

A Survey of German Economics

2015-2022

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Abstract

This paper surveys findings of the recent wave of empirical studies on research, teaching, and policy advice of economics in Germany. We provide a topical overview of ‘German economics’, by making these findings accessible to an international audience, and by pointing towards some trends and major challenges. Furthermore, we use the results of this survey to indirectly evaluate a prediction about the development of European economics from 1992. It can be shown that German economics is strongly aligned to international, respectively US American standards, at a time when these standards themselves are being called into question. We discuss opportunities for further empirical and theoretical research and raise the question of future scenarios for German economics.

Keywords: Economics of Economics, Economics Education, Economics Research, Mainstream Pluralism, German economics

JEL categories: A11, A14, A22, A23, B41, A22, I23, J44

1 Introduction

In 1992 the Swiss economists Bruno S. Frey and Reiner Eichenberger published a paper in the *American Economics Review* on differences among the US American and European market for economists. They found that while the competitive US American market drives economists to „specialize in publishing abstract papers in narrow fields of neoclassics“, the closed national markets in Europe „induce economists to be theoretically broad[,] to specialize with respect to institutions” and “engage more fully in practical politics” (Frey et al. 1992 pp. 219-220, see also Frey et al 1993). Based on the rationale of relative prices, they ventured the prediction that ending national “cartelization” by the process of European integration will not result in the emergence of a distinctive “European economics” but that the “European academic market will become like the US American one” (Frey et al. 1992, p. 220). Klammer (1995) argued for the opposite due to established rhetorics and identities across Europe. Rothschild (1999) speculated about a market segregation due to language barriers.

We set out to contribute to evaluate their hypothesis of an Americanization or internationalization of European economics by surveying recent material published in the period of 2015-2022 on German economics. For doing so, we also must reflect how American economics has changed since 1992. We find it still focused on publishing in high-ranked journals, but publishing is no longer restricted to the “narrow fields of neoclassics”. A shift from theoretical to empirical work has been documented (Hammermesh 2013, Angrist et al. 2017). The increase in the diversity goes so far that some speak of a new mainstream pluralism (Davis 2006, Bachmann 2019, Weimann 2019), criticize a new a-theoretical style (Spiegler 2019) or even proclaim fragmentation (Roncaglia 2019, Cedrini et al. 2017, Davis 2017). As methodical rigor remains the accepted currency in the field of economics, we can still stick to the bigger picture of the introductory analysis. But several prestigious economists recently have come to criticize the narrow focus on a hand full of journals for setting wrong incentives which may lead to serious omissions (Akerlof 2020, Heckmann et al. 2020). So, while the US American market for economists can still be regarded as highly competitive, new styles of research have evolved which the discipline is trying to make sense of itself.

The main interest of this paper is to analyze whether European economics mimics US American economics, including its changes in styles, 30 years after Frey’s and Eichenberger’s hypothesis. We argue that this question cannot be answered directly, as there are only individual studies which deal with isolated aspects for European economics from different time periods. Other than in the U.S., there are no regular systematic surveys for European economics (the last survey for the U.S. for instance summarized over 30 studies (Allgood et al. 2015)). Colander (2008) provides some insights of an Americanization of European economics graduate programs. Gärtner (2001, 2011) investigates undergraduate education in some European countries. Cardoso et al. (2010) and Fontana et al. (2019) show that the share of European economists publishing in US American journals has increased. Other papers yet focus on single dimensions of national markets such as a study on Spain (Carmona et al. 2007). From the case of Belgium, we learn that it has followed the neoclassical style early on and played a considerable role in establishing the *European Economic Review* and the *European Economic Association*, to emulate the *American Economic Review* and the *American Economic Association* (Maes et al. 2007). But neither the *European Economics Review* nor any other continental European journal has made it to the top five (of which 4 out of 5 are still US based). The very lack of comprehensive studies of European economics may already be read as an indicator for a weaker cohesion of European economics compared to US American economics. In sum, the existing evidence suggests some trend of European economists to focus on US American economics, but we lack a more detailed study, a dense survey interval and a comparative historical perspective. We argue that this is needed to evaluate the prediction of Frey and Eichenberger, especially if we are not just interested in the outcome (is there an orientation towards US American economics), but also in how such a process

of adaption may work (due to relative prizes and market size, or other mechanisms). Even if empirical evidence suggested that no specific European market for economists has developed and European economists increasingly orient themselves towards the U.S. American academic landscape, that must neither be a consequence of European integration nor one of relative prices alone but could be explained by other variables as well. Academic job markets involve a high degree of specific investment, and professorships are associated with lifelong employment and a considerable degree of freedom of research and teaching. Frey's work is well-known for showing different sources of motivation, including the idea that prices crowd out intrinsic motivation (Frey 1993, Frey et al. 2001).¹ Consequently, a change in relative prices, or let us say the introduction of abstract incentives like rankings, could have multiple effects on an academic job market presumably organized by prestige and intrinsic motivation before.

We thus suggest turning to German economics to approximate the development of European economics for several reasons. First, German economics has a historically rich tradition which itself inspired many economists worldwide. Its fractures and continuities as well as its institutional structure are well documented. Second, the market for German speaking economists is the biggest within Europe, and the language area is even larger. This could also engender a higher degree of independence of the German market compared to the ones in smaller countries. If German economists are focused on US American economics and no national specificity has emerged, smaller European communities of economists might have it even harder to resist aligning with the standards of the US American market. Third, we simply have the data. The status quo of German economics has been subject to three public debates in the past 15 years which have triggered an unusual high number of economic studies focusing on economics itself. A publicly funded think tank alone supported the research of more than ten research projects which we will refer to. Many of the results of these studies have only been published in German language before. For the first time, we can offer an overview of German economics as comprehensive as the routinely assembled meta-study for US American Economics. One should, of course, be careful in drawing conclusions from the case of German economics to other European nations. But German economics will provide an interesting case of a national market for economists, and it will definitively allow us to shed some light on an important part of the state of European economics even if one questions its representativeness.

We will continue to provide an overview on the debates within German economics², and the background for the emergence of the recent empirical analyses. In part two, we provide a systematic overview of German economics along the three dimensions of teaching, research and policy advice. Concluding, we provide a summary and a discussion of the empirical material considering the initial prediction.

2 Recent empirical studies and debates on German economics

German economics has been subject to three larger public debates in the past 15 years. To some extent they also motivated the research we draw upon. In the context of our analysis, they provide a frame which may help understanding the different perspectives and categorizations used in empirical analyses of German economics. Reviewing them in chronological order will help us to account for ambiguities which may come up in the empirical material we present afterwards.

Traditionally the German Economics Association, Verein für Socialpolitik (VfS), commissioned regular

¹ He has also uttered a nuanced critique on the role rankings play in economics by forcing young researchers to adjust their research interests (Frey 2003, Frey, Osterloh 2013, 2014).

² Even though parts of the research we cite also addresses Austrian or Swiss economics, we limit ourselves on Germany as not all the material is broad enough.

opinion polls among its members (Frey et al. 1983, Frey 2006, Fricke 2010) and surveyed the satisfaction of doctoral students with academic structures (Weichenrieder et al. 2014) and recently the share of female economists (Friebel et al. 2022, Hilber et al. 2022). In addition, different authors looked at how successful careers were pursued within German economics (Walde 2007, Bommer and Ursprung 1998, 2003). Justus Haucap showed that less than ten years after the prediction of Frey and Eichenberger, German economists perceived a divergence between an orientation towards high ranked journals and work insightful or important to the society and policy (Bräuninger and Haucap 2001, 2003, Haucap and Mödl et al. 2013). Keil et al. (2004) diagnosed research institutes in Germany and Austria with a comparatively low performance in academic publishing. In an exacerbation this contrast has been called one between *rigor* and *relevance*, with rigor best being understood as general equilibrium modelling and a dominance of research in an orthodox neoclassical style back then, and relevance as a set of characteristics of economists' engagement in public policy. The meaning or rigor will change to denote a wider set of methods in later debates.

The first recent public debate on economics in Germany we introduce here must be understood against this backdrop. It emerged after three professorships, including Economic Policy at the University of Cologne, had been reassigned to professorships for Microeconomics, and was consequently called the “Cologne debate”. This was interpreted as a manifestation of a shift from the German model of economic theory, economic policy, finance and statistics (as it was institutionalized in the structure of the VfS and still is in the German Research Foundation (Deutsche Forschungsgemeinschaft)) towards the US American model of microeconomics, macroeconomics and econometrics (Hesse 2010). 83 professors signed the open letter published in the Frankfurter Allgemeine Zeitung (FAZ) in 2009, voicing their concern about a general decrease of professorships for economic policy and finance. Another open letter signed by 188 professors published by the Handelsblatt followed, with a call to “rebuild” German economics to compete along the lines of international standards. The conflict became the topic of a conference hosted by the FAZ which helped to avoid a polarization of the debate. It turned out that no one had anything against internationalization and that proponents of ordoliberalism had been scarce among the signatories of the first call. In the end, a fruitful discussion developed, on what might be specific about German economics. Bertram Schefold reminded the audience that after three major paradigm shifts in the 20th century there are different understandings of what constitutes a particular German tradition (Caspari et al. 2011)³. In the end, there was some consensus in the room that while international dialog is important, contributions to economic theory as for example in the tradition of the “more recent historical school”, which could be of high relevance in economic theory today, have little prospect of getting published in US American journals and are therefore omitted by young economists. Michael Mödel stated the controversial point, which remained unresolved during the conference, that the trade-off between rigor and relevance remained.

