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MUDr. Jan Mojžíš, MBA

Rektor vysoké školy NEWTON College, a. s.





# High-School Tokens: Choices and Experiences

- Irena Smetackova, Ph.D. » Department of Psychology, Faculty of Pedagogy, Charles University, Myslikova 7, 110 00 Prague, Czech Republic, email: irena.smetackova@pedf.cuni.cz
- Petr Pavlik, Ph.D. » Department of Gender Studies, Faculty of Humanities, Charles University, U Krize 8, 158 00 Prague, Czech Republic, email: petr.pavlik@seznam.cz

## \* 1. Introduction

### 1.1 Gender gaps in the Czech labor market and education system

According to the World Economic Forum, the Czech Republic's Gender Gap reached 0.687 in 2015 (0 represents strong inequality and 1 represents full equality) (World Economic Forum, 2015). The subindex 'economic participation and economic opportunities' was even lower at 0.636. Czech research also confirms that women and men face horizontal and vertical segregation of the labor market (e.g. Formankova and Sokacova, 2015).

While women and men have made some inroads with respect to gender-atypical fields/occupations, some fields remain strongly feminized or masculinized. Gender segregation is also connected with gender pay gap, different prestige and different opportunities for career progression (e.g. Formankova and Sokacova, 2015; Charles and Grusky, 2004; IWPR 2010). Female-dominated fields such as teaching, health care or cosmetic care are characterized by lower average salaries, lower prestige and the so-called glass elevator ef-

fect<sup>1</sup>. On the other hand, male-dominated fields such as engineering, IT or the car industry register higher average salaries and rather high prestige (CSO, 2016).

Gender stereotypes and the assumption about natural predisposition for certain occupations/activities (CVVM, 2017) and complementarity of women and men are at the root of horizontal and vertical segregation of the labor market (Anker, 1998).

Some scholars (e.g. Diekmann and Eagly, 2000) suggests that communication and agency are key aspects underpinning gender stereotypes. While agency is associated with men, better communication skills are ascribed to women. Agency here refers to assertive, controlling and self-confident behavior which can have different forms ranging from competitiveness and independence to aggressiveness or even coercion (Eagly and Johannesen-Schmidt, 2001). It is no accident that assumed 'masculine' characteristics are associated with successful managerial styles and that, in turn, men dominate in managerial positions and high-status occupations (Eagly and Johannesen-Schmidt, 2001). The assumed comparative advantage of

<sup>1</sup> Men of comparable education, experience or age are promoted faster than women.

- women, better communication skills, does not help them get better-paid jobs and managerial positions. Instead, their 'people' skills direct them to caretaking fields with lower prestige.

Gender segregation of the labor market has its parallel in secondary and tertiary education. Study programs that prepare for male-dominated or female-dominated occupations, respectively, register corresponding ratios of male and female students. According to the Czech Statistical Office, the ratio of male to female students was 54:46 in high schools with school leaving certificate (Maturita)<sup>2</sup> in the school year 2015/2016 (CSO, 2016). However, it varied significantly from program to program. Boys dominated in Natural Sciences (88%), Technical Sciences 1 (87%) and Technical Sciences 2 (79%). Girls predominated in Health, Medical and Pharmaceutical Sciences (89%), Social Sciences and Services 1 (66%) and Social Sciences and Services 2 (76%). In other words, boys study in schools focused on technology with high relevance of math and physics, while girls prefer schools preparing for jobs associated with care and relationships.

## 1.2 Social Cognitive Career Theory

The aforementioned trends are long-term trends and are known also from other countries. However, there are specific differences related to the nature of the labor market and culture-specific constructions of femininity and masculinity. One of the leading psychological theories that tries to explain these dynamics is Social Cognitive Career Theory (SCCT) (Lent et al., 1994). It suggests that the decision about future profession is shaped by interest in the profession, expected benefits and career self-efficacy. Career self-efficacy represents confidence in one's ability to select the right pro-

fession that is going to keep one's interest and ensure success considering one's strong and weak suits. The SCCT suggests that it is influenced both by individual factors (e.g. talents or ethnic identity), and by external factors such as family background or previous study career.

However, Gottfredson (2002) argues that the external factors also include gender stereotypes in the given culture and gender segregation of the labor market for which girls and boys prepare. A Czech study of pupils' understanding of the labor market (709 girls, 714 boys, 8. and 9. grades) showed that more than 80% of children considered the profession of beautician, hairdresser and preschool teacher as suited for women and truck-driver and programmer as professions suited for men (Smetackova, 2009).

Girls and boys can either conform to culture-specific ideas about gender polarization of professions, or they can resist them. According to Eccles (2009), the concrete attitude depends on personal working values, i.e., what a person wants to get from the profession. At the same time, research shows that women and men differ with respect to importance ascribed to different working values (e.g. Kondrad et al., 2000). Some studies (Eccles, 2009; Cinamon and Rich, 2002) suggest that adolescent boys put more value on good remuneration, high prestige, responsibility, challenges, risk-taking and favorable career prospects. Girls value more helping others, skills development and family and work-life balance. Factoring in the labor market structure, boys prefer professions considered masculine and traditionally occupied by men (e.g. technology oriented trades or construction engineering), while girls favor 'feminine' professions (e.g. teaching, care-taking, beautician).

The SCCT also suggests that choice of profession depends on the perceived support from the

<sup>2</sup> There are two types of secondary education institutions in the Czech Republic. In the first type, students graduate with maturita which is a precondition for entry to tertiary education institutions, but also for many occupations and managerial positions in general. They include general education schools (gymnaziums) as well as some vocational schools. In the second type, students graduate without maturita and their occupation and further education choices are severely limited. They include exclusively vocational training centers (preparing for manual jobs).

close ones, especially their lack of concern or even active resistance (Brown et al., 2008; Hewstone et al., 2006; Lent et al., 1994). The disapproval can have several reasons. We consider the most pertinent the following three: 1. profession does not fit with the family profession tradition or the so-called family story (e.g. our child will become a lawyer); 2. profession is not considered suitable because of child's individual skills (e.g. our kid is very free-spirited therefore s/he cannot work in the office); 3. profession does not conform to gender stereotypes (e.g. caring or dominance) and assumed family roles (e.g. men as a breadwinner, women as a primary caretaker).

### 1.3 Gender-atypical Career Choice

Low numbers of girls and boys in gender nontraditional professions underlines that undoing gender (Butler, 2004; Deutsch, 2007) is not an easy path to take. It has serious consequences (Brown and Lent, 2006). Therefore, those who opt for gender nontraditional professions are usually characterized by stronger career self-efficacy (Tang et al., 2008). The rates are similar for girls and boys. Low career self-efficacy, both overall and specific for the gender nontraditional profession, does not lead usually to the final choice of the profession despite possible initial interest (Zeldin and Pajares, 2000).

It is important to note that self-efficacy is based on four sources (Bandura and Watts, 1996) – experience with successful handling of relevant task; observing someone else with similar characteristics, successfully handle tasks; social persuasion; and good management of one's own physiological states. Therefore, girls and boys can develop strong career self-efficacy for a gender nontraditional profession if they perform successfully activities connected with the profession, have same-gender role models and receive positive feedback from their close ones. However, as was already mentioned, the close ones – parents, teachers, peers – can conform to gender stereotypes (Kessels, 2005).

Some studies (e.g. Gottfredson, 2002) also suggest that gender stereotypes limit women less than men, which may suggest that girls can handle disagreement of the close ones better than boys. Other studies show that gender barriers have similar consequences for girls and boys (e.g. Kessels, 2005). The Czech statistics seem to correspond to the later. Similar percentages of girls and boys opt for gender nontraditional professions (CSO, 2016). However, it can also be because more girls choose gender nontraditional professions.

It should be mentioned that there are also studies that question subjective impact of gender barriers. For example, longitudinal research of the Swiss team Buschor et al. (2013) focused on high school students and concretely, boys studying to become teachers and girls studying in technical professions. They report that students perceived relatively few barriers and stuck with their initial choices of gender nontraditional position.

The importance of external barriers is relatively higher in the case of low self-esteem. If an individual has high self-esteem, he or she is more willing to be resistant to questioning and disapproval from the parents, peers or teachers. As many psychological studies show, gender affects changes in self-esteem during the early adolescence. Girls consistently experience sharper decline in their levels of self-esteem and self-worth than boys (Carlson et al., 2000). In some socio-cultural groups, such gender patterns are stronger than in others. For example, Adams et al. (2006) studied more than 4,000 adolescents and showed that African American girls are less vulnerable to the decline in self-esteem than adolescent girls of other ethnicities. Boys in these cultures are often encouraged to express self-reliance and independence in ways that could promote feelings of competence and lead to higher levels of self-esteem (Ornstein, 1995). As a result, males may have a stronger positive gender identity than females and higher levels of self-esteem compared to females (DuBois et al., 2002).

Gender may lead male and female early adolescents to base their personal self-worth on different





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characteristics. Boys tend to derive their self-esteem more from competence or talents than girls (AAUW, 1992). Based on these findings, we can expect that boys are more willing to choose the gender atypical career than girls because their self-esteem is usually higher. However, the consequences from violation of gender norms are more serious and negative for boys than for girls.

#### 1.4 Tokens in school environment

Another negative factor with respect to choosing gender nontraditional study program can a school environment dominated by peers of opposite sex. Peer relations are an important part of education. They provide emotional support and opportunities to expand one's horizons as well as maximization of one's own potential. It is well documented that learning is more effective (with respect to speed and fulfillment of cognitive potential) in a socially safe environment. Both students' psychological well-being and learning process are negatively influenced if they are not well connected in their class, if they have conflicts with their peers, and if they are socially isolated (e.g. Allodi, 2010). We can assume that misgivings about being accepted by opposite-sex peer group can be a reason why girls or boys do not opt for a gender nontraditional study programs or leave them soon after enrollment.

There is research evidence to support such assumption. Kanter (1977) differentiated four distinct majority-minority distributions: 1. Uniform groups of only men or women; 2. Skewed groups with an overwhelming majority of one sex and several members of the other (so-called tokens); 3. Tilted groups with a less extreme imbalance;

4. Balanced groups with more or less balanced distribution. In gender nontraditional study programs, individuals most often deal with skewed groups. We believe that the token position is a risk factor with respect to selection and continuation of a gender nontraditional study program because it takes place during adolescence which is a critical period for gender identity formation.

A token is usually a person who represents a perfect exception in the group (e.g. only girl in boy class). Therefore, it is a subject of heightened attention. This can be stimulating, but also limiting (Kanter, 1977; Milliken and Martins, 1996). Tokens have usually a strong awareness of own otherness which is further emphasized by the majority group as it tends to exclude the token from some activities.

Tokens are also exposed to strong and sometimes contradictory pressure to perform. They feel that their performance should be comparable or even better than that of the rest of the group. However, it should also correspond to expectations of his/her gender category. It should confirm that the girl/boy belongs to his/her gender category. For example, female tokens in technically oriented fields should perform as good as their male peers. At the same time, femininity implies weaker math and technical skills. Therefore, their overall results must not be too good (Kessels, 2005; Zeldin and Pajares, 2000). Some research also suggests that tokens – both in education and in the work place – face more ridicule and discrimination and they feel more often dissatisfied. This, in turn, leads to lower performance and self-efficacy (Bourhis, 1994).

Furthermore, some scholars argue that experience of being a token differs for women and men,

at least in the work place. Yoder (1994) showed that while satisfaction and performance of male-tokens are comparable across groups with different gender composition, female-tokens usually have to deal with stronger negative reactions such as social isolation. Glick et al. (1995) argue that this is because traditionally masculine professions tend to be associated with higher prestige and higher average salaries. Male groups react negatively towards women because of worries that they may lose these privileges. On the contrary, female groups tend to welcome men hoping that they will bring higher prestige and salaries. It has not been tested yet whether these dynamics apply also to student groups. Some research (e.g. Hewstone et al., 2006) suggests that they do not apply and women and men face similar challenges.

### 1.5 The present study

Most studies concerning the choice of gender nontraditional study program focus on the choosing-process that precedes the final decision. Not surprisingly, they conclude that majority of students conform to gender expectations (e.g. Eccles, 2009; Gottfredson, 2002). Only a minority considers gender nontraditional study program. While research suggests that they often stick with the original choice (Buschor, et al., 2013), we lack ex post evaluations of such choices with respect to satisfaction as well as fulfillment of initial ideas about the study program.

That is why we decided to explore reasoning behind nontraditional choices as well as students' reflections of such choices after one to three years. To be clear, our goal was not to find out 'true' original reasons, but to see how the students think about their choices after having concrete experience in the chosen study program.

The goal can be also understood as mapping

current identification of students with the chosen study program, including factors that support or weaken the identification. It will help understand better gender barriers that students face when choosing gender nontraditional study program. It will also shed light on external and internal resources that help them overcome such barriers. From the practical point of view, this research can provide inspiration for career counseling in elementary schools, including preparation of students interested in gender nontraditional study programs.

## 2. Methods

### 2.1 Research sample

We approached high schools with a significantly imbalanced male-female student ratio (CSO, 2016)<sup>3</sup>. In total, 30 schools were approached from across the Czech Republic. We explained to principals our research and asked them to inform gender-minority students about the research and the questionnaire. The students could send the questionnaire back either directly to us or through the school. Both paper and electronic forms were made available. The principals were asked to give students freedom to decide which method they prefer. It was made clear that anonymity is going to be respected rigorously.

Two thirds of the principals agreed. In the end, the sample included 108 questionnaires, 39 from girls and 69 from boys. The ratio reflects a lower representation of girls in male-dominated study programs in vocational high schools or vocational training centers (MSMT, 2017).

Concretely, girls studied in the following study programs: vocational high schools – electrical engineering (3), information technologies (7), fire safety (7), safety-law activities (8); vocational

<sup>3</sup> The study programs included: electrical engineering (98% male), mechanical engineering (97% male), special interdisciplinary fields (e.g. autotronic) (95% male), law (e.g. safety law) (69% female), retail (e.g. decorator) (73% female), health (87% female), other services (e.g. hairdresser) (89% female) and education sciences (93% female).

- training centers – car mechanics (7), autotronics (6), tool-making (1). Boys studied the following study programs: vocational high schools – pedagogy (20), pre-school pedagogy (9), health assistant (12), nutrition assistant (3), photography (5); vocational training centers – hairdressing (7) and decoration (13). All students studied longer than one year and less than three years. Average age was: boys 18 years (sd=1.95), girls 17.5 years (sd=1.41).

## 2.2 Instrument

An open-question questionnaire was employed that allowed for both qualitative and quantitative analyses of data. It was inspired by previous studies (Eccles, 2009; Tang et al., 2008) and drew on the research team's experiences with psychological counseling and leading career-choice school programs.

The questionnaire consisted of 20 items divided in five blocks. The first block covered basic socio-demographic data. The second block explored childhood dreams about future profession and subjectively perceived elementary-school successfulness. The third block focused on motivation for choosing gender nontraditional study program. It also asked whether prevalence of opposite sex in the field mattered in any way. The fourth block asked about approval/disapproval of the close ones. The last block focused on subjective evaluation of quality of the study program, peer relationships and plans to stay in the profession.

