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## A Survey of German Economics

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# **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 of European economics by surveying recent material published in the period of 2015-2022 on German economics. For doing so, we also have to 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 & Pischke, 2010; Angrist et al., 2017; Backhouse & Cherrier, 2017). The increase in the diversity goes so far that some speak of a new mainstream pluralism (Davis, 2006; Rodrik, 2015; Becker et al., 2017; Bachmann, 2017, 2019; Weimann, 2019), criticize a new a-theoretical style (Spiegler, 2019) or even proclaim fragmentation (Roncaglia, 2019; Cedrini & Fontana, 2018; Davis, 2017). 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. But as methodical rigor remains the accepted currency in the field of economics, we can still stick to the bigger picture of the introductory analysis.

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) and Gärtner et al. (2011) investigate 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. 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* (Buyst & Maes, 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 as argued by Frey and Eichenberger, 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 US 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, 2003).<sup>1</sup> 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 extending to Austria and parts of Switzerland. 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 over 30 economic studies focusing on economics itself in the period from 2015 to 2022. 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 allow us to shed some light on an important part of the state of European economics, even in the case of limited representativeness.

We will continue to provide an overview on the debates within German economics<sup>2</sup>, and the background for the emergence of the recent empirical analyses. In part three, we give a systematic overview of German economics along the three dimensions of research, teaching, and policy advice. Concluding, we provide a summary and a discussion of the empirical material considering the initial prediction.

## 2 Recent debates and research on German economics

German economics has been subject to three larger public debates in the past 15 years. In the context of our analysis, they provide the semantic and motivational frames needed for grasping 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 lie in the empirical material we present.

Traditionally the German Economics Association, Verein für Socialpolitik (VfS), commissioned regular opinion polls among its members (Schneider et al., 1983; Frey et al, 2007; Fricke 2010) and surveyed the satisfaction of doctoral students with academic structures (Weichenrieder & Zehner, 2014), and more recently the share of female economists (Hilber et al., 2021; Friebe et al., 2022). In addition, different

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<sup>1</sup> 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; Osterloh & Frey, 2015).

<sup>2</sup> 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.

authors looked at how successful careers were pursued within German economics (Bommer & Ursprung, 1998; Graber et al., 2008). Justus Haucap and his co-authors 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 society and policy (Bräuninger & Haucap, 2001, 2003; Haucap & Mödl, 2013). Keil & Huber (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 neoclassical general equilibrium modelling back then, and relevance as a set of characteristics of economists' engagement in public policy. The meaning of rigor will change to denote a wider set of methods in later debates.

The first public debate we introduce here is called the 'Cologne debate'. It emerged after three professorships, including Economic Policy at the University of Cologne, had been reassigned to professorships for microeconomics. 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 20<sup>th</sup> century German Economics there are different understandings of what constitutes a particular German tradition (Caspari et al., 2011)<sup>3</sup>. 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 (see Schefold, 1995). Michael Mödl stated the controversial point, which remained unresolved during the conference, that the trade-off between rigor and relevance remained.<sup>4</sup>

The second recent debate on German economics took shape at the annual meeting of the VfS hosted 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 (NWPÖ, 2020). Starting from reading circles at

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<sup>3</sup> This book also contains the open letters and the minutes of the panel discussion.

<sup>4</sup> 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 had been 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 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.

five German universities, the Network for Pluralism Economics emerged to accommodate the demand of student groups at more than 30 German-speaking universities until 2022. This broad student movement somehow parallels the “Rethinking Economics” movement in English- and other-language-speaking countries. Together they led 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, 2018; Bachmann, 2019; Weimann, 2019). Heterodox economists object this account of the discipline (Heise, 2017; Beckenbach, 2019; Peukert, 2018a). 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, the Association for Socioeconomic Education and Research.<sup>5</sup> 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 Pluralist Economics and the Hans-Böckler foundation surveyed economics curricula at German universities (Beckenbach et al., 2016), Heise and his co-authors provided a detailed history of the decline of heterodox economics professorships in Germany (Heise & Thieme, 2016; Heise et al., 2016, Reinke 2021), and different categorization efforts of pluralist economics emerged (Dobusch & Kapeller, 2012; Heise, 2017; Dimmelmeier et al., 2017). 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.<sup>6</sup> They covered the topics of teaching material and the textbook market (van Treeck & Urban, 2017, 2019; 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 drew upon (Sagvosdkin, 2021). Others differentiated between categories of an orthodox part of the mainstream and a *mainstream pluralism*, partly also referred to as ‘*Colander’s edge*’ (Colander et al., 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 (Krugman, 2012; Münchau, 2014). 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 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 triggered a limited number of studies (Dullien & Guérot, 2012; Fricke, 2017; Kapeller et al., 2021), most of which we will refer to at a later stage. It is important to not conflate terminology, as in this debate orthodox does not denote the usual textbook

