Department of Sociology

universität
wien

Highly Educated Self-Employed Persons with and without Migration Background in a Highly Regulated Economy.
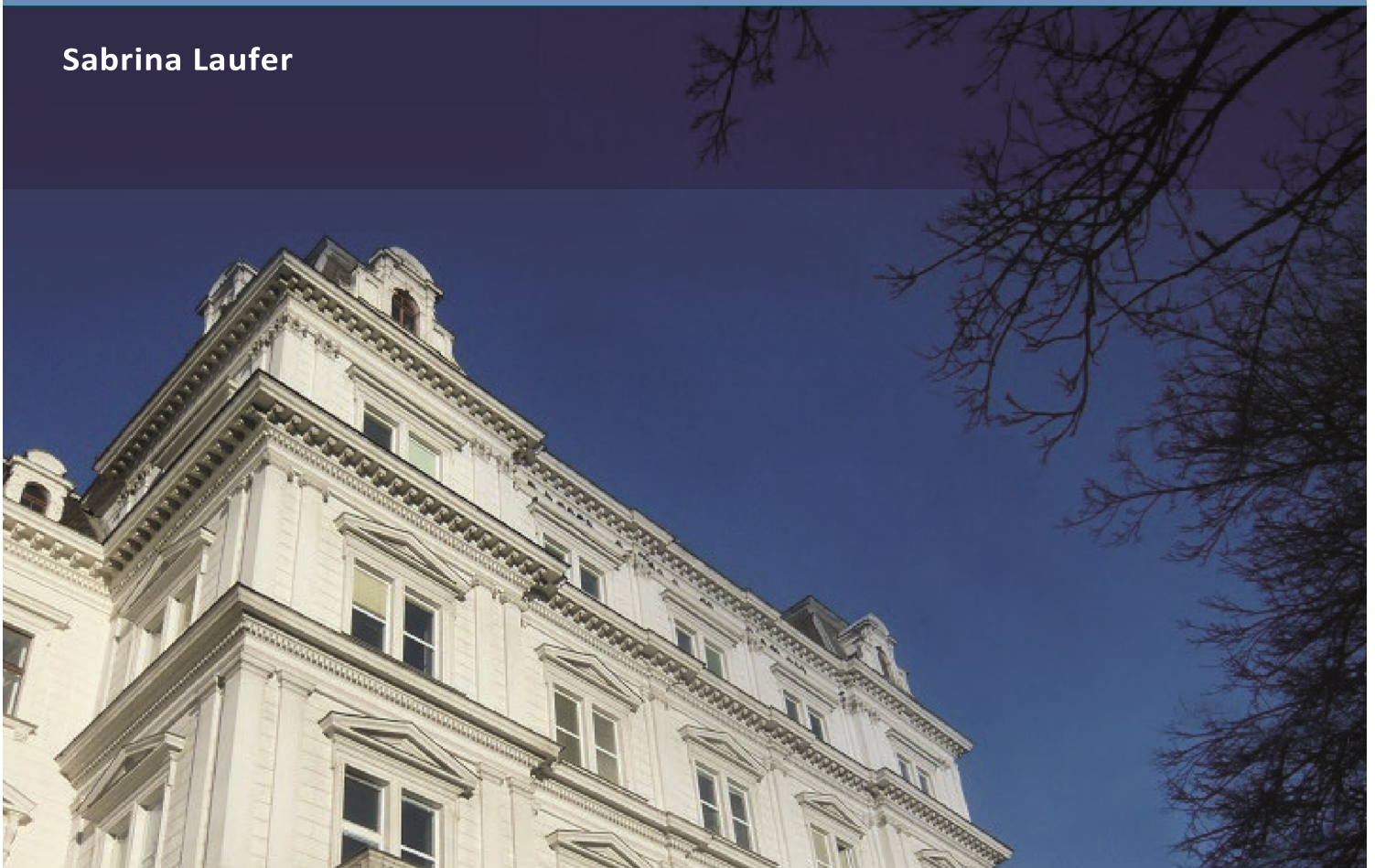## The Case of Austria

Sabrina Laufer

Highly educated self-employed persons with and without migration background in a highly regulated economy.

The case of Austria.

Sabrina Laufer

Sabrina Laufer received a research award by the Austrian Economic Chambers in 2015. Her research interests are focused on the exploration of self-employment in Austria and social mobility. She is interested in applying theoretical concepts and developing policy relevant analysis. While she prefers to work with quantitative methods, she regards qualitative methods as an invaluable complement. She is currently working on the completion of her thesis 'Employment chances and risks of self-employed persons with and without migration background in Austria. An empirical study using the microcensus and a supplementary online survey.' parallel to her job at Statistics Austria where she has been employed since 2009. At the end of 2008 she finished her studies in Sociology, Psychology and Political Science in Jena.

laufer.sabrina@gmail.com

Abstract

From an economic point of view self-employed persons (with migration background) make valuable contributions to society, for instance as employers. From a sociological point of view it is interesting to evaluate the causes of (migrant) self-employment in times of social and economic change in transnational economies. Thus, what are the reasons for self-employment and which opportunities and risks are involved? Which social groups face advantages and which face disadvantages? Based on representative data, the Austrian microcensus, this paper presents an overview of four types of self-employment by migration background between 2004 and 2015. Furthermore, the article focusses on one type by logit regressions for the reference year 2015. Several variables on different levels were tested. The results indicate that the likelihood of self-employment among persons with high education and post-industrial occupations is the highest for men, persons over 40, part-time workers, persons working from home, persons working on weekends and house or apartment owners. Hence, the findings outline a labour market segmentation by country of origin and gender, flexibilisation of work and high relevance of home ownership. It is hoped to provide contents for policymakers for the purpose of building instruments for regulations.

Zusammenfassung

Aus ökonomischer Perspektive leisten selbständig tätige Personen (mit Migrationshintergrund) wertvolle Beiträge zur Gesellschaft, zum Beispiel als Arbeitgeberinnen und Arbeitgeber. Aus soziologischer Sicht ist es interessant, die Ursachen der (Migrantinnen- und Migranten-) Selbständigkeit in Zeiten sozialen und wirtschaftlichen Wandels in transnationalen Ökonomien zu untersuchen. Daher stellt sich die Frage, was sind die Gründe für die Selbständigkeit und welche Chancen und Risiken gibt es? Welche sozialen Gruppen haben Vorteile und welche haben Nachteile? Auf der Grundlage repräsentativer Daten, dem österreichischen Mikrozensus, präsentiert diese Arbeit einen Überblick über vier Typen selbständig tätiger Personen mit und ohne Migrationshintergrund zwischen 2004 und 2015. Ein Typus wird anhand von logistischen Regressionen für das Referenzjahr 2015 näher untersucht. Mehrere Variablen, auf verschiedenen Ebenen, werden getestet. Die Ergebnisse zeigen, dass die Wahrscheinlichkeit selbständig zu sein, unter Personen mit hoher Bildung und postindustriellen Berufen, am höchsten ist für: Männer, Personen über 40, Teilzeitbeschäftigte, Personen, die von zu Hause aus arbeiten, an Wochenenden arbeiten und Haus- oder Wohnungsbesitzerinnen und -besitzer. Es zeigt sich eine Arbeitsmarktsegmentierung nach Herkunftsland und Geschlecht, Arbeitsmarktflexibilisierung und hohe Relevanz von Haus-/Wohnungseigentum. Diese Analysen können einen Beitrag zur Bildung von politischen Entscheidungen leisten.