The tone of answers varied. However, terse answers and lightened personal storytelling were most frequent. Three returned questionnaires were intimate confessions full of unpleasant feelings. Two of them from girls and one from a boy. Length of answers correlated with the tone. The shortest questionnaire had 446 words, the longest had 2,374 words (average 721 words). Girls' answers were usually longer.

The data were analyzed using qualitative content analysis and thematic analysis (Braun and Clarke, 2014). Topics that students think about were identified and relationships between them were explored. Internal consistency of answers was an important aspect of analysis. We paid attention to who was the author (i.e. girl or boy) and what his/her study program was<sup>4</sup>. Selected items were analyzed quantitatively using coding and basic statistical methods (especially t-test). Qualitative and quantitative analyses focused primarily on comparison of girl and boy answers. The presented quotes demonstrate individual themes as they were identified during the analysis.

## 3. Results

### 3.1 Motivation for choosing a gender nontraditional study program

While there was an explicit question concerning study motivation, students addressed their motivations throughout the questionnaire. Girl's and boy's motivations differed. All the girls mentioned long-term and internal motivation to enter the study program. It was their main and sometimes the only reason: *'I was interested in cars and everything about them since I was a small girl. Therefore, I decided to enter this study program'* (G – car mechanic); *'Because this profession fulfills my interest, I love firefighting'* (G – fire safety). About one third of boys (31%) also showed significant internal motivation. They felt that the profession is important and subjectively interesting: *'It is work that makes sense'* (B – health). However, the majority of boys accentuated external factors such as study content or failure in another study: *'Because they didn't accept me to another school'* (B – decorator); *'The deciding factor was a number of hours of physical training'* (B – pedagogy); *'Perhaps desperation that I could not find any study program that I would like. I am more of a humanities person*

<sup>4</sup> It is indicated in brackets in the text where G stands for a girl and B stands for a boy.



and I automatically excluded all technical fields' (B – pedagogy).

### 3.2 Role of the family in the choice

The family played a role in the choice. However, significantly more boys (34%) mentioned spontaneously the family than girls (8%),  $p < .05$ . The direction of the influence also differed. Only three girls mentioned family influence and all of them characterized it as indirect and positive: *'I was inspired by my father who is a programmer. I wanted to follow in his footsteps'* (G – IT<sup>5</sup>). The answers of boys indicate negative as well as positive influence: *'The reason was mother and only three-year study'* (B – decorator); *'Mother supported me and the study field was her idea'* (B – pre-school pedagogy). Family tradition was also mentioned: *'Almost all of my family are teachers or have an education degree'* (B – pre-school pedagogy); *'Mother is also a hairdresser'* (B – hairdresser).

When youngsters announced their decision to go for gender nontraditional study program 14% of boys (n=10) received supportive response from the family or at least one parent compare to 36% of girls (n=14). Girls were supported by their family significantly more often ( $p < .05$ ) than boys. If only one parent supported the choice it was always the mother for boys and always the father for girls. On the other hand, 7% boys and 10% girls experienced disapproval of the family and attempts to make them change the decision.

### 3.3 Reaction of the wider circle of family, friends and acquaintances

When the youngsters announced their choice to the wider circle of family, friends and acquaintances 87% boys (n=60) and 67% girls (n=26) received support from at least some of them. At the same time, 80% boys (n=55) and 49% girls (n=19) did not encounter any disapproval. In both cases, the

differences are statistically significant ( $p < .01$ ). Full support experienced 67% boys (n=48) and 26% girls (n=10), while 20% boys (n=12) and 41% girls (n=16) received support only from some of their close ones. It was most often from the wider family (14% boys, 36% girls) and less frequently from friends, classmates and teachers.

On the contrary, 20 % boys (n=14) and 51 % girls (n=20) faced attempts to make them change their choice. Disapproval from all the close ones was reported by 3% boys (n=2) and 13% girls (n=5). Both results were statistically significant  $p < .001$ , respectively  $p < .05$ . Teachers and classmates most frequently disapproved (7% boys, 18% girls) followed by the wider family (7% boys, 10% girls).

We can conclude that the girls receive less support from the wider circle of family, friends and acquaintances than the boys. They also experience disapproval more often. For example, Julie who decided to study information technology reported this intense experience: *'Several people made fun of me, for example, my elementary-school classmates. I don't think that anyone told me that I would make it. Nobody offered a kind word or understanding [...] Even more intense ridicule came from one relative who told me straight out that a girl does not belong to boy school [...] The worst ridicule came in the high school'* (G – IT). The most frequent strategy of dissuasion was stressing how demanding the study is. The girls were told that they would not finish the school because they do not have necessary skills and stamina: *'Mother was not happy because she wanted me to become a beautician or hairdresser. In the first year, she waited for any mistake to scold me'* (G – car mechanic); *'They tried to dissuade me. They still don't trust me. They don't believe in me. They ridicule me even now'* (G – car mechanic).

The boys did not experience as strong negative feedback as the girls: *'The family supported me. My teacher told me that it is a right study field for me* →

<sup>5</sup> Information technology.



→ and that she had always thought that I would go in this direction. And classmates? Honestly, I think they didn't care' (B – pedagogy). The boys also faced much less combined critique from the parents, teachers and peer groups. In majority of cases, at least one of adult authorities (teacher or parents) supported them. Boys' answers indicated that their decisions were respected. If they were being dissuaded it was more in the sense: 'You can do better.'

Seven boys (10%) encountered comments questioning their masculinity: 'Comments were made whether I am not a woman when I study women field' (B – pedagogy). This strategy can be a priori neutralized by rhetoric of heterosexual partnership (see below) as boys noted repeatedly: 'Nobody made fun of me. On the contrary, they envied me that I would be in the school with so many girls' (B – pedagogy); 'On the contrary, some classmates from a technical high school were salivating at the idea that I would go to the school with 95% teenage girls' (B – pedagogy).

The boys reacted to critical and dissuading attitudes in 38% cases (n=26) and the girls in 43% (n=16). While the boys resorted most frequently (20%) to ignoring them, the girls opted evenly for ignoring, detaching or explanation.

The boys and some girls understood critique as an opportunity to show own courage and resolve. It provoked some of them to go through with the decision: 'At home, they forced me to study something else, but I wanted to show my will and not be submissive. I wanted to prove to myself that I could survive four years among boys' (G – electrical engineering); 'To prove to my friends that I would be one of the few with this vocational certificate' (G – car mechanic). The boys also spoke of independence when they presented their choice as an entirely personal decision which they made without any regard to others. They also demonstrated assertiveness: 'Nobody made fun of me and if anyone did I would say that he is an idiot' (B – health assistant).

### 3.4 Life with opposite sex

For some youngsters, an imbalanced composition of study group was a factor when choosing a gender nontraditional study program. It was an important reason for 36% boys (n=25) and 62% girls (n=23),  $p < .01$ . The majority of them viewed it as plus or even as an advantage.

All the girls (but almost no boys) expressed preference for opposite sex: 'I didn't want to go somewhere where there are girls' (G – IT); 'I considered it to be an advantage. You can talk better with boys' (G – car mechanic); 'I don't get along with girls and I have always preferred boys' (G – fire safety). In other words, they were critical of women and expressed distance from them: 'I don't like girl groups in school. It was never my cup of tea to have twenty shrieking chicks in the class. It is definitely an advantage. It may be twenty roaring teenage boys, but still better than slandering girls' (G – car mechanic). The choice of gender nontraditional study program was a result of deeper gender nonconformity – both with respect to preferred relationships, special-interest and school activities. The girls repeatedly mentioned that it was long-term thing: 'I am not like other girls' (G – fire safety); 'Since I was a little girl, I have talked more with boys. I have much more in common with them. As a little girl in kindergarten, I played only with boys. I loved to play with cars and similar boy toys. Dolls and other girl toys did not interest me' (G – IT).

Therefore, entering boy groups did not represent a problem for majority of girls. On the contrary, they perceived it as a welcomed 'status elevator'. It does not mean that they did not have any worries, but these were neutralized by positive expectations: 'I considered it an advantage and disadvantage. On the positive side, I would not have to listen to silly and useless topics. On the negative side, it was not easy to find anyone who wouldn't talk only sex and wouldn't insult others. That was very difficult' (G – electrical engineering).

Entering the field dominated by girls was seen

as an advantage by 30% boys (n=21). However, only two of them expressed a preference for female environment. Concretely, they hoped that it would be a safer and calmer environment than mixed or male-dominated groups: *'I was looking forward that it would be calmer among girls. Boys can be sometimes very unruly'* (B – pedagogy); *'It was important because I had experienced hazing from boys and I wanted to get out! I always got along better with girls!'* (B – health assistant).

Most of the boys (16) stressed the potential for romantic relationship: *'Many girls = many opportunities'* (B – health assistant); *'Many pretty women'* (B – pedagogy); *'Everybody knows that I chase every skirt and they knew my intentions right away'* (B – pedagogy). The boys either calculated with this factor themselves, or they heard it from their peers. In any case, the boys accepted the rhetoric, the traditional masculine narrative. The choice of gender nontraditional study program was not about gender nonconformity. Rather, it was constructed as confirmation of traditional masculinity via forming a heterosexual relationship.

Four boys were critical about girl groups: *'It is true that I get tired of girl talk and I laugh at things, which they talk about. Fortunately, I am not the only boy and we boys can talk among us'* (B – pre-school pedagogy). However, their comments were never hostile. They expressed amusement, even paternalism. The boys also connected masculinity with higher performance: *'I think there are more famous male decorators than female'* (B – decorator); *'I think that there are work situations for which men are better suited'* (B – health assistant). They offered also other advantages: *'100% advantage is that I have already a job lined up in education...there are a few male teachers and they get jobs right away'* (B – pre-school pedagogy).

### 3.5 Standing within the study group

The boys saw their standing in female-dominated groups significantly differently than girls in male-dominated ones,  $p < .05$ . Almost 80% boys (n=55)

felt accepted by girls and saw their standing as very good, while 6% boys (n=4) perceived it as negative. They reported tension, conflicts or lack of interest peers. The majority of boys translated this situation to friendships: *'I was accepted cordially. I made many new friends. We are a great group'* (B – pedagogy); *'They accepted me well. Teachers treat me as everybody else. Girls relate to me as a peer, no problem'* (B – preschool pedagogy). Only a few boys did not make any friends. However, they saw this as their own decision or a result of their introvert nature.

When it comes to girls, 62% (n=24) saw their standing in boy groups as good or neutral: *'I was accepted all right. It was due to the fact that I was the only girl, but it was positive'* (G – car mechanic). However, 28% (n=11) experienced tension, conflict or lack of interest from peers. This suggests that some boy groups are not welcoming to girls: *'There is only one person in the whole class I can talk to normally because he doesn't need to talk only sex and peer violence'* (G – IT); *'My class has a problem with me from the very beginning. I don't know why'* (G – IT); *'Boys teased me and tested what I can take. They tried to offend me and they laughed at me'* (G – IT); *'It was not easy in the first year'* (G – fire safety).

The girls with negative experiences were often the ones that identified as girls with gender atypical behavior. It may be that this was disconcerting for the boys. However, some girls felt that boys did not react to them as individuals. They seemed to resent the very presence of girls in traditional masculine study program: *'I have heard comments from time to time from some people who made fun of me that I have no place to be in our school'* (G – IT). *'In the beginning, there was a boy who made fun of me that a stupid blond cannot study car mechanics, but it changed when I proved that it was not true'* (G – car mechanic); *'Some classmates could not stomach that they have a girl in the class'* (G – IT).



## → 3.6 Teacher-student relations

Boys and girls also viewed teacher-student relations differently (though it was not statistically significant). The most frequent opinion (over 90% in both groups) was that the relations are normal or good. The key seems to be the perception of justice which seems highly relevant in the gender tilted environment. It was stressed spontaneously in 10% answers (n=11) that teachers treat both groups equally: *‘Teachers treated me as anyone else in the school’* (B – health); *‘Teachers treated me fair’* (G – security). On the other hand, 7% boys (n=5) and 10% girls (n=5) felt that they were treated differently. The boys reported that they were favored by teachers over girls (n=4). The girls talked about lack of confidence in their ability to succeed in the study program (n=4). In other words, the boys felt that teachers help them succeed in the female environment and the girls think that teachers question their abilities: *‘Some teachers are worried even today whether I handle it as a girl’* (G – fire safety); *‘The teacher makes a comment repeatedly that I understand as expressing male superiority’* (G – car mechanic). Klara (girl) noted that teachers praise her and even give her as an example, but at the same time, they express a hierarchy of girls and boys capabilities: *‘Some teachers of technical subject give me as an example to some boys and joke that even a girl is better than they are’* (G – car mechanic). The key is the word ‘even’ which suggests that a girl who performs better than boys is a surprise and statistical exception.

## 4. Discussion

The presented study focused on retrospective reflections of gender nontraditional career choices of high school students. Students who have been studying study programs dominated by opposite gender were asked how they arrived to the decision to choose the program, how their parents, teachers, and peers reacted to such decision, and how satisfied they feel with the choice. The study

does not describe how the decision was made or how the adaptation to the untraditional high school went on, but how the students perceive the two processes, which aspects are significant or meaningful for them and what they are willing to present openly. There are several limitations due to the active role of memory, mechanisms of identity development and social desirability bias (toward researchers).

The ambition of the study was to identify barriers that students face when choosing gender nontraditional study programs and to analyze external and internal factors helping them overcome such barriers. The study applied the Socio-Cognitive Career Theory (SCCT) which suggests that the decision-making is influenced both by individual/personal factors, and by external factors (relationships, institutions, and culture) (Lent et al., 1994). The SCCT is frequently used to frame traditional career choices when some barriers exist but usually not on the level of culture and institutions (Brown, et al., 2008). It has not been explored whether the socio-cognitive mechanisms underlying gender traditional and nontraditional career choices are the same or not.

The basic assumption of our study is that barriers based on gender stereotypes need to be removed for two reasons. First, education must respect the principle of equality and allows each student to reach his/her full potential regardless of gender (Tang et al., 2008). Second, career choices not burdened by gender stereotypes would lower gender segregation of the labor market and decrease gender inequalities in general (Charles and Grusky, 2004). In other words, while pursuing theoretical work, we always have in mind its practical relevance.

Based on our study, the motivations for choosing a gender nontraditional study program were divided in three groups: interest in the subject matter, influence of the family and pragmatic preference, i.e. confidence about finishing the studies and finding a job. However, motivations of girls and boys differed. While all the girls expressed interest in the subject matter and other

motivations mentioned rather scarcely, the boys mentioned all three motivations with similar frequency. Especially the pragmatic preference seems to be gender relevant because only the boys mentioned it. Interest in the subject matter can be considered an internal motivation in the purest sense. Not only the girls mentioned it more often, they also stressed that it was long-lasting interest in the male-dominated field and that it set them apart from other girls.