To be clear on the question of internationalization, it is noteworthy that the replacement of the professorship at the University of Cologne was not the beginning of a prospected Americanization of German economics. In economics teaching, Samuelson's epoch-making textbook was translated into German early in the 1950s and became widely used. In research and teaching, Prof. Krelle at the university of Bonn was one of the first professors bringing the American neoclassical style to Germany since 1958 (Düppe 2020). Krelle also played a decisive role in the Committee for Theory of the VfS (see Schefold 2004a, Düppe 2020). Many other departments followed the footsteps of the University of Bonn (Schefold 2004b). Düppe (2015, 2017, 2021) showed that after the re-unification of Germany former chairs in East-German universities such as the Humboldt University in Berlin became almost

³ This book also contains the open letters and the minutes of the panel discussion.

entirely replaced by neoclassical economists. Hence, the incident at the University of Cologne can rather be seen as a late outcry at a time when German economics had already undergone larger transformations.

The second recent debate on German economics took shape at the annual meeting of the VfS scheduled at the University of Göttingen in 2012. Economics students and heterodox economists had organized a pluralistic supplementary event, and published an open letter addressed to the VfS-board demanding more pluralism in economics (NWPÖ 2012). Since then, students have repeatedly voiced their dissatisfaction with a ‘uniform textbook presentation of neoclassical economics’ and demanded a plurality of theories, methods, and reflexive subjects. Starting from reading circles at five German universities, the network for pluralism in economics emerged to accommodate student groups at more than 30 German-speaking universities in 2022. This broad student movement somehow parallels the “Rethinking Economics” movement in English- and other language-speaking countries. Together they lead to the international calls for pluralism in economics (ISIPE 2014). While the economic profession appeared to be sceptical about the demand for pluralism in the beginning, the narrative has shifted towards economists pointing to the already existing plurality in mainstream research (Wambach 2019, Bachmann 2019, Weimann 2019). Heterodox economists object this account of the discipline (Heise 2016, Beckenbach 2019, Peukert 2019a). This debate, and the public awareness on potential caveats in economics following the 2008 financial crisis, has already led to the emergence of several new professorships for pluralism in economics, new study programs, a university, and a new professional association in Germany. It might be a bit too early to speculate about the emergence of some new kind of German economics in the making. However, the debate has stimulated an unprecedented growth of literature addressing German economics especially between 2015 and 2020. First, the so-called Econ Plus study initiated by the Network for Pluralism in Economics and the Hans Böckler foundation surveyed economics curricula at German universities (Beckenbach et al. 2016), and Heise et al. provided a detailed history of the decline of heterodox economics professorships in Germany (Heise et al. 2016 a/b). Second the ‘New Economic Thinking’ initiative of the Research Institute for Societal Development (FGW), a publicly funded think tank based in Düsseldorf (Germany), granted research funds to more than ten research projects during the period 2014-2019.⁴ They covered the topics of teaching material and the textbook market (van Treeck & Urban 2017, Graupe 2017, Peukert 2018a/b/c), surveys and interviews with professors, PhD students and students (Bäuerle et al. 2019, Engartner & Schweitzer-Krah 2019, Roos et al. 2019, Fricke 2017), and a full assessment of professors in Germany according to their paradigmatic orientation (Grimm et al. 2018a/b, Beyer et al. 2018). Regarding their core research questions, these studies did not care so much for *rigor* versus *relevance* but categorized different paradigmatic orientations. For instance, Beckenbach et al. (2016) used the categories of *mainstream* and *sidestream*, which another study analyzing the curricula of economic journalists also built upon (Sagvosdkin 2021). Others differentiated in the categories applied among an orthodox part of the mainstream against *mainstream pluralism*, often also referred to as “*Colander’s edge*” (Colander 2004). These denote new developments *within* the mainstream and are used to differentiate it from a broader meaning of pluralism which includes heterodox economics.

The third debate has an international dimension. Originally the phenomenon of ‘German economics’ was coined by several US American and British economists like Paul Krugman or Martin Wolf during the Great Recession 2008 and subsequent Euro crisis, to describe orthodox convictions German economists allegedly held on economic policy issues. The then president of the VfS Michael Burda summarized this stereotype of the German economists as if they were ‘harping on about non-existent problems, endorsing austerity when it is least needed, committing the fallacy of composition at every

⁴ Many of those results only published in German language can be found here: <http://www.fgw-nrw.de/de/themenbereiche/neues-oeconomisches-denken.html>

possible juncture, and more or less just getting it all wrong' (Burda 2015 [own translation]). Michael Burda denies that such ordoliberal and orthodox orientations exist in the bulk of German economic research. This last debate did not trigger further empirical research on German economics. Still, it is important to not conflate terminology. In this debate orthodox does not denote the usual textbook standard but rather a kind of ordoliberal consensus established in some policy relevant circles such as the German Bundesbank.

In sum, these debates provide the semantic background to understand various settings and questions underlying the empirical studies we turn to now.

3 German Economics

In this main section we present major studies and results on German economics between 2015 and 2022. The broad variety and focus on various aspects of German economics provides a good overall assessment of the status quo of the discipline. We will recurrently evaluate the consequences of the findings presented for the U.S. Americanization of German economics regarding its market structure, meaning less 'cartelization' and regarding its content. The aim is to discuss afterwards to which of the analyses of the three criticisms of German economics does the empirical analyses lend support?

This interest was not necessarily in line with the major research interest by the authors of the respective studies. We address this by mentioning their original research motivation, and by including footnotes if our interpretation tended to go into a different direction than elaborated by the authors themselves. This was more of the case in economics higher education than for research, as in the latter the internationalization hypothesis was one of the guiding questions by the authors themselves. We begin by reviewing research (3.1), turn to education (3.2) and close with some notes on policy (3.3) in German economics.

3.1 Research in German economics

We address the findings on research in German economics by starting with Germany's position in the international network of citations as it provides the field for the following passages on the paradigmatic orientation of professors and surveys on doctoral students and professors.

3.1.1 Germany's position in the international network of citations

The economist Ernest Aigner provides an exhaustive overview of international publication trends of the past decades and Germany's position. His main research interest in the paper includes an empirical evaluation of the characterization of economics as an internally oriented and hierarchically organized discipline (Fourcade et al. 2015), and resulting orthodoxy (Ferguson, Johnson 2018, Colussi 2018), and the potential persistence of an ordoliberal tradition in Germany (Krugman 2012, Münchau 2014). Aigner uses data from the Thomas Reuters' Web of Science with more than 3.5 million citations in close to 450,000 articles of peer-reviewed economics journals, to map out the social structure of the field. (Aigner 2019a)

His study shows that publication activity in economics increased tremendously worldwide, coming from 2,600 articles published in 1957 to 21,500 articles in 2017. (Aigner 2019b) During this period, the degree of plurality decreased with regard to geography, journals, and disciplinary boundaries. While countries worldwide gain in shares of citation, the U.S. is still the major point of reference in articles cited (32% of all citations between 1997 and 2017 go to the 5% most cited articles in the U.S.) and overall citations (54% of all citations go to the U.S.). Germany's share in citations increased most strongly compared to other European countries, coming from 4% in 1997 to 7% of all citations in 2017 – close to Great

Britain's current position. The regional diversity of citations, measured by the overlap of the international ranking of cited articles with the regional ranking, decreases in Germany as in all other countries. This shows that the orientation towards one international standard is growing, and that specificity to economic and political contexts ('relevance') may get lost. The variety of academic reference bodies cited also decreases which may point to more uniformity within the discipline, but can also signal an alignment in publication standards ('rigor'). What stands out, and is similar to the U.S. and U.K., is a growing degree of German internal citations, hinting to the formation of an own academic market, with the potential of also developing an own style. This is supported by the observation that neighbouring countries cite articles from Germany more than done on average. The role of single German universities for publication success is only little pronounced: while the top 5 U.S. universities accumulate between 9 and 23% of all citations in economics, the LMU Munich, University of Bonn and Humboldt-University Berlin amount to 1.8, 1.6 and 1.1% respectively. These first two out of three German universities also figure among the three largest economics faculties in Germany. Heterodox economics articles received a slight uplift from the financial crisis of 2008, increasing from 3% to 4% of all articles cited in Germany, and figuring around 2% in the U.S. in 2017. In the U.K. and Austria heterodox articles are cited up to 6 and 7%. These increases can be attributed to a growth of citations in Mainstream articles in relation to a constant number of citations from other heterodox articles. In Germany there is a higher reference to the word's 'unemployment', 'tax competition' and 'Germany', giving some indications to the existence of a "German Sonderweg"; alongside a relative emphasis on the concepts 'experiment' and 'experimental economic'. (Aigner 2019a) Ernest Aigner, Matthias Aistleitner, Florentin Glötzl and Jakob Kapeller complement this analysis with a further content-oriented evaluation of the same database. They conclude that the financial and economic crisis of 2008 did not fundamentally change the methods or theoretical concepts applied in research (Aigner et al. 2018), and that the paradigmatic discourses between heterodoxy and Mainstream remain divided (Aigner 2019a)⁵.

