19).

Since 1912, an academic discipline, today called business economics, has come to life among lecturers, who saw their field of research as a part of the practical range of application of political economies. At that time, this part of applied political economy was first named "private economys" or "commercial economics". As a community they began to separate themselves from other scientific communities, especially from political economy, for the following reasons:

- (1) In addition to gathering information about commercial techniques, the first years of development saw the beginning of theoretical discussions which were characterized by the two journals of this scientific community (*Zeitschrift für handelswissenschaftliche Forschung*, edited by Schmalenbach since 1906, today *Zeitschrift für betriebswirtschaftliche Forschung*; *Zeitschrift für Handelswissenschaft und Handelspraxis*, edited, among others, by Nicklisch since 1908, today, *Die Betriebswirtschaft*). Examples of these discussions are the theory of the balance sheet together with Schmalenbach's misinterpretation of the schedule of assets in commercial law (§ 39 HGB) as a profit establishing balance sheet (Berliner, 1909/10, p. 273; Schmalenbach, 1908/09a, p. 81 ff., 1916/17, p. 11) and a remarkable discussion on the relationship between depreciation and interest (Beck, 1911/12; Passow, 1910/11; Schiff, 1910/11).
- (2) Two textbooks built up a useful foundation to spread the knowledge: those by Schär (1911) and Nicklisch (1912).
- (3) With the shortened published form of his habilitation thesis, Schmalenbach built a decisive theoretical foundation with the attempt to use the imputation theory (*Zurechnungstheorie*) of the marginal utility school (esp. Wieser, 1884) for a theory of internal prices within the firm: "If we can reproduce scarce resources the marginal costs are relevant, if not, the marginal utility is relevant" (Schmalenbach, 1908/09b). Today we know that this is a decision logical principle: the general expression for this phenomenon is opportunity costs or more general "shadow prices". The structural core of business economics' first theoretical approach is one path of the marginal principle which has been taken over by the marginal utility school of political economy.

Schär reached a more moderate height with the rediscovery of the break-even point (Schär, 1911, pp. 134-9): the output at which costs are covered by sales revenue for the first time. To classify this as progress in business economics shows the lack of German political economy at that time, because a calculation of the break-even point could already be

found in von Oeynhausen (1822, p. 313). Occasionally Thünen was mentioned, but his way of marginal thinking was not used.

- (4) The independence of the young scientific community was worked out and kept alive by a quarrel concerning private economy as a doctrine of making profits.

Supporting empirically based private economics as a part of political economy, the political economists Weyermann (born in 1876, taught until 1929 in Freiburg and Bern) and Schönitz (teacher in Freiburg, died in the war, 1915) at Freiburg took Max Weber's attack on value judgements seriously. This led to a "method quarrel" by the ethical-normative *Kathedersozialist* Brentano against private economics.

Brentano belonged to the historical ethic tradition of the founders of the *Verein für Socialpolitik* when complaining about private economics. He underlined several times that professors of political economy have to treat their subjects from the viewpoint of general interest (Brentano, 1911, pp. 711-3). From this ethical-normative standpoint, two approaches which were being used to try to develop a positive theory of private economics came under suspicion of supporting special interests of the entrepreneurs:

- (1) Brentano especially attacks his political economy colleague, Ehrenberg, who grumbled about "terrorism in economics" because a professorship he should have been appointed to at the university of Leipzig was refused by the political economists of Leipzig, although it had been promoted by Saxon industry and their legal advisor Stresemann (who later became Foreign Minister of the Weimar Republic) (Ehrenberg, 1910, pp. 22-9).

Ehrenberg attacked private economics, although he provided two specialisms on commercial high schools by order of the *Deutscher Verband für das kaufmännische Unterrichtswesen*. As his own announcement of his expertises in Schmoller's *Jahrbuch* 1899 shows (Ehrenberg, 1899, p. 369), he protested against the opinion that this specialism had evoked the commercial high school movement's envy from its beginning. Ehrenberg had already separated himself from his former idea of creating an independent private economy as a part of political economy (on Ehrenberg and his differing opinions on "private economics" see Schönplüg, 1954, pp. 39-46). Later on he tried to found an empirical theory of the firm. In this he evaluated accounting figures in a way analogous to the model of von Thünen, "but under-evaluated the genius of the theoretical side of von Thünen, which established his persistent fame" (Diel, 1913, p. 455).