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<sup>5</sup> <https://soziooekonomie-bildung.eu/en/>

<sup>6</sup> Many of those results are only published in German language and can be found here: <http://www.fgw-nrw.de/de/themenbereiche/neues-oekonomisches-denken.html>

standard but rather a kind of ordoliberal consensus established in some policy relevant circles in Germany.

These debates provide the semantic background to understand various settings and questions underlying the empirical studies we now turn to.

### 3 German Economics

In this section we present major studies and results on German economics between 2015 and 2022. The broad variety and focus on different aspects of German economics provides a good overall assessment of the status quo of the discipline. We will recurrently introduce findings on US American Economics to enable an evaluation in how far we can speak of a US Americanization of German economics regarding its structure, and regarding its content. The aim is to discuss afterwards to which of the analyses of the three criticisms in the debates on German economics the empirical results lend support to.

An interest in this internationalization hypothesis is not necessarily in line with the major research questions posed by the authors of the respective studies. We address this by mentioning their original research motivation, and by including footnotes if our interpretation tends to go into a different direction than elaborated by the authors themselves. This is more strongly so in the case of 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 teaching (3.2) and close with some remarks 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 sets the tone 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), a resulting orthodoxy (Ferguson & Johnson, 2018; Colussi, 2017), 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, Frey 2003). 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 incur 1.8, 1.6 and 1.1% respectively. The first two out of these 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 words '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)<sup>7</sup>. Frey and Briviba (2021) report a high perceived pressure among the staff at several German speaking universities especially for assistant professors who do not have a permanent chair yet. This pressure seems to be reasonable about the professorships allocated in the last years. But they also show that some professorships even at the so-called excellence universities have been allocated to authors without a top five publication. Due to the high risk of getting rejected from those journals they suggest that it might be a strategy to widen the focus for individual publication strategies.

### 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 US 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, 2002; Aistleitner et al., 2016; Heise et al., 2016), the unpreparedness of the discipline in the face of past financial crises and the existence of a German Sonderweg (Dullien & Guérot, 2012; Krugman, 2012; Münchau 2014). 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.<sup>8</sup> The pluralist mainstream (3) category reflects how open