3.1.2 Professors and their research direction

Karl M. Beyer, Christian Grimm, Jakob Kapeller and Stephan Pühringer provide an assessment of the development of research in German and U.S. American economics based on a person focussed data base of journal publications between 1971 and 2017. Their main research interest in the paper is the development of a neoclassical Mainstream in economics which also effects real-world institutions (Lessenich 2012; Schaal et al. 2014), the demise of heterodox economics (King 2013; Aistleitner et al. 2016; Heise et al. 2016), the unpreparedness of the discipline in the face of past financial crises (ISIPE 2014), and the existence of a German Sonderweg (Dullien et al.???, Guérot 2012; Krugman 2012; Münchau 2014; Burda 2015). The authors assembled journal publications of all active economics university professors in Germany (N=569) and compared them with a random sample of 100 universities in the top 25% of the IDEAS-Ranking (IDEAS 2019) in the United States (N=570). The research orientation of these professors was categorized along multiple dimensions, seven of which are relevant to our analysis. Professors fall into the orthodox mainstream (1), heterodox (2) or pluralist mainstream (3) category, when publishing in mainstream journals, in heterodox journals as indicated by the Heterodox Economics Directory, or when contributing to both types of journals.⁶ The pluralist mainstream (3) category reflects how open economists are in publishing in a broader set of fields. The additional category *Colander's edge* (4) accounts for the establishment of fields such as evolutionary

⁵ The keywords 'economic growth', 'China', 'Panel data', 'monetary policy' and 'experiment' get the highest mentions in Mainstream journals, 'globalization', 'sustainability', 'innovation', 'China' and 'Gender' it is for the heterodox journals.

⁶ Mainstream economists have according to this categorization published less than three articles in heterodox journals, heterodox economists at least three articles in heterodox journals and less than half of their publications in mainstream journals, and pluralist mainstream economists at least three articles in heterodox journals but more than a half in mainstream journals.

game theory, ecological economics, behavioural/psychological economics, complexity theory, experimental economics⁷, computer simulation (Colander et al. 2004, p. 496), and economic geography (Dobusch et al. 2012). It provides us with a first approximation of the size of a ‘mainstream pluralism’ as introduced in the prior section, while lacking further indications on an empirical turn. Professors were further categorized along the lines of their publications in microeconomic research journals (5), with references to ordoliberalism (6), and for treating the topic of crisis (7) (Beyer et al. 2018).⁸

The empirical assessment reveals that 92% of professors currently belong to the mainstream in Germany, and 94% in the U.S., while the heterodoxy makes up 3% in Germany and 0.5% in the U.S.⁹ The pluralist mainstream category (with only partial overlaps to a ‘mainstream pluralism’) amounts to about 5.5% in both countries, showing that mainstream and heterodox economists hardly engage in an academic debate with one another. 17% of professors were found to belong to *Colander’s edge* in Germany, of whom the majority works in the field of experimental (44.1%) and behavioral economics (43.5%). Economic geography (4.8%), ecological economics (1.4%) and complexity economics (0.7%) only reach a marginal appearance within *Colander’s edge* in Germany (Beyer et al. 2018).

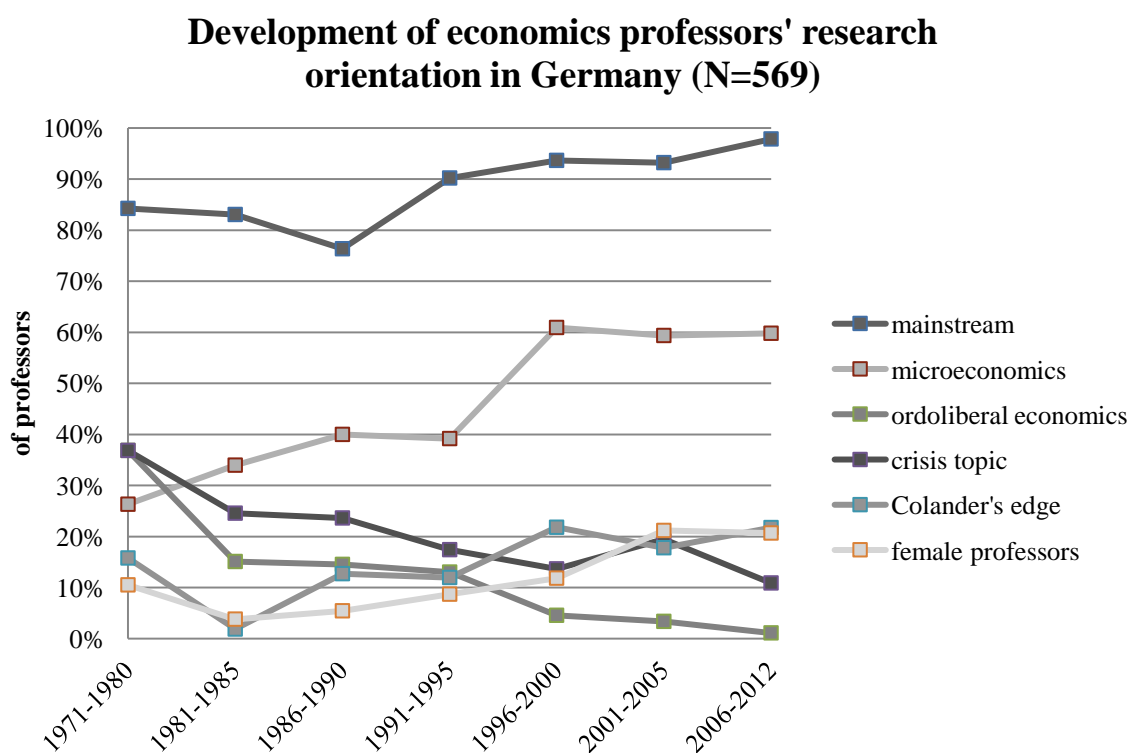


Figure 1: Development of economics professors' research orientation in Germany. Own representation based on Beyer et al. 2018.

Looking at developments by age cohorts of German economics professors (figure 1, ordered by the years in which they received tenure), we can observe that the research orientation of the younger generation (from 1996 to 2012) increased by roughly 14% up to 98% in mainstream economics and by 27% up to 60% microeconomics compared to the professors tenured between 1971 and 1990. In the youngest

⁷ Here experimental economics refers to research in lab situations.

⁸ Economists with an ordoliberal preference have published at least two articles in ordoliberal journals. Professors with a preference for the topic of crisis are the ones who have at least 5% of their publications on the topic of crisis.

⁹ There is a sample bias due to the situation that heterodox economists in Germany tend to work in colleges and in the U.S. they will tend to work in lower ranked universities and colleges.

generation 21% are working in research fields classified as *Colander's edge*, which amounts to a 10% rise compared to the 1980s and 1990s generation. The high turn-out on mainstream economic and microeconomic research in Germany mirrors the developments in the U.S., while it recently supersedes the latter's share in microeconomics focussed professorships. Research in *Colander's edge* in Germany also mimics the development in the U.S. since the mid-1960s, and slightly surpasses the latter in the past decades. This may be explained by the relevance of experimental and behavioral economics in Germany which Aigner (2019) had pointed out to. On a purely descriptive level, a gain in relevance in microeconomic research coincides with a reduction in professors researching on the topic of crisis in Germany and the U.S. The generations who received tenure in the 1990s show a particularly low interest in the topic, while the lowest point is reached by the youngest generation in Germany with only 11% publishing on crisis related topics (Beyer et al. 2018). The characterization of economics as a male dominated science decreases with age cohorts, while women still only make up 18% of professorships in Germany on average.

The analysis reveals how German economics has become more similar to US American economics over the course of the past decades. The influence of ordoliberalism decreased from 35% to around 15% to 1%, while microeconomics now makes an even greater presence than in the U.S. Taken together with Germany's growing role in the international market of economists, these analyses support the observations made in the second German debate which stressed this international orientation and the decreasing relevance of ordoliberalism. It further underlines the criticism voiced by the student movement, of the dominance of an economics mainstream or perceived orthodoxy, and the lack of interest in crisis related topics. Pühringer et al.'s study also draws attention to the role of microeconomics in these developments. From the data on the U.S. which is available already for the age cohorts 1959 to 1970, the stark increase in microeconomic research can be documented: from 10% of professorships to over 55% within only a couple of years. This in turn is hinting to the 'empirical turn' which economists have diagnosed as relevant development within the discipline, and which is somewhat captured, among other things, in the following analysis of doctoral student's research in Germany.