Introduction

From an economic point of view self-employed persons (with migration background[1]) make valuable contributions to society. They are an essential social and economic resource. If self-employed[2] – as various academic studies have pointed out – then they make a contribution to the internationalisation of the middle class and creation of jobs. From a sociological point of view it is interesting to evaluate the causes of (migrant) self-employment in times of economic change and restructuring in transnational and emerging economies. Therefore, the question arises what are the reasons for self-employment and which opportunities and risks are involved? Which social groups face advantages and which face disadvantages? Previous studies in this field have, to a large extent, relied on qualitative research methods as self-employment is heterogeneous and therefore not an easily comparable phenomenon. Against this background, this paper intends to make a contribution to the following research questions, which are investigated using a mixed methods design: What types of self-employed persons are there? Which characteristics influence whether a person is self-employed or employed? Are these characteristics related to the workplace, household, person or region? Furthermore, what are the differences between persons with and without migration background? The analysis of the determinants of self-employment are of great importance to generate knowledge on this specific segment of the labour market. Such information provides indications for policymakers and, last but not least, furthers the development of theory in the field.

Starting from an interactive approach for the explanation of self-employment (mixed embed-dedness), types are theoretically derived and, for the first time, also applied empirically. On the basis of microcensus data, the distribution of types over time is shown while one type is analysed in more detail using logistic regressions. The results indicate that the likelihood of self-employment among persons with high education and post-

[1] In this study, a person with migration background means she or both her parents are born outside of Austria. The term migrant is used concurrent to migration background.
[2] In this study a self-employed person may have an employee or not, or is a freelancer (excluding economic branches of agriculture, forestry and fishing/public administration). Thus, the focus of the study are nearly all self-employed persons.

industrial occupations[3] is highest for men, persons over 40, part-time workers, persons working from home, persons working on weekends and house or apartment owners. The results by region respective of their country of origin have to be observed in a more differentiated way. For instance, women from the second generation or from Germany or from a EU25 country or from a non-European country have a high probability of being self-employed.

In the main part of this paper, I will first reflect on the Austrian case and the reasons for analysing the self-employment structure. Secondly, I will give a brief overview of the research on self-employment (for Austria and internationally) and thirdly, the methodological steps, the used data and the key findings will be presented. The results suggest a labour market segmentation by country of origin and gender, flexibilisation of work and high relevance of home ownership. This research makes a contribution to theory on migrant entrepreneurship by applying the typology of opportunity structures over time and the explanation of factors influencing self-employment of migrants and natives.

Reasons for doing research on self-employment in Austria

Why is research on self-employment (still) important and why is Austria an interesting country to examine? One reason self-employment is still relevant is that the strategy of the European Commission is to increase the self-employment rate by 2020 (Europäische Kommission, 2013). Policy makers need benchmarks and country specific knowledge about the labour market mechanism for developing instruments to regulate the economy. Another reason is that economies are changing due to globalisation. Self-employment is an essential employment factor in post-industrial societies as outsourcing, fragmenting of markets and the increasing service sector are causing the rise of it. There is a shift away from employment in large firms to self-employment in small ones (Volery, 2007). This study aims to contribute to a greater understanding about the labour market and the drivers of self-employment in Austria.

---

[3] Post-industrial occupations are, for instance, scientists.

Austria is an interesting case as the labour market is highly regulated and the collective payment commitment is very high (Haberfellner, 2003). One example for regulation are market-based instruments (active labour market policy). These are used to influence the behaviour of market participants (WKO, 2015). Another reason for doing research on self-employment in Austria is that the self-employment rate and the unemployment rate are rising (WKO, 2016a, 2016b). Next to this, the share of persons with migration background and university degrees is higher than the one for persons without migration background (18.6 per cent for persons with migration background vs. 16.4 per cent for persons without migration background) (Statistik Austria, 2015a). In comparison to other member states, Austria has a low self-employment rate. Also in Austria the self-employment rate of persons with migration background in total is lower than the rate of persons without migration background. They can be faced with problems, such as existing stereotypes in public opinion, low income, ethnic labour market segmentation, de-qualification, marginalisation and residential segregation (Asselin et al., 2006; Fassman, 1997; Krause & Liebig, 2011; OECD, 2013; Schmatz & Wetzel, 2014).

These reasons are a cause to paint a differentiated picture about self-employed persons with and without migration background. Furthermore, the subgroup of highly educated persons have the highest self-employment rate (as will be shown later). Are they pre-destined to increase the self-employment rate in Austria?

Research on self-employment

Self-employed migrants have gained attention in Austria. The first systematic research on them was undertaken around the millennium (Haberfellner, Betz, Böse, & Riegler, 2000). They can be faced with diverse problems. Next to racist attitudes, public opinion is often characterised by stereotypes and associates migrant enterprises with structural marginalisation. Visible self-employed migrants are often the small and medium sized enterprises (SMEs) in public spaces, such as kebab and pizza businesses. The trend of recent years, resulting from the EU Eastern enlargement, shows a heterogeneous picture of this self-employment group in Austria (Haberfellner, 2011). Studies show a high concentration of self-employed migrants in Vienna and Lower Austria (Schmid, Mandl, Dorr,

Staudenmayer, & Haberfellner, 2006). In total, those who are self-employed and born outside of Austria are more highly educated than those born in Austria (OECD, 2013).

The most closely related study to the present one is about differences of immigrants and natives in Sweden (Ohlsson, Broomé, & Bevelander, 2012). The key findings of this study are: the country of birth has little influence on the individual's propensity to be self-employed, but it is more important than the labour market area (Ohlsson et al., 2012, p. 420). The authors conclude that the largest per centage of variance can be explained by individual variables and not by the immigrant/ethnic background. Another study that raises attention to ethnic origin, local labour markets and self-employment suggests that future research on immigrant self-employment should focus on the mechanism behind the immigrant's self-employment decision (Andersson, Hammarstedt, Hussain, & Shukur, 2013). Different types of surveys might be helpful to understand, for instance, the career paths of the self-employed person.