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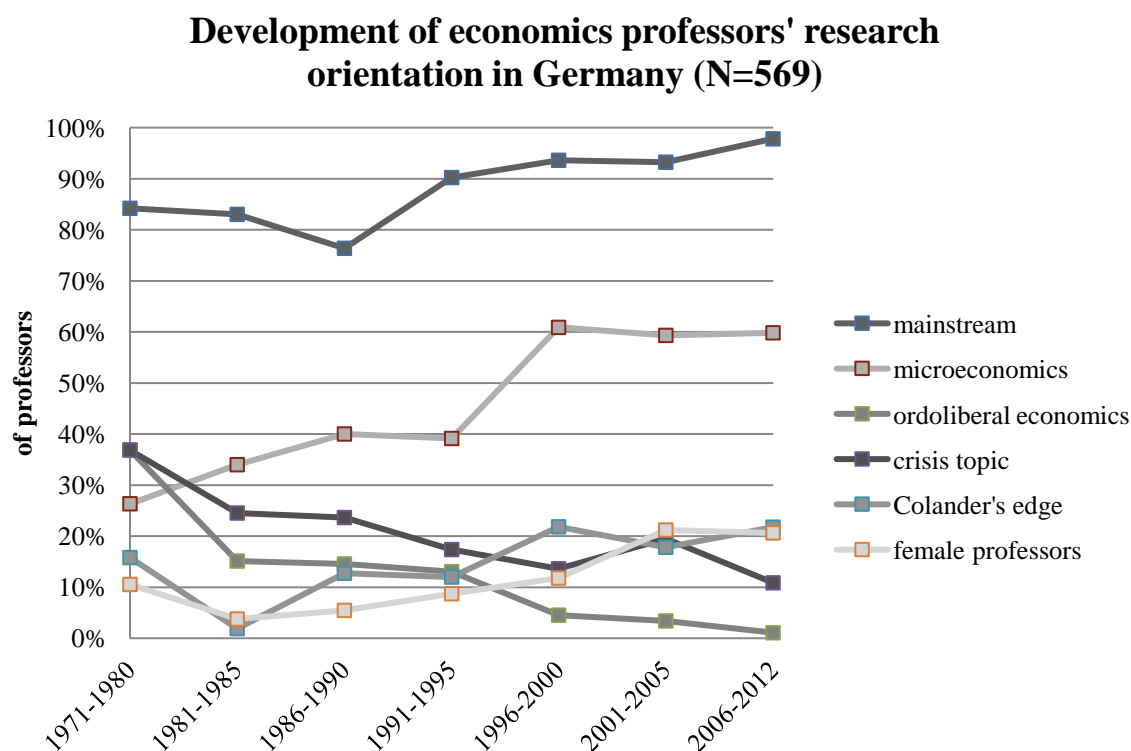
<sup>7</sup> The keywords 'economic growth', 'China', 'Panel data', 'monetary policy' and 'experiment' get the highest mentions in Mainstream journals, 'globalization', 'sustainability', 'innovation', 'China' and 'Gender' it is for the heterodox journals.

<sup>8</sup> 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



economists are in publishing in a broader set of fields. The additional category *Colander's edge* (4) accounts for the establishment of new fields such as evolutionary game theory, ecological economics, behavioural/psychological economics, complexity theory, experimental economics<sup>9</sup>, computer simulation (Colander et al., 2004, p. 496), and economic geography (Dobusch & Kapeller, 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).<sup>10</sup>

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.<sup>11</sup> 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.

in mainstream journals, and pluralist mainstream economists at least three articles in heterodox journals but more than a half in mainstream journals.

<sup>9</sup> Here experimental economics refers to research in lab situations.

<sup>10</sup> 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.

<sup>11</sup> 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.

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 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 13% 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% in the 1970s to around 15% in the 1990s to currently 1%, while microeconomics now makes an even greater presence than in the U.S.<sup>12</sup> Taken together with Germany's growing role in the international market of economists, these analyses support the observations made in the first German debate which stressed an international orientation and 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. Beyer et al. draw attention to the role of microeconomics in these developments. If the rise of microeconomics also laid paved the way for the 'empirical turn' which will be discussed in the next section, is a topic for further studies.

### 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.<sup>13</sup> 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 this (Colander, 2008; Rosser et al., 2010; Graber et al., 2008; Necker, 2014).