Brentano's reproach to Ehrenberg for supporting the special interests of entrepreneurs may be justified but not well founded: Ehrenberg definitely demanded a science free of value judgements. He already spoke of "social mechanics" (Ehrenberg, 1912, p. 41) similar to social technology in the sense of Popper (1965, p. 48).

- (2) Apart from that, Brentano fought against the political economists Weyermann and Schönitz by misinterpreting their ideas. Brentano was right with his protests against Schär, to whom Weyermann and Schönitz had dedicated their book (Weyermann and Schönitz, 1912), because, in a book review, Schär reproached those political economists who neglect private economics for not taking the working people into their consideration. Schär, who obviously only looked at “Manchester” political economy, neglected the sociopolitical ideas in the writings of Schmoller, Brentano and others. On the other side, Schär did not demand an independent science: “Private economics has to be laid down in political economy” (Schär, 1912/13, p. 298). Besides that, Schär admits that the guiding idea in commerce is not to make profit, but to reach a common welfare economic principle, which arranges the lowest costs between producer and consumer. This does not lend enough support to the reproach of supporting the entrepreneur’s special interest (Schär, 1911, p. 73).

Brentano’s attack does not aim at private economics as developed at that time in commercial high schools. That was what Karl Bücher did later on, wrongly reproaching Ehrenberg (see Ehrenberg 1912, p. 55) and others for a special preference for the “science” named private economics which had been developed at commercial high schools (Bücher, 1917, p. 282).

Most of the supporters of private economics stressed: “Our science should only lead to private economics’ knowledge but not to political economies’ knowledge” (Calmes, 1912/13, p. 41; Hellauer, 1910, p. 8 ff.; Obst, 1912/13, p. 361; Schmalenbach, 1909/10, p. 107 ff.; Schmalenbach, 1911/12). Their purpose of study was a technological one. But there was no serious attempt to form a scientific alliance with opponents of the *Verein für Socialpolitik* and theoretically interested economists like Andreas Voigt (1912, p. 250 ff.) or Julius Wolf and Ludwig Pohle, the editors of the *Zeitschrift für Socialwissenschaft*.

A common welfare and ethical foundation for business economics was demanded by Schär, and after 1915 by Nicklisch, under pressure from Brentano’s attack:

Supporters of private economics firstly see the human being and then the relationship of the individual. The individual is a part of the whole. Everything he does or does not is led by this relationship of the individual to the whole (Nicklisch, 1915/16, pp. 104, 102).

One surprising fact in the history of business economics is the broadening of an ethically-normative way of thinking after World War I, which develops contrary to Max Weber’s attack on value judgements. Schmalenbach and Nicklisch might have the same reasons for turning towards an ethically-normative way of “common welfare”-thinking (*Gemeinwirtschaftlichkeit*) in the decade from 1919 on: rejection of the reproach that they were constructing a science about how to make a profit and its political consequences.

Schmalenbach's earlier publications and his book reviews showed no demand for common welfare. At the end of World War I, the social-democratic Weimar government did not consult any representatives of private economics about questions of socialization, because private economics was seen as a science for the entrepreneurs. To get rid of the stigma that they were only teaching how to make profit, the name *Betriebswirtschaftslehre* (economics of organizations for production, in the usage of the language at that time) sounds more neutral than "commercial" or "private economics". Therefore the name *Betriebswirtschaftslehre* was introduced first in Cologne and later on at other commercial high schools.

Changing the name commercial or private economics into *Betriebswirtschaftslehre*, as well as the scientific goal of this business economics becoming related to common welfare, arise from the same reason. In review, the reason itself carries a lot of irony.

As a kind of afterbirth to the quarrel on value judgements in 1909, the ethical-normative political economist Brentano reproached other political economists (Weyermann, Schönitz), who definitely demanded positive theory combined with empirical research, with the insinuation that tending to a political economy which only supported the special political interests of the entrepreneurs. Private economists, who were not directly attacked, but who also had no consolidated university existence, took this as grounds for escaping from a positive empirical or technological research in order to claim an ethical-normative way of thinking in business economics that related to common welfare.