Research on migrant entrepreneurship/self-employment shows uncertainty about the causes that drive self-employment. It is still unclear if it is the individual or the context level that matters.[4] There is research about the push and pull factors for creating a business (in Austria) (Enzenhofer et al., 2007; Schmid et al., 2006). Qualitative research[5] in Austria shows a domination of the motives 'self-realisation', 'being your own boss' and 'realising an idea' (Schmid et al., 2006). For self-employed persons with migration background doing business in less profitable branches, such as retail or gastronomy, it is assumed that they are pushed into business (push-factor). It is not clear if this is the case for Austria (Schmid et al., 2006). However, problems for some persons with migration background on the Austrian labour market are dequalification and low income (Schmatz & Wetzel, 2014; Stadler & Wiedenhofer-Galik, 2011). Especially for third country nationals who are willing to work as a self-employee in a regulated trade[6] Austria does not provide full and automatic labour market access for immigrants. Dissimilar education and work biographies of immigrants and natives are making the difference. Therefore,

---

[4] A well elaborated classification of contexts is provided by Friederike Welter (Welter, 2011).
[5] A quantitative study for Vienna shows that 14 per cent are pushed into self-employment, 41 per cent are pushed and pulled and 45 per cent are pulled (Schmatz & Wetzel, 2014).
[6] The German term is 'reglementiertes Gewerbe'.

immigrants see the need to employ a manager with the required skills (Schmid et al., 2006). Additionally, the regulative framework is mostly dispersed and complex. The assessment and recognition of foreign qualifications involves, for instance, four ministries and there are a multitude of different procedures in place depending on the origin, domain and level of degree (OECD, 2012).

Theoretical starting point

The theoretical starting point of this research is the typology of opportunity structure developed by Kloosterman and Rath (Kloosterman & Rath, 2011). The theoretical approach behind their typology is called mixed embeddedness and is an interactive approach. Interactive in this context means that several variables from different levels are at play together. The first interactive approach was developed in 1990. Waldinger et al. took variables on the individual and the context level (market conditions, access to ownership) into account (1990, p. 22). The interactive approach as proposed by Waldinger et al. (1990) is limited and the mixed embeddedness approach further the approach from Waldinger. The main argument of mixed embeddedness is that the type of welfare state (Esping-Andersen, 1990) itself has an impact on the self-employment (of migrants). The typology of opportunity structures is a valuable instrument for two reasons: 1) to measure and compare types of self-employed persons, and 2) to compare them systematically across different types of welfare states. In addition, the typology of opportunity structures opens up the possibility to show and compare economic change(s) of self-employment in a country (development over time).

In 1999 the first article on mixed embeddedness was published (Kloosterman, Van der Leun, & Rath, 1999), and since then Kloosterman and Rath have constantly been developing this approach. Their main idea is that capitalist societies are linked to the market, and markets plays a central role for instance for job creation (Kloosterman & Rath, 2011, p. 92). The difference between the interactive model of Waldinger et al. and Kloosterman and Rath is that the latter include migrants affecting the conditions of the host country. Furthermore, they point out that migrants can use and expand opportunity structures to include interests such as applying for funding and improving infrastructure.

Kloosterman and Rath developed Granovetter's concept of relational and structural embeddedness by articulating the fact that different capitalistic economies produce different opportunity structures and stimuli (Kloosterman & Rath, 2011, p. 103). Additionally, they proposed Esping-Andersen's concept and his three welfare regimes to include different variables on micro, meso and macro level to explain migrant self-employment.

Opportunity structures are measured by two dimensions: growth potential and human capital. The growth potential/market represents the demand side and human capital the supply side. On the demand side changes in urban economies (outsourcing, fragmenting of markets, service economy) open up opportunities for migrant entrepreneurs. On the supply side more highly educated migrants (especially from non-OECD countries) are moving to OECD countries. Changes in immigration rules (e.g. EU enlargements) make it possible for highly educated people to immigrate. Modifications in the economy (e.g. more post-industrial activities) increase the chances of social upward mobility for migrants through self-employment. One focus of the theoretical approach is the relationship between (migrant) entrepreneurship and social upward mobility.[7] The two mentioned dimensions, namely human capital and growth potential, allow the identification of market segments. Human capital is divided into two characteristics: high thresholds and low thresholds, and growth potential is divided into two characteristics: stagnating and expanding markets. From these four characteristics four types of markets result: 1) stagnating, high-skilled markets, 2) vacancy-chain markets, 3) post-industrial/high-skilled markets and 4) post-industrial/low-skilled markets (Kloosterman & Rath, 2011, p. 93).[8]

The typology was developed for markets and not for individuals. The empirical reach of the mixed embeddedness approach in terms of quantitative evidence has not been measured because measurement was not the intention of the approach. However, from my point of view, the application of the typology is interesting to compare chances of being self-employed by the highly and non-highly educated. Several steps are needed to apply the typology to be able to empirically apply the mixed embeddedness approach. Firstly, the typology has to be transformed to be applicable. The steps to transform this

[7] Kloosterman and Rath leave it open as to what they mean with social upward mobility. To summarise, in my opinion there is the need to calculate inter- and intergenerational mobility.
[8] The types will be explained in more detail later.

approach will be presented later in this paper. Secondly, meso and macro level circumstances could be analysed to compare different regions or countries. These steps are beyond the scope of this paper, but are needed to fully apply the approach.

Within this paper the influence of embeddedness factors, for instance the ethnic context (country of birth) and the regional business and public regulatory framework (labour market areas by using urbanisation degrees) will be tested. The labour market situation of highly educated self-employed persons in the age range of 25 to 64[9] having post-industrial occupations will be analysed by using microcensus data from 2015. The analysis will be conducted for women and men separately because differences occur (for instance, men have higher self-employment rates than women).

Method and data

The starting point of this study is the theoretical approach of mixed embeddedness. It provides two issues relevant for this research: 1) several independent *variables* which might explain self-employment of migrants, and most importantly for this research 2) the *typology* of opportunity structure.

I will begin with the deduction of variables. The variables were deduced consecutively to not overload the logit regression model. Four *successive* part steps were followed based on the assumption that, next to the variables already included in the theoretical approach, context variables are relevant (Welter, 2011). Therefore, the *first step* was dedicated to the deduction of determinants on self-employment from the theoretical approach while, in addition to that, two qualitative methods were used to derive context variables (expert interviews and explorative interview). In a *second step* experts were interviewed on self-employment of migrants. Between March and May 2015 in total nine expert interviews[10] were conducted. Researchers, politicians and consultants living in Austria, who are working or have worked on migrant entrepreneurship issues, were

---

[9] It is assumed that persons older than 25 have finished their studies.

[10] One interview was with two experts at the same time. In another interview the expert was not talking about the influence of variables on self-employment. In total, eight experts discussed this topic.

interviewed. All interviews were transcribed with ATLAS.ti. After coding the interviews important variables on migrant self-employment were identified. After the identification of relevant variables from transcribed interviews the variables were double checked to ensure that categories suggested by experts were not missed. One explorative interview was undertaken to evaluate the situation of a self-employed person. Therefore, the *third step* included the deduction of variables from the explorative interview. Lastly, in a *fourth step*, the interviews were checked also regarding additional interesting variables which should be taken into account and which have not been identified by the theoretical approach, the experts or in the explorative interview. The following illustration shows the source used and the derived independent variables (table 1).

Source	Variable name
Theoretical approach	Country of origin Migration generation (first/second generation) Urban surrounding (urban/non-Urban)
Expert interviews	Age Household context (number of children, marital status)
Explorative interview	Working hours Sex Second employment
Analysis basis	Home ownership (flat, house) Working from home Working on weekends

Table 1: Used data source and the derived variables

In total, eleven determinants of self-employment were theoretically and empirically derived. The theoretical approach provides the following variables: country of origin, migration generation and urban surrounding. Besides these variables, the experts named the variables of age and household context (number of children, marital status). In the

explorative interview the variables addressing working hours, sex and second employment came up. Additionally, to the already identified variables the analysis basis provides the variables of home ownership, working from home and working on weekends.

