

Wagner, Joachim

**Working Paper**

## Exports and firm survival in times of COVID-19: Evidence from eight European countries

Working Paper Series in Economics, No. 422

**Provided in Cooperation with:**

Institute of Economics, Leuphana Universität Lüneburg

*Suggested Citation:* Wagner, Joachim (2023) : Exports and firm survival in times of COVID-19: Evidence from eight European countries, Working Paper Series in Economics, No. 422, Leuphana Universität Lüneburg, Institut für Volkswirtschaftslehre, Lüneburg

This Version is available at:

<https://hdl.handle.net/10419/283411>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

Exports and firm survival in times of COVID-19 –  
Evidence from eight European countries

---

by  
Joachim Wagner

University of Lüneburg  
Working Paper Series in Economics

**No. 422**

Oktober 2023

[www.leuphana.de/institute/ivwl/working-papers.html](http://www.leuphana.de/institute/ivwl/working-papers.html)

ISSN 1860 - 5508

# **Exports and firm survival in times of COVID-19 – Evidence from eight European countries\***

**Joachim Wagner**

Leuphana University Lüneburg and Kiel Centre for Globalization

**[This version: October 17, 2023]**

## Abstract:

This paper uses firm level data from the World Bank Enterprise surveys conducted in 2019 and from the COVID-19 follow-up surveys conducted in 2020 in eight European countries to investigate the link between exporting before the pandemic and firm survival until 2020. The estimated effect of exports is positive and statistically significant *ceteris paribus* after controlling for various firm characteristics that are known to be related to firm survival. Furthermore, the size of this estimated effect can be considered to be large on average. Exporting helped firms to survive.

*JEL classification:* D22, F14, L20, L25, L29

*Keywords:* Exports, firm survival, COVID-19, World Bank Enterprise Surveys, Robit regression

\* The data from the World Bank Enterprise surveys used in this paper are available after registration from the website <https://www.enterprisesurveys.org/portal/login.aspx>.

Professor Dr. Joachim Wagner  
Leuphana University Lüneburg  
D-21314 Lüneburg  
Germany  
e-mail: [wagner@leuphana.de](mailto:wagner@leuphana.de)

## **1. Motivation**

When the coronavirus and COVID-19 reached Europe in the first quarter of 2020 firms were hit by negative demand shocks due to quarantine and lockdown measures. Furthermore, supply chains were damaged and this lead to negative supply shocks. These shocks had a negative impact on many dimensions of firm performance. Waldkirch (2021) reports evidence on the impact of the COVID-19 pandemic on firms around the world based on the so-called COVID-19 follow-up surveys to the World Bank's Enterprise Surveys conducted in 2020. Empirical studies are surveyed in Belitski et al. (2022) and Muzi et al. (2023).

Some firms were hit so hard by these negative exogenous shocks that they decided to close down permanently. An important question that is investigated in a number of papers is which characteristics of firms help many of them to survive the pandemic. Empirical studies that use the World Bank's Enterprise surveys to study firm exit during the COVI-19 pandemic include Wagner (2021) and Cariolle and Léon (2022) with a focus on the role of having a website; Khan et al. (2022) who study the role of innovations; Muzi et al (2023) who look at productivity; Grover and Karplus (2021) with a focus on management pratices; and Wagner (2022) who looks at the role of the gender of firm owners.

None of these studies investigates the role of exports in exit or survival of firms over the pandemic (although some include an exporter dummy variable among other control variables in empirical models). This comes as a surprise, because exporting can be considered as a form of risk diversification through spread of sales over different markets with different business cycle conditions or in a different phase of the product cycle. Therefore, exports might provide a chance to substitute sales at home by sales abroad when a negative demand shock hits the home market and would

force a firm to close down otherwise (see Wagner 2013). Furthermore, Baldwin and Yan (2011, p. 135) argue that non-exporters are in general less efficient than exporters (younger, smaller and less productive) and that, as a result, one expects that non-exporters are more likely to fail than exporters.