Until 1919 little attention had been paid to German private economics or commercial economics. After that time business economics now met with approval:

- (1) Business economics made the breakthrough, especially with proposals to solve the problems of profit accounting in inflation – in the eyes of the public a respectful effort. The methods created here were new. Compared with other countries, these proposals, and some developments in cost accounting, are the only valuable contributions of the German business economics developed during the first half of this century.
- (2) Internal performance evaluation and cost accounting had for a short time a distinct place in the debates in business economics. They acquired practical significance, especially in the time of National Socialism's planned economy when profits had to be hidden in the form of costs, such as the entrepreneur's salary, interest on equity capital, risk premiums, depreciation based on replacement value, and so on.
- (3) The development of planning techniques, which had already been expanded in cameralistic times, began partly after 1930. But the theoretical deepening of business economics came after the integration with neoclassical microeconomics which was proposed in the

publications of Erich Schneider and Erich Preiser, and realized especially by Erich Gutenberg.

In the last 20 years, business economics has made itself independent of the partly sterile German microeconomics, which almost always neglected financial markets, especially by concentrating on sections like investment and finance, as well as rational decision making under uncertainty. Based on this, business economics as a part of institutional economics now includes economic analysis of law, especially in the traditional research subjects like accounting, taxation and market regulations.

Summary

The foundation of business economics as a separate discipline developed in the second decade after the foundation of the commercial high schools, tolerated and, in Frankfurt, advised by Althoff, and in opposition to the political economy of the younger historical school in the German Empire. Originally its small theoretical-economics basis came from the marginal utility school. Anglo-Saxon neoclassical economics became integrated and criticized in its part of imperfect competition only after 1950.

From the viewpoint of today's theory of economic institutions, it was necessary for business economics to become independent from political economy in the first decades of this century, because otherwise the theoretical basis of the marginal utility school would not have had an academic basis in Germany before the end of World War II. The leading theoretical economists in the 1950s and 1960s had been influenced strongly by private or business economists in the 1920s and 1930s alongside the general equilibrium approach (in the simplified version, Cassel, 1923, propagated by Walras): Erich Preiser qualified himself as a lecturer in business economics by Wilhelm Rieger (who insisted on calling his research private economics and not *Betriebswirtschaftslehre*). Heinrich von Stackelberg discussed, in his doctoral dissertation, Schmalenbach's theory of internal prices using the instruments of mathematical economics. Erich Schneider's theoretical research on costs during the 1930s and his publications to the end of World War II, are oriented more to business economics than to political economy.

Insofar as German political economy before World War II developed theoretical approaches, these were confirmed by the little bit of theory that business economics took over from the marginal utility school and its application to the firm's cost structure. This is a result of a theory-averse view of political economy being predominant in the German Empire in the Althoff era. Whether this theory-averse view of political economy may be a late fruit of Schmoller's friendship with Althoff or not, is tackled by the contribution of Balabkins to this volume.