The empirical basis for the analysis is the microcensus. Data from 2004 to 2015 are used. The reason for this timeframe is the availability of the dataset (in March 2016 the dataset for the reference year 2015 was available) and the characteristics (from 2004 onward the country of origin is available). The microcensus is Austria's largest representative sample survey. Quarterly about 22.500 households are randomly selected. The data base is the central population register. The sample plan of the microcensus was modified in 2004. The sampling error for extrapolated frequencies of persons remained the same over the years. Extrapolated values up to 6.000 persons (from a fluctuation range of approximately a third of the value) are considered to be highly random. Values below 3.000 (from a fluctuation range of approximately half of the value) cannot be interpreted as statistically significant (Meraner, Gumprecht, & Kowarik, 2015).

Secondly, the transformation of the typology of opportunity structures will be presented. The authors of the theoretical approach propose two dimensions of the typology, namely the market and human capital. Here, the suggestion is to transform the market dimension into an individual dimension using the occupational status to make the typology applicable. Using the occupational status has two advantages: firstly, it is an individual variable, and secondly the post-industrial class scheme of Esping-Andersen (1993) can be used to classify *all* occupations to the Fordist and post-industrial activities.[11] The occupation of the self-employed person will be measured by the International Standard Classification of Occupation (ISCO). Based on the ISCO 2008 one-digit code, all occupations will be coded into two dimensions: Fordist and post-industrial occupations (Leiulfsrud, Bison, & Solheim, 2010). Human capital will be measured by the highest education and coded into high (academic degree) and not-high (no academic degree) education.[12] Table 2 presents the transformed typology.

---

[11] Fordist/industrial workers are, for instance, managers, skilled or unskilled production workers. Post-industrial activities are, for instance, scientists.
[12] The term 'not-high' is used deliberately because it is supposed that the term 'low' is hierarchical.

		Occupation	
		Fordist	Post-industrial
Education	High	Type 1: high/Fordist	Type 2: high/post-industrial
	Not-high	Type 3: not-high/Fordist	Type 4: not-high/post-industrial

Table 2: Transformed typology of opportunity structures

Typical examples for the types are: Type 1) (restaurant) managers, Type 2) medical practitioners, building architects, lawyers, Type 3) (restaurant) managers, roofers, house builders, and Type 4) shop supervisors, buyers, hairdressers, beauticians and related workers.

Results

Three main findings are of relevance when applying the transformed typology: 1) the shares of the types from a time period of eleven years (2004 to 2015), 2) the development of the proportion of the types over time, and 3) the logit regression of the determinants on self-employment of highly skilled persons for the reference year 2015.

Figure 1 demonstrates the shares of self-employed persons with migration background for the four types over time. Not-highly educated persons with post-industrial occupations have the highest increase from 2007 to 2015 (2007: 38.5 per cent and 2015: 47.9 per cent). During this seven-year period this segment has grown by almost 10 per cent. The second largest share have the persons with high education and post-industrial occupations (highest increase from 26.9 per cent in 2009 to 29.9 per cent in 2015). There is no high growth in this segment. Persons with Fordist occupations and migration background with both high and not-high education have the lowest shares in 2015. The development of the non-highly educated persons with Fordist occupations and migration background is interesting because this group has 31.6 per centage points in 2004 and in 2015 only 20.1 per cent. This segment is thus shrinking by 11.4 per cent. Compared with persons without a migration background, this segment shrinks even more strongly in the

comparison between 2004 and 2015 for persons without migration background. In 2004, this group recorded 41.1 per cent and in 2015 23.9 per cent. This corresponds to a shrinkage of minus 17.2 per cent.

The proportion of type 2 does not grow. Only 6.9 percentage points of growth are achieved for persons without migration background and zero growth for persons with migration background. With regard to the distribution of the four types over time, it becomes clear that the type 4 'not-highly educated and post-industrial occupations' occupies the largest share since 2007, as is the case for persons with migration background (41.2 per cent in 2007 and 50.3 per cent in 2015). The second highest value, but only from 2013, belongs to type 2 'highly educated and post-industrial occupations' (25.2 per cent in 2013 and 24.1 per cent in 2015). The values for type 1 'highly educated and Fordist' occupy the lowest value (2.6 per cent in 2004 and 1.7 per cent in 2015). The following figures illustrate the results for migrants and natives.
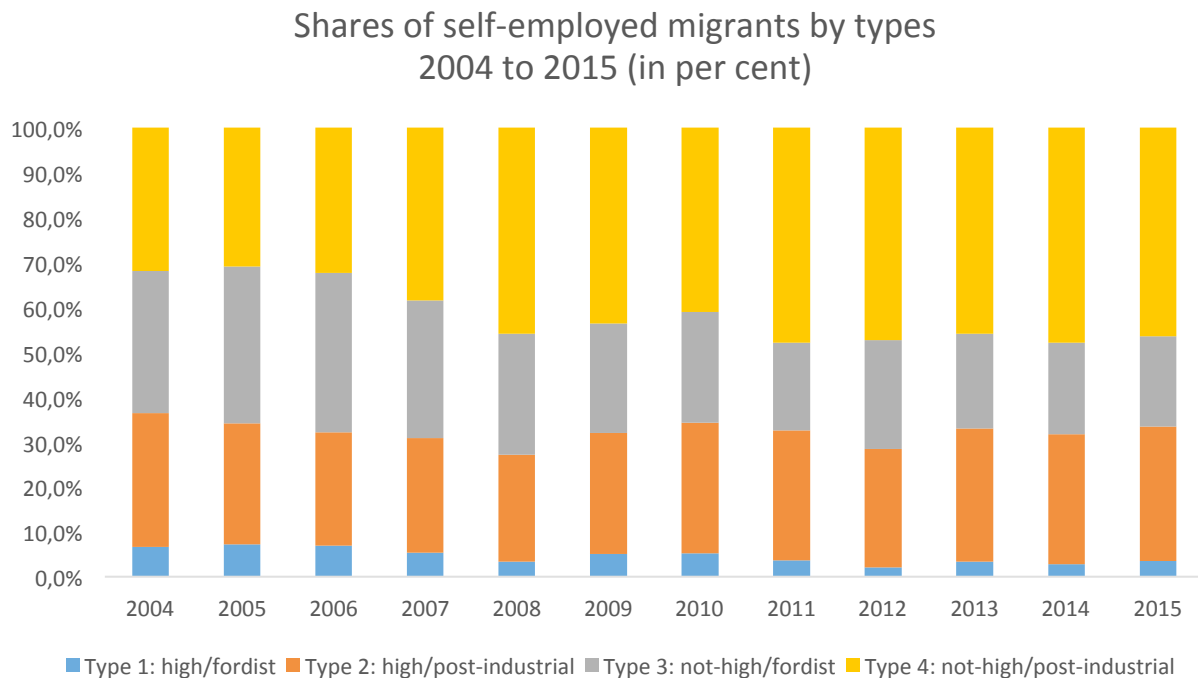