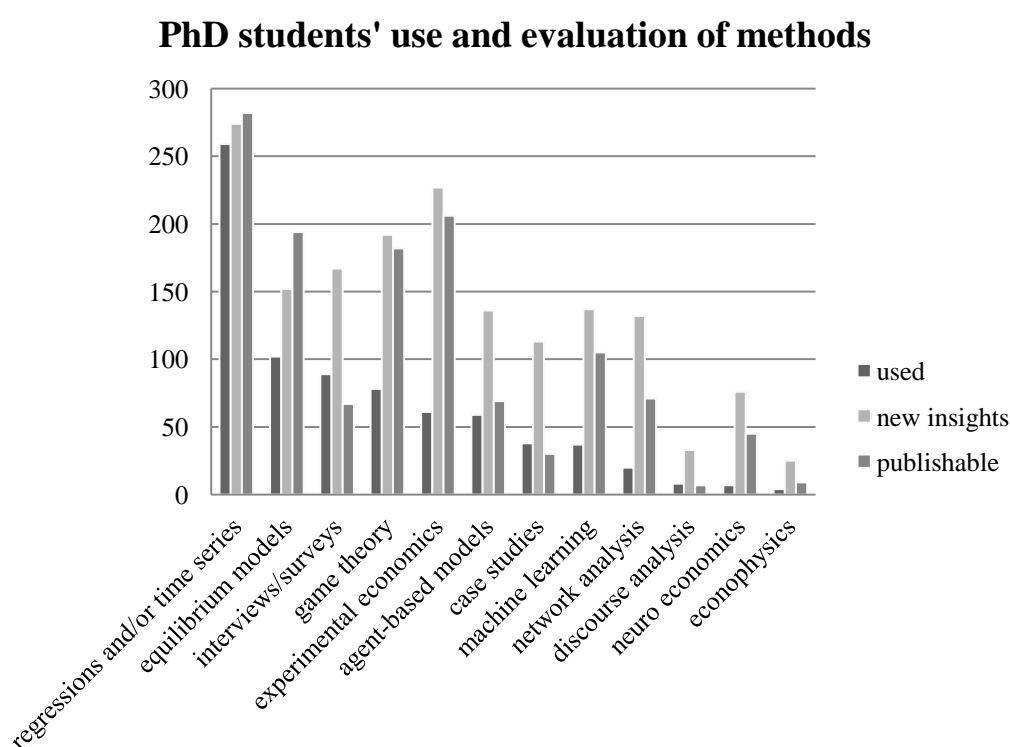
The study encompasses findings on the different levels of interest to our analysis, on Germany's position in the discipline and its very characteristics. Regarding the internationalization hypothesis, Roos et al.

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<sup>12</sup> 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.

<sup>13</sup> 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., 2019). 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 (2014) 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.

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, while 9% aim to write a monography. As writing a monography was long times common in German economics, this indicates a far-reaching adjustment to the US 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).<sup>14</sup> 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 last scales indicating purely theoretical work. A somewhat similar pattern evolves in the question on applied or basic/fundamental research.



**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

<sup>14</sup> Multiple answers were possible, N=972. The five questions beforehand were answered by 376 respondents.

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 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 related 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, while 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).<sup>15</sup> 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 1983. 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 the genuine 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

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<sup>15</sup> 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’.<sup>15</sup> 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., 2019).

Council of Economic Advisors (SVR) which tend to be more orthodox than the average.<sup>16</sup> What sticks out in his study by looking at the longer discourse patterns 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 furthermore analyses the stances prevalent in different age cohorts, like the claim for pluralism, a potential crisis of legitimacy of the discipline, 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, which may be related to the pressures of an internationalized science. The results show a greater diversity of German economics than more usually expected and an increasing homogenization through international standards at the same time.

### 3.1.5 Interim conclusion

Drawing a preliminary conclusion about characteristics of German economics, including the three debates, we find empirical support for much of the criticism voiced. First and foremost, Frey's 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., 2019 and Fricke, 2017: 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 the national and international policy discussion is combined with decreased paradigmatic standpoint or self-reflection, academic opinions may be more

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<sup>16</sup> 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 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).

than before influenced by shifts in the public debate, in the end informing the latter less with proper academic advice than in earlier decades.

## 3.2 Graduate education in German economics

Economics higher education in the U.S. is regularly reviewed regarding its content and aims. Surveys and reports are conducted on the topic of the curriculum of economics (Siegfried et al. 1991, Becker & Watts 1996, 2001, Watts & Becker 2008), and are discussed in detail in the *Journal of Economic Education* 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 in the 1990s which mimic its style (Colander 2011). This textbook canon has spread to many countries around the world (Skousen, 1997; Decker et al., 2019).<sup>17</sup> 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, 2005; Colander, 2011). A debate on transforming this textbook canon has been going on for some time now (Colander & McGoldrick, 2009; Bowles & Carlin, 2020; de Muijnck & Tielemann, 2022).