3.1.3 Surveys with doctoral students

Michael Roos, Julia Sprenger, Frederik Banning and Johanna Meier surveyed 448 PhD students in the German speaking countries in 2017, covering their research topics, use of methods and attitudes towards the field.¹⁰ Their study is motivated by the hypothesis that change in an academic discipline is driven by the younger generation who does not have a status to lose yet, and the time at hand to try out new methods. Limitations to such a development are acknowledged to come from the Americanization of research, with an increase in structured doctoral programs at German universities and orientation towards internationally relevant journals, and the hierarchy and time constraints which are associated with such (Colander, 2008, Rosser et al. 2010; Graber et al. 2008; Necker 2014).

The study encompasses findings on the different levels of interest to our analysis, on Germany's position in the discipline and its very characteristics. Regarding the internationalization hypothesis, Roos et al. find that 40% of respondents (N=374) are completing their PhD within a doctoral program, 54% at a professorial chair, and roughly 7% externally. 91% aim to hand in papers accumulatively, which is reflected in the answers to the question if PhD students have already published in a refereed journal,

¹⁰ The number of respondents decreased over the course of the survey, so that around 300 individuals respond to the majority of questions, and 272 fully completed the survey (Roos et al. 2018). The gender distribution of the respondents was 38% female and 62% male which is somewhat higher than in the VfS study by Weichenrieder and Zehner (2013) who had reported 30% female respondents. Around 10% of respondents indicates to complete their PhD in a country other than a German speaking one. The results are still indicative for German economics, as the survey was taken in German language and we assume that the majority of respondents has visited a German university prior to their PhD.

while 9% aim to write a monography. As writing a monography was common in German economics, this indicates a far-reaching adjustment to the American model. The topical orientation of PhD students covers a broad set of research fields (absolute number of students), confirming the relevance of microeconomic research (60), behavioral (72) and experimental economics (50), as well as labor market economics (74), and larger branches of the discipline, which are currently less represented in the denomination of professorships in Germany: macroeconomics (91), financial markets (54), developmental economics (52), economic policy (40) and environmental and resource economics (39).¹¹ Despite the fact that many fields fall into the microeconomics category, one could still speak of a potential mismatch between the research interests of the younger generation and the structure of the field as shown in Beyer et al. (2018). Regarding methodology the PhD students indicate to mostly apply empirical methods, which lends strong support for the relevance of an empirical turn which has also taken place in the German speaking countries: on a 5-scale between purely empirical and purely theoretical, 22% chose purely empirical, 39% the next rank, 18% position themselves in between, and 13% and 8% respectively are on the two scales indicating purely theoretical work. A somewhat similar pattern evolves in the question on applied or basic/fundamental research.

PhD students' use and evaluation of methods

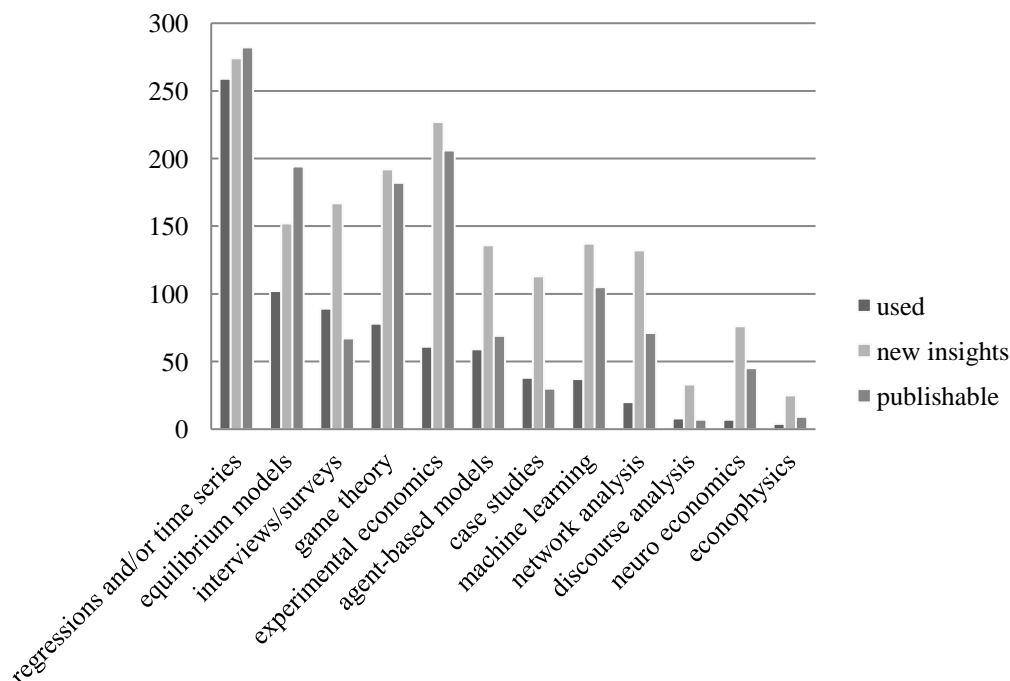


Figure 2: PhD students' use and evaluation of methods. Own representation based on Roos et al. 2019.

There are two factors of interest, of how the current structure of the field influences research orientations. On the one hand, there is a discrepancy in how helpful PhD students find certain methods in bringing about new insights, and which ones are regarded as highly publishable (figure 2): While the overlap between promising new insights (274) and being publishable (282) ($N=328$) is quite high for regressions and/or time series, equilibrium models are found to bring less new insights (152) than they are publishable (194) ($N=312$). The opposite is true for interviews/surveys and agent-based models which according to at least some would promise new insights (167; 136) but which are not seen as very publishable (67; 69) ($N=295$; $N=270$). On the other hand, there is a discrepancy between the way in

¹¹ Multiple answers were possible, $N=972$. The five questions beforehand were answered by 376 respondents.

which methods are regarded as yielding new insights and being publishable, and the frequency with which they are used. Game theory (N=312) and experimental economics (N=303) appear as insightful methods (192; 227) which are also well established in the journals (182; 206), but which are relatively seldom used by the PhD students (78; 61). One should note that in the context of this survey ‘experimental economics’ will rather be understood as quasi-experiments with panel data rather than the category used in Beyer et al.’s and Aigner’s studies which refers to laboratory set-ups closer to behavioural economics. The hypothesis that PhD students are more open to new methods and will also use them in their research has to be partly discarded: There is a general interest in new methods (also shown in other parts of the survey), but respondents also appear to have some scepticism about newer or more qualitative methods, and little of them use them due to the perceived likelihood of publishing success. So, while methods change, a mismatch among relevance and rigor seems to prevail in economics. The survey also conveys another potential reason for the timidity in the choice of research methods: 64% of the PhD students indicates to have learned their PhD research method in university courses while 84% report to have taught it to themselves through reading, and only 36% found the doctoral courses or summer schools helpful for acquiring new methods. Taken together with the turn-out on the use of methods, we can clearly state that German PhD students learn methods which are not tailored to keeping up with standards of international publishing. The standard economics curriculum (and the ‘US Americanization’ in the shape of doctoral programs) is not helping them much in being better prepared yet.

When asked on their own perception of the field, and room for improvement the main criticism is voiced with regard to the availability of data, but there is also support for including philosophy of science into doctoral programs (209 out of 276) and acknowledging its role for one’s own research (137 out of 277).¹² The potential lack of societal relevance of the field is the second leading concern, followed by a wish for interdisciplinarity and pluralism.

3.1.4 Surveys with professors

Thomas Fricke surveyed the members of the academic association for German speaking economists, the Verein für Socialpolitik (VfS), in the years 2006, 2010 and 2015 and added results from a survey by Schneider et al. of 1981. His main interest is to find out about academic opinions on economic policy issues, the potential existence of a German Sonderweg, and attitudes towards the discipline in general.

He shows that German speaking economists have a broad set of academic judgements on core economic policy issues, like monetary and fiscal policies, and the topic of wage levels in Germany. These differences contradict a genuine the existence of a German Sonderweg. He also shows a recurring gap between these judgments, and the policy proposals put forward by the majority opinion of German Council of Economic Advisors (SVR) which tend to be more orthodox than the average.¹³ What sticks

¹² An open space for comments on the potential lack of relevance of economics was placed in the back third of the questionnaire and was filled out by 125 PhD students (of 219 responding before and after). The answers can broadly be divided between a more optimistic and a more pessimistic group in their views on the publication system and the spread of certain economic methods. The first group welcomes the use of more elaborate methods with statements like ‘Strong focus on econometrics, data, and empirics. Less focus on theory, meaningless ideological fights. But this is the direction we are already moving to, so I don’t see a need for change’.¹² The second group voiced concerns such as ‘More time for the respective research projects. Many researchers cheat heavily, some because this is the way they are, others due to a lack of time and publication pressure’ and ‘Economic issues should be discussed in a wider context instead of focusing on minimally further developing complex models’ (Roos et al. 2018).