The identified differences can be understood in the frame of the research on self-esteem. Many studies report that boys have usually higher self-esteem than girls (Adams et al., 2006). If the individual has higher self-esteem, he (or she) is able to take more responsibility for his (or her) decisions and sees himself (or herself) in the center of events. Those with lower self-esteem need to get more support from external sources to make their decisions. In our culture, boys are encouraged to display assertive, controlling and self-confident behavior (Eagly and Johannesen-Schmidt, 2001). On the contrary, girls have more likely lower self-esteem and use more resources, including external authorities to make or explain their decision (Hewstone et al., 2006).

Our study does not support previous findings. Girls stressed only internal motivation with respect to the untraditional career choice, while boys used also external and pragmatic motivations. If the long-term interest in some study program or activity is considered as an internal factor, the female mechanisms of untraditional career choice were unidimensional while male mechanisms covered more dimensions. Moreover, the long-term interest was very often related to high competences and master experience, which are the fundament for self-esteem and self-efficacy. In our study, girls indicated more elements of high self-esteem and self-efficacy than boys. However, the motivation based on only one pillar (interest) seems to be high, but also fragile in comparison to motivation based on three pillars (external support and pragmatic purpose).

A significant difference was identified in the way how girls and boys approach the fact that they study in the environment dominated by the opposite sex. This fact was emphasized in some cases, but underplayed in others. The gender non-conformity was an explicit topic for the majority of girls (even though no question addressed it directly), but only two boys mentioned it. Most of the boys defended traditional masculinity and heteronormativity. In other words, while adolescent boys and girls challenge gender norms with their choice of study program (knowingly and intentionally), the majority of the boys constructed traditional gender identity. The girls engaged more often in *undoing gender* (Butler, 2004; Deutsch, 2007), at least with respect to self-presentation. Other research has come to the same conclusion (e.g. McDonald, 2013).

A significant number of students worked in their answers with the gender asymmetry that puts masculinity above femininity. Those findings confirm previous research. For example, Glick et al. (1995) or Gottfredson (2002) show that professions associated with males are valued higher than professions associated with females and it is because the 'masculine' professions are seen as having higher prestige and higher average salaries. The girls confirmed the asymmetry critiquing other girls and preferring interaction with boys. The boys tended to rejected girls as colleagues. Also the parents used gender asymmetry when they played down girls chances to succeed in male-dominated study programs. At the same time, they encouraged boys to aspire for more demanding study programs (assuming that female-dominated programs are a priori less demanding). The same goes for some teachers who, for example, used good performance of token girls to motivate boys to perform better (with implicit assumption that the task cannot be as difficult when even a girl can handle it).

Gender asymmetry has its price. First, more girls than boys had to deal with disapproval from their close ones or at least they reported it more often. Foreign research (e.g. Gottfredson, 2002; Kes-



sles, 2005) concurs with this finding which is important with respect to career self-efficacy (Zeldin and Pajares, 2006). Our findings and previous research seem to suggest the following dynamics. The girls receive less respect and support of their career choices from others. This can lead to lower career self-efficacy and subsequently to lower resolve to stick with the choice of gender nontraditional field. Career self-efficacy is further lowered by other factors (e.g. lack of same-sex raw models).

Second, many girls faced more difficulties when trying to fit in a male-dominated student group, while no boy reported such experience. There is certain irony in the fact that girls who prefer male-dominated groups (and this is the reason for their choice of the study program) are rejected by these very groups. The finding corresponds to those from the labor market (e.g. Glick et al., 1995; Yoder, 1994).

Our study suggests existence of different approaches of girls and boys in the process of choosing gender nontraditional study program. Girl tokenism on the high-school level seems to be more complicated. They are questioned more strongly both from outside (parents, teachers, peers), and from inside (girls' own demands). These results are not in line with foreign research that argues that experiences of girls and boys do not differ significantly in gender nontraditional study programs (e.g. Buschor et al., 2013; Hewstone, et al., 2006). Perhaps the fact that Czech students and teachers are not well-informed about gender stereotypes can account for this discrepancy. As the results, gender stereotypes are stronger and lead to bigger inequalities between boys and girls.

The research included students who entered a gender nontraditional study program in spite of quite frequent negative reactions from some of their closest people. Many students surrender to negative feedback even though they may have

been great in their dream jobs. In order to prevent this, we consider as important to improve advisory support for students who think about gender nontraditional study programs. The same recommendation was formulated by Buschor et al. (2013).

In the Czech education system where gender equality is not valued sufficiently, it is necessary to look for ways to deconstruct gender stereotypes, to make girls and boys aware that their gender categories are socially constructed and unnecessarily constraining. They should be provided with examples of successful careers and lifestyles of concrete women and men. This is because the examples highlight limits of the biological-essentialist model of sex differences.

We also think that career advising should provide concrete preparation for entering gender nontraditional study programs. The study shows that many students face stress situations such as difficult blending in opposite-sex groups, questioning one's own 'normality' by teachers etc. Handling such situations is much easier if one knows about them beforehand. Preparation should consist of sufficient information and practicing possible reactions.

Gender segregation is a symptom of gender inequalities in the society because it is connected with the social status of women and men, in terms of finance and power. That is why it is important to decrease the level of gender segregation. It is particularly important to increase the level of freedom in the moment when young people make decisions about their careers and in the beginning of the studies. Based on the study, we would recommend to high-school leadership the following: to provide sufficient teacher support to token students; to teach teachers to handle gender unbalanced student groups and to support their positive social structure and climate; to develop mentoring peer relationships between tokens from different classes so that they can help each other.

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## APPENDIX

### Questionnaire

Hello, there are not many people like you. Most adolescents enter the study fields that are traditionally male or female after elementary school. Only a few of them have the courage to try a field where the opposite sex dominates. This happens in spite of the fact that a lot of them have the best potential to succeed in a gender-nontraditional field. It is a pity that they give up the study only because they think that it is more suitable for the opposite sex. Perhaps, your personal story may inspire some young people to overcome their worries. This study focuses on young people who study gender nontraditional study fields (i.e. those dominated by the opposite sex). We would be very grateful if you could answer the following questions in the most detailed, personal and open way possible. It would be great if you could share concrete memories of situations that were for you important when choosing the study field (both positively, and negatively). Anonymity is the basic principle, your input is going to be strictly confidential. Your name and any identification details will never be made public. Thanks for your help!

1. What is your age?
2. What is your field of study? What year do you study?
3. When did you decide to study in this field?
4. What was the main reason? What attracted you to the field?
5. What other fields did you consider at the time?
6. What did you want to be when you were a child (first years of elementary school)?



7. How did you do in the elementary school? What subjects were you good at and what subjects give you a trouble?
8. How did your close ones (family, teachers, friends) react to your choice of study field? Did they support you or they questioned your choice?
9. Had anyone make fun of you because you had chosen the field for the opposite sex? What was your reaction?
10. Was it important for you that the study field is dominated by the opposite sex? Did you consider it to be an advantage or disadvantage?
11. Did you prepare for the entrance exams and the study itself?
12. What did you imagine the field to be before you entered the school? Were your ideas realistic? Did they change after you started to study?
13. How were you accepted in the new school? How do teachers treat you? How do your classmates treat you?
14. What is the best thing about your field and your school? What do you consider to be a weakness? What would you change if you could?
15. Would you recommend the study field to other girls or boys?
16. After finishing the study, do you want to continue to study this field or to work in this field? If yes, what should be your further study or occupation be concretely? If no, why don't you pursue a career in the field of your study?
17. How many inhabitants has the town/village in which you live?
18. Do you commute? How far? How often?
19. What is the education and occupation of your parents and siblings?
20. How would you characterize yourself? What kind of person are you?

## High-School Tokens: Choices and Experiences

### ABSTRACT

*Career choices of most pupils at the end of grammar school conform to gender norms. Qualitative study presented here maps reasons for non-traditional choices based on a sample of 25 female students and 31 male students who study gender-atypical high-school programs. Results revealed that reasons for school choices of boys and girls differ to a certain extent. Their situations also differ with respect to support they receive from their close ones and acceptance by their classmates. Parents of girls disapproved of their choices more often than parents of boys. Girls were also ridiculed more frequently by their peer groups.*

### KEYWORDS

*Career choice, gender, counselling*

### JEL CLASSIFICATION

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# Exchange Rate Regimes and Macroeconomic Development in Sub-Saharan Africa<sup>1</sup>

► Ing. Viktor Dudzich » Faculty of Finance and Accounting, University of Economic in Prague, Winston Churchill Sq. 1938/4, 130 67 Prague, e-mail: vit12tt@gmail.com

## \* 1. Introduction

Correct implementation of the monetary policy, which means adjusting the basic variables — interest rates and exchange rate (ER) — according to the needs of real economy, is viewed as a prerequisite for sustainable and long-term economic growth, with many authors highlighting the increasing importance of monetary policy's quality in developing world (Frankel, 2005; Simwaka, 2010; Berg et al., 2013). Today the failures of monetary policy in low- and middle-income countries (including most of the sub-Saharan African region) can bear very severe consequences for economic development, level of life and political stability (Frankel, 2005; Berg et al., 2013).

One of the conditions for the monetary stability is the right choice of exchange rate (ER) regime — it should be done by taking into consideration the economic structure and specifics of the country. Mistakes in the ER policy (which may result in galloping inflation, depreciation of the national currency, outflow of foreign capital) could be grave, and in case of sub-Saharan African (SSA) countries the monetary policy's adjustment mechanisms of-

ten don't function the way they do in more developed countries — which means the consequences of monetary mismatch (mostly caused by ER mismanagement) can have a long-term impact on the economy (Rawlins and Praveen, 1993; Simwaka, 2010; Berg et al., 2013). On the other hand, right choice of the ER regime can support and enhance economic growth by stabilizing inflation and making ER changes more predictable, thus increasing the country's credibility.

This paper is examining the influence of ER regime choice on macroeconomic performance of SSA countries. The paper is analyzing the development of selected macroeconomic indicators that are directly influenced by ER and monetary policy under different ER regimes. The paper's aim is to give an answer to the question: which ER regime is more beneficial for macroeconomic stability and development in the SSA countries. Firstly, the paper theoretically discusses implications for the ER regime's choice in African countries based on traditional and modern literature on this topic. Subsequently we compare macroeconomic performance (measured by GDP growth rate, inflation rate and real exchange rate volatility) of the African coun-

<sup>1</sup> Tento článek vznikl v rámci řešení projektu IGA VŠE: IG210018: Strukturální problémy subsaharských ekonomik.

tries under different ER regimes and evaluate the influence of ER regime on those variables using panel data and exchange rate regime types as explanatory variables. Our sample includes up to 39 SSA countries (depending on the data availability for different estimations) and 2000–2016 time period.

## 2. Review of literature

Although there is an abundance of literature examining the effects of ER and ER regime on the economy, there is no consensus about the suitability of either type of ER regime for developing world.

The basics of ER changes' impact on the economy were studied by Cooper (1982). Author indicates that control over ER can be an important tool for stimulating exports and preventing the economy from overheating, but less qualified governments are often unable to use it correctly because of their policy's inconsistency. Currency weakening can be useful in promoting foreign demand for exports, but devaluation should not be followed by monetary or fiscal expansion (Cooper, 1982). Those findings were empirically supported by Rawlins and Praveen (1993), which discovered that in case of African countries currency devaluations were able to support trade balance and change the real exchange rate (RER) but were often followed by the expansionary policies negating the benefits of devaluation and negatively impacting overall macroeconomic stability. The absence of positive post-devaluation effects for trade balance of the Franc Zone African countries after the CFA franc devaluation was also discovered by Constant (2012), which argues that incorrect implementation of monetary policy was the reason currency weakening 'doesn't work'.

Further support for this point can be found in Frankel (2005), which states that developing countries are usually not able to conduct devaluation the way it could benefit international trade without much disturbance for the monetary stability. This being said, when ER is fixed (meaning controlled

by the monetary authorities), it may put the economy at risk of ER mismanagement due to short-sighted policy or policy-makers' lack of qualification.

Pre-requisites for correct ER regime in developing countries were studied by Velasco (1999), Berg and Borenzstein (2000), Calvo and Mishkin (2003). Velasco (1999) studies the transition between fixed and floating, with former being a prerogative of less developed countries with weaker institutions. Financial liberalization, if taking place in developing countries, usually includes switching from peg to floating, but to benefit from it, the country must have good enough institutional environment, solid credibility and consistent monetary policy (Velasco, 1999). Institutional approach is also favored by Calvo and Mishkin (2003), with their paper stating that formal ER regime has limited influence on the economy when combined with poor-sighted overall economic policy; and changes in ER regime won't have much impact unless accompanied by the improvement of institutions and government policies.

Findings by Berg and Borenzstein (2000) show that fixed ER regime may be preferable mainly in highly dollarized countries but could reduce the effectiveness of ER manipulation by central bank.

The institutional roots of ER regime choice were also emphasized by Alesina and Wagner (2003). Less institutionally developed countries (including those of SSA) are usually struggling to maintain the pegged rate and are prone to abandoning it more often, while those more developed, on the contrary, tend to maintain some form of control over ER of the formally floating currency. In the same moment, those less-developed countries often don't adhere to the ER regime they claim to have, with these inconsistencies being of negative influence on overall economic development (Alesina and Wagner, 2003).

Another approach to ER regime choice in developing countries is presented by Berdiev et al. (2012) and Aliyev (2015). Berdiev et al. (2012) discover that ruling elites' political views and ideolo-



→ gy may be influencing the choice of ER regime because of their view on the ER as a tool for control over price level and thus population's income. Foreign trade structure's impact on ER regime choice was studied by Aliyev (2015), with author's findings indicating that countries relying on natural resources are leaning towards fixed ER, even though over-dependence on volatile exports prices poses threat for ER stability.

Interactions between ER regime and overall macroeconomic development is discussed by Levy-Yeyati and Sturzenegger (2003); Bleaney and Francisco (2007); Lohi (2014). The negative impact of fixed ER on economic growth was highlighted by Levy-Yeyati and Sturzenegger (2003), with this effect being more prominent in less developed countries. More recent research by Bleaney and Francisco (2007) confirms these findings, while also showing that hard pegged exchange rates are usually present in the slowest growing countries. The authors also studied interactions between ER regime type and inflation, revealing that floating countries tend to have only marginally higher inflation than those with soft pegs (while hard pegs are being able to restrain inflation — Bleaney and Francisco, 2007), but having comparable growth rates. In case of Africa, this was also partially confirmed by Lohi (2014), who studied the trade-off between inflation and GDP growth in the CFA zone. This study discovered that while having only moderate inflation, the CFA zone countries had a very modest GDP growth in comparison with non-currency union African countries.

The issue of RER stability under different ER regimes in developing countries was examined by Rodrik (2008) and Carrera and Vuletin (2011). Their findings are unable to present a general advice of which ER regime is more suitable for maintaining RER stability — both floating and fixed regimes are characterized by frequent and large RER movements, with their magnitude being substantially higher in less advanced countries.