For graduate economics teaching in Germany, we did not find an evaluation prior to 2012. Even though economics education did not play a role in the prediction by Frey and Eichenberger, we regard the following perspective as essential: If we regard the academic discipline of economics as a market, academic degrees function as production standards, and economics education decides on the basic orientations within those boundaries. We suggest that the structure of the academic job market can be considered a pull factor, while economics education is a push factor that determines who is entering the competition with what kind of 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).<sup>18</sup> In addition, they used text-mining tools to query the module

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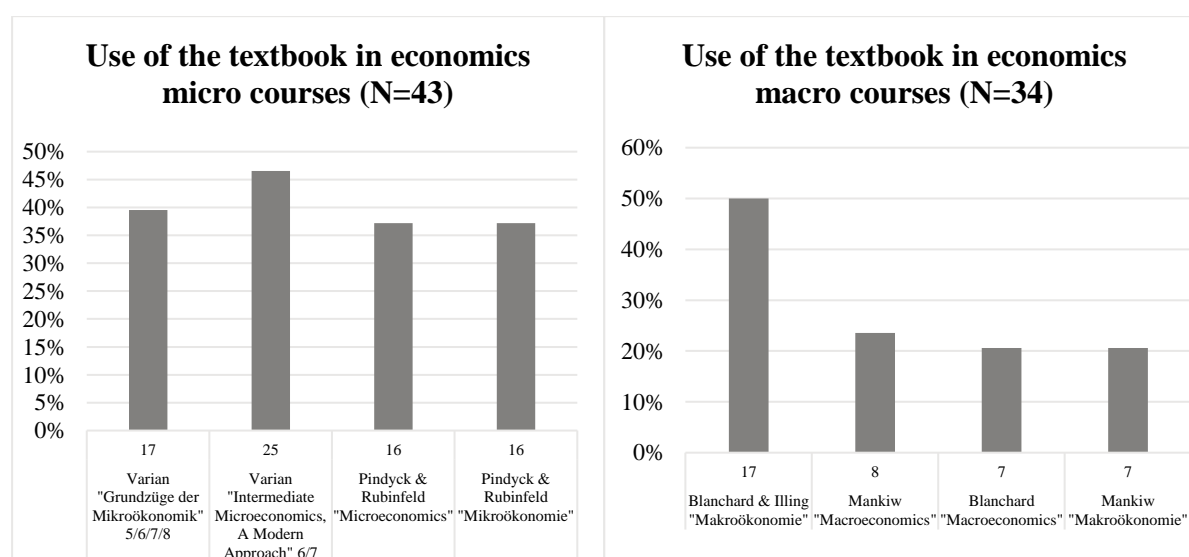
<sup>17</sup> Studies and surveys for other countries indicate a state of pluralism in economics curricula for Brazil, the spreading of neoclassical economics for India and its dominance for Ghana, Australia (for various countries Decker et al., 2019), the UK (Reimann, 2004; Wigstrom, 2016) and some 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).

<sup>18</sup> They also asked lecturers for their course material and received those from 79 persons.



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).<sup>19</sup> His research is motivated by the question whether economics higher education 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). His analysis of textbooks used in class is then limited to the courses, introduction to economics, micro and macroeconomics, since these are ought to be 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' (2014), 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', (2013) 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.

<sup>19</sup> 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.

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 orthodox keywords outnumber heterodox terms by a factor of 10-20 to 1, which then does hint to an education which is to large extents uniform (p. 220). 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.<sup>20</sup> An in-depth analysis of economics textbooks by a number of German economists (van Treeck & Urban, 2019; Graupe, 2018; Peukert, 2018a) reveals that the textbooks most often used rarely account for novelties in research, and appear to aim at transporting the image of 'enduring truths' of economics, as put forward in Samuelson and Nordhaus (2009).

### 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 students see strengthened through the study of economics in 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.<sup>21</sup>

Engartner's and Schweitzer-Krah's analysis<sup>22</sup> 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.<sup>23</sup> Qualitative methods are less present, 11% of students indicate to have heard about interviews or surveys