References

- Apt, M. (1900), *Die Errichtung einer Handelshochschule in Berlin*, Heymann, Berlin.
- Arndt, P. (1905), "Die Bedeutung der Handelshochschule für den Kaufmann", *Volkswirtschaftliche Zeitfragen*, Vol. 27, pp. 1-31.
- Baumstark, E. (1835), *Kameralistische Encyclopädie*, Heidelberg/Leipzig (reprint Auvermann, Glashütten, 1975).
- Beck, H. (1911/12), "Abschreibung und Zinseszinsrechnung", *Zeitschrift für Handelswissenschaft und Handelspraxis*, Vol. 4, pp. 385-8.
- Berliner, M. (1909/10), "Zur Theorie der Bilanz", *Zeitschrift für Handelswissenschaft und Handelspraxis*, Vol. 2, pp. 269-76.
- Bráf, A. (1912), "Die Stellung der politischen Ökonomie an den Handelshochschulen und an den höheren Handelsschulen", *Veröffentlichungen des Deutschen Verbandes für das Kaufmännische Unterrichtswesen*, Vol. 46, Leipzig, pp. 15-25.
- Brentano, L. (1911), "Veber Werturteile in der Volkswirtschaftslehre", *Archiv für Sozialwissenschaft und Sozialpolitik*, Vol. 33, pp. 695-714.
- Brentano, L. (1912/13), "Privatwirtschaftslehre und Volkswirtschaftslehre", *Bankarchiv*, Vol. 12, pp. 1-6.
- Brocke, B. vom (1990), "Bürgerliches Stiftungswesen und kommunale Wissenschaftsförderung vor und während der Gründung der Kaiser-Wilhelm-Gesellschaft" in Vierhaus, R. and Brocke, R. vom. (Eds), *Forschung im Spannungsfeld von Politik und Gesellschaft?*, Deutsche, Verlagsanstalt, Stuttgart.
- Bücher, K. (1917), "Eine Schicksalsstunde der akademischen Nationalökonomie", *Zeitschrift für die gesamte Staatswissenschaft*, Vol. 73, pp. 255-93.
- Calmes, A. (1912/13), "Über das Verhältnis der Privatwirtschaftslehre zur Volkswirtschaftslehre", *Bankarchiv*, Vol. 12, pp. 40-2.
- Cassel, G. (1923), *Theoretische Sozialökonomie*, 3rd ed., Erlangen, Deichert, Leipzig.
- Columella, L.J.M. (61-65), *De re rustica*, written at about AD 61-65. Translated into German by Karl Ahrens as *Über Landwirtschaft*, Academic, Berlin 1972.
- Diehl, K. (1913), "Privatwirtschaftslehre, Volkswirtschaftslehre, Weltwirtschaftslehre", *Jahrbücher für Nationalökonomie und Statistik*, Part III, Vol. 46, pp. 433-82.
- Ehrenberg, R. (1899), "Handelshochschulen I, Handelshochschulen II", *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich*, Vol. 23, pp. 369-72.
- Ehrenberg, R. (1910), *Terrorismus in der Wirtschafts-Wissenschaft*, Hobbing, Berlin.
- Ehrenberg, R. (1912), "Privatwirtschaftliche Untersuchungen?", *Archiv für exakte Wirtschaftsforschung* (Thünen-Archiv), Fischer, Jena, Vol. 4, pp. 28-47.
- Ehrenberg, R. (1912/13), "Keine 'Privatwirtschaftslehre!'", *Bankarchiv*, Vol. 12, pp. 55-7.
- Hellauer, J. (1910), "System der Welthandelslehre", Euster Band, *Allgemeine Welthandelslehre*, Part 1, Puttkammer & Mühlbrecht, Berlin.
- Huber, E.R. (1969), *Deutsche Verfassungsgeschichte seit 1789*, Vol. 4, Kohlhammer, Stuttgart u.a.
- Nicklisch, H. (1912), *Allgemeine kaufmännische Betriebslehre als Privatwirtschaftslehre des Handels (und der Industrie)*, Pöschel, Leipzig.
- Nicklisch, H. (1915/16), "Rede über Egoismus und Pflichtgefühl", *Zeitschrift für Handelswissenschaft und Handelspraxis*, Vol. 8, pp. 101-4.
- Nicklisch, H. (1933), "Eugen Schmalenbach 60 Jahre alt", *Die Betriebswirtschaft*, Vol. 26, p. 243.