A number of recent empirical studies look at the role of international trade activities in shaping the chances for survival of firms; Wagner (2012, p. 256ff.) summarizes this literature. As a rule the estimated chance of survival is higher for exporters, and this holds after controlling for firm characteristics that are positively associated with both exports and survival (like firm size and firm age). This might point to a direct positive effect of exporting on survival.

This paper contributes to the literature by using firm level data from the World Bank Enterprise surveys conducted in 2019 and from the COVID-19 follow-up surveys conducted in 2020 in eight European countries to investigate the link between exporting before the pandemic and firm survival until 2020. In the econometric investigation an estimator that is robust against extreme observations, or outliers, namely Robit regression, is applied besides the standard Probit estimator.

To anticipate the most important result, we find that exporting helped firms to survive. The estimated effect of exports is positive and statistically significant *ceteris paribus* after controlling for various firm characteristics that are known to be related to firm survival. Furthermore, the size of this estimated effect can be considered to be large on average.

The rest of the paper is organized as follows. Section 2 introduces the data used and discusses the variables that are included in the empirical model to test for the role of exports in firm survival. Section 3 reports descriptive evidence and results from the econometric investigation. Section 4 concludes.

## **2. Data and discussion of variables**

The firm level data used in this study are taken from the World Bank's Enterprise Surveys in 2019 and from the COVID-19 follow-up surveys conducted in 2020.<sup>1</sup> These surveys were conducted in a large number of countries all over the world. In this study we focus on countries from Europe. All countries with suitable data from the third follow-up survey are included in the study. This leaves us with data for eight countries: Bulgaria, Croatia, Czech Republic, Hungary, Italy, Poland, Portugal, and Romania.

The classification of firms as survivors or exits is based on question B.0<sup>2</sup> in the follow-up survey from 2020. Firms that participated both in the regular 2019 survey and in the follow-up surveys were asked "Currently is this establishment open, temporarily closed (suspended services or production), or permanently closed?" Firms that answered "permanently closed" in one of the follow-up surveys are classified as exits; firms that answered "open" in the third wave of the follow-up survey are considered to be survivors.

The firm is considered as an exporter if it reports any direct exports in question D.3 of the regular enterprise survey in 2019.<sup>3</sup>

Descriptive evidence on the share of firm exits and on firms with exports in the total sample and by country is reported in in table 1. While the overall share of firms with exports is 30.34 percent and the share of exits is 6.08 percent figures differ

---

<sup>1</sup> The data from the World Bank Enterprise surveys are available free of charge after registration from the website <https://www.enterprisesurveys.org/portal/login.aspx>.

<sup>2</sup> The questionnaires of the regular 2019 survey and the follow-up survey sconduted in 2020 are available from the World Bank's Enterprise Survey web site referred to above.

<sup>3</sup> Note that the survey asked for the percentage share of exports in total sales, too. This information is not used here. A closer look at the answers reveals that the numbers reported have to be considered as "guesstimates" at best with many firms reporting numbers like 10, 20, 30 etc.

widely between the eight countries. Exporters are only ca.17.5 percent in Poland while nearly 60 percent of all firms in the sample exported in the Czech Republic. The share of exits is below 3 percent in the Czech Republic and in Hungary, compared to 12.5 percent in Italy and nearly 10 percent in Bulgaria.

[Table 1 near here]

In the empirical investigation of the link between exports and firm survival a number of firm characteristics that are known to be correlated with firm exit (and that might be related to exports of firms as well) are controlled for. Their link to firm survival, and the way they are measured here, is discussed below.

*Firm size:* Audretsch (1995, p. 149) mentions as a stylized fact from many empirical studies on exits that the likelihood of firm exit apparently declines with firm size (usually measured by the number of employees in a firm). This is theoretically linked to the hypothesis of “liability of smallness” from organizational ecology. A small size can be interpreted as a proxy variable for a number of unobserved firm characteristics, including disadvantages of scale, higher restrictions on the capital market leading to a higher risk of insolvency and illiquidity, disadvantages of small firms in the competition for highly qualified employees, and lower talent of management (Strotmann 2007). For Germany, Fackler, Schnabel and Wagner (2013) show that the mortality risk falls with establishment size, which confirms the liability of smallness.