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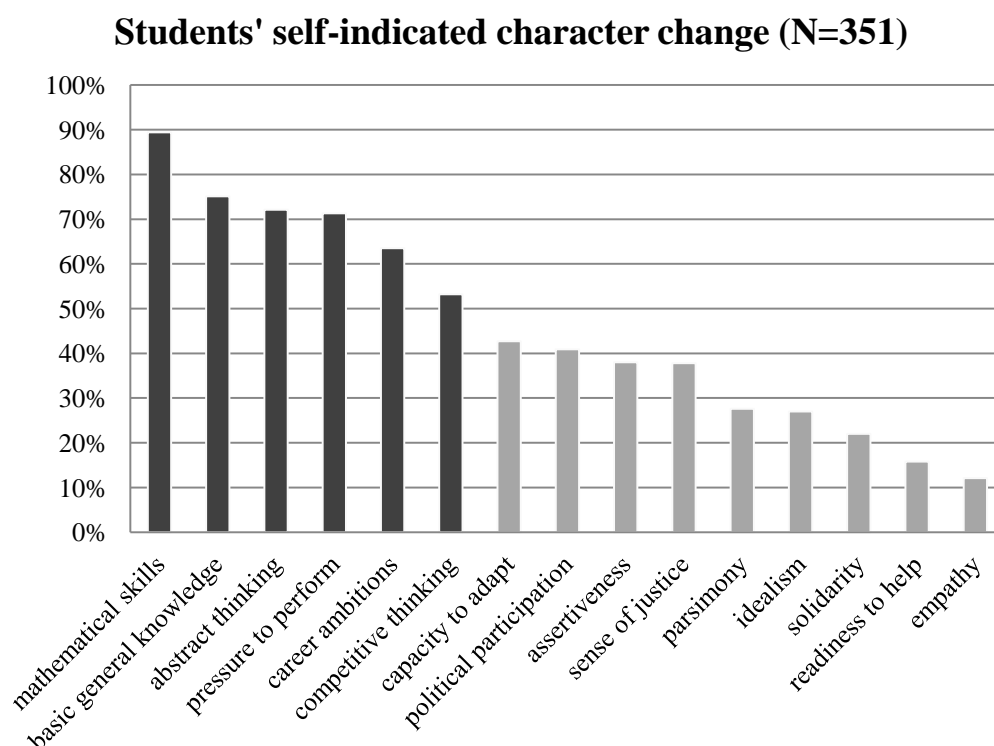
<sup>20</sup> The authors of the study interpret their findings more critical, as the uniformity which they see in the results may challenge the independence of research and teaching which is guaranteed in the German constitution.

<sup>21</sup> 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.

<sup>22</sup> 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.

<sup>23</sup> 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.

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.<sup>24</sup>



**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) 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

<sup>24</sup> 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.

without an idea how to apply or relate those concepts to the real-world. Across all groups there was a strong negative perception of this disconnectedness. Moreover, participants showed a high degree of discontent with the curricula, especially for the first four semesters. After some time, students turn to choose those courses which allow for a relatively easy ‘harvesting’ of ECTS credit points and rather turn away from genuine topics and courses of interest. In 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 we are aware of including a time perspective, which, like in research, could depict 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”. 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 a major structuring element 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 shape students potentially more than the content itself. An international and largely standardized and economized structure appears to divert students’ attention away from content to performance indicators prevalent within the system. 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 how research takes place. While teaching introduces students to a world of perfect equilibrium, research is by far more empirically oriented, and increasingly focused on the many cases in which equilibrium analysis is misleading. A recent directory of the German Science Council (Wissenschaftsrat, 2022) called for a less summative learning and more reflexive subjects, smaller classes, practical problem solving and co-creation, to face the multiple societal challenges.

## 3.3 Public Policy

German economics has faced some serious criticism in the area of 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 [authors’ 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.<sup>25</sup> In the making of their attitudes, economics education plays an important role again. While we lack the space to discuss empirical studies regarding the education of economics teachers (there is a heated debate on economics as a subject in public schools), there has been some important work on public policy and economic journalism we now present.

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. In a recent contribution he points out that despite the increasing success of German economists in international publishing they are less concerned with issues directly addressing the German economy. The share of contributions in the top 5 journals from German economists dealing with the German economy decreased from 26,2% in 2015 to 11,5% in 2019 (Haucap, 2020). 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 points 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 under 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 contrasts with 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).<sup>26</sup> 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 et al., 2018).