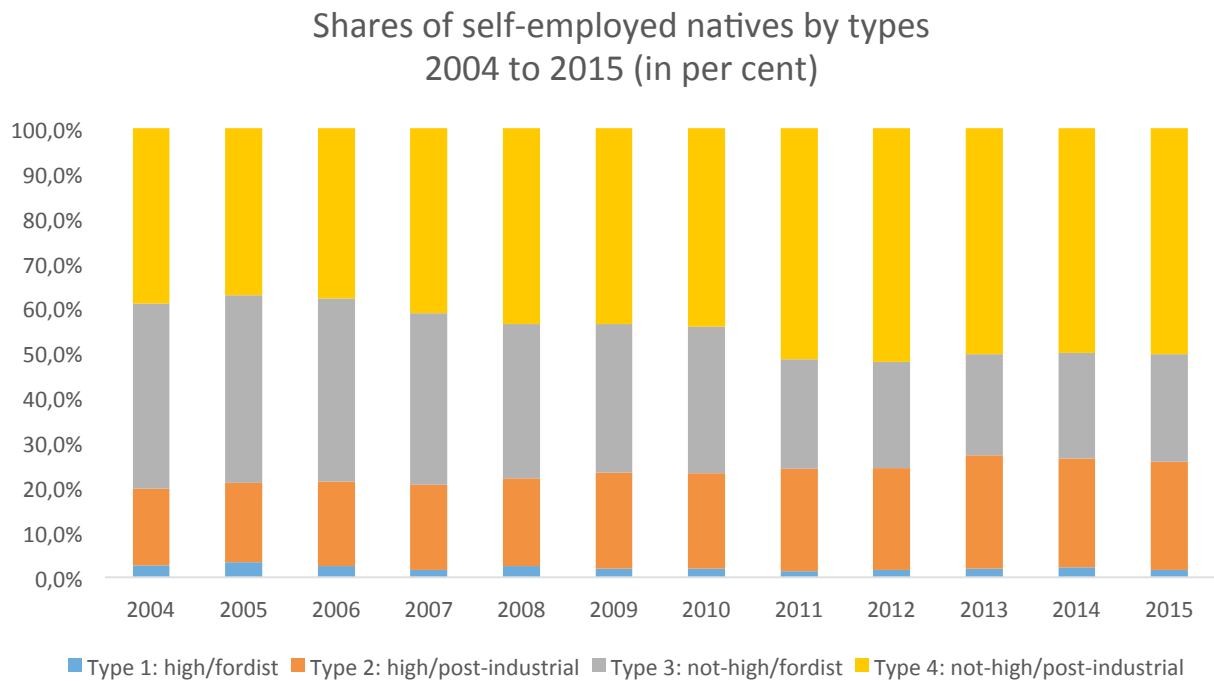Figure 1: Shares of self-employed migrants by types 2004 to 2015

Shares of self-employed natives by types
2004 to 2015 (in per cent)

Figure 2: Shares of self-employed natives by types 2004 to 2015

Figures 3 and 4 show the development over time of the self-employment rate[13] of persons with and without migration background from 2004 to 2015. From 2004 to 2007 data does not include migration background. For these years only persons born outside of Austria are referred to as migrants. The self-employment rate of migrants with high education and Fordist occupation is decreasing from 2004 to 2015 (-6.7 per cent). Figure 3 also shows that there is no significant increase of the self-employment rate for other types. The self-employment rate of natives with high education and Fordist occupation

---

[13] The self-employment rate is an important concept for comparing self-employment of different groups and is defined as the percentage share of total employment accounted for the self-employed (Clark, 2014). The total employment consist of persons who are employed and unemployed. Additionally, economic branches of agriculture, forestry and fishing/public administration are excluded from the scope.

is decreasing from 2004 to 2015 (-8.5 per cent). This decrease is higher than for migrants of type 1. As well as for the migrants, the self-employment rate of other types is not increasing significantly. A possible reason for the decrease of the self-employment rate of type 1 is the financial crises. The stagnating self-employment rates of other types may have their causes such as low incentives for creating or taking over a business.

The group with the highest self-employment rate has high education and post-industrial occupations. For this group the differences between persons with and without migration background are marginal. In 2015 the rate for both persons with and without migration background was around 20 per cent (see figures 3 and 4).
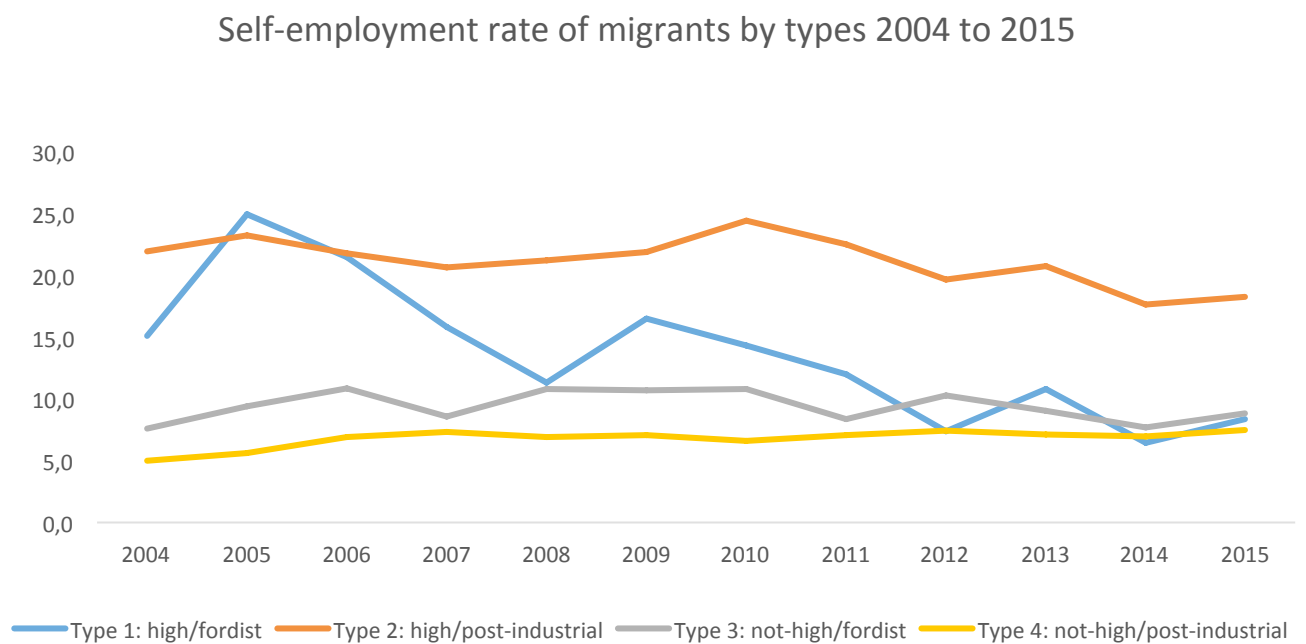
Self-employment rate of migrants by types 2004 to 2015