Firm size is measured as the number of permanent, full-time individuals that worked in the establishment at the end of the last complete fiscal year at the time of the regular 2019 enterprise survey (see question I.1).

*Firm age:* Audretsch (1995, p. 149) mentions as another stylized fact from many empirical studies on exits that the likelihood of firm exit apparently declines with firm age, too. This positive link between firm age and probability of survival is labelled “liability of newness” and it is related to the fact that older firms are “better” because they spent a longer time in the market during which they learned how to solve the range of problems facing them in day-to-day business. For Germany, Fackler, Schnabel and Wagner (2013) find that the probability of exit is substantially higher for young establishments which are not more than five years old, thus confirming the liability of newness.

Firm age is measured as follows. In question B.5 of the regular survey in 2019 firms were asked “In what year did this establishment begin operation?”. Firm age is the difference between 2019 and the founding year.

*Innovation:* Josef Schumpeter (1942, p. 84) argued some 80 years ago that innovation plays a key role for the survival of firms, because it “strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives”. Baumol (2002, p. 1) called innovative activity “a life-and-death matter for the firm.” This positive link between innovation and firm survival is found in a number of empirical studies. For example, Cefis and Marsili (2005) show that firms benefit from an innovation premium that *ceteris paribus* extends their life expectancy; process innovation in particular seems to have a positive effect on firm survival.

In the regular survey in 2019 firms were asked whether during the last three years this establishment has introduced new or improved products and services (see question H1). Firms that answered in the affirmative are considered as product innovators. Similarly, firms were asked whether during the last three years this establishment introduced any new or improved process, including methods of



manufacturing products or offering services; logistics, delivery, or distribution methods for inputs, products or services; or supporting activities for processes (see question H5). Firms that answered in the affirmative are considered as process innovators.

*Website:* One firm characteristic that is often considered to be important for firm survival is online presence, i.e. having a website where potential customers can learn about, and order, goods or services when personal contacts are not possible due to quarantine and lockdown. Wagner (2021) uses firm level data from ten European countries collected in the World Bank's Enterprise Surveys in 2019 and from the COVID-19 follow-up surveys conducted in 2020 to investigate the link between web presence and firm survival, controlling for other determinants of firm exit. He reports a positive effect of web presence on firm survival.

In the regular 2019 survey firms were asked in question C22b "At present time, does this establishment have its own website or social media page?" Firms that answered "yes" are classified as firm with web presence.

Furthermore, firms are divided by broad sectors of activity (manufacturing, retail/wholesale, construction, hotel/restaurant, and services) based on their answer to the question for the establishment's main activity and product, measured by the largest proportion of annual sales (see question D1a1).

Descriptive statistics for all variables are reported for the whole sample used in the empirical investigation in the appendix table.

### **3. Testing for the role of exports in firm survival**

To test for the role of web presence in firm survival empirical models are estimated with an indicator variable for firm survival or not until 2000 as the endogenous

variable, an indicator variable for exporting or not of the firm in 2019 as the exogenous variable and various control variables (discussed in detail above).

To estimate the empirical model two different methods are used. First, the model is estimated by Probit, and average marginal effects with prob-values to indicate their statistical significance are reported. Second, an estimator that is robust against extreme observations, or outliers, is applied, namely Robit regression. While a discussion of any details of this estimator (see Newson and Falcaro 2023) is beyond the scope of this note, it should be noted that Robit regression is considered to be a simple alternative to the Probit model which replaces the Normal distribution used in Probit by a Student t-distribution. The heavier tails of this t-distribution means that outliers are less influential for the estimation results. Given that the choice of degrees of freedom (df) for Robit models still seems to be an open question, and that in general Robit models with fewer df are influenced less by outliers than those with more df (see Newson and Falcaro 2023), we use a Robit link function with 1 df here. Both the Probit and the Robit model are estimated using Stata (version 18). Results are reported in table 2, where results from the Probit estimation are reported in column 1 and results from the Robit estimation are reported in column 2.