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 is able to show a high degree of mainstream and orthodox content especially in the core subjects, while there are more heterodox subjects in vocational parts. While the gap between orthodox

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<sup>25</sup> Economics education provides an intellectual background not only for decision-makers in the economy but also for teachers, journalists and many more. In 2021 there were 2.9 mio. students in Germany, 21.1% of them are studying business administration or economics directly and many more are taking the standard introductory courses.

<sup>26</sup> Evaluated through the membership in and support of open calls with a ordoliberal or neoliberal stance.

and heterodox terms is 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 is 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, which may be kept in mind for formulating objectives and designing 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 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) model 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 took place within two dominant policy frames. Economic journalism, as the authors suggest, thereby 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, despite growing socioeconomic inequality which accommodates paradigmatic worries raised earlier (Theine and Grisold, 2020).

## 4 Discussion

In their 1992 American Economics Review article Frey and Eichenberger pointed out that a large market for economists favours competition in rigorous methods. Thereby it often produces its own standards of rigor rather than serving practical policy needs. They predicted that the European integration would lead to a homogenization and an alignment of European economists to the standards of the U.S. American market for economists. Motivated by the rich empirical material of 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 here whether the material was sufficient to draw such conclusions, which of the questions posed were answered, how we can interpret the findings and what new kinds of 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 categories used. The results show a more diverse picture than we would expect in a larger, unified research project. The studies come with a high degree of complementarity as they highlight different aspects of German economics. Due to the different perspectives taken the robustness of many findings is increased. The methods applied were sound and rigorously followed. Ranging from large quantitative data sets to advanced qualitative methods such as group interviews based on the documentary method, we claim that the methodological diversity applied can be regarded as a model case of a fruitful combination of a plurality of research approaches and methods of empirical-reflexive socioeconomic



research. One might well speak of the empirically best studied period of German economics so far. We suggest that a similarly detailed survey of the status quo of economics in Germany (and Europe) should be carried through every seven to ten years.<sup>27</sup>

To which extent is the material on Germany representative for European economics? It turned out that the citation data supports the assumption that German economics can provide a case for European economics. German economics receives the most quotations among European economics 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 2019 a/b, Fontana et al. 2019). Combined, German economics seems to be quite central for European economics and has itself taken a leading role in the orientation towards Anglo-American standards. Nevertheless, further studies and surveys addressing other European countries would be welcome.

Regarding the result we can tentatively validate the prediction by Frey and Eichenberger about the homogenization of European economics with U.S. economics. For the case of the German-speaking area we can conclude that neither the language barrier of the largest language area in Europe nor the established identity of German economics has persisted. The counterhypotheses by Klammer (1995) and Rothschild (1999) did not come true. The Cologne-debate can be seen as an example of a late resistance. German economics is in its main structuring features an internationalized academic field oriented towards the U.S. American market (Beyer et al. 2019). The perceived lack of internationalisation of German economics voiced in 2009 should thus be of no worry anymore. One could even raise the question whether German economics in 2009 was still lagging behind or whether that was more of a rhetoric figure.

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. 2019). 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 between 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 the very lack of an 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 ambitious than its role model today. However, when we look at the influence of economics on policies, the differentiation between mainstream and pluralist economics, and ordoliberal (and neoliberal) positions becomes more apparent. While academic economics in Germany is oriented towards international standards, in public policy certain voices such as ordoliberals are much more strongly represented than others (Kapeller et al. 2021). This can be traced back to strong network effects (Ötsch et al. 2018). Regarding the future development this effect though will very likely cease to exist, due to a lack of ordoliberal training.

While the result of Frey and Eichenbergers prediction has materialized, we raise the question whether their prediction has become true for the mechanism they suggested, or whether their success was just instrumental. The mechanism they suggested was the increased market size following the external variable of European integration combined with the forces of the academic job market. We included economics education in our survey of German Economics as we believe it has a huge impact on the development of economics as a discipline. Speaking of a market for economists, economics education

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<sup>27</sup> Regarding biometric data on economists a major step has lately been taken by the VfS (Hilber et al. 2021).