¹³ Such a tendency of a less pluralistic representation of German economists’ research orientations in the policy advising bodies is confirmed by the study by Karl M. Beyer, Christian Grimm, Jakob Kapeller and Stephan Pühringer. They differentiate between “policy support” which is researching in publicly funded research institutes and “policy advice” which is working in bodies with direct political links or offices, such as in ministries and economic councils of the state. Referring to the formerly introduced categories, a larger diversity of economists’ focus is

out in his study looking at the longer discourse in the discipline, is that these judgements appear to be not only informed by opinions from the academic debate, but that the economic and political circumstances also play a role: For example, in 1981 31% fully agreed to the statement that fiscal policy can be an effective tool for stabilizing the economic cycle. In 2006 only 12% agreed to that statement, by 2010 it was 18%, and in 2015 36%. While it is certainly not a mistake to contextualize scientific findings in their historical periods, it becomes clearer that the objectivity claim of economists will not hold for the overall tendencies of the discipline. 59% Then also regarded the 2008 financial crisis partly or strongly as the failure of market fundamentalism and 56% mostly or strongly agree to the students' demand for pluralism.

Fricke analyses certain statements about opinions prevalent in age cohorts, like the claim for pluralism, a potential crisis of legitimacy, the income distribution, taxation or central bank objectives. He finds that the younger generation tends to have more orthodox opinions on all of these topics compared to the older ones. This may be related to the above mentioned conformity which the internationalized academic environment is producing. The results show an increasing homogenization with international standards and a demand for greater diversity at the same time.

3.1.5 Interim conclusion

Drawing a preliminary conclusion about characteristics of German economics, including with regard to the three debates, we find support for many of the nuances present in the introductory hypothesis and the perceptions voiced in the debates. First and foremost, Frey and Eichenberger's analysis that European economics will become more like US American economics is underlined by the fact that Germany gains weight in the international hierarchy of citations, and that its professorships follow the U.S. academic developments quite closely. This has contributed to a decline of heterodox economics, which only saw a limited uplift from the 2008 Great Recession. Macroeconomics, and research on crisis related topics declined, while novelties to the discipline (Colander's edge) are present but remain stagnant. The cartelization hypothesis, meaning that the individual style of an academic institution and the discipline's influence on economic policy will decrease, can also be supported to the extent that PhD students now follow the research style which is established internationally and that they indicate to have been relatively free in the choice of method. This goes hand in hand with a growing concern that this rigor is at the cost of relevance which some of the PhD students are observing. The tension expressed in the Cologne debate, between such an international orientation and policy relevance may be underlined by the findings in Roos et al. and Fricke: The topical plurality in the younger generations is existent, a first characteristic of a mainstream pluralism, but 1) the methods used are not very diverse and quite strongly oriented towards publication success, and 2) the sense of orientation and critical attitude towards the own discipline appears to be lower than in the older generation. While the latter does not necessarily have to be a bad sign – a good amount of PhD students voiced satisfaction with how the discipline was developing – the results do give food for thought. If a disconnect from to the national and international policy discussion is combined with decreased paradigmatic standpoint or self-reflection, academic opinions may be more than before influenced by shifts in the public debate, in the end informing the latter less with proper academic advice than before.

3.2 Graduate education in German economics

Economics higher education in the U.S. is regularly reviewed with regard to content and aims. Regular surveys and reports are available for the curriculum of economics (Siegfried et al. 1991, Becker & Watts 2001, 1996, Watts & Becker 2008), and are discussed in detail in the Journal of Economic Education

present in policy support, with 1.6% heterodox, 4.7% pluralist mainstream, 12.3% Colander's edge and the rest mainstream economists. In policy advice, neither heterodox nor pluralist mainstream and only 9.4% of Colander's edge economists are present, with a rest of 91.6% with a mainstream orientation (Grimm/Pühringer 2019).

since 1969. Those contributions share a uniform ideal of economic education. Students learn to ‘think like an economist’, referring to a narrow orthodox understanding of economics (Siegfried et al. 1991, Becker 2000). Didactic methods are evaluated according to whether they are appropriate to train students in this way of thinking. The recent meta-study related to economics curricula in the United States draws a very clear conclusion: “The coursework for the economics major has not changed substantially since 1980, with most institutions requiring the same set of ten courses (two principles, two intermediate theory, statistics or quantitative analysis, and five electives). The number of institutions requiring a course in econometrics has increased substantially, suggesting the growing importance of technical rigor in the discipline and the value of numeracy in the workplace” (Allgood et al. 2015, 317). Substantial for this canon are economics textbooks which to a large extent go back to Paul A. Samuelson’s book ‘Economics’ which was first published in 1948, and became a bestseller in higher education until the emergence of other textbooks which mimic its style in the 1990s (Colander 2011). This textbook canon has spread to many countries around the world (Skousen 1997, Decker et al. 2019).¹⁴ Economics education was recognized as formative in the thinking of new generations of students and citizens, as Samuelson had more often expressed himself, and assumed some relevance in the context of the cold war. Traditionally these textbooks include a tendency to draw policy conclusions from theoretical models (Colander 2011). A debate on transforming this textbook canon has sparked recently (Bowles & Carlin 2020, de Muijnck & Tielemann 2021).

For graduate teaching in Germany prior to 2012, the period we report hereafter, we did not find an evaluation of economics. Even though economics education does not play a role in the prediction of Frey and Eichenberger, we regard the following summary as essential. If we regard the academic discipline of economics as a market it is not open to everybody. Academic degrees function as production standards and economics education decides on the basic orientation of the thinking to be cultivated. We claim that competition on the academic job market can be considered as a pull factor. Economics education on the other hand is a push factor as it shapes who is entering the competition with what knowledge and capabilities.

3.2.1 Curricula and textbooks

Frank Beckenbach, Maria Daskalakis and David Hofmann assessed 54 economics programs at German public universities, including economics (‘Wirtschaftswissenschaften’) which subsumes business administration and economics in its broader sense, and economics in its narrower sense (‘Volkswirtschaftslehre’), at the Bachelor level and provided a questionnaire to 2,743 lecturers, yielding 588 responses (winter term 2014/15).¹⁵ In addition, they used text-mining tools to query the module descriptions of the introductory courses, checking for the frequency of mainstream and sidestream terms, as well as a semantic network analysis (Beckenbach et al. 2016). Christian Rebhan provided a further quantitative assessment for the characteristics of economics education in Germany in 2017, through an evaluation of module handbooks, university web pages, and direct requests to lecturers, with a focus on the use of economics textbooks. The basis of his analysis are all introductory courses at German state and private universities (incl. applied science universities) at Bachelor level for which data could be obtained (N=99).¹⁶ His research is motivated by the question whether economics higher education

¹⁴ Studies and surveys for other countries indicate a state of pluralism in economics curricula for Brazil, the spreading of neoclassical economics for India and its dominance for Ghana, Australia (for various countries Decker et al. 2018), the UK (Reimann 2004; Wigstrom 2016) and some other European countries (Gärtner 2001). An evaluation of international curricula shows a similar course structure as portrayed in Allgood et al. 2015 (Jatteau & Egerer 2017).

¹⁵ They also asked lecturers for their course material and received those from 79 persons.

¹⁶ For the courses, microeconomics, macroeconomics and introduction into economics, different amounts of data points were generated, whenever information on the use of economics textbooks was available. Thus, the assessment allows for multiple textbook recommendations. The outcome was divided by the number of students inscribed into economics study program at that respective university.

trains students sufficiently to grapple with current day economic phenomena, like financial and debt crises.

Rebhan's results show that the structure of programmes in Germany is constituted to its majority by the courses 'introduction to economics' (N=57), 'introduction to microeconomics/microeconomics' (N=74), 'introduction to macroeconomics/macroeconomics' (N=48), 'mathematics for economists' (N=71), and 'statistics for economists' (N=68). The analysis of textbooks used in class is then limited to the courses, introduction to economics, micro and macroeconomics, since these are the ones relevant for showing the prevalence of certain economic ideas and concepts. Focusing on economics in its narrower sense, Rebhan's study conveys (figure 2) that 47% of microeconomics courses in economics programs (N=43) recommend Hal Varian's textbook 'Intermediate Microeconomics: A Modern Approach', and 40% Varian's textbook 'Grundzüge der Mikroökonomik' in German. The second textbook most used is Robert S. Pindyck's and Daniel L. Rubinfeld's 'Microeconomics', or its German version, with 37% each. In the field of macroeconomics (N=34) Olivier Blanchard's and Gerhard Illing's 'Makroökonomik' is recommended in 50% of the economics courses and N. Gregory Mankiw's and Mark P. Taylor 'Macroeconomics' in 24% of the cases, or their respective counterpart in the other language. For the introductory courses (N=26) N. Gregory's Mankiw's and Mark Taylor's 'Grundzüge der Volkswirtschaftslehre' is listed in 42% of the economics courses, followed by Peter Bofinger's 'Grundzüge der Volkswirtschaftslehre' with 15% (Rebhan 2017).