[Table 2 near here]

The most important result is that the estimated average marginal effect of exports on firm exit is negative and statistically significant at an error level of 7 percent in the Probit model and 3 percent in the robust Robit model, respectively. Exporting in 2019 before the pandemic reduces the probability of firm exit until 2020.

Note that the estimated average marginal effect of exports on the chance to exit can be considered to be large on average – the estimated average reduction in the probability of exit is 1.65 percentage points in the model estimated by Probit and 2.44 percentage points in the model estimated by Robit, compared to the overall exit probability of 6.08 percent in the sample reported in table 1. Exporting helped firms to survive the negative shocks during the pandemic.

#### **4. Concluding remarks**

This paper demonstrates that exporting is positively related to the probability of survival for firms facing negative demand and supply shocks during the COVID-19 pandemic. The estimated effect is statistically significant *ceteris paribus* after controlling for various firm characteristics that are known to be positively related to survival. Furthermore, the size of this estimated effect can be considered to be large on average. Exporting before the pandemic helped firms to survive.

#### **References**

- Audretsch, David B. (1995), *Innovation and Industry Evolution*. Cambridge, MA: Cambridge University Press.
- Baldwin, John and Beiling Yan (2011), The death of Canadian manufacturing plants: heterogeneous responses to changes in tariffs and real exchange rates. *Review of World Economics* 147 (1), 131-167.
- Baumol, William J. (2002), *The Free-market innovation machine: Analyzing the growth miracle of capitalism*. Princeton: Princeton University Press.

- Belitzki, Maksim, Christina Guenther, Alexander S. Kritikos and Roy Thurik (2022), Economic effects of the COVID-19 pandemic on entrepreneurship and small businesses. *Small Business Economics* 58, 593-609.
- Cefis, Elena and Orietta Marsili (2005), A matter of life and death: innovation and firm survival. *Industrial and Corporate Change* 14 (6), 1167-1192.
- Fackler, Daniel, Claus Schnabel and Joachim Wagner (2013), Establishment exits in Germany: the role of size and age. *Small Business Economics* 41 (3), 683-700.
- Grover, Arti and Valerie J. Karplus (2021), Coping with COVID-19. Does Management Make Firms more Resilient? *Policy Research Working Paper* 9514, World Bank Group.
- Khan, Karamat, Sheng Liu, Baowei Xiong, Leihao Zhang and Chuntao Li (2022), Innovation to Immune: Empirical Evidence From COVID-19 Focussed Enterprise Surveys. *Frontiers in Psychology* 13: 850842.
- Muzi, Silvia, Filip Jolevski, Kohei Ueda and Domenico Viganola (2023), Productivity and firm exit during the COVID-19 crisis: cross-country evidence. *Small Business Economics* 60, 1719-1760.
- Newson, Roger B. and Milena Falcaro (2023), Robit regression in Stata. *The Stata Journal* 23 (3), 658-682.
- Schumpeter, Joseph A. (1942), *Capitalism, socialism and democracy*. New York: Harper & Row.
- Strotmann, Harald (2007), Entrepreneurial Survival. *Small Business Economics* 28 (1), 87-104.
- Wagner, Joachim (2012), International trade and firm performance: a survey of empirical studies since 2006. *Review of World Economics* 148(2), 235-267.

- Wagner, Joachim (2013), Exports, Imports and Firm Survival: First evidence for manufacturing enterprises in Germany. *Review of World Economics* 149 (1), 113-130.
- Wagner, Joachim (2021), With a lille help from my website. Firm survival and web presence in times of COVID-19 – Evidence from 10 European countries. *Economics Bulletin* 41 (3), 1898-1906.
- Wagner, Joachim (2022), Firm Survival and Gender of Firm Owner in Times of COVID-19: Evidence from 10 European countries. *Economies* 10: 98.
- Waldkirch, Andreas (2021), Firms around the World during the COVID-19 Pandemic, *Journal of Economic Integration* 16 (1), 1-19.