Figure 3: Self-employment rate of migrants by types 2004 to 2015

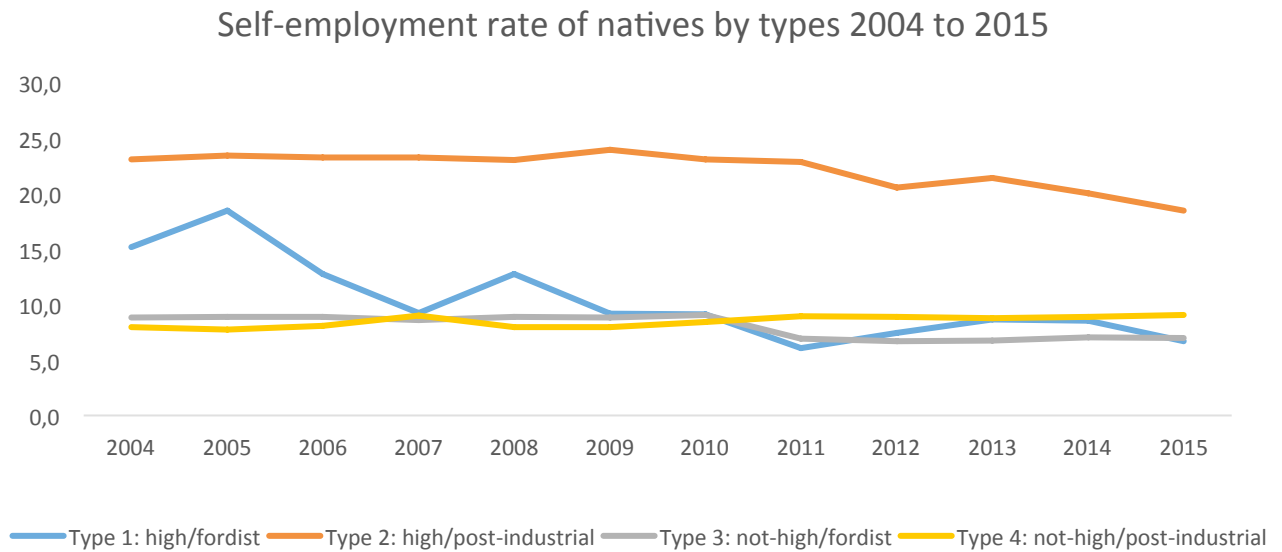## Self-employment rate of natives by types 2004 to 2015

Figure 4: Self-employment rate of natives by types 2004 to 2015

After this descriptive analysis the group with the highest self-employment quote (high education/post-industrial occupations) will be analysed by logit regressions for the reference year 2015. The tested variables are in four levels, namely at the individual, work, spatial and household level. They are age, country of birth (including second generation), part-time, age, secondary job, working from home, working on weekends, population density, home ownership and married/children. Persons younger than 25 were excluded from the sample because it is assumed that persons older than 25 have finished their studies. The calculations are presented separately for men and women to show the different effects of the chosen variables. The dependent variable is self-employed or employed (not self-employed). Self-employed persons may or may not have employees or they are freelancers.

	Women				Men			
	Not self-		self-employed		Not self-		self-employed	
Characteristics on the individual level								
Age (<40 years)	94.133	52,5%	16.657	29,7%	213.367	55,6%	29.359	31,6%
Age (>40 years)	85.022	47,5%	39.460	70,3%	170.615	44,4%	63.422	68,4%
Country of birth								
Austria	128.432	71,7%	42.813	76,3%	280.505	73,1%	67.414	72,7%
Germany	13.211	7,4%	3.644	6,5%	23.643	6,2%	6.580	7,1%
EU15 (without Austria and Germany)	8.265	4,6%	1.673	3,0%	14.098	3,7%	2.193	2,4%
EU25 (enlargment countries 2004)	6.043	3,4%	2.168	3,9%	15.412	4,0%	4.706	5,1%
EU2728 (enlargment countries 2007 and 2013)	3.971	2,2%	961	1,7%	10.497	2,7%	1.475	1,6%
Ex-Yugoslavia/Turkey	5.378	3,0%	593	1,1%	10.181	2,7%	1.256	1,4%
Second Generation	3.418	1,9%	552	1,0%	7.331	1,9%	1.729	1,9%
Europe other	554	,3%	705	1,3%	4.149	1,1%	1.602	1,7%
Not Europe	9.885	5,5%	3.009	5,4%	18.166	4,7%	5.826	6,3%
Characteristics on the work level								
Full-time	153.274	85,6%	42.917	76,5%	270.622	70,5%	58.770	63,3%
Part-time (<36 hours)	25.882	14,4%	13.200	23,5%	113.359	29,5%	34.011	36,7%
No secondary job	161.735	90,3%	50.191	89,4%	351.283	91,5%	83.213	89,7%
Secondary job	17.421	9,7%	5.926	10,6%	32.699	8,5%	9.568	10,3%
Working from home (> 50% of the working time)	151.156	84,4%	34.432	61,4%	310.957	81,0%	57.577	62,1%
Not working from home	28.000	15,6%	21.684	38,6%	73.024	19,0%	35.204	37,9%
Not working on saturdays and/or sundays	102.922	57,4%	17.122	30,5%	224.745	58,5%	33.948	36,6%
Working on saturdays and/or sundays (> once a mon	76.233	42,6%	38.995	69,5%	159.236	41,5%	58.833	63,4%
Characteristics on the spatial level								
No high population density	90.899	50,7%	27.759	49,5%	191.945	50,0%	44.541	48,0%
High population density	88.257	49,3%	28.358	50,5%	192.036	50,0%	48.240	52,0%
Characteristics on the household level								
No ownership of flat(s) or house(s)	83.920	46,8%	20.845	37,1%	180.770	47,1%	36.390	39,2%
Ownership of flat(s) or house(s)	95.236	53,2%	35.271	62,9%	203.211	52,9%	56.391	60,8%
Not married and/or children (<18)	124.900	69,7%	41.168	73,4%	275.746	71,8%	66.642	71,8%
Married and children (<18)	54.256	30,3%	14.949	26,6%	108.235	28,2%	26.139	28,2%
Total	**179.156**	**100,0%**	**56.117**	**100,0%**	**383.982**	**100,0%**	**92.781**	**100,0%**

Table 3: Characteristics of highly skilled individuals age 25-64 with post-industrial occupations

Table 3 shows the quantities of the selected variables by sex and employment status for highly skilled individuals aged 25 to 64 with post-industrial occupations.[14] The distributions can be described as follows:

1. **Age:** Self-employed persons are older than 40 years (women: 70.3 per cent; men: 68.4 per cent).
2. **Country of birth:** The highest per centage of self-employed persons are born in Austria from both genders. The second largest group was born in Germany (women and men).[15]
3. **Part-time:** When considering working hours, men are more likely to work part-time than women (women: 23.5 per cent; men: 36.7 per cent).[16]
4. **Second job:** 90 per cent of the self-employed (women and men) have **no** secondary job.
5. **Working from home:** 60 per cent of the self-employed (women and men) are working more than 50 per cent from home.
6. **Working on weekends:** Over 60 per cent (women: 69.5 per cent; men: 63.4 per cent) are working once or more than once a month on weekends.
7. **Population density:** More self-employed women than men live in areas with a high population density, which means in cities (women: 54.2 per cent; men: 50.5 per cent).
8. **Home ownership:** More than 60 per cent (women: 62.9 per cent; men: 60.8 per cent) own a flat or a house.
9. **Married/children:** The majority of the self-employed are not married and/or have no children younger than 18 years (women: 73.4 per cent; men: 71.8 per cent).