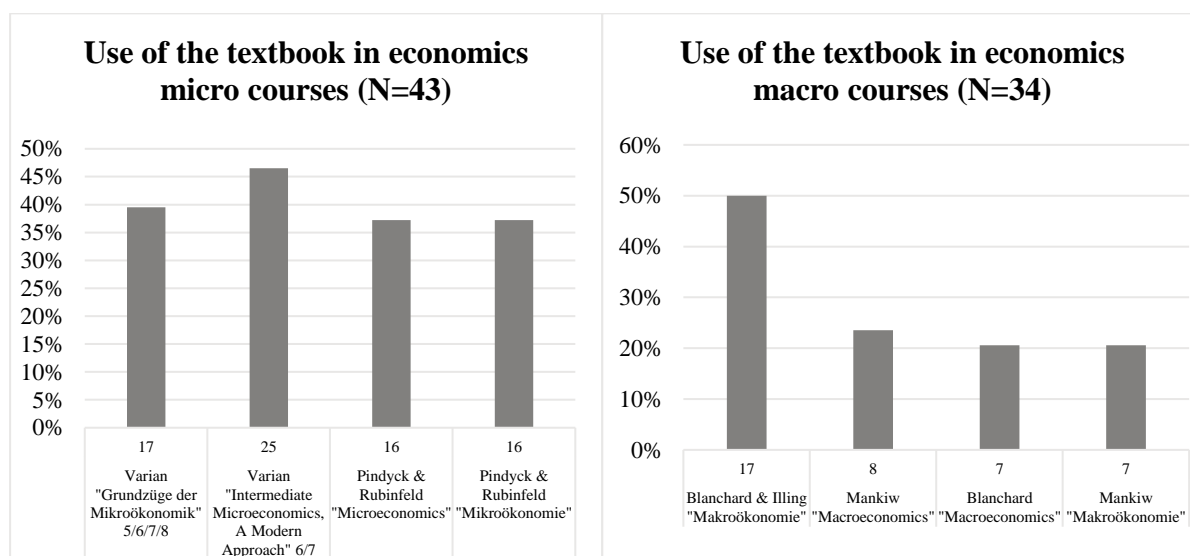


Figure 3: Economics textbooks in Germany. Own representation based on Rebhan 2017.

The results indicate at least two things: first, the evaluation confirms that the structure of economics higher education in Germany is very equal to the one in the U.S.: an introduction, a micro, macroeconomics course and the relevance of quantitative methods. And second, economics in Germany is taught on the basis of U.S. American textbooks and Blanchard & Illing's publication, and the textbook market shows an almost oligopolistic market structure – which has repeatedly been problematized in the literature (Colander 2015, Pahl 2011). The strong presence of these books though may not by itself speak for an absolute uniformity of teaching, as at least some universities appear to recommend them alongside other literature. Here the findings by Beckenbach et al. are indicative: Their results show that in all 54 economics programs analysed mainstream keywords outnumber sidestream terms by a factor of 20 to 1, which then does hint to an education which is to large extents uniform. Furthermore, lecturers report to stick to standard content, especially in the first years, apparently to give students the best tools possible (Beckenbach et. al 2016) – which in the context Bologna system means being able to move between

different universities, programs and academic degrees.¹⁷ An in-depth analysis of economics textbooks by a number of German economists (van Treeck, Urban (2019), Graupe (2018), Peukert 2019)) reveals that the textbooks most often used rarely account for novelties in research, but still aim to transport the image of ‘enduring truths’ of economics as put forward in Samuelson and Nordhaus.

3.2.2 Students

Research on economics students’ attitudes and perceptions has often focused on the question whether economics students are more selfish compared to those from other disciplines (Rubinstein 2006; Bauman & Rose 2011). The two studies presented here share an interest in the question which content students are confronted with, and which character traits they see strengthened through the study of economics themselves. Tim Engartner and Eva Schweitzer-Krah (2019) surveyed 351 students of five of the largest universities in Germany on their perception of the study content and study environment between 2016 and 2017. Lukas Bäuerle, Stephan Pühringer and Walter Ötsch (2019) conducted group interviews at five central German speaking universities in the same time frame with an interest in the formation of collective attitudes.

Engartner’s and Schweitzer-Krah’s analysis¹⁸ indicates which content students perceive as major part of their study program. 94% of the students responded that they learn about equilibrium models in their economics courses, 92% named aggregated macroeconomic models, and 79% regression models.¹⁹ Qualitative methods are less present, 11% of students indicate to have heard about interviews or surveys as a way of doing economics in their fourth semester. Students report that most reference is made to the subject of mathematics in their courses (75%) while a reference to sociology is rarely made (13%). When asked about their perception of a potential crisis of legitimacy of economics, the majority objects to this statement. The claim for pluralism voiced by the Network for Pluralist Economics seems to be well known: 70% of students indicate to have heard about the debate and some (6.4%) are actively engaged in it or follow it intensively (13.7%), while 8.2% report to not be interested in the topic.²⁰

¹⁷ The authors of the study interpret their findings more critical, as the uniformity which they see in the results may challenge the independence of research and teaching which is guaranteed in the German constitution.

¹⁸ The surveys were taken in mandatory courses with 351 students in their fourth semester in the summer semester 2017 at five of the universities with the largest economics departments in Germany (Bonn, Frankfurt (Main), Hamburg, Heidelberg and Mannheim). The gender distribution was close to the national average of two thirds male to one third female, the average age somewhat below and the final grade from high school somewhat above the average of all economics students in Germany.

¹⁹ The results also suggest that 72.2% of respondent are learning about agent-based models and simulations. We excluded this result, as from our knowledge of university curricula and the responses by PhD students, these methods are rarely taught. This result shows the limitations of surveys to a certain extent.

²⁰ The authors of the paper interpret this result as an indication that students adapt to a behavior which is rational and utility maximizing: the percentage of people really engaging actively is interpreted as a low turn-out. The authors of this paper interpret these results differently, and regard it as a rather high turn-out.

Students' self-indicated character change (N=351)

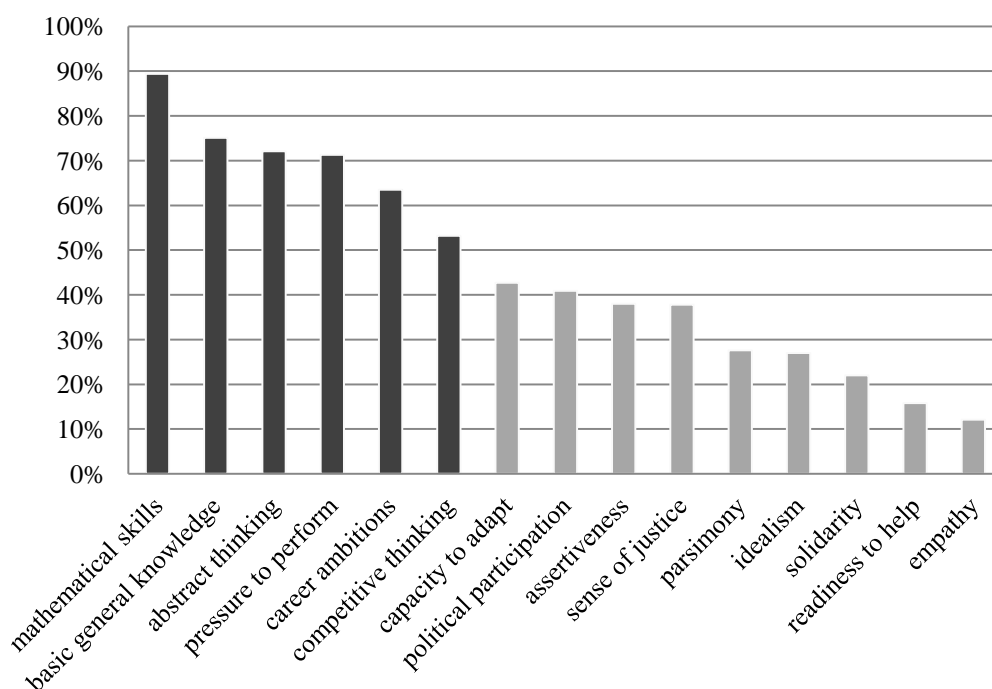


Figure 3: Students' self-indicated character change: 'What do you think, how much has the study of economics changed you personally?' Own representation based on Engartner & Schweitzer-Krah 2019.

Another indicative result of the survey comes from a question on students' self-perceived character change through the study of economics (figure 3). Besides a rise in mathematical skills and abstract thinking, students feel that the pressure to perform had risen (yielding a 21% higher average value to the 50% break-even point of an in- or decrease in students' self-reported character change), as well as career ambitions and competitive thinking. Attitudes such as idealism, solidarity and empathy had fallen between 20% to 38% on average through the study of economics (Engartner & Schweitzer-Krah 2019).