**Table 1: Descriptive evidence on share of firms with exports and firm exit in eight European countries, 2019/20**

Country	Number of firms	Share of firms with exports (percent)	Share of exits in firms (percent)
All countries	4,406	30.34	6.08
Bulgaria	537	25.88	9.68
Croatia	332	38.86	4.22
Czech Republic	408	58.33	2.94
Hungary	478	34.94	2.72
Italy	455	30.11	12.53
Poland	801	17.48	3.75
Portugal	887	31.00	6.43
Romania	508	22.05	6.50

Source: Own calculations based on the World Bank Enterprise surveys; for details, see text.

**Table 2: Exports and firm exit in eight European countries, 2019/20:****Results from econometric models**

Method: Probit (Model 1); Robit with 1 df (Model 2); robust standard errors

Dependent variable: Firm exit (1 = yes)

Model		1	2
Variable			
Exporter (Dummy; 1 = yes)	Average marginal effect	-0.0165	-0.0244
	p-value	0.072	0.029
Web-presence (Dummy; 1 = yes)	Average marginal effect	-0.0372	-0.0185
	p-value	0.000	0.018
Firm age (Years)	Average marginal effect	-0.0011	-0.0008
	p-value	0.001	0.087
Firm size (Number of employees)	Average marginal effect	-0.000043	-0.0008
	p-value	0.468	0.080
Product innovator (Dummy; 1 = yes)	Average marginal effect	-0.0141	-0.0120
	p-value	0.111	0.341
Process innovator (Dummy; 1 = yes)	Average marginal effect	-0.0188	-0.0054
	p-value	0.089	0.0686
Country dummy variables		yes	yes
Sector dummy variables		yes	yes
Number of observations		4,406	4,406

Source: Own calculations with data from World Bank Enterprise surveys; for details see text.

**Appendix : Descriptive statistics for sample used in estimations**

Variable	Mean	Std. Dev.
Firm exit (Dummy; 1 = yes)	0.0608	0.2390
Exporter (Dummy; 1 = yes)	0.3034	0.4598
Web-presence (Dummy; 1 = yes)	0.7179	0.4501
Firm age (Years)	23.0	17.00
Firm size (Number of employees)	71.33	150.28
Product innovator (Dummy; 1 = yes)	0,2204	0.4146
Process innovator (Dummy; 1 = yes)	0.1055	0.3073
Manufacturing (Dummy; 1 = yes)	0.6425	0.4793
Retail / Wholesale (Dummy; 1 = yes)	0.1861	0.3892
Construction (Dummy; 1 = yes)	0.0547	0.2274
Hotel / Restaurant (Dummy; 1 = yes)	0.0350	0.1837
Services (Dummy; 1 = yes)	0.0817	0.2739
Number of observations	4,406	

Source: Own calculations with data from World Bank Enterprise surveys; for details see text.



# Working Paper Series in Economics

(recent issues)