- Obst, G. (1912/13), "Verhältnis der Privatwirtschaftslehre zur Volkswirtschaftslehre", *Zeitschrift für Handelswissenschaft und Handelspraxis*, Vol. 5, pp. 357-62.
- Oeynhausen, K.von (1822), "Zber die Bestimmung des Kapitalwerthes von Steinkohlenzechen", *Archiv für Bergbau und Hüttenwesen*, Vol. 5, pp. 306-19.
- Okada, M. (1978), *Die Entstehung der Betriebswirtschaftslehre* (Japanese translation), Vol. 1 of *Beiträge zur Forschung über deutsche Betriebswirtschaftslehre*, edited by Kiichi Ichihara, Tokyo.
- Passow, R. (1910/11), "Über das Wesen der Abschreibung und die Berücksichtigung der Zinseszinsrechnung bei Festsetzung der Abschreibungen", *Zeitschrift für Handelswissenschaft und Handelspraxis*, Vol. 3, pp. 345-8.
- Penndorf, B. (1907/08), "Zur Geschichte der Handelshochschulen", *Zeitschrift für das gesamte kaufmännische Unterrichtswesen*, Vol. 10, pp. 277-82.
- Popper, K.R. (1965), *Das Elend des Historizismus*, Mohr, Tübingen.
- Raydt, H. (1898), *Die Handelshochschule zu Leipzig*, Hesse, Leipzig.
- Robbins, L. (1932), *An Essay on the Nature and Significance of Economic Science*, Macmillan, London (reprint 1962).
- Savary, J. (1675), *Le Parfait négociant, ou instruction générale pour ce qui regarde le commerce de toute sorte de Marchandises, tant de France, que des Pays Étrangers*, 1st ed., Paris, 7th ed. completed by Jacques Savary, des Bruslons, Paris, 1713.
- Schäffle, A. (1873), *Das Gesellschaftliche System der menschlichen Wirthschaft*, 3rd ed., in 2 Vols, Laupp, Tübingen.
- Schär, J.F. (1911), *Allgemeine Handelsbetriebslehre*, Vol. 1, Leipzig.
- Schär, J. F. (1912/13), "Das Verhältnis der Nationalökonomie zur Privatwirtschaftslehre in kaufmännischen Betrieben (allgemeine Handelsbetriebslehre)", *Bankarchiv*, Vol. 12, pp. 297 ff.
- Schiff, E. (1910/11), "Die Zinseszinsen bei Abschreibungen und die Wirkung der Abschreibung", *Zeitschrift für Handelswissenschaft und Handelspraxis*, Vol. 3, pp. 275-9.
- Schmalenbach, E. (1908/09a), "Über Abschreibungen", *Zeitschrift für handelswissenschaftliche Forschung*, Vol. 3, pp. 81-8.
- Schmalenbach, E. (1908/09b), "Über Verrechnungspreise", *Zeitschrift für handelswissenschaftliche Forschung*, Vol. 3, pp. 165-85.
- Schmalenbach, E. (1909/10), "Falsche Auslegung des Begriffes der Handelswissenschaft", *Zeitschrift für handelswissenschaftliche Forschung*, Vol. 4, pp. 107 ff.
- Schmalenbach, E. (1911/12), "Die Privatwirtschaftslehre als Kunstlehre", *Zeitschrift für handelswissenschaftliche Forschung*, Vol. 6, pp. 304-16.
- Schmalenbach, E. (1916/17), "Über das allgemeine Bilanzrecht", *Zeitschrift für handelswissenschaftliche Forschung*, Vol. 11, pp. 1-52.
- Schmoller, G. von (1890-1893), "Die geschichtliche Entwicklung der Unternehmung I-XIII", *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich*, Vol. 14 to 17.
- Schneider, D. (1979), "Schmalenbach und der gesellschaftspolitische Bezug in der Betriebswirtschaftslehre", *Zeitschrift für betriebswirtschaftliche Forschung*, Vol. 31, pp. 799-828.
- Schneider, D. (1987), *Allgemeine Betriebswirtschaftslehre*, 3rd. ed., Oldenbourg, München and Vienna.
- Schneider, D. (1993), "Schmoller und die Theorie der Unternehmung", in Backhaus, J.G. (Ed.), *Gustav von Schmoller und die Probleme von heute*, Duncker & Humblott, Berlin.

- Schönpflug, F. (1954), *Betriebswirtschaftslehre, Methoden und Hauptströmungen*, 2nd ed., Pöschel, Stuttgart.
- Schumpeter, J. (1908), *Das Wesen und der Hauptinhalt der theoretischen Nationalökonomie*, 2nd ed., Duncker & Humblot, Berlin, 1970.
- Simon, H.V. (1886), *Die Bilanzen der Aktiengesellschaften und der Kommanditgesellschaften auf Aktien*, Guttentag, Berlin.
- Varro, T.M. (35-30 BC), "Rerum rusticarum. Liber primus, XVII", written about 35-30 BC, in *Marcus Porcius Cato, On agriculture, Marcus Terentius Varro, On agriculture*, with an English translation by William Davis Hooper, London-Cambridge 1934 (reprint Heinemann, 1960).
- Voigt, A. (1912), "Die Untauglichkeit der historischen Methode zur Lösung volkswirtschaftlicher Probleme", *Zeitschrift für Socialwissenschaft*, Neue Folge, Vol. 3, pp. 241-51.
- Wachsmuth, R. (1929), *Die Gründung der Universität Frankfurt*, Englert u. Schlosser, Frankfurt.
- Wagner, A. (1873), *System der Zettelbankpolitik*, Wagner, Freiburg.
- Wieser, F. von (1884), *Über den Ursprung und die Hauptgesetze des wirthschaftlichen Werthes*, Vienna (reprint Sauer & Auvermann, Frankfurt 1968).
- Weyermann, M. and Schönitz, H. (1912), *Grundlegung und Systematik einer wissenschaftlichen Privatwirtschaftslehre und ihre Pflege an Universitäten und Fach-Hochschulen*, Braun, Karlsruhe.
- Wöhe, G. (1986), *Einführung in die Allgemeine Betriebswirtschaftslehre*, 16th ed., Vahlen, München.
- Xenophon (1898), *Oeconomicus*, (German *Wirtschaftslehre* translated by Max Hodermann), Reclam, Leipzig.