The study by Bäuerle et al. (2020)²¹ identifies four themes as stable across the different groups and locations: Students of economics appear to focus on the structure and formal requirements of courses in their decisions rather than towards the content (1). Mathematics is perceived as a self-evident basis for economics (2). Links to real world economic problems are missing especially during the first years (3). And students perceive a sharp contrast between the first four semesters of a rigid program and more freedoms of choice afterwards (4). Beyond those general findings, the study provides a series of concrete student experiences which help to better understand the social field. Students seem to agree on some necessity to stop learning for comprehension and turn towards learning abstract concepts by heart without an idea how to apply or relate those concepts. Across all groups there was a strong negative

²¹ 16 group interviews between autumn 2016 and summer 2017 were conducted at five universities (Cologne, Frankfurt-Main, Mannheim, Vienna and Linz). According to the Handelsblatt-Ranking and RePec-Ranking those universities are among the highest ranked in the German speaking countries. Altogether 53 students took part in the interviews. The composition of the interviewees resembles the gender distribution among German economics students as 35 men and 18 women took part in the study. Two to six students took part in those interviews. Three groups were taken out of the analysis to control the effect of students already active in the pluralist movement and to reach a maximal contrast between sets of groups in distinct attributes. These interviews have been interpreted according to the documentary method (Bohnsack 2010; Bohnsack et al. 2010), approaching economic education as a field of daily experience, structured by habitualized sources of knowledge that actors within the field (students) subconsciously adopt in order to orientate themselves within the field.

perception of this disconnectedness. Moreover, participants showed a high degree of discontent with the curricula, especially of the first four semesters. After some time, students turn to choose those courses which allow for a relatively easy ‘harvesting’ of ECTS points and rather turn away from genuine topics and courses of interest. About their working attitude, they often skip lectures because these are too close to the textbooks and other teaching material and focus only on things relevant for exams. They also turn towards perceiving other persons or institutions, like the university, as rational actors opting for many university graduates on low expense (Bäuerle et al. 2019).

3.2.3 Interim conclusions

The results of the studies on economics higher education in Germany provide a unique grasp of what characterizes the field from the perspective of its entrants, and shows which tools they learn to either continue in academia or in other fields of employment. Unfortunately, there are no studies including a time perspective we are aware of, which, like in research, could show longer term developments and trends. The changing nature of professorships in Germany though implies that a transformation in teaching has also taken place, yielding a course structure which is very similar to the U.S. model, encompassing “two principles, two intermediate theory, statistics or quantitative analysis” (while intermediate theory modules were not subject to our analysis here). The dominance of a few mostly U.S. American textbooks in the module descriptions of German universities reveals that economics education is currently marked by a large degree of internationalization. From the perspective of lecturers, curricula and textbooks provide major structuring elements for their teaching in a way that leaves little room for their own academic perspective. This may stand in conflict with the freedom of research and teaching, as the authors of the study suggest, which in Germany is guaranteed by the constitution. From the perspective of students, this uniformity of teaching shows, especially in their first semesters. This is not only true for the methods which students report to learn, mainly equilibrium models, macroeconomic aggregate models, and regression analysis, but for how they perceive their study environment. Different from studies which either portrayed how the content of economics influences students’ mind set, or how only one paradigm is taught as a valid form of economic analysis, the two studies presented here suggest that the specific form of an economized university structure (in Europe, the ‘Bologna reforms’) even shapes students potentially more than the content itself. When we relate these findings to the beforehand section on economic research, it can be shown that there is gap between what students learn in their programmes and what is researched - a fact that until now has been an observation made by some economists, and can now be supported empirically. An international and largely standardized and economized structure appears to divert students’ attention away from content to performance indicators prevalent within the system.

3.3 Public Policy

German economics has faced some serious criticism for Germany’s public policy from other countries in the past couple of years (see section 2, third debate). Economists from the U.S. and U.K perceived it as “harping on about non-existent problems, endorsing austerity when it is least needed, committing the fallacy of composition at every possible juncture, and more or less just getting it all wrong” (Burda 2015 [own translation]). This criticism implies a considerable divergence of German from US American or UK economics which would contradict the findings we presented in the interim conclusions. Public policy and public opinion are shaped to a considerable degree by intellectuals such as teachers, journalists and policy advisors and their ways of thinking about the economy. In the making of their attitude’s economics education plays an important role again. While we lack empirical studies regarding the education of economics teachers (even though there is a hot debate on economics as a subject in public schools), there has been some important work on public policy and economic journalism we present now.

The studies by Justus Haucap and his co-authors cited earlier support the prevalence of a gap between relevance (for public policy) and rigor in economic publishing. The study by Fricke (2017, introduced in 3.2) suggests that academic opinions of German economists vary much more than the ones represented in the German Council of Economic Advisors. In addition, Fricke pointed out that opinion leaders such as heads of institutes overrepresent orthodox attitudes (Fricke 2017). Looking at the areas of the legislative and executive politics, and media there are some indications for such a perceived orthodoxy, too. Sebastian Dullien and Ulrike Guérot analysed programs by German political parties and found that the programs had a much more ordoliberal handwriting than what was common for German economists (Dullien et al. 2012). Kapeller et al. (2021) provides a detailed paradigmatic analysis for the composition of different policy related organisations. They differentiate between ‘policy support’ which is researching in publicly funded research institutes, ‘policy engagement’ which accounts for economists active in think tanks and organizations or supporting public petitions with the aim of exerting political influence, and ‘policy advice’ which encompasses economists working in bodies with direct political links or offices, such as in ministries and economic councils of the state. Referring to the first two categories, they find a larger diversity of economic research orientations present in policy support, with 1.6% heterodox, 4.7% plural mainstream, 12.3% Colander’s edge and the rest mainstream economists. This pattern is similar for policy engagement with a higher number for heterodox economists participating in such (4.7%). In policy advice, neither heterodox nor plural mainstream and only 9.4% of Colander’s edge economists are present, with a rest of 91.6% with a mainstream orientation. This is in contrast to the U.S. where 20% of heterodox or plural mainstream classified economists are part of the institutions of policy advice. A further categorization evaluating an affiliation with a certain thought collective in policy advice (N=32) yields the result of an overrepresentation, or self-selection into such, of economists belonging to the ordoliberal (41%) and neoliberal (47%) thought collective (Kapeller et al. 2021).²² Compared to the decrease of ordoliberal professorships in German academia (see 3.2) this is a remarkable finding. While academic economics in Germany has become almost identical to U.S. economics, a high share of ordoliberal economists seems to remain in policy advice. Other more network-based investigations support this finding (Ötsch and Pühringer 20XX).

Economic journalism has been the topic of three recent studies supported by the German Otto-Brenner Foundation. Valentin Sagvosdkin (2021) investigated the higher education of economic journalists and found four ideal-typical career paths. He collected 303 relevant module plans of study programs from universities, including of the applied sciences and journalism schools across Germany (complementing the study of Beckenbach et al. (2016) on economics curricula). A text mining tool was applied to check for mainstream - sidestream terms and for another categorization along an orthodox – heterodox distinction. He thereby found a high degree of mainstream and orthodox content especially in the core subjects, while there were more heterodox subjects in vocational subjects. While the gap between orthodox and heterodox terms was slightly smaller compared to the Beckenbach survey it is still significant. Despite some degree of plurality, his overall resume is that given a quality criterion of journalists being able to contextualize and explain diverging opinions and frames of expert judgement to the public, the education of economic journalists in Germany fails to deliver the adequate reflexive capacities. In addition, Sagvosdkin points out that a relatively high share of influential economic journalists in Germany have graduated from the Cologne school of journalism for policy and economy which is a relevant information to understand the outcry of the Cologne debate. Most journalism schools send their students to regular universities to cover their economic modules. This must be kept in mind in the objectives and design of economics curricula.

This finding is also underscored by two studies investigating the output of economic journalism in Germany. Tschendorf and Otto (2022) evaluate paradigmatic frames of articles from the seven German

²² Evaluated through the membership in and support of open calls with a ordoliberal or neoliberal stance.

newspapers with the highest circulation addressing recent public policy issues such as Italian economic policy in relation to the Euro crisis in 2018 and European financial policy in times of Covid failures 2020. They selected around 8,000 relevant articles by topic, compiled a categorization of recurring frames in a code book, tested the code on a smaller sample and applied a multivariate logistic regression (Logit)modell which was then checked by 15 trained assistants. They find that a neoclassical frame dominated German reporting on Italian economic policy. This also holds true for the beginning of the financial debate surrounding the Covid related lockdown. But following the policy shift in Germany towards deficit spending and European debt, there was a change in frames applied in articles from neoclassic demand side arguments to Keynesian supply side arguments. In both cases economic journalism failed to provide a broader perspective and almost entirely takes place within two dominant policy frames. Thereby economic journalism, as the authors suggest, fuelled a polarization going as far as denying the reasonability of diverging views. These findings add to the call for a more nuanced and pluralistic education of economic journalists. A third study finds a lack of contributions regarding reforms addressing the wealth and inheritance tax even despite growing socioeconomic inequality which accommodates paradigmatic worries raised earlier (Theine and Grisold 2020).

4 Summary and Discussion

In their 1992 American Economics Review article Frey and Eichenberger pointed out that a large market for economist's favours competition in rigorous methods. It often produces its own standards of rigor rather than serving practical policy needs. They predicted that the European integration would lead to an alignment of European economists to the standards of the U.S. market. Motivated by the rich empirical material and recent studies of German economics, we set out to survey the status quo of German economics for its own sake and to indirectly evaluate this prediction. We discuss now whether the material was sufficient to draw conclusions, which questions were answered, how we can interpret the findings and what new questions emerge.