---

- No. 421 *Joachim Wagner*: Big Data Analytics and Exports – Evidence for Manufacturing Firms from 27 EU Countries, September 2023
- No. 420 *Christian Pfeifer*: Can worker codetermination stabilize democracies? Works councils and satisfaction with democracy in Germany, May 2023
- No. 419 *Mats Petter Kahl*: Was the German fuel discount passed on to consumers?, March 2023
- No. 418 *Nils Braakmann & Boris Hirsch*: Unions as insurance: Employer–worker risk sharing and workers' outcomes during COVID-19, January 2023
- No. 417 *Institut für Volkswirtschaftslehre*: Forschungsbericht 2022, January 2023
- No. 416 *Philipp Lentge*: Second job holding in Germany – a persistent feature?, November 2022
- No. 415 *Joachim Wagner*: Online Channels Sales Premia in Times of COVID-19: First Evidence from Germany, November 2022
- No. 414 *Boris Hirsch, Elke J. Jahn, Alan Manning, and Michael Oberfichtner*: The wage elasticity of recruitment, October 2022
- No. 413 *Lukas Tohoff and Mario Mechtel*: Fading Shooting Stars – The Relative Age Effect, Misallocation of Talent, and Returns to Training in German Elite Youth Soccer, September 2022
- No. 412 *Joachim Wagner*: The first 50 contributions to the Data Observer Series – An overview, May 2022
- No. 411 *Mats Petter Kahl and Thomas Wein*: How to Reach the Land of Cockaigne? Edgeworth Cycle Theory and Why a Gasoline Station is the First to Raise Its Price, April 2022
- No. 410 *Joachim Wagner*: Website premia for extensive margins of international firm activities Evidence for SMEs from 34 countries; April 2022
- No. 409 *Joachim Wagner*: Firm survival and gender of firm owner in times of COVID-19 Evidence from 10 European countries, March 2022
- No. 408 *Boris Hirsch, Philipp Lentge and Claus Schnabel*: Uncovered workers in plants covered by collective bargaining: Who are they and how do they fare?, February 2022
- No. 407 *Lena Dräger, Michael J. Lamla and Damjan Pfajfar*: How to limit the Spillover from the 2021 Inflation Surge to Inflation Expectations?, February 2022
- No. 406 *Institut für Volkswirtschaftslehre*: Forschungsbericht 2021, January 2022
- No. 405 *Leif Jacobs, Lara Quack and Mario Mechtel*: Distributional Effects of Carbon Pricing by Transport Fuel Taxation, December 2021
- No. 404 *Boris Hirsch and Philipp Lentge*: Non-Base Compensation and the Gender Pay Gap, July 2021
- No. 403 *Michael J. Lamla and Dmitri V. Vinogradov*: Is the Word of a Gentleman as Good as His Tweet? Policy communications of the Bank of England, May 2021

- No. 402 *Lena Dräger, Michael J. Lamla and Damjan Pfajfar*: The Hidden Heterogeneity of Inflation and Interest Rate Expectations: The Role of Preferences, May 2021
- No. 401 *Joachim Wagner*: The Good have a Website Evidence on website premia for firms from 18 European countries, April 2021
- No. 400 *Luise Görge*: Of housewives and feminists: Gender norms and intra-household division of labour, April 2021
- No. 399 *Joachim Wagner*: With a little help from my website. Firm survival and web presence in times of COVID-19 – Evidence from 10 European countries, April 2021
- No. 398 *Katja Seidel*: The transition from School to Post-Secondary Education – What factors affect educational decisions?, March 2021
- No. 397 *Institut für Volkswirtschaftslehre*: Forschungsbericht 2020, Januar 2021
- No. 396 *Sabien Dobbelaere, Boris Hirsch, Steffen Mueller and Georg Neuschaeffer*: Organised Labour, Labour Market Imperfections, and Employer Wage Premia, December 2020
- No. 395 *Stjepan Srhoj, Vanja Vitezić and Joachim Wagner*: Export boosting policies and firm behaviour: Review of empirical evidence around the world, November 2020
- No. 394 *Thomas Wein*: Why abandoning the paradise? Stations incentives to reduce gasoline prices at first, August 2020
- No. 393 *Sarah Geschonke and Thomas Wein*: Privacy Paradox –Economic Uncertainty Theory and Legal Consequences, August 2020
- No. 392 *Mats P. Kahl*: Impact of Cross-Border Competition on the German Retail Gasoline Market – German-Polish Border, July 2020
- No. 391 *John P. Weche and Joachim Wagner*: Markups and Concentration in the Context of Digitization: Evidence from German Manufacturing Industries, July 2020
- No. 390 *Thomas Wein*: Cartel behavior and efficient sanctioning by criminal sentences, July 2020
- No. 389 *Christoph Kleineberg*: Market definition of the German retail gasoline industry on highways and those in the immediate vicinity, July 2020
- No. 388 *Institut für Volkswirtschaftslehre*: Forschungsbericht 2019, Januar 2020
- No. 387 *Boris Hirsch, Elke J. Jahn, and Thomas Zwick*: Birds, Birds, Birds: Co-worker Similarity, Workplace Diversity, and Voluntary Turnover, May 2019
- No. 386 *Joachim Wagner*: Transaction data for Germany's exports and imports of goods, May 2019
- No. 385 *Joachim Wagner*: Export Scope and Characteristics of Destination Countries: Evidence from German Transaction Data, May 2019
- No. 384 *Antonia Arsova*: Exchange rate pass-through to import prices in Europe: A panel cointegration approach, February 2019
- No. 383 *Institut für Volkswirtschaftslehre*: Forschungsbericht 2018, January 2019
- No. 382 *Jörg Schwiebert*: A Sample Selection Model for Fractional Response Variables, April 2018
- No. 381 *Jörg Schwiebert*: A Bivariate Fractional Probit Model, April 2018