### *3. Determinants of exchange rate regime choice in developing countries*

The choice of ER regime is one of the basic tasks of monetary authorities. Taking into consideration the political and economic specifics of SSA countries, one must be aware that in this region the choice is often based not only on economic prerequisites (in other words, why 'should' the country implement this type of ER regime and how this ER regime will benefit the country economically), but also on certain political factors (or why does the country — or its' ruling elites — 'want' this ER regime and how policy-makers could personally benefit from their decisions — Gudmundsson, 2006; Berdiev et al., 2012).

The general choice of ER regime usually rests between floating ER and some type of fixed ER. The choice of ER regime has direct impact on inflation rate, foreign trade and exports' competitiveness, flows of foreign capital (Berg et al., 2013).

Interactions between the type of ER regime and inflation are most well-studied. Lower rate of inflation is usually the most often-mentioned advantage of the fixed ER (Lohi, 2014). In case of SSA countries this statement was tested and confirmed by Gudmundsson (2006), Bleaney and Francisco (2007) and Lohi (2014). During the last two decades African countries with fixed ER (mainly members of the CFA franc monetary unions, but several monetary independent states also) had lower inflation rate than countries with floating ER. Although this generally speaks in favor of fixed ER, the costs of disinflation were also substantial (Lohi 2014). Firstly, members of the CFA franc monetary union not only had lower inflation rate, but also significantly slower GDP growth, which may signal about the negative impact of fixed ER regime on the economy as a whole (Lohi, 2014). Secondly, a large part of African countries that claim to have a floating exchange rate (which is officially labeled as 'managed floating') not only conduct politically motivated interventions (which undermines the assumption of monetary policy's independence),

but also employ administrative and non-market instruments to control the foreign exchange market – this makes their *de facto* ER more fixed than floating, while also reducing currency's convertibility (Gudmundsson, 2006; IMF, 2019). Thirdly, the presence of the region's least developed countries in the 'floating' group could have distorted the results – higher inflation in these countries could be invoked rather by the lack of fiscal discipline and under-developed economic institutions than the ER regime (Velasco, 1999; Gudmundsson, 2006). This view draws support from the fact that more developed African countries with flexible ER (South Africa, Kenya, Tanzania to name a few) managed to maintain relatively low inflation rate while not intervening into their ERs (Lohi, 2014).

Relationships between ER regime and economic growth is another frequent object of research. Several studies confirm that low- and middle-income developing countries show higher rate of GDP growth while functioning under floating ER regime (Levy-Yeyati and Sturzenegger, 2003; Bleaney and Francisco, 2007). There is also evidence of these countries being more resistant to negative external shocks and showing less volatility in their GDP growth rate (Levy-Yeyati and Sturzenegger, 2003).

ER regime choice in developing countries may be not only economic, but also political issue, and prevalence of fixed ER regimes may be explained by certain political "benefits" it brings (Frankel, 2005; Berdiev et al., 2012).

Political systems of numerous African countries can't be considered democratic and somehow stable, and their economic policy may be rather short-sighted (Velasco, 1999). In such cases fixed ER (given the fact that the ruling elites are acknowledging their weak position and their economic plans have short-term orientation) can be a good way to stabilize the macroeconomic situation at the expenses of the future government (Velasco,

1999). This means that fixed ER regime is chosen only as an instrument that allows to postpone the solution of the economy's structural problems (ideally in a manner that the one dealing with them would be the next government – Velasco, 1999).

There is certain evidence of cases when abandoning of fixed ER had economic consequences so severe (usually including rapid currency depreciation and decrease of real income) that they had direct impact on political stability (Frankel, 2005). It sometimes resulted into civil unrests or even political turmoil (Frankel, 2005). In such situations (labeled as 'fear of free falling' or 'fear of changes' – Frankel, 2005) government may prefer to maintain fixed rate (even considering the damage to the economy) and choose economic stagnation or even mild recession over the changes that would be brought by switching the ER regime from fixed to floating.

In the African countries with no independent monetary authorities fixed rate can be one of the tools of the government's populist policies aimed only at short-term increase of income and level of life<sup>2</sup> (Berdiev et al., 2012). The policy makers can be interfering into the ER policy before the elections or other political events in order to get support of the people (for example, causing appreciation of the national currency in order to reduce the imports' price). In the same moment, less developed countries are often not able to maintain the desired rate, with politically motivated interventions further disturbing monetary stability (Alesina and Wagner, 2003). Bearing this in mind, fixed rate may be tempting due to the opportunities to influence the economy it provides, but the less developed the country is, the less chances are it would be able to correctly manage the rate (Alesina and Wagner, 2003).



<sup>2</sup> This is especially relevant in countries with large demand for import, where the revaluation of the ER directly affects the life quality of the population by making imported goods more affordable.

#### → 4. Exchange rate regime and macroeconomic performance – empirical analysis

In this chapter, we will be trying to empirically verify theoretical assumptions and findings by other authors about the ER regime's impact on macroeconomic performance of SSA countries. The indicators chosen as dependent variables representing monetary stability and economic development are GDP growth rate, inflation rate and RER volatility. Abundance of literature suggests that all those variables are influenced by the type of ER regime, with magnitude of impact being higher in developing countries (Bleaney and Francisco, 2007; Carrera and Vuletin, 2011; Levy-Yeyati and Sturzenegger, 2016). While most of the researches present clear and well-interpreted results, they tend to differ depending on the country sample used; and as far as we know, there is no up-to-date evaluation of ER regime's impact on macroeconomic development (captured by above-mentioned variables) in a broad set of SSA countries, with few researches focusing only on selected countries of the region (Berg et al., 2013; Lohi, 2014).

This paper covers the period from 2000 to 2016 and includes 39 SSA countries. Several countries were not included due to data unavailability (South Sudan, Eritrea, Somali etc.) or because of very different (from SSA average) economic structure and institutional quality (developed island states of Mauritius and the Seychelles).

##### 4.1 Dependent variables

The choice of dependent variables was influenced by several issues. They must have been a good reflection of country's successful overall economic development, with literature suggesting an existence of relationships between those variables and ER regime type. The relations between GDP growth and ER regime were already studied by Levy-Yeya-

ti and Sturzenegger (2003), discovering that countries with fixed ER regime have slower GDP growth rate than those with floating. Both inflation's and GDP growth rate's dependence on ER regime is described by Bleaney and Francisco (2007), with authors revealing that hard pegs tend to restrict both inflation and GDP growth, while soft pegs and floating performing almost equally.

Relations between RER volatility and ER regime type were described and verified by Carrera and Vuletin (2011), who state that formally floating and intermediate ER regimes perform better than fixed in terms of stabilizing the real exchange rate. This effect prevails in developing countries, where frequent devaluations prevent the fixed rate from maintaining the parity, while flexible rate produces better transmission between currency depreciation and inflation, thus keeping RER more stable (Carrera and Vuletin, 2011).

The data on the GDP growth rate and inflation were obtained from World Bank's World development indicators. To calculate RER volatility, we used the data on real effective exchange rates<sup>3</sup> published by Bruegel Research Foundation (for methodology of real effective exchange rates calculation, see Darvas, 2012). The volatility itself was calculated as a standard deviation of RER monthly values.

##### 4.2 Independent variables

To correctly express ER regime differences across the countries, we used different classifications of the regimes. Alongside formal ER regime (so-called *de jure* – Levy-Yeyati and Sturzenegger, 2016) as classified by IMF, we used other types of classifications that reflect the issue of developing countries not holding to the ER regime they claim to have (or so called *de facto* exchange rate regime types, as labeled by Levy-Yeyati and Sturzenegger, 2016). These classifications are provided by both

<sup>3</sup> Real effective exchange rate is calculated using nominal exchange rate and the difference in price level changes between the country and the weighted basket of its trade partners (Darvas, 2012).

international organizations and independent researches. For this paper, we used:

- *de facto* classification by IMF, which is based on experts' evaluation of exchange rate restrictions implemented;
- *de facto* classification by Levy-Yeyati and Sturzenegger (2016), which takes into account foreign reserves and interest rates fluctuations<sup>4</sup>.

Transformation of the ER regime type into variable form was conducted by dividing the country sample into three groups based on their ER regime type: floating, intermediate and fixed; with floating

ones having the value of three, intermediate – two, and fixed – one<sup>5</sup> (so the increase of the independent variable's value would mean a switch to more flexible exchange rate regime).

### 4.3 GDP growth rate and ER regime

As mentioned above, GDP growth rate in sub-Saharan Africa may be influenced by both *de jure* and *de facto* ER regime types, with literature and up-to-date conventional wisdom suggesting a positive relation between growth and degree of currency flex-

**Table 1 » Exchange rate regime type and economic growth (%)**

GDP Growth					
De Jure IMF					
	Fixed	Fixed (without CFA)	Fixed (CFA only)	Intermediate	Floating
Period	2000–2016	2000–2016	2000–2016	2000–2016	2000–2016
Number of observations	324	103	221	222	115
Mean	4,0949	4,4121	3,947140936	5,7553	4,4463
Standard deviation	4,3878	3,4768	4,7532	4,7874	5,7046
De Facto IMF					
	Fixed	Fixed (without CFA)	Fixed (CFA only)	Intermediate	Floating
Period	2000–2016	2000–2016	2000–2016	2000–2016	2000–2016
Number of observations	420	199	221	173	64
Mean	4,5076	5,3054	3,9471	5,2028	4,3442
Standard deviation	4,4966	4,5276	4,7532	4,0491	7,1169
De Facto Levy-Yeyati and Sturzenegger					
	Fixed	Fixed (without CFA)	Fixed (CFA only)	Intermediate	Floating
Period	2000–2013	2000–2013	2000–2013	2000–2013	2000–2013
Number of observations	335	153	182	96	115
Mean	4,8139	5,8486	3,8026	4,5171	5,6105
Standard deviation	5,0418	4,7607	5,0532	6,2088	3,6349

Source: Levy-Yeyati and Sturzenegger (2016); World Bank (2019); IMF (2019); author's own calculations

<sup>4</sup> This database covers the period up until 2013, so evaluation using this variable is applied on a shorter time period.

<sup>5</sup> This approach was used in panel data analysis by, for example, Claessens et al. (2002).



→ ibility. Nevertheless, we shouldn't ignore the possibility of the opposite, especially when we distinguish between *de jure* and *de facto* ER regime types — with a substantial number of African countries being officially floating, but actually pegging (see descriptive statistics below), this may bring a difference to the results when alternative explanatory variables are used<sup>6</sup>. As our sample includes a lot of less developed countries, this may also make the results more favorable towards fixed ER, as it is still a solid option for countries not capable of consistent and professional monetary policy (Levy-Yeyati and Sturzenegger, 2016).

The descriptive statistics (table 1) bring us several conclusions:

- Indeed, many African countries claim to float but actually have a fixed currency, proving that Alesina and Wagner's (2003) comments on *de jure* and *de facto* ER regimes are still relevant.
- The differences in economic growth rate between countries with different ER regime exist, and some of them may prove to be statistically significant but will depend on the type of ER regime classification used.
- Members of the CFA zone have the lowest GDP growth rate, which suggests the usage of dummy variable controlling for this effect.

#### 4.3.1 Control variables

To control for the effects of numerous factors influencing GDP growth, we included a set of additional variables into the model. The choice of control variables was based on literature conducting similar estimations (for example Levy-Yeyati and Sturzenegger, 2003; Bleaney and Francisco, 2007)<sup>7</sup>:

- Population growth;
- Current account balance to GDP;
- Foreign direct investment to GDP;
- Index of terms of trade;
- Year-to-year government's spending growth;
- Gross capital formation to GDP.

In all cases excluding population growth and government's spending growth we used first differences of the variables to secure their stationarity.

#### 4.3.2 Methodology, estimation output and interpretation

We used panel data estimation with both fixed and random effects in estimations 1–4 (using IMF's *de jure* and *de facto* ER regime classifications as independent variables) with their appropriateness confirmed by Hausman test. Only fixed effects approach was used in estimation 5, with usage of random effects estimation being proved inappropriate by Hausman test. Statistical significance of the estimations is confirmed by high values of F-statistic. Statistical significance and theoretically correct signs of most control variables add to the robustness of the model<sup>8</sup>. Values of Durbin-Watson's statistics indicate the absence of autocorrelation in residuals. We added a dummy variable for CFA monetary union's membership with value of 1 for CFA members and 0 otherwise when conducting estimations with random effects.

Usage of *de jure* classification was statistically significant in both estimations, with its sign being negative; meaning more ER flexibility is negatively influencing GDP growth rate when controlled for other factors. It may be inconsistent with more modern literature which tends to highlight flexible

<sup>6</sup> As suggested by Alesina and Wagner (2003), countries that do not maintain officially announced exchange rate regime tend to grow slower.

<sup>7</sup> IMF and World Bank's (2019) databases were used as sources of data on the control variables.

<sup>8</sup> Although terms of trade index proved to be only marginally significant in estimations 1–4 and insignificant in estimation 5, where Levy-Yeyati and Sturzenegger's ER regime classification was used. Estimation 5 also showed a statistically significant negative relation between foreign direct investment (which proved insignificant in other estimations) and GDP growth rate, which contradicts conventional wisdom. We believe that this classification's usage as a variable may not lead to correct results (especially in case of developing countries) due to this taxonomy being based on interest rate's movements and central bank's interventions, which are more often in countries with less credible monetary policy. This may have led to countries with managed flexible ER being labeled as fixed and vice versa, with this classification being very different from the IMF's *de facto*. Low effectiveness of this classification's usage as an explanatory variable is also noted by Claessens et al. (2002).