So, is the material we compiled in this paper robust? Even though many research projects were linked to one another through a public think tank, the projects differed quite extensively in the hypotheses and semantics used, for which the results presented show a more diverse picture than we would expect in a larger, unified research project. The methods applied were sound and the methodological diversity applied can be regarded as a model case of an excellent combination of a plurality of research approaches and methods of empirical-reflexive socio-economic research, ranging from large quantitative data set analysis to advanced qualitative methods such as group interviews. The studies come with a high degree of complementary as they highlight different aspects of German economics. One might well speak of the empirically best studied period of German economics so far. The above-mentioned difficulty of different frames, and the lack of a time perspective in economics teaching, leads us to suggest that a similarly detailed survey of the status quo of economics in Germany (and Europe) every seven to ten years would be desirable. The question remains open how such a reflecting routine could be established. Regarding biometric data on economists a major step has already been taken by the VfS (Hilber et al. 2021).

To which extent is the material on Germany representative for European economics? It turned out that the citation data supports that German economics can provide a case for European Economics. German economics receives the most quotations among European countries from other European countries. In addition, German economics itself shows the strongest increase in citations in the international top five journals among European countries (Aigner Fontana). Combined German economics seems to be quite central for European economics and it has taken a leading role in the orientation towards Anglo-American standards. Nevertheless, further studies and surveys addressing other European countries

would be welcome as we did not check for studies in other languages but those available in German and English.

Tentatively based on those considerations and the evidence assembled, we can validate the prediction of Frey and Eichenberger about the homogenization of European economics with U.S. economics. Regarding the counterhypotheses of Klamer (1995) and Rotschild (1999) for the case of the German-speaking area we can conclude that neither the language barrier of the largest language room in Europe nor the established identity of German Economics has persisted. The Cologne-debate might be an example of a late resistance. German economics in its main structuring features is an internationalized academic field oriented towards the U.S. American market (Beyer et al. 2019). So, the perceived lack of internationalisation of German economics voiced in 2009 should be of no worry anymore. One could even raise the question whether German economics in 2009 was still lacking behind or whether that was just a rhetoric plot. We lack the evidence for this period.

Doctoral students in Germany today are strongly aligned towards international journals and feel a high pressure to choose opportune methods even at a perceived cost of relevance (Roos et al. 2018). While this younger generation of economists shows to do research in many different fields, including on environmental questions and financial and macroeconomic issues (Aigner 2019) - the professorships in Germany are aligned along microeconomic orientations more than ever before. One could thus suggest that the internationalization and its current demand for rigor in economics has produced a mismatch among two standards of rigor among the orientation (and denomination) of professorships and younger economists' interest – at least in the middle term. Measured against the international research orientation a lack of pluralism has materialized regarding professorships. What makes German economics particular today is no independent tradition, but the strong presence of microeconomics – Germany surpasses the U.S. here. It seems that German economics has gone from catching up to becoming more orthodox than its role model is today. However, when we look at the influence on policies, the differentiation between mainstream and pluralist economics, and ordoliberal (and neoliberal) positions is different. While academic economics in Germany is oriented at international standards in public policy certain voices such as ordoliberals are much stronger represented than others (Kapeller et al. 2021). This can be traced back on strong network effects (Ötsch and Pühringer 2020).

However, larger changes are taking place. The survey with economists by Fricke (2017) showed that many professors increasingly distance themselves from the idea of a well-functioning market. Overall, the increasing diversity in research methods is perceived as a challenge. PhD student voice a demand for methodology courses and accounts which help to accommodate a plurality of research approaches (Roos et al. 2018, Fricke 2017, Bachmann 2019, Rommel et al. 2022).

Graduate teaching in economics is the main topic of the second debate we introduced but did not play a role in the causal framework introduced by Frey and Eichenberger. They conceptualized the process of European integration which we regard as an external factor to the discipline and argued for a causal link through a change in mere market size. We argue that not considering the internal institutional development of economics, and especially economics education, is a severe omission as it introduces a different causal mechanism we should bear in mind when it comes to future predictions and strategies. Speaking of a market for economists, economics education can be viewed as a quite costly investment into human resources. As economics education comes with a specific idea of how an economist should think, there is a high intellectual cost attached to training oneself in a particular way of thinking (Aalgood et al. 2015). This is supported for the case of German economics by the strong presence of U.S. American textbooks which the study by Rebhan revealed, the uniformity of the course structure which Rebhan () and Beckenbach et al. () showed, and the orthodox content which goes along with it. Engartner and Schweitzer-Krah (2019) provide strong indications that university education follows a logic inflexible to changes in economic research and economic facts, and Bäuerle et al. (2019) coined the term “tunnel vision” to denote this educational experience. In economic terms, we can speak of considerable

sunken costs of engaging in economics education. It amounts to an obligatory pre-decision among the paths of studying economics and thereby frames later specializations of academic careers. Cast in this language, we can reframe the earlier finding on PhD students bearing the costs of acquiring new research frames to a strategy of keeping up with current publishable methods. This raises the question whether European integration and the extension of the market for economists did play such an important role. The material suggests that the role for economics education for internationalizing the discipline has been underestimated in the debate so far. If students in 1992 already were trained on the US-American textbook standard, a subsequent orientation of doctoral students towards US American economics could well be explained due to an educational effect. The fact that students are not trained on institutional facts and national specificities anymore offers an alternative mechanism to European integration and relative prizes as suggested by Frey and Eichenberger. Viewed from the side, we do not doubt the relevance of Frey and Eichenbergers causal frame but just point towards another important variable.²³²⁴

Beyond this theoretical and causal debate, the material we surveyed opens new questions about incentives present in economics. Bäuerle et al. (2019) made a novel contribution by underlining the effect which the organization of higher education along efficiency especially under the Bologna system plays for the learning process of students – a factor which also became apparent in the survey with PhD students. This perception was also shared by many colleagues reporting a general decline in the resources of chairs and an increasing lack of time for teaching (Beckenbach et al. 2016). While efficiency is an important aim it can apparently crowd out other targets when it becomes the sole focus. If students try to accomplish as many credit points as they can in the shortest time, they may no longer care about content (Bäuerle et al. 2019), or if professorships must train more and more students with less and less staff and endowments (Beckenbach et al. 2016), it is hard to deliver up-to-date teaching. Academic economics, at least in Germany, is a market in which the quality of the supply is regulated by the state. Hence, the degree of scarcity is a political question. We regard this area as promising for future empirical research. To our knowledge, there are no detailed studies on the income scheme of academic staff, the development of their teaching hours or time they need to spend in third party funds acquisition so far. Hesse (2010) mentioned the impact of rising student numbers in the early federal republic of Germany on economics teaching coming with a necessity of relying on ready accessible U.S. American curricula and textbooks. Consequently, studies addressing the concrete working conditions of academic staff are likely to complete our picture of changing everyday incentives for academic work.

While we can clearly diagnose that German economics is not aligned towards European economics but towards international standards which are defined by US American economics, the question remains open how to judge this and which scenarios we have for the future. For such considerations it is important to note that teaching and research in German economics essentially diverge, as teaching is oriented towards the US American textbook canon of the 1980s (Allgood et al. 2015) and research is oriented towards the current publishing trends in top journals. This gap is not particular to German economics but present in economics at an international level. The disciplinary consensus has shifted, and textbooks did neither follow, nor is it clear what the new consensus or even its methodology looks like. At this point we see a necessary reform potential and a window of opportunity for new approaches. Regarding current publishing trends one can say that German economics has been highly competitive in the past decades by adjusting itself towards an international landscape as it successfully increased its market share. At the same time, we are confronted with a new situation at the current juncture. What to

²³ Beyond that, another strands of literature we regard worthwhile for future work is the recent literature from Germany focused on the international textbook canon. A survey combining the findings of this discourse would be promising especially as there has been put forward some evidence that the language in some textbooks is highly manipulative, especially in the world-wide bestsellers of Samuelson and Mankiw (Graupe 2018). Here lies another alternative hypothesis for the success of US American economics.

²⁴ That the usual market effects of competition are at work with great force in the current design of international publishing is apparent by some recent contributions of prestigious economists such as Akerloff speaking of serious omissions (2020) or Heckman et al. speaking of a tyranny of the top 5 journals based on a comprehensive data analysis (2020).

do in a situation in which the former role model appears as increasingly fragmented (Roncaglia 2020, Fontana et al. 2017) and is subject to severe internal criticism by its leading proponents (Haldane, Romer, Stiglitz, Akerlof, Herckmann et al.)? Without an institutional reform it remains likely that economic publishing continues to evolve along methods. For sure teaching will follow this trend soon, the weight of empirical economics courses is already rising in many economics' curricula. Drafting out a vision for a better design of the international market for economists remains an important desideratum.

Independent of this question we see three scenarios for German economics in the international competition. Mimicking the benchmark of neoclassical microeconomics has turned out to be a successful strategy to establish itself on the international market, especially during the time of high theory. The recent increase of citations of German economics points towards a similar success in recent empirical methods. To reverse this trend, de-internationalize and follow the strategy of a national German-speaking market again appears neither desirable nor a proposition by any of the critiques of the status quo so far. Nevertheless, from a competition and innovation-oriented perspective of view the question arises what the national specificity and competitive advantage of German economics is. Imitation without a reflection on one's own specificity leads to the fact that one always lags the current trends. The third option we see and propose is a broad discussion on what could be the role of German economics reflecting its rich traditions, central role in Europe, current policy challenges, methodological rigour, and open questions for shaping our economic future.

anticipatory obedience

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