- No. 380 *Boris Hirsch and Steffen Mueller*: Firm wage premia, industrial relations, and rent sharing in Germany, February 2018
- No. 379 *John P. Weche and Achim Wambach*: The fall and rise of market power in Europe, January 2018
- No.378: *Institut für Volkswirtschaftslehre*: Forschungsbericht 2017, January 2018
- No.377: *Inna Petrunyk and Christian Pfeifer*: Shortening the potential duration of unemployment benefits and labor market outcomes: Evidence from a natural experiment in Germany, January 2018
- No.376: *Katharina Rogge, Markus Groth und Roland Schuhr*: Offenlegung von CO2-Emissionen und Klimastrategien der CDAX-Unternehmen – eine statistische Analyse erklärender Faktoren am Beispiel der CDP-Klimaberichterstattung, October 2017
- No.375: *Christoph Kleineberg und Thomas Wein*: Verdrängungspreise an Tankstellen?, September 2017
- No.374: *Markus Groth, Laura Schäfer und Pia Scholz*: 200 Jahre „On the Principles of Political Economy and Taxation“ – Eine historische Einordnung und Würdigung, März 2017
- No.373: *Joachim Wagner*: It pays to be active on many foreign markets - Profitability in German multi-market exporters and importers from manufacturing industries, March 2017
- No.372: *Joachim Wagner*: Productivity premia for many modes of internationalization - A replication study of Békes / Muraközy, Economics Letters (2016), March 2017 [published in: International Journal for Re-Views in Empirical Economics - IREE, Vol. 1 (2017-4)]
- No.371: *Marius Stankoweit, Markus Groth and Daniela Jacob*: On the Heterogeneity of the Economic Value of Electricity Distribution Networks: an Application to Germany, March 2017
- No.370: *Joachim Wagner*: Firm size and the use of export intermediaries. A replication study of Abel-Koch, The World Economy (2013), January 2017 [published in: International Journal for Re-Views in Empirical Economics - IREE, Vol. 1 (2017-1)]
- No.369: *Joachim Wagner*: Multiple import sourcing First evidence for German enterprises from manufacturing industries, January 2017 [published in : Open Economies Review 29 (2018), 1, 165-175]
- No.368: *Joachim Wagner*: Active on many foreign markets A portrait of German multi-market exporters and importers from manufacturing industries, January 2017 [published in: Jahrbücher für Nationalökonomie und Statistik 238 (2018), 2, 157-182]
- No.367: *Institut für Volkswirtschaftslehre*: Forschungsbericht 2016, January 2017
- No.366: *Tim W. Dornis and Thomas Wein*: Trademarks, Comparative Advertising, and Product Imitations: An Untold Story of Law and Economics, September 2016
- No.365: *Joachim Wagner*: Intra-good trade in Germany: A first look at the evidence, August 2016 [published in: Applied Economics 49 (2017), 57, 5753-5761]

(see [www.leuphana.de/institute/ivwl/working-papers.html](http://www.leuphana.de/institute/ivwl/working-papers.html) for a complete list)

Leuphana Universität Lüneburg

Institut für Volkswirtschaftslehre

Postfach 2440

D-21314 Lüneburg

Tel.: ++49 4131 677 2321

email: [christina.korf@leuphana.de](mailto:christina.korf@leuphana.de)

[www.leuphana.de/institute/ivwl/working-papers.html](http://www.leuphana.de/institute/ivwl/working-papers.html)