**Table 2 » Estimations of exchange rate regime's influence on GDP growth rate**

	Estimation 1	Estimation 2	Estimation 3	Estimation 4	Estimation 5
	Fixed effects	Random effects	Fixed effects	Random effects	Fixed effects
<b>Explanatory variables</b>					
De Jure IMF	-1,3213 (-2,1244)**	-1,2771 (-2,9204)***			
De Facto IMF			-0,5982 (-1,3177)*	-0,7615 (-2,0560)**	
De Facto LYS					0,0856 (0,2131)
<b>Control variables</b>					
Gross capital formation	0,0622 (1,5561)*	0,0626 (1,5700)*	0,0648 (1,6138)*	0,0650 (1,6266)*	0,0600 (1,2791)
Government spending	0,0473 (7,8820)***	0,04757 (8,0465)***	0,0460 (7,6707)***	0,0466 (7,8634)***	0,0455 (7,1617)***
TT Index	0,0150 (1,3926)	0,0158 (1,4628)*	0,0151 (1,3947)	0,0159 (1,4683)*	0,0130 (0,9903)
CAB	0,0851 (3,1391)***	0,0848 (3,1383)***	0,0855 (3,1439)***	0,0846 (3,1227)***	0,0900 (2,8967)***
FDI	-0,0314 (-1,1687)	-0,0283 (-1,0553)	-0,0321 (-1,1890)	-0,0284 (-1,0554)	-0,0681 (-2,1910)**
Population growth	3,4254 (5,9930)***	2,0783 (6,2482)***	3,3559 (5,8345)***	1,8184 (5,7461)***	3,4853 (5,3955)***
CFA dummy		-2,9426 (-3,8608)***		-2,0664 (-3,1965)***	
Number of observations	623	623	623	623	506
R-squared	0,3117	0,1835	0,3084	0,17779	0,3530
F-statistic (p-value)	5,8065 (0,0000)	17,2529 (0,0000)	5,7176 (0,0000)	16,6058 (0,0000)	5,5780 (0,0000)
Durbin-Watson	1,8995	1,7673	1,8843	1,7831	1,7820

t — statistic in brackets

\*\*\*,  $r \leq 0.01$ ; \*\* —  $r \leq 0.05$ ; \* —  $r \leq 0.2$ 

Source: author's own calculations

rate's merits for its ability to prevent macroeconomic imbalance accumulation and adjust according to the needs of real economy, but is in compliance with more traditional remarks about fixed rate's suitability for developing countries due to its role in macroeconomic stabilization and anti-infla-

tionary effect (as stated, for example, by Velasco 1999; Berg and Borenzstein, 2000). African countries may still be too weak both economically and politically to reap the benefits of floating; and having their ER fixed still leaves the government (or central bank, if we presume its independence) an



- ability to influence the economy through monetary policy<sup>9</sup>.

We achieved similar results using IMF's *de facto* classification as explanatory variable in estimations 3 and 4, although its statistical significance was achieved only using random effects estimations (ER regime variable in estimation 3 was only marginally significant at 20% level; with its sign being also negative). These findings indicate that although African countries maintain some discrepancy between their *de jure* and *de facto* ER regimes (see table 1), those that fix (either formally or actually) still perform better than those that float. The relation discovered in estimations 3 and 4 is somewhat weaker than in estimations 1 and 2 due to lower values of the variables' coefficients (with control variables' coefficients being more or less the same), which may signal that fixing the ER both formally and actually is better than having floating (or intermediate) *de jure* and fixing *de facto*.

Estimation 5 discovered the absence of statistically significant relation between Levy-Yeyati and Sturzenegger's *de facto* classification and GDP growth rate, with control variables being either of lesser significance or with their sign being in contradiction with theory. This may point out inappropriateness of this classification's usage for African countries because of it being based on completely different methodology than that of IMF; with IMF's classification taking into account both official ER regime and monetary authorities' behavior, and Levy-Yeyati and Sturzenegger evaluating if the central bank's actions are consistent with floating ER regime. It is reasonable to believe that less qualified monetary authorities of SSA countries may behave the way (for example, intervening into foreign exchange market not to influence the ER, but to simply convert the state's exports revenues to local currency; with central bank being used as the

state's bank — Aliyev, 2015) that they will be marked as *de facto* fixed by Levy-Yeyati and Sturzenegger but *de facto* floating by IMF.

Estimations 2 and 4 included CFA dummy variable, with its influence on GDP growth being both statistically significant and strongly negative. It confirms the findings of Lohi (2014), who discovered that the CFA monetary union's members have the slowest growth rate among the African countries, with the common monetary policy being unsuitable for countries with so diverse economy.<sup>10</sup>

#### 4.4 Inflation and ER regime

One of the fixed rate's main theoretical advantages is its ability to constrain inflation, and with the magnitude of this problem in developing countries (including SSA) being so high, it is not surprising to find that so many countries stick to pegged rate. Floating rate may be creating inflationary pressure, especially when combined with unrestrained fiscal policy and over-the-top money emission, which is not uncommon for the SSA countries (Berdiev et al., 2012).

It is still important to mention that distinguishing between *de jure* and *de facto* ER regime is pivotal in explaining the ER influence on inflation in African countries. While countries pegging both officially and actually may be perceived as more credible in terms of their monetary policy, those that claim to float, but preserve *de facto* control over the ER may not benefit from the fixed rate's anti-inflationary effect due to their inability to control ER while having a different nominal anchor of monetary policy (Bleaney and Francisco, 2007).

A glimpse on the descriptive statistics (table 3) reveals several issues. African countries with fixed ER regime (both *de jure* and *de facto*) have slower inflation rate than those with intermediate or float-

<sup>9</sup> Without ER as monetary policy's official anchor central bank would need to perform its policy through interest rate's adjustment, but in case of sub-Saharan Africa transmission between interest rates and other economic variables tend to be too weak (except few more developed countries that have enjoyed relative success with inflation targeting — Berg et al., 2013).

<sup>10</sup> We may find both relatively stable and developed commodity-exporters and highly indebted countries relying on foreign aid among the CFA members (Lohi, 2014).

**Table 3 » Exchange rate regime type and inflation (%)**

Inflation					
De Jure IMF					
	Fixed	Fixed (without CFA)	Fixed (CFA only)	Intermediate	Floating
Period	2000–2016	2000–2016	2000–2016	2000–2016	2000–2016
Number of observations	324	103	221	222	115 (110)
Mean	3,8985	6,1991	2,8472	11,8494	18,9277 (8,7308)
Standard deviation	5,4493	6,5317	4,5160	15,1727	64,2524 (6,0181)
De Facto IMF					
	Fixed	Fixed (without CFA)	Fixed (CFA only)	Intermediate	Floating
Period	2000–2016	2000–2016	2000–2016	2000–2016	2000–2016
Number of observations	420	199	221	173 (170)	64 (62)
Mean	5,3684	8,1906	2,8472	11,7741 (9,8861)	19,2409 (8,8143)
Standard deviation	6,6437	7,5312	4,5160	16,3832 (7,2245)	59,0022 (7,0357)
De Facto Levy-Yeyati and Sturzenegger					
	Fixed	Fixed (without CFA)	Fixed (CFA only)	Intermediate	Floating
Period	2000–2013	2000–2013	2000–2013	2000–2013	2000–2013
Number of observations	335	153	182	96 (91)	115
Mean	6,6139	10,8790	2,7605	21,3225 (11,9628)	9,5834
Standard deviation	6,4608	7,5087	3,2043	51,5667 (11,8539)	5,5493

Source: Levy-Yeyati and Sturzenegger (2016); World Bank (2019); IMF (2019); author's own calculations  
 Values with hyperinflating country-years excluded in brackets

ing. If only *de jure* classification is taken into account, the differences between fixed, intermediate and floating are significantly larger, than in case of *de facto* classification. CFA monetary union members tend to have the lowest and least volatile average inflation, which is in compliance with other papers' results (see Lohi, 2014).

#### 4.4.1 Control variables

To estimate ER regime's influence on inflation rate, we conducted estimations with two sets of control variables. In both cases the choice of control variables

was based on papers estimating macroeconomic determinants of inflation such as Cottarelli (1998) and Bleaney and Francisco (2007). In estimations 1, 2 and 3, the following control variables were included:

- Year-to-year money supply (M1) growth;
- First difference of capital account balance to GDP;
- Year-to-year government's spending growth;

In estimations 4, 5 and 6 we also controlled for lagged inflation and lagged nominal effective ER index change<sup>11</sup> as proposed by Cottarelli (1998).

→

## → 4.4.2 Methodology, estimation output and interpretation

We used panel data estimation with fixed effects (table 4) in all estimations while using Hausman test to confirm the fixed effects' validity. Statistical significance of the estimations is confirmed by high values of F-statistic. The signs of control vari-

ables appear to be in compliance with theoretical remarks and other papers, although government's spending proved to be statistically insignificant in case of estimations 1, 2 and 3. Values of Durbin-Watson's statistics indicate the potential absence of autocorrelation in residuals (except for the estimations 1 and 2). Usage of estimations with fixed

**Table 4 » Estimations of exchange rate regime's influence on inflation rate**

	Estimation 1	Estimation 2	Estimation 3	Estimation 4	Estimation 5	Estimation 6
	Fixed effects	Fixed effects	Fixed effects	Fixed effects	Fixed effects	Fixed effects
Explanatory variables						
De Jure IMF	4,1918 (1,6533)*			-2,0166 (-2,0995)**		
De Facto IMF		7,0427 (3,7932)***			-0,4480 (-0,6185)	
De Facto LYS			-1,1118 (-0,6246)			0,4893 (0,7893)
Control variables						
M1 Growth	0,2308 (5,0494)***	0,2099 (4,5990)***	0,2248 (4,1458)***	0,0862 (4,8314)***	0,0871 (4,8495)***	0,0988 (5,0243)***
CAB	-0,1576 (-1,9027)*	-0,17778 (-2,1658)**	-0,1873 (-1,7708)*	-0,0692 (-2,2089)**	-0,0730 (-2,3138)**	-0,1012 (-2,6878)***
Government spending	0,0052 (0,2250)	0,0120 (0,5232)	0,0095 (0,3639)	0,0131 (1,5027)*	0,0116 (1,3333)	0,0164 (1,7758)*
Lagged inflation				0,1403 (9,0420)***	0,1400 (8,9180)***	0,1206 (7,3564)***
NER Change				-0,1065 (-28,2891)***	-0,1063 (-28,1436)***	-0,1099 (-28,0690)***
Number of observations	608	608	496	608	608	496
R-squared	0,2176	0,2333	0,2216	0,8896	0,8888	0,9035
F-statistic (p-value)	3,7405 (0,0000)	4,0934 (0,0000)	3,0699 (0,0000)	103,0918 (0,0000)	102,2697 (0,0000)	95,9957 (0,0000)
Durbin-Watson	1,0393	1,0590	1,0646	1,5373	1,5322	1,6567

t — statistic in brackets

\*\*\*,  $r \leq 0.01$ ; \*\*,  $r \leq 0.05$ ; \*,  $r \leq 0.2$

Source: author's own calculations

<sup>11</sup> With decreasing values meaning depreciation (Darvas, 2012).

effects didn't allow us to include a dummy variable for CFA membership.

In estimations 1 and 2 positive relationship between inflation and ER flexibility (with increasing degree of flexibility stimulating inflation growth) was discovered when not controlled for ER changes and past inflation, meaning that fixed rate *per se* is useful for anti-inflationary policy in SSA countries. On the other hand, adding lagged inflation and ER index changes into estimation reversed the sign of independent variable (with it being significant only in estimation 4). It may signal that in case of fixed ER regime:

- past inflation is more persistent;
- ER changes have more effect on present inflation, with transmission between ER weakening and price level increase being stronger than in case of more flexible ER regime.

Those results may be interpreted the next way: in case of fixed rate, price level is more stable when the rate doesn't change, but when the rate is devalued, inflation spikes higher than in case of the same degree of depreciation under floating, where price level adjusts gradually. Thus, African countries should be pegging their rate for combating inflation only when they would be able to maintain it; with floating being more suitable for those without large reserves or export revenues to rely on.

Once again, we didn't discover statistically significant relation between *de facto* ER regime as classified by Levy-Yeyati and Sturzenegger and inflation rate, which adds to the previously mentioned skepticism about using that classification in regard to developing countries with more opportunism in their monetary policy.

#### 4.5 Real exchange rate volatility and ER regime

Among the most often cited problems of fixed ER regime in developing countries is the monetary authorities' inability to preserve the RER stability (Flood and Rose, 1999; Rodrik, 2008; Carrera and Vuletin, 2011). Although floating rate also implies that RER won't remain stable, floating countries tend to have their price level adjusting faster and therefore reducing the nominal rate changes' impact on the RER; while fixed regimes may stimulate imbalance accumulation by not letting the ER to adjust to price level changes (Flood and Rose, 1999).

In case of African countries one can only presume under which regime their RER<sup>12</sup> stays less volatile. Although more flexible regimes tend to have lower inflation even when the nominal ER changes are taken into account (see table 4), fixed rates still imply more stability both in price level and nominal ER movements.

Countries with fixed rate can boast the lowest RER volatility, especially when *de jure* classification is considered (table 5). Those that fix *de facto* have, on average, more volatile RER than *de jure* ones, especially when the franc zone members are not taken into account. While in most cases intermediate and floating regimes tend to have more volatile RER than fixed ones, it doesn't differ so much between *de jure* and *de facto* classification, with the data not giving clear answers about the RER volatility's differences between intermediate and floating. As in case of inflation rate (see table 3), countries using the CFA franc are more stable in terms of RER.

##### 4.5.1 Control variables

For the estimation we used a set of control variables based on Flood and Rose (1999) and Carrera →

<sup>12</sup> As mentioned before, we calculated yearly values of RER volatility as standard deviations of monthly values of real effective exchange rate indexes provided by Bruegel Research Foundation (for methodology of real effective exchange rate calculation, see Darvas, 2012).

→ **Table 5 » Exchange rate regime type and real effective exchange rate volatility (%)**<sup>13</sup>

Real effective exchange rate volatility					
De Jure IMF					
	Fixed	Fixed (without CFA)	Fixed (CFA only)	Intermediate	Floating
Period	2000–2016	2000–2016	2000–2016	2000–2016	2000–2016
Number of observations	271	50	221	199	89
Mean	2,2630	2,2035	1,9456	4,3306	4,9938
Standard deviation	2,3140	4,2835	1,3916	3,2783	3,8592
De Facto IMF					
	Fixed	Fixed (without CFA)	Fixed (CFA only)	Intermediate	Floating
Period	2000–2016	2000–2016	2000–2016	2000–2016	2000–2016
Number of observations	353	133	221	153	48
Mean	2,8034	4,1973	1,9456	4,0006	6,2371
Standard deviation	2,7506	3,7205	1,3916	2,9812	4,7009
De Facto Levy-Yeyati and Sturzenegger					
	Fixed	Fixed (without CFA)	Fixed (CFA only)	Intermediate	Floating
Period	2000–2013	2000–2013	2000–2013	2000–2013	2000–2013
Number of observations	278	96	182	87	97
Mean	2,5736	3,5826	2,0005	5,3956	3,9571
Standard deviation	2,1188	2,8298	1,4686	4,7454	2,7565

Source: Levy-Yeyati and Sturzenegger (2016); World Bank (2019); IMF (2019); Bruegel (2019); author's own calculations

and Vuletin (2011). The following controls were employed in all estimations:

- Year-to-year money supply (M1) growth;
- First difference of capital account balance to GDP;
- Year-to-year government's spending growth;
- Economic openness calculated as sum of exports and imports on GDP.

#### 4.5.2 Methodology, estimation output and interpretation

Log of RER volatility was used as dependent variable. We used panel data estimation with fixed effects (table 6) in all estimations while using Hausman test to confirm their validity. Statistical significance of the estimations is confirmed by high values of F-statistic, with values of Durbin-Watson's statistics indicating the absence of autocorrelation in residuals.

<sup>13</sup> The data on several countries used in the previous estimations were unavailable, with total number of countries in this model being 33.