The results for the logistic regression show the influence on self-employment separately for women and men (see table 4 and 5). For example, in table 4 women born in one of

---

[14] Economic branches considered irrelevant for the study are excluded (agriculture, forestry and fishing/public administration).

[15] Extrapolated values up to 6.000 persons (from a fluctuation range of approximately a third of the value) are considered to be highly random. Values below 3.000 (from a fluctuation range of approximately half of the value) cannot be interpreted as statistically significant (Meraner, Gumprecht, & Kowarik, 2015).

[16] This result may be an expression of the interests of employed persons to work less. 22.9 per cent of all employed men and 15.4 per cent of all employed women would like to reduce their working hours (Statistik Austria, 2015b, p. 43). As a self-employee they have the choice and obviously men are more likely to work less than women. It would be interesting to know how much men earn in comparison to women. If they earn more this would properly explain why men work less hours then women.

the EU25[17], Germany or non-European countries[18], as well as the second generation, have higher likelihoods of being self-employed. Also, women who are older than 40, work part-time from home or on weekends, or own a flat or a house, have a higher chance to be self-employed. In contrast, the results of the logistic regression for men are different for some variables (see table 5). The variable of being born in Europe other[19] has a significant positive effect on self-employment for men. Being born in Ex-Yugoslavia/Turkey[20], as well as having a second job, lowers the chance to be self-employed for men. In addition, the variable being married and/or having children has a negative effect on the probability of being self-employed for men. Similarities between women and men occur for the variables age, part-time work, homework, working on weekend(s) and home ownership. Those variables have significant positive effects on the probability of being self-employed. Differences occur for women and men separated by country of origin. That means the results are different if differentiated by gender and country of origin. For women from Germany, EU25 and second generation, self-employment is a chance. Possible reasons for the higher chances of being self-employed are the glass ceiling effects in companies, the wish/need for flexible working hours, the wish to be their own boss or the wish to realise an idea. In total, highly skilled men with post-industrial occupations have higher chances of being self-employed than do women of this scope. No significant effects are visible for areas with high population density for both women and men.

---

[17] The EU25 countries are those countries which joined the EU in 2004 (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia).

[18] The non-European continents are Africa, North America, South America, Asia and Oceania.

[19] The Europe other countries are mainly Switzerland and countries classified with "other European countries" in the microcensus.

[20] These countries are taken together because all of them are in the tradition of the guest worker policy.

	Model A	Model B	Model C	Model D	Model E
Characteristics on the individual level					
Age (>40 years)	1,045 ***	1,068 ***	,985 ***	,990 ***	,949 ***
Country of birth					
Austria	Referenz	Referenz	Referenz	Referenz	Referenz
Germany		,433 ***	,458 ***	,461 ***	,503 ***
EU15 (without Austria and Germany)		-,118 n.s.	-,046 n.s.	-,052 n.s.	-,035 n.s.
EU25 (enlargment countries 2004)		,543 ***	,618 ***	,610 ***	,661 ***
EU2728 (enlargment countries 2007 and 2013)		-1,022 **	-,833 n.s.	-,842 *	-,789 n.s.
Ex-Yugoslavia/Turkey		,024 n.s.	,021 n.s.	,003 ***	,063 n.s.
Second Generation		,643 **	,747 ***	,736 ***	,750 ***
Europe other		,419 n.s.	,509 n.s.	,505 n.s.	,551 *
Not Europe		,553 ***	,529 ***	,509 **	,541 ***
Characteristics on the work level					
Part-time (<36 hours)			,544 ***	,548 ***	,525 ***
Secondary job			,071 n.s.	,069 n.s.	,069 n.s.
Working from home (> 50% of the working time)			,383 ***	,389 ***	,374 ***
Working on saturdays and sundays (> once a month)			,453 ***	,454 ***	,456 ***
Characteristics on the spatial level					
High population density				,073 n.s.	,149 n.s.
Characteristics on the household level					
Ownership of flat(s) or house(s)					,213 **
Married and children (<18)					,053 n.s.
Constant	-2,295 ***	-2,394 ***	-2,971 ***	-3,007 ***	-3,159 ***
Observations	4.611	4.611	4.611	4.611	4.611
degree of freeedom	1	9	13	14	16
2LogLikelihood	3885,687	3849,836	3755,451	3754,727	3749,525
Cox & Snell R Square	0,033	0,04	0,06	0,06	0,061
Nagelkerke R Square	0,056	0,069	0,102	0,102	0,104

Table 4: Logistic regression of self-employed highly skilled women aged 25-64 with post-industrial occupations in Austria

	Model A	Model B	Model C	Model D	Model E
Characteristics on the individual level					
Age (>40 years)	1,021 ***	1,022 ***	,985 ***	,991 ***	,972 ***
Country of birth					
Austria	Referenz	Referenz	Referenz	Referenz	Referenz
Germany		-,373 ***	-,296 *	-,297 *	-,242 n.s.
EU15 (without Austria and Germany)		-,432 *	-,395 n.s.	-,400 n.s.	-,381 n.s.
EU25 (enlargment countries 2004)		,048 n.s.	,098 n.s.	,093 n.s.	,201 n.s.
EU2728 (enlargment countries 2007 and 2013)		-,602 n.s.	-,421 n.s.	-,434 n.s.	-,419 n.s.
Ex-Yugoslavia/Turkey		-,847 ***	-,836 ***	-,848 ***	-,724 **
Second Generation		-,344 n.s.	-,419 n.s.	-,425 n.s.	-,419 n.s.
Europe other		,983 **	1,227 ***	1,232 ***	1,431 ***
Not Europe		-,147 n.s.	-,242 n.s.	-,259 n.s.	-,126 n.s.
Characteristics on the work level					
Part-time (<36 hours)			,935 ***	,930 ***	,906 ***
Secondary job			-,389 ***	-,388 ***	-,375 ***
Working from home (> 50% of the working time)			,660 ***	,660 ***	,654 ***
Working on saturdays and sundays (> once a month)			1,034 ***	1,036 ***	1,029 ***
Characteristics on the spatial level					
High population density				,048 n.s.	,106 n.s.
Characteristics on the household level					
Ownership of flat(s) or house(s)					,258 ***
Married and children (<18)					-,278 ***
Constant	-1,734 ***	-1,670 ***	-2,547 ***	-2,568 ***	-2,667 ***
Observations	4.452	4.452	4.452	4.452	4.452
degree of freeedom	1	9	13	14	16
2LogLikelihood	4867,003	4838,44	4450,887	4450,509	4433,735
Cox & Snell R Square	0,042	0,048	0,127	0,127	0,131
Nagelkerke R Square	0,062	0,071	0,187	0,188	0,192

Table 5: Logistic regression of self-employed highly skilled men aged 25-64 with post-industrial occupations in Austria

Conclusions

To conclude, the aim of this paper was to make a contribution to theory, also including gender dimension, by transforming the typology of opportunity structure and the explanation of factors influencing self-employment of migrants and natives. Presented types

of self-employed persons within this typology have been applied and analysed by using microcensus data of the reference years 2004 to 2015. The main question was how the typology can be applied and which variables can be derived. Additionally, expert interviews were used to contextualise the topic and contribute to the selection of variables which were analysed. They showed that both variable groups on the individual and the context level are relevant, and they identified the individual level as being of greater significance.