can be viewed as a quite costly investment into human resources. There is a high intellectual cost attached to training oneself in a particular way of thinking and current economics education comes with a specific idea of how economists should think (Allgood 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 (2017) and Beckenbach et al. (2016) 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, also Bäuerle et al., 2020; Bäuerle 2022) coined the term “tunnel vision” to denote this educational experience. We can speak of considerable sunken costs each student of economics pays. This may well determine the paths which are pursued and thereby frames later specializations of academic careers. PhD students in Germany report how hard it is to bridge the gap from their economics education to current research methods (Roos et al., 2019). This raises the question whether European integration and the extension of the market for economists did play such an important role. If European students at the time of Frey and Eichenberger's prediction in 1992 were already trained on the US-American textbook standard, a subsequent orientation of doctoral students towards US American economics could well be explained because of their education. 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.<sup>28</sup> The material suggests that the role for economics education for internationalizing the discipline has been underestimated in the debate so far. As economics education around 1992 was not in our focus and the recent studies we reviewed did not provide a historical perspective, we cannot decide which mechanism was more important in producing the current state of economics. Hence, we do not doubt the relevance of Frey and Eichenberger's causal frame but suggest another important variable to be considered in future predictions.<sup>29</sup> As the historical material we reviewed in chapter 2 (see footnote 4) suggests that education in Germany was oriented at U.S. American standards long before 1992 we suggest that economics education is a severe omission in this discourse so far and can provide a different causal mechanism we should bear in mind when it comes to future predictions and strategies. Rothschild and Klammer might have been wrong because students in economics learn a different language right away.

Beyond this theoretical 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 academic fellows 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 a short amount of time, they may no longer care about content or follow their intellectual interests (Bäuerle et al. 2019). 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 decision. We regard this area

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<sup>28</sup> 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 Akerlof speaking of serious omissions (2020) or Heckman & Moktan speaking of a tyranny of the top 5 journals based on a comprehensive data analysis (2020).

<sup>29</sup> Beyond that, another strand 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 2017, Graupe et al. 2018). Here lies another alternative hypothesis for the success of US American economics.

as promising for future empirical research. 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-made and 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. For now, we can only formulate the hypothesis that not only in research do we find a kind of competition which undermines the academic logic, but we can also find negative effects in economics education.

To conclude we can clearly diagnose that German economics is not aligned towards European economics. German economics teaching comports with the globally used US American textbook canon of the 1980s (Allgood et al. 2015, Decker et al., 2019). Research is oriented towards the current publishing trends in international, respectively Anglo-American top journals. In both areas German economics has successfully mimicked U.S. American economics as a role model. Measured by the higher share of microeconomics professorships and the increase in contributions in top journals it has become even more orthodox than its role model. To reverse this trend, de-internationalize German economics and following the strategy of a national German-speaking market appears neither desirable nor a proposition by any of the critiques of the status quo so far. But the gap among the two standards in teaching and research is apparent and widely acknowledged by international leading proponents (Romer, 2015, Haldane, 2016; Akerlof, 2016, 2020; Heckmann et al., 2020) as well as within German economics: 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., 2019, Fricke, 2017; Bachmann, 2019; Rommel et al., 2022). What to do in a situation in which the former role model appears to be increasingly fragmented (Roncaglia, 2019; Cedrini & Fontana, 2018)? We point out two scenarios for economics education as we believe research should not be subject of a central strategy, but economics education already follows a uniform standard.

The first scenario is to adjust economics education towards the needs of current publishing. This would mean to decrease the role of the neoclassical teaching canon in favour of empirical methods (Angrist et al. 2017). This strategy could be promising to further increase the performance of German economics in international publishing and is pursued at U.S. American top universities already (Matthews 2019). We call this strategy: Early adapter.

The second scenario takes an innovation-oriented perspective and asks what the national specificity and competitive advantage of German economics is beyond good imitation. Imitation without a reflection on one's own specificity leads to a situation in which one lags behind the current trends. In a time of crises, transitions, and periods of rapid technological change characterized by radical uncertainty the orientation at a fixed methodological standard prevents us from searching for truly new alternatives. The scenario we consider as more fruitful is to reflect and discuss the rich intellectual history, current policy challenges, different standards of methodological rigor, and the many global challenges for shaping our economic future in economics education. An open process integrating such a plurality could produce new answers on how to bridge the gap among relevance and rigor and set new trends.

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