We have discovered a positive and statistically significant relation between both *de jure* and *de facto* ER regimes (IMF classification) and RER volatility, thus confirming Rose and Flood's (1999) more conventional (though based on very different set countries) findings of fixed rate's ability to maintain RER more stable than in case of flexible ER. With this in mind, more flexibility in African countries' ERs not only stimulates inflation (see table 4) but destabilizes RER; with this making pegged rate a preferable option for nations struggling with price stability and its impact on foreign

trade. These results contradict with a relatively recent paper by Carrera and Vuletin (2011), who argue that nominal ER flexibility doesn't always stimulate RER movements; but with our country sample composed of world's least developed states with not so credible monetary policy, using ER as monetary policy's anchor may be the least painful way to provide some kind of control over the price level (and thus RER) — something that is hardly achievable for floating states of SSA.

**Table 6 » Estimations of exchange rate regime's influence on RER volatility**

	Estimation 1	Estimation 2	Estimation 3
	Fixed effects	Fixed effects	Fixed effects
Explanatory variables			
De Jure IMF	0,1925 (1,6556)*		
De Facto IMF		0,2482 (2,8421)***	
De Facto LYS			-0,0219 (-0,3353)
Control variables			
M1 Growth	0,0027 (1,4582)*	0,0019 (1,0342)	0,0023 (1,1334)
Economic openness	-0,0084 (-3,0933)***	-0,0081 (-3,0610)***	-0,0096 (-3,0022)***
Government spending	-0,0025 (-2,6368)***	-0,0022 (-2,3877)**	-0,0023 (-2,2459)**
CAB	-0,0075 (-1,9470)*	-0,0075 (-1,9694)**	-0,0084 (-1,9571)*
Number of observations	508	508	418
R-squared	0,4450	0,4511	0,4288
F-statistic (p-value)	10,2700 (0,0000)	10,5283 (0,0000)	7,7110 (0,0000)
Durbin-Watson	1,7334	1,7568	1,8078

t — statistic in brackets

\*\*\*,  $r \leq 0.01$ ; \*\*,  $r \leq 0.05$ ; \*,  $r \leq 0.2$

Source: author's own calculations



## → 5. Conclusion

In this paper we analyzed the relations between the type of exchange rate regime and macroeconomic development in sub-Saharan Africa. While this matter has already been precisely studied for more developed nations, conventional wisdom and up-to-date papers don't give a clear answer about which type of ER regime is preferable for these less advanced nations. While floating can be suitable because of its ability to prevent imbalance accumulation in external trade, fixed regime may be the best nominal anchor for monetary policy in less institutionally and politically developed countries. Although it is obvious that no ER policy will suit every country and therefore there could not be clear implications about which ER regime should be implemented, we focused on analysis of the African countries' macroeconomic performance under different ER regimes and evaluated the ER regime's influence on three economic indicators: GDP growth rate, inflation rate and RER volatility.

Our analysis included up to 39 SSA countries and the period from 2000 to 2016. We used panel data regression with ER regime types as explanatory variables; while adding control variables to the estimations as suggested by the relevant literature. We distinguished between fixed, intermediate and floating ER regime, while using both official (*de jure*) and actual (*de facto*) classifications of ER regimes. This paper's findings can be put the next way:

- More flexibility in ER has negative influence on economic growth of SSA countries; with countries that float only *de jure* showing slower economic growth (in comparison to intermediate

or fixed regime) than those with *de facto* floating. Although fixed regimes performed better in terms of GDP growth rate, CFA franc monetary union members appeared to have significantly slower GDP growth than countries with pegged currency and independent monetary policy.

- Floating countries proved to have higher inflation than those with less flexible currency only when not controlled for past inflation and nominal ER changes. Adding those variables to the estimation reversed the results, with floating countries having lower inflation, which may mean that fixed regimes tend to have a) more persistent inflation; b) stronger transmission between ER weakening and inflation, meaning the same degree of currency weakening under fixed will result into higher inflation than under floating.
- RER volatility appears to be positively correlated with ER flexibility; therefore, fixed countries are able to benefit from this ER regime's ability to keep their RER stable.

Those results indicate that during analyzed period African countries with fixed ER regime performed better in terms of GDP growth, inflation (if the nominal exchange rate is kept stable) and RER volatility. This may imply that more ER flexibility could be damaging for economic growth and monetary stability; and less-developed countries of the region will benefit from more control over the exchange rate. While some up-to-date literature tends to be critical about fixed rate's impact on the economy, our results suggest that is may be still a favorable option for African countries.

*Correct implementation of the monetary policy, which means adjusting the basic variables — interest rates and exchange rate (ER) — according to the needs of real economy, is viewed as a prerequisite for sustainable and long-term economic growth, with many authors highlighting the increasing importance of monetary policy's quality in developing world.*

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#### ABSTRAKT

Tento článek zkoumá vliv režimu měnového kurzu na makroekonomický vývoj a monetární stabilitu států subsaharské Afriky. I když se role kurzového režimu v rozvojových zemích často podhodnocuje, nekorektní volba typu režimu měnového kurzu může omezovat hospodářský růst a mít destabilizující účinek na makroekonomické ukazatele v zemích regionu. Tento článek se zabývá otázkou vhodnosti toho či jiného kurzového režimu pro země subsaharské Afriky. Článek analyzuje komparativní statistiku vývoje vybraných ekonomických ukazatelů v zemích regionu za různých kurzových režimů; a kvantifikuje vliv režimů měnového kurzu na makroekonomický vývoj za použití panelové regrese. Bylo zjištěno, že země subsaharské Afriky s fixním kurzem (za určitými výjimkami) mají rychlejší tempo růstu HDP, nižší inflaci a stabilnější reálný kurz; vzhledem k tomu liberalizace kurzových režimů v zemích regionu může mít negativní účinky pro jejich ekonomický rozvoj.

#### KLÍČOVÁ SLOVA

Kurzový režim; reálný kurz; inflace; subsaharská Afrika

### Exchange Rate Regimes and Macroeconomic Development in Sub-Saharan Africa

#### ABSTRACT

The paper is examining the exchange rate regime's influence on macroeconomic performance and monetary stability of sub-Saharan African countries. While the importance of exchange rate regime choice in developing world is sometimes undervalued, there are reasons to believe that incorrect exchange rate regime choice may be restraining economic growth and disturbing macroeconomic stability in the countries of the region. Based on that, this paper raises the question about suitability of different exchange rate regimes for the sub-Saharan African countries. The paper analyzes comparative statistics of selected economic indicators development under different exchange rate regimes; and quantifies exchange rate regimes' influence on macroeconomic development using panel data approach. Findings reveal that sub-Saharan African countries with fixed exchange rate regime (with several exclusions) tend to have higher GDP growth rate, lower inflation and real exchange rate volatility, thus adding flexibility to their exchange rate may damage the countries' economic performance.

**KEYWORDS**

*Exchange rate regime; real exchange rate; inflation; sub-Saharan Africa*

**JEL CLASSIFICATION**

*E52; E58; F31*



# Human Resource Management and Performance: a Literature Review and Research Agenda<sup>1</sup>

► Ing. Hana Kučerová » Faculty of Economics and Administration, University of Pardubice, Studentská 95, 532 10 Pardubice, Czech Republic; email: hana.kucerovala@student.upce.cz

## \* 1. Introduction

The impact of human resource management on performance has become the dominant research issue in the field. In recent years, there have been a number of studies on the positive relationship between human resource management and performance. These studies confirmed the importance of promoting a special approach to human resource management. Although these studies represent progress, the statistical side has been favored at the expense of theoretical background. As a result, the studies are non-additive. The aim of this work is to present a research agenda aimed at reintroducing theory into empirical discussion. If we want to better understand the impact of human resource management on performance, we need to know a theory human resource management, a theory on company performance, and a theory on how these two areas are interconnected.

The first part of this study will focus on reviewing the currently available theories of human resource management, as well as on theories of performance and the relationship between the two areas that affect the functioning of business. At the

end of the work, the problems that will arise from this review will be outlined, and some developmental trends that must occur in theory and practice if we want to improve our understanding of management and performance of human resources will be highlighted.

## 2. Methodology

As part of the study of this issue, I will elaborate a secondary research into an overview of the existing theoretical literature on human resources and performance management. In reviewing theoretical literature, I will focus on a group of theories that have accumulated with respect to the problem, concept, and context between human resource management and performance. Theoretical literary review plays an important role in determining what theories exist, the relationships between them, the extent to which existing theories have been explored, and in developing new hypotheses to be tested.

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### 3. Results

In any empirical study we must have a look at our independent variable. There appear to be three categories of general theory of human resource management and a number of more specific theories about specific areas of policy and practice. Three categories of theory can be described as strategic theories, descriptive theories and normative theories of human resource management.

#### 3.1 Strategic theories of human resource management

Strategic theories include relationship between external events, policies and practices in the area of human resources management. Hendry and Pettigrew (1990) presented one of the most well-known researches in this category to identify and classify key environmental impacts on HRM. In their work, HRM policy and practice becomes a dependent variable that is judged by the degree of context. This will be associated with correspondingly superior performance. In their research, Hendry and Pettigrew (1990) focused on mapping the context, identifying the internal context that represents the organizational environment and more context in a wider environment. The authors also focused on exploring how HRM adapts to change of context.

In the USA, on the other hand, attention was more focused on the classification of individual types of personnel strategy, often using existing models of corporate strategy. Miles and Snow (1984) suggest that each company must adopt a different set of HRM policies. The hypothesis is that those companies that have a relationship between HRM's business strategy, structure and policy and practice will perform well. The authors argue that the human resources management system must be adapted to the requirements of the business strategy. In multi-business firms, this may require the business's ability to offer services to a wide range of strategic business units. The human resources department must have employees with

expert advisory skills in the area of design and development of the organization.

A similar reasoning lies behind the work of Schuler and Jackson (1987), which outlines the three HRM strategies associated with the Porter (1990) three general competitive strategies.

The first is the competitive strategy. Before developing a linkage between competitive strategy and HRM practices, there must be a rationale for that linkage. This rationale gives us a basis for predicting, studying, refining, and modifying both strategy and practices in specific circumstances. Several role behaviors are assumed to be instrumental in the implementation of the competitive strategies. The second is innovation strategy. The innovation strategy has significant implications for human resource management. Rather than emphasizing managing people so they work harder or smarter on the same products or services, the innovation strategy requires people to work differently. The third is quality-enhancement strategy. Because quality enhancement typically involves greater employee commitment and utilization, fewer employees are needed to produce the same level of output. As quality rises, so does demand, yet this demand can be met with fewer employees than previously.

There are several other writers whose work falls within this broad focus on strategy. However, they often characterize HRM in a simplified way, usually identifying about four broad areas of activity such as selection, training and development, rewards and career. While this implies the view that companies that achieve excellent human resource management that fits a business strategy will perform well. A limitation of this view is in the specification of the process by which HRM is associated with performance. Finally, they generally adopt a limited view of performance, defining it largely in financial terms.





### → 3.2 Descriptive theories of human resource management

The aim of these theories is a comprehensive description of human resource management. Representatives of this theory are, for example, Beer and his colleagues at Harvard (Beer et al. 1985) and Kochan, Katz and McKersie (1986). In both cases, the authors try to capture all aspects and some interrelationships in the area of human resources management. For Beer et al. (1985) this translates into defining four HRM policy areas and four key results.

Kochan and his colleague's present theory as a systemic approach describing interrelationships between levels. Both approaches can be developed in theory, but only at the general level of specification. The strength and weakness is the emphasis on an open system approach that captures reality but cannot specify. Both approaches are useful in defining stakeholders' approaches. These theories provide a number of options, but do not recommend specific approaches and are therefore largely non-prescriptive. They do not address the clear relationship between HRM and performance.

### 3.3 Normative theories of human resource management

These models and theories are more prescriptive and reflect the view that there is enough knowledge to provide a basis for best practice or that a set of values indicates best practice. One of the best known examples of this approach is Walton's work on control and engagement (Walton, 1985). This work prescribes a binding strategy as a characteristic basis of HRM. The aim of this work was to investigate whether it is better to combine different theories to describe effective and good business management or to theorize business management based on only one theory. This will cover corporate governance theories which include agency theory, stakeholder theory, stewardship theory, and institutional theory.

Pfeffer's Work attracted much attention (Pfeffer, 1994). It defines sixteen HRM practices, changed to thirteen (Pfeffer, 1995). This primarily involves theoretic workflow on 'high-performance' workflows. These practices include employment security, selectivity in recruiting, high wages, incentive pay, employee ownership, information sharing, participation and empowerment, self-managed teams, training and skill development, cross-utilization and cross-training, symbolic egalitarianism, wage compression and promotion from within.

Unlike other approaches, this normative perspective claims that specific procedures and specific HRM objectives will always be better. There are a number of problems with this view of HRM. One is that it focuses mainly on the internal characteristics of HRM at the expense of broader strategic issues. The second problem is that while HRM objectives can be defined, the related list of HRM practices is far from clear and expects either a clear theoretical specification or a much stronger empirical basis.

### 3.4 Theory about performance

There is no general theory of performance. However, we have a number of approaches and models, often built on specific disciplines, such as economics, psychology, or production management, to help us understand and classify aspects of performance. In this study, we must first focus on content-related questions, consider data types, and then consider the linkages in a broader view of performance to begin investigating the causal relationship between HRM and performance. The question of the nature of the data overlaps with the question of what types of data are interesting. Who is involved in the performance? It is likely that performance is a criterion that dominates society.

From Staw's research, we know that there is very little link between performance and job satisfaction (Staw, 1986). Staw's research is about how to manage an organization so that employees can

be happy and productive. This is a situation where both employees and executives are truly satisfied with the results achieved. From a Marxist point of view, getting a happy/productive worker can be seen as a conflict between workers and management. Such an objective can be considered too naive from the perspective of traditional industrial relations, because the results are a product of

used in the HRM discussions is the concept of a 'scored score card'. This simply means that it is not enough to focus on one view of performance at the expense of others. It is necessary to optimize each dimension rather than maximize one at the expense of the others. Usually, the items on the scorecard are important for financial, customer, and employee districts.

*The impact of human resource management on performance has become the dominant research issue in the field. In recent years, there have been a number of studies on the positive relationship between human resource management and performance. These studies confirmed the importance of promoting a special approach to human resource management. Although these studies represent progress, the statistical side has been favored at the expense of theoretical background.*

negotiation and compromise. From a psychological point of view, however, the pursuit of a happy/productive worker is considered useful. The first alternative is to build a strong individually-oriented system, based on the kind of traditional good management. We can also have a group-oriented system, where satisfaction and performance are derived from group participation. In fact, much of organizational life could be designed around groups, if we wanted to capitalize fully on the power of groups to influence work attitudes and behavior. The basic idea would be to make group participation so important the groups would be capable of controlling satisfaction and performance. A third way of organizing work might be an organizationally-oriented system, using the principles of recommendations for developing high-performing systems. The basic goal would be to arrange working conditions so that individuals gain satisfaction from contributing to the entire organizations welfare.