Given the points that the likelihoods are highest for highly skilled persons with post-industrial occupations who are working part-time, are older than 40, working from home, working on weekends and are owners of flat(s) and/or house(s), self-employment in Austria seems to be a chance for flexibility of working time and space. Also, the results show that, if they own a flat or a house, the chance of being self-employed is higher for both men and women. Is this because of a high security behaviour of the persons? What are the mechanism behind the self-employment phenomena? Another conclusion is that the variables age and sex have a higher influence on being self-employed than the variable country of birth/migration background. Whether the influence of age (being older than 40) is another sign for the high security behaviour of the persons, or whether it is a result of age labour market discrimination cannot be rated with this research.

The study shows that both the transformation/application of the typology and the detailed regression analysis give detailed insights on self-employment in Austria. The transformed typology makes a contribution to theory, and the application over time shows the growing and shrinking segments of self-employment. As can be seen, two types are of high relevance (highly and not-highly educated persons with post-industrial occupations). To increase the self-employment rate, the largest group (not-highly educated with post-industrial occupations) and the group with the highest self-employment rate (highly educated and post-industrial occupations) have to be addressed by policy makers.

Reference list

Andersson, L., Hammarstedt, M., Hussain, S., & Shukur, G. (2013). Ethnic origin, local labour markets and self-employment in Sweden: a multilevel approach. *The Annals of Regional Science, 50*(3), 885-910.

Asselin, O., Dureau, F., Fonseca, L., Giroud, M., Hamadi, A., Kohlbacher, J., . . . Reeger, U. (2006). Social integration of immigrants with special reference to the local and spatial dimension. In R. e. a. Penninx (Ed.), *The Dynamics of International Migration and Settlementin Europe. A State of the Art* (pp. 133-170). Amsterdam: Amsterdam University Press.

Clark, K. (2014). Ethnic minority self-employment. *IZA World of Labor*. doi:10.15185/izawol.120

Enzenhofer, E., Kessler, I., Lechner, F., Riesenfelder, A., Reiter, W., & Wetzel, P. (2007). *Ethnische Ökonomien. Bestand und Chancen für Wien*. Retrieved from Wien:

Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.

Europäische Kommission. (2013). Mitteilung der Kommission an das europäische Parlament, den Rat, den europäischen Wirtschafts- und Sozialausschuss und den Ausschuss der Regionen. Aktionsplan Unternehmertum 2020. Den Unternehmergeist in Europa neu entfachen.   Retrieved from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:de:PDF

Fassman, H. (1997). Is the Austrian Labour Market Ethnically Segmented? *European Journal of Population, 13*(1), 17-32.

Haberfellner, R. (2003). *Austria: Still a Highly Regulated Economy*. Oxford Berg.

Haberfellner, R. (2011). *Ethnische Ökonomien als (potenzielle) Arbeitgeberbetriebe.* Retrieved from

Haberfellner, R., Betz, F., Böse, M., & Riegler, J. (2000). *"Ethnic Business" - Integration vs. Segregation. Im Rahmen des Forschungsschwerpunktes Fremdenfeindlichkeit des BMWK*. Retrieved from

Kloosterman, R., & Rath, J. (2011). Veränderte Konturen migrantischen Unternehmertums. In F. Hillmann (Ed.), *Marginale Urbanität. Migrantisches Unternehmertum und Stadtentwicklung* (pp. 87-117). Bielefeld: transcript Verlag.

Kloosterman, R., Van der Leun, J., & Rath, J. (1999). Mixed Embeddedness: (In)formal Economic Activities and Immigrant Businesses in the Netherlands. *International Journal of Urban and Regional Research, 23*(2), 252-266.

Krause, K., & Liebig, T. (2011). *The labour market integration of immigrants and their children in Austria*. Retrieved from

Leiulfsrud, H., Bison, I., & Solheim, E. (2010). *Social class in Europe II. The European Social Survey 2002-2008*. Retrieved from Italy:

OECD. (2012). The labour market integration of immigrants and their children in Austria *Jobs for Immigrants (Vol. 3): Labour Market Integration in Austria, Norway and Switzerland*: OECD Publishing.

OECD. (2013). Self-employment rates of migrant. In OECD (Ed.), *Entrepreneurship at a Glance 2013*: OECD Publishing.

Ohlsson, H., Broomé, P., & Bevelander, P. (2012). Self-employment of immigrants and natives in Sweden – a multilevel analysis. *Entrepreneurship & Regional Development, 24*(5-6), 405-423. doi:10.1080/08985626.2011.598570

Schmatz, S., & Wetzel, P. (2014). *Migrantische Ökonomien in Wien* (Vol. 11). Wien: Arbeiterkammer.

Schmid, K., Mandl, I., Dorr, A., Staudenmayer, B., & Haberfellner, R. (2006). *Entrepreneurship von Personen mit Migrationshintergrund. Studie im Auftrag des AMS Österreich*. Retrieved from

Stadler, B., & Wiedenhofer-Galik, B. (2011). Dequalifizierung von Migrantinnen und Migranten am österreichischen Arbeitsmarkt. *Statistische Nachrichten, 5*(2011), 383-399.

Statistik Austria. (2015a). *Arbeitsmarktsituation von Migrantinnen und Migranten in Österreich. Modul der Arbeitskräfteerhebung 2014*. Retrieved from

Statistik Austria. (2015b). *Arbeitsmarktstatistiken. Ergenisse der Mikrozensus-Arbeitsräfteerhebung und der Offenen-Stellen-Erhebung*. Retrieved from

Volery, T. (2007). Ethnic entrepreneurship: A theoretical framework. In L.-P. Dana (Ed.), *Handbook of Research on Ethnic Minority Entrepreneurship: a Co-evolutionary View on Resource Management* (pp. 30-41). Cheltenham: Edward Elgar.

Waldinger, R., Aldrich, H. E., Ward, R., & al., e. (1990). *Ethnic Entrepreneurs. Immigrant Business in Industrial Societies*. Newbury Park London New Delhi: Sage Publications.

Welter, F. (2011). Contextualizing Entrepreneurship-Conceptual Challenges and Ways Forward. *Entrepreneurship Theory and Practice, 35*(1), 165-184. doi:10.1111/j.1540-6520.2010.00427.x

WKO. (2015). *Regulierung, Standort und Innovation*. Retrieved from Wien:

WKO. (2016a). Arbeitslosenquoten 2000-2016.

WKO. (2016b). Selbständig Erwerbstätige 1980-2015.