There is also the fact that highly successful companies need not be companies in which workers prefer work (Levering et al., 1984). Based on stakeholder analysis, one of the terms sometimes

Essentially, three types of performance data are available (Locke and Latham, 1990), which are the production rates of goods and services, which may be quantitative (units produced, number of customers served) or qualitative (number of errors, number of customer complaints); timing (including reduced working time, deadlines) and financial indicators. If 'hard' quantitative data are not available, we can resort to behavioral measures. Ideally, we observe people at work, see if they approach customers and offer help, or see if they follow safety procedures. Measuring becomes more complex when applied to employees because we will have to add a subjective assessment. Importantly, they should be collected systematically. Of course, the analytical framework for considering the scope of performance data cannot conceal prejudices and preferences, nor prevent subjective interpretation and weighting of information. Simply put, it is important to be aware of the range of data types that can be collected to indicate performance. The data itself tells us very little. We need some basis for comparison, we also need to understand the relationships between types of performance data. Regarding the behavioral model, we would like to

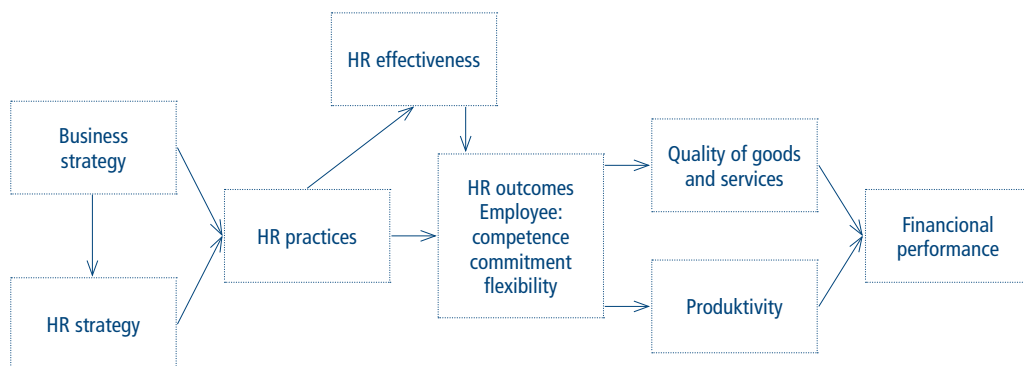


→ **Table 6 » Research results on the link between HRM and organizational performance**

Researchers	Methodology	Results
<b>Arthur (1994)</b>	Data from 30 US steel mills used to estimate the impact of a control strategy on work efficiency.	Companies with a high loyalty strategy had a significantly higher level of productivity.
<b>Huselid (1995)</b>	Analyzing 968 US firms' responses to a questionnaire exploring the use of high-performance workflows, creating synergies between them, and linking them to competition strategies.	Productivity is influenced by motivation, financial performance is influenced by qualification and motivation in the organizational structure.
<b>Huselid and Becker (1996)</b>	Created an indicator of human resource management systems in 740 companies, showing to what extent the company has implemented a system of high performance work.	Companies with high indicator values had a higher level of performance economically and statistically.
<b>Becker et al. (1997)</b>	The results of a number of research projects were analyzed to estimate the strategic impact of high-performance work systems on shareholder value.	High power systems have an effect when they are firmly seated in the infrastructure of the control.
<b>Patterson et al. (1997)</b>	Research examining the link between business performance, culture, and the use of a range of HRM practices.	HR practices could explain the differences in profitability and productivity. In particular, two procedures were significant: recruitment and development and the creation of jobs.
<b>Thompson (1998)</b>	Studying the impact of high-performance methods such as teamwork, employee evaluation, job rotation, and business information in 623 UK aerospace companies.	The number of human resources procedures and the number of staff employed was a key factor between the more successful and less successful firms.
<b>Gust et al. (2000a)</b>	Analysis of the Labor Relations Survey on Workplaces, which concerned about 2 000 workplaces and represented the views of about 28 000 workers.	There is a strong correlation between human resource management and workplace performance.
<b>Guest et al. (2000b)</b>	In 835 private sector organizations, interviews were conducted with 610 HRM specialists and 462 top corporate executives.	Increasing the use of HRM practices was related to a greater commitment of staff and their contribution to achieving the organization's goals.
<b>Purcell et al. (2003)</b>	A longitudinal study of 12 companies conducted by the University of Bath to determine how people's management has an impact on the performance of an organization.	There is evidence of relationships between positive attitudes to human resources policy and practice, levels of satisfaction, motivation and commitment on the one hand and performance on the other.

Source: Armstrong (2007)

Guest et al. (2000b) created a model of the relationship between human resource management and performance, as shown in figure 1.

**Figure 1 » Model of the link between HRM and performance**

Source: Guest et al. (2000)

link employees' perceptions with their behavior, with performance results that affect the unit's performance and therefore the company's profits. It is therefore important to define the links between HRM and performance in order to understand their entire context, as opposed to do just measuring performance.

Company leaders play a leading role in creating and maintaining a high performance cycle. A number of recent studies conducted by high-level executives have found that one of the most important functions for an enterprise is to develop a vision or goal and translate that vision into explicit goals, programs and plans. Effective executives also seek to reward those who help the organization meet its goals and punish those who do not. The usefulness of a high performance cycle goes beyond the boundaries of working organizations.

### 3.5 Relationship between HRM and performance

Neither the strategic nor the descriptive model provide much insight into how HRM policy and practice translates into high performance. They view HRM as only part of the explanation for performance and suggest that, when the various sub-

systems including the HRM sub-system are aligned and supporting each other, superior performance is likely. It is a managerial model of organizing, particularly in the strategic version. The appropriate HRM practices tap the motivation and commitment of employees.

A prerequisite, confirmed by the practice of human resource management, is that people are a key source of organization and the performance of the organization depends heavily on them. Thus, if appropriate policies, theories and processes in the area of human resources management are developed and effectively implemented, then the human resources departments will have a major impact on the company's performance. The most important question in many researches is whether there is a positive clear link between HRM practices and organizational performance. During the last decade or so, many surveys have taken places (table 1) that have tried to answer this question. The aim of the research was to find out how human resources influence the performance of the organization.

Communications from research, in particular from research conducted by Purcell et al. (2003), is that HR departments and systems can have an impact by leading or contributing to:



- • the creation and successful implementation of high-performance procedures, in particular those that create jobs and jobs, flexible ways of working, securing workers, developing workers, remunerating and providing opportunities for workers to express their views;
- formulating a clear vision and a set of values (big idea) and taking care to take root in the organization;
- creating a positive psychological contract and tools to increase workers' motivation, commitment and engagement;
- the formulation and implementation of a policy that will meet the needs of individuals and thus create a pleasant workplace;
- providing support and advice to lineal managers in their role as human resource policy and practice implementers;
- effective change management.

## 4. Discussion

Based on this study, several questions were raised for future HRM research and its links to business performance. The first key issue is the lack of theory about the nature of HRM practices. We can build on something like MacDuffie's Expectation Theory, which points to a number of configurations depending on preferred rewards and possibly an indication of when performance-related rewards can be considered high-performance practices (MacDuffie, 1995). Previous research on the relationship between innovative HR practices and performance has often failed to identify the interrelationships between HR policies or lack of adequate data on the technical aspects of the company's production system and business strategy to assess the relative contribution of HR to performance. Based on the MacDuffie's research results, it has been found that innovative HR practices do not affect performance individually but as interconnected elements in the internal environment.

An alternative is to take a statistical approach and see what results from factor analysis (Wood

and Albanese, 1995). The commitment model was a key element in human resource management concepts. Based on an analysis of data from a representative sample of UK manufacturing sites, it is concluded that HRM is practiced to varying degrees across companies. Research also shows an increase in the use of HRM procedures between 1986 and 1990.

When compiling a set of good practices, we should also look at cultural differences, for example in practices related to training, job security or trade unions. Regarding information on human resources management policies and procedures, we need to be careful about the validity assumptions on which the use of data is based as a basis for a corporate-wide statement of HR procedures. The second issue is improving our performance rates. In fact, performance can be a misconception. It may be more reasonable to use the term „results“. One argument might be that the unitary HRM-emphasized philosophy means that employees share shareholders' concerns about profits. The idea of balance, as well as the concept of optimizing socio-technical systems, suggests that compromises may sometimes be necessary. Studies by Arthur (1994), MacDuffie (1995) measure productivity and quality, but studies by Huselid (1995) and others that take advantage of business measures predominantly emphasize financial criteria. Despite the importance of financial performance indicators, it is important to convince top managers of the impact of HRM on performance, so we need to use a larger range of outcome measures to understand how and why HRM has an impact on financial performance.

Currently, studies show a promising link between HRM and outcomes, but we are not yet able to argue about cause and effect. We must develop a theory that integrates aspects of strategy and strategic integration with something, such as the expectation of the theory to create specific hypotheses about linkages. Case study research can help to gather some knowledge that can be tested in more detail. They can also study specific practices

or problems, such as quality or engagement, where theory is sometimes more specific. To establish links, we also need long-term research suggestions, ideally with some interventions that will change HRM procedures. Simply put, we need to

improve our theory and empirical testing on the nature of HRM, the nature of results and the nature of linkages. Now we can say with increasing conviction that HRM works. However, it is a stone on which it is necessary to build further.

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## Human Resource Management and Performance: a Literature Review and Research Agenda

### ABSTRACT

*There is a growing body of evidence supporting the relationship between performance or impact human resource management and various measures of organizational performance. However, it is not entirely clear why this connection actually exists. This article argues that in order to provide a convincing and truthful explanation for this connection, we need to improve our theoretical and analytical knowledge in three key areas. This is the nature of human resource management, the nature of organizational performance, and the relation between human resource management and company performance. A model is presented in which these links and satisfaction can be explored. The current literature on human resource management and company performance is reviewed on the basis of this analysis to identify key gaps in knowledge in this area and to contribute to further focusing research priorities.*

### KEYWORDS

*Human resources; Management; Performance; Models; Theory*

### JEL CLASSIFICATION

*J24; M12; M50*





# Vliv vládních opatření na bankovní sektor USA — popis pomocí heuristických trendů

- Ing. Lenka Čuperová » Fakulta podnikatelská, Vysoké učení technické v Brně, Kolejní 4, 612 00 Brno, Česká republika; xpcuper00@vutbr.cz
- Ing. Roman Brauner, MBA » Fakulta podnikatelská, Vysoké učení technické v Brně, Kolejní 4, 612 00 Brno, Česká republika; xpcuper00@vutbr.cz

## \* 1. Úvod

Mnoho ekonomů v souvislosti s kvantitativním uvolňováním vyslovilo obavy o stabilitu bankovního sektoru. Crocket (1997) definoval, že finanční stabilita vyžaduje, aby klíčové instituce ve finančním systému byly stabilní, protože musí existovat vysoká míra důvěry v to, že mohou i nadále splnit své smluvní závazky bez přerušení nebo vnější pomoci, že klíčové trhy jsou stabilní, protože účastníci na nich mohou s jistotou obchodovat za ceny, které odrážejí situaci na trhu a které se během krátkých období zásadně nemění, pokud nedošlo k žádným změnám ve fundamentech. Dále říká, že stabilita ve finančních institucích znamená nepřítomnost stresů, které mají potenciál způsobit měřitelné ekonomické škody mimo striktně omezenou skupinu zákazníků a protistran. Příležitostné selhání menších institucí a příležitostné značné ztráty u větších institucí jsou dle jeho názoru součástí běžného fungování finančního systému a ve skutečnosti plní pozitivní funkci tím, že účastníkům trhu připomínají jejich povinnost uplatňovat disciplínu nad činností zprostředkovatelů, s nimiž obchodují.

Stabilitu bankovního systému mohou ovlivnit endogenní šoky přímo uvnitř finančního systému, které se dále šíří formou nákazy nebo exogenní

šoky, které vznikají vně tohoto systému. Dalšími zdroji nestability je provázanost bankovního a finančního sektoru a morální hazard zejména velkých bank. Vazby se projevuje tržbou zejména státních dluhopisů, které slouží jako kvalitní kolaterál a které také bankovní instituce drží z důvodu jejich preference z hlediska bezpečnosti. Velké banky kategorie 1 a 2, tedy globální systémově významné instituce a jiné systémově významné instituce a také středně velké až velké instituce, které působí na domácím trhu nebo se značnými přeshraničními aktivitami a které mají několik různých oblastí podnikání (podrobněji metodika EBA, 2014) se mohou spoléhat na vládní pomoc v případě potíží a dopouštět se morálního hazardu, kdy sníží své nároky na zajištění pohledávek či úroveň požadavků na prověření klienta. V důsledku celosvětové finanční krize bylo rozhodnutím Fed zaveden soubor nestandardních opatření, které se dají rozlišit do dvou skupin a to systém pro přímé poskytnutí likvidity finančnímu sektoru a rozsáhlé programy nákupu aktiv (LSAP), dále podrobněji Fratzscher et al. (2018).

Dopad kvantitativního uvolňování byl zkoumán řadou autorů. Jejich pozornost byla zaměřena zejména na bankovní úvěrový kanál, protože existoval obecný předpoklad, že likvidita vzniklá v průběhu QE bude levným zdrojem financování →

→ bank, které následně budou poskytovat více půjček. Možnou brzdou pro tento efekt mohla být počáteční opatrnost bank v poskytování úvěrů, která bránila v toku likvidity směrem k podnikům a drobným spotřebitelům. Darmouni a Rodnyanski (2017) našli důkazy, že pro efekt QE byl pro banky rozhodující typ majetku, který vlastnily, tedy druh cenných papírů. Mnoho obchodních bank mělo vysoký podíl agenturních MBS a zvýšení likvidity těchto konkrétních aktiv vedlo k mnohem vyššímu zlepšení jejich rozvahy, než u zásahu, který by byl zaměřen na jiné, řídké držené cenné papíry. Kurtzman et al. (2018) našli důkazy, že první a druhé kolo kvantitativního uvolňování v USA vedlo ke snížení úvěrových standardů a následně ke zvýšenému riskování u bank, které měly ve svých aktivech více cenných papírů zajištěných hypotékou (MBS). Tento účinek byl zhruba srovnatelný s účinkem snížení cílové sazby fondů Fed o jeden procentní bod v běžných dobách. Prokázalo se tedy, že QE neovlivňuje pouze dostupnost úvěrů, ale sekundárně také přispívá ke zvýšení počtu relativně rizikovějších úvěrů s nižšími úvěrovými standarty. Efektem stimulačního účinku TARP (Trouble Asset Program, program pro pomoc s problémovými aktivy) se zabýval Li (2013), kdy zjistil, že banky zúčastněné v TARP použily přibližně jednu třetinu svého kapitálu TARP na podporu nových půjček a dvě třetiny držely jako další kapitálový polštář. Bylo nalezeno jen málo důkazů o tom, že by tyto banky poskytovaly úvěry výrazně nižší kvality než banky, které nebyly v TARP.

Zkoumáním mezinárodního přesahu bankovního úvěrového kanálu se zabýval D'Avino (2018) a poukazuje na asymetrický dopad amerického QE na půjčky zahraničních poboček v dalších zemích. Bylo zjištěno, že globální banky jsou významné při přenosu šoků z likvidity i přes hranice, což může narušovat koncové cíle domácí i zahraniční měnové politiky. Globální banky tedy mohou odlišně likvidity na další trhy snižovat dopad QE na domácí půjčky a naopak tento příliv likvidity může mít důležitý vliv na zadlužení přijímajících zemí.

Mamaysky (2018) si klade otázku, zda se účinek konkrétního kanálu na ceny projeví ihned, nebo až se zpožděním a zdůrazňuje, že tento fakt je zásadní pro správné určení účinků QE. V jeho práci bylo zjištěno, že ceny akcií a volatilita vyvolaná akcemi reaguje během několika týdnů po oznámení QE. Hodnotí, že velikost pozorovaného efektu QE na sektor amerických akcií je velká a je v souladu se změnami, které lze předvídat při zohlednění očekávání investorů ohledně peněžních toků a diskontních sazeb, ke kterým mohlo dojít mezi jednotlivými oznámeními o průběhu QE Fed.

Celkově provedl v období 2009 až 2014 Fed tři kola QE, nákup cenných papírů americké státní pokladny, dluhu agentur a cenných papírů zajištěných hypotékou (MBS). Tyto cenné papíry nyní tvoří většinu aktiv v rozvaze Fed. Celkově se rozvaha Fed během tří kol QE zvýšila o více než 2,5 bilionu dolarů, což je asi pětikrát více, než bylo před krizí. Nárůstu aktiv odpovídá nárůst pasiv, které u Fed představují zejména měna, bankovní rezervy a hotovost uložená státní americkou pokladnou. Tento nárůst v rozvaze Fed má inflační potenciál, protože bankovní rezervy jsou součástí měnové báze, která během QE rostla vysokým tempem (Labonte, 2017).

V tomto článku jsou zkoumány dopady QE na bankovní sektor USA členěný dle velikosti bank do čtyř kategorií z hlediska zkoumání vzájemných souvislostí trendů 11 proměnných.

## 2. Metodologie

Výchozí data pro sestavení modelu byla čerpána z korelační matice uveřejněné v článku Egly, Escobari a Johnk (2016). Autoři zde zpracovali data ze vzorků amerických komerčních bank rozdělených dle velikosti. V tomto článku jsou použita data z korelační matice vytvořené ze vzorku 34 velkých bank s průměrnými celkovými aktivy 20–90 miliard USD a ze vzorku 14 bankovních center s výškou aktiv více než 90 miliard USD. Tato data pochází z období 2005Q1 až 2010Q4. U jednotlivých bank bylo sledováno celkem 11 proměnných.

## 2.1 Trendový Model

Pro komplexní hodnocení vzájemných souvislostí jednotlivých proměnných je možné použít slovní popisy založené pouze na trendech, které mohou být rostoucí, konstantní a klesající.

Například: Jestliže množství půjček klesá, zvyšuje se deposit bank.

Pro vzájemný vztah páru proměnných, který je v korelační matici značen znaménkem plus nebo minus, je pro pozitivní korelaci zvoleno označení SUP (support), pro negativní korelaci RED (reduce). Tato informace je základní pro stanovení heuristického trendu a vztahů jednotlivých proměnných mezi sebou počítačovým algoritmem. Vztahy SUP a RED jsou definovány následujícím způsobem:

SUP jestliže X roste (klesá), pak Y také roste (klesá), proměnné se podporují.

RED jestliže X roste (klesá), pak Y naopak klesá (roste), proměnné se navzájem redukuje.

Trendový model zpracovaný v tomto článku je založen na 11 proměnných, kterými jsou následující (Egly, Escobari a Johnk, 2016):

LTA celková aktiva banky  
LOA půjčky (proměnné úvěry)  
NOP čistý provozní příjem  
DE1 depozit I  
DE2 depozit II  
LCA komerční bankovní akreditivy  
NPL množství nesplácených úvěrů  
CAP množství rizikového kapitálu Tier1  
PCO náklady na vklady  
REP REPO spread na danou třídu dluhopisů  
QEA fiktivní proměnná míry kvantitativního uvolňování.

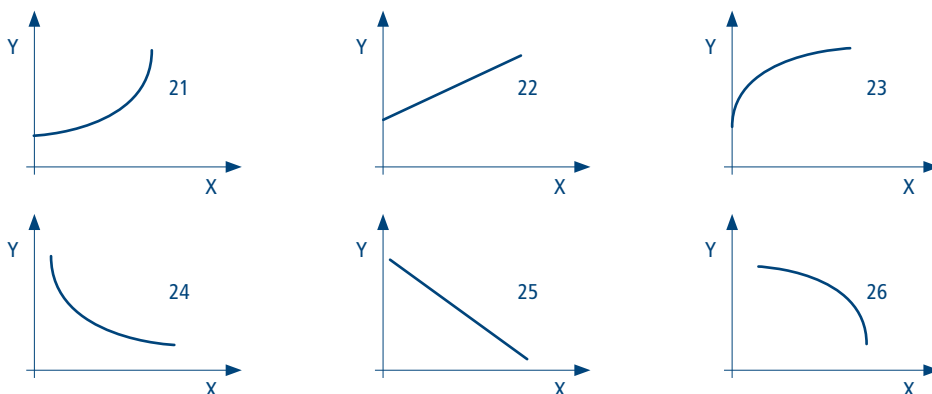
Kvalitativní trendová analýza je založena pouze na těchto čtyřech hodnotách (Vicha and Dohnal, 2008):

Hodnoty:	Kladná +	Nulová 0	Záporná -	Cokoliv *
Derivace trendu:	Rostoucí	Konstantní	Klesající	Jakýkoli trend

První derivace trendu poskytuje jen málo informací, ale pokud je známa, lze použít následující heuristické průběhy trendů. Pro jejich vyjádření je nutné provést druhou derivaci.

Například graf č. 21 v obrázku č. 1, není založen na žádném numerickém vyjádření, označuje

**Obrázek č. 1 » Trendové vztahy**



Pramen: Dohnal a Kocmanová (2016)



→ pouze informaci o trendu jednotlivé proměnné. Platí:

- První derivace  $dY / dX$  je kladná
- Druhá derivace  $d^2Y / dX^2$  je kladná
- Jestliže  $X = 0$  pak  $Y$  je kladné (3)

Počítačová instrukce, která vystihuje tvar číslo 21 obrázek č. 2, je následující:

Tvar č. 21                      X                      Y                      (4)

Pokud existuje limitující horní hranice, potom trend vystihuje tvar číslo 23, který znamená:

- $Y$  je rostoucí, jestliže  $X$  je rostoucí.
- Existuje zde horní limit pro růst  $Y$ .

## 2.2 Kvalitativní přechody mezi jednotlivými fázemi trendu

Časová posloupnost jednotlivých trendů všech proměnných může být v turbulentním ekonomickém prostředí značně nestabilní, protože určující podmínky jednotlivých faktorů se mohou rychle měnit. Nicméně je přesně známo, jak mohou jednotlivé tvary trendu na sebe navazovat a která posloupnost naopak není možná. Takto lze zachytit celkový nestabilní stav. Kompletní sady scénářů

jsou založeny na první a druhé derivaci trendu. Neprováděná či neznámá třetí derivace ale může být impulsem přechodu mezi dvěma scénáři. Například u tripletu (+++) může dojít k těmto situacím (Dohnal a Kocmanová, 2016):

- Třetí derivace je záporná — dochází k přechodu (+++) → (++0)
- Třetí derivace je kladná nebo nulová — nedochází k žádnému přechodu (+++) → (+++)

Tvar trendů je popsán formou tripletu. Příslušnost jednotlivých druhů tripletů k průběhu trendu je znázorněna na následujícím obrázku:

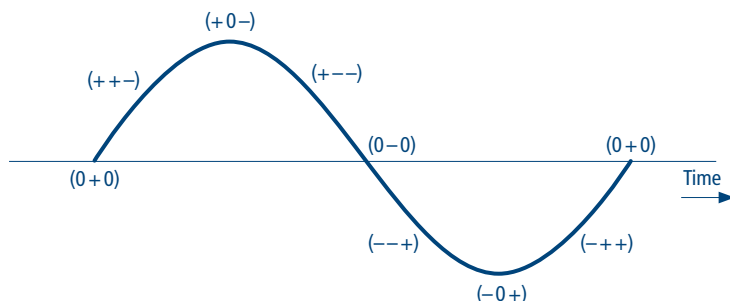
Tuto oscilaci lze znázornit jednoduchým přechodovým grafem, který zachycuje přechody jednotlivých trendů v dané posloupnosti:

Jednotlivé tripletu však na sebe nenavazují výhradně formou právě harmonické oscilace, ale jsou definovány možnosti přechodů jednotlivých tripletů. Určité přechody nejsou možné, protože při rostoucím trendu se tento musí nejprve zastavit, aby mohl začít klesat a naopak. Možné přechody jsou zachyceny v tabulce č. 1.

Celkový model pracuje s  $n$ -proměnných, které souhrnně vytvářejí jednotlivé scénáře  $S$ .

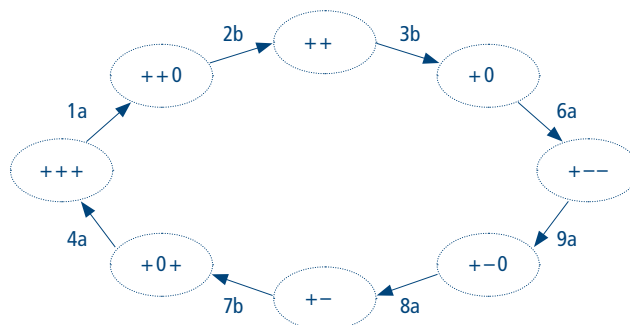
$$S = \{(X_1, DX_1, DDX_1), (X_2, DX_2, DDX_2), \dots, (X_n, DX_n, DDX_n)\},$$

**Obrázek č. 2 » Kvalitativní popis harmonické oscilace**



Pramen: Dohnal a Kocmanová (2016)

Obrázek č. 3 » Přechodový graf tlumené oscilace



Pramen: Dohnal a Kocmanová (2016)

Tabulka č. 1 » Sada jednorozměrných přechodů mezi triplety.

				a	b	c	d	e	f
	Z		Do	Nebo	Nebo	Nebo	Nebo	Nebo	Nebo
1	+++	→	++0						
2	++0	→	+++	+-					
3	++-	→	++0	+0-	+00				
4	+0+	→	+++						
5	+00	→	+++	+-					
6	+0-	→	+-						
7	+-+	→	+-0	+0+	+00	0+-	00+	000	0-0
8	+-0	→	+-+	+-	0-0				
9	+-	→	+-0	0--	0-0				

Pramen: Dohnal a Kocmanová (2016)

Kde DX je první a DDX druhá derivace trendu. Příkladem je následující scénář tří proměnných ( $n = 3$ )

X1	X2	X3
(+ + +)	(+ - 0)	(+ - -)

Tento scénář znamená, že proměnná X1 se zvyšuje více a rychleji, proměnná X2 lineárně klesá a X3 klesá více a rychleji (Dohnal a Kocmanová, 2016).

### 3. Případová studie

Bylo použito 11 proměnných z korelační matice publikované v Egly, Escobari a Johnk (2016). Dopad vládních zásahů na stabilizaci domácích finančních trhů a na složení aktiv amerických bank. Sledované proměnné byly hodnoceny pro sektor velkých bank a bankovních center ve dvou samostatných korelačních maticích se shodnými proměnnými.



- LTA celková aktiva banky vyjádřená  
v dlouhodobém období
- LOA půjčky (proměnné úvěry)
- NOP čistý provozní příjem (NOPAT)
- DE1 vklady (depozit I)
- DE2 vklady (depozit II)
- LCA komerční bankovní akreditivy
- NPL množství nesplacených úvěrů
- CAP množství rizikového kapitálu Tier1
- PCO náklady na vklady
- REP REPO spread vypočteno odečtením série OIS  
(Overnight Index Swap) od 90ti denní sazby  
REPO pro danou třídu dluhopisů jištěných  
hypotékami
- QEA fiktivní proměnná míry kvantitativního  
uvolňování, které byla přiřazena hodnota 1  
během počátečního kola kvantitativního  
uvolňování FED od Q4 2008 do Q1 2010,  
jinak byla přiřazena hodnota 0. Celkové  
sledované období bylo od Q1 2005 do Q4  
2010)

Údaje z korelačních matic byly transformovány do následujících zápisů (pro každou z matic zpracován samostatně). Příklad následujícího zápisu je z matice pro vzorek velkých bank s objemem aktiv 20–90 miliard USD.

1 SUP QEA	LTA
2 RED QEA	LOA
3 RED QEA	NOP
4 SUP QEA	CAP
5 SUP QEA	DE1
6 SUP QEA	DE2
7 RED QEA	PCO
8 RED QEA	LCA atd.

Tento model poskytuje následující řešení. Podle tohoto řešení existuje v modelu příliš mnoho omezení a počítačový algoritmus rozhoduje, které lze odstranit bez důsledků pro konečnou platnost omezení v modelu. Tímto jsou rozlišena významná omezení, která jsou pro model zásadní a omezení nepodstatná.

LTA	LOA	NOP	CAP	DE1	DE2	PCO	LCA	NPL	REP	QEA
1 +00	+00	+00	+00	+00	+00	+00	+00	+00	+00	+00

Všechny derivace trendů jsou nulové. To znamená, že tento scénář je řešením pro ustálený stav. Jelikož je ale ekonomické prostředí nestálé, je známo, že existuje větší množství možných scénářů. Proto byly některé pokyny modelu vyloučeny a to ty, které algoritmus vyhodnotil jako nepodstatná omezení (následující platí pro vzorek velkých bank).

14 RED REP	CAP
15 RED REP	DE1
16 SUP REP	DE2
17 SUP REP	PCO
21 SUP NPL	LOA
27 SUP NPL	LCA
28 SUP LCA	LTA
30 RED LCA	NOP
32 SUP LCA	DE1
33 SUP LCA	DE2
34 RED LCA	PCO
41 RED DE2	LTA
44 RED DE2	CAP
46 RED DE1	LTA
47 SUP DE1	LOA
49 RED DE1	CAP
50 RED CAP	LTA
52 SUP CAP	NOP

Řešení tohoto upraveného modelu dává 3 scénáře. Druhý scénář je ustálený stav

LTA	LOA	NOP	CAP	DE1	DE2	PCO	LCA	NPL	REP	QEA
1 ++*	+−*	+−*	++*	++*	++*	+−*	+−*	++*	++*	++*
2 +0*	+0*	+0*	+0*	+0*	+0*	+0*	+0*	+0*	+0*	+0*
3 +−*	++*	++*	+−*	+−*	+−*	++*	++*	+−*	+−*	+−*

Pro zpřesnění modelu je zadána 1 instrukce naznačující známý trend proměnných QEA a LTA (v důsledku kvantitativního uvolňování roste výška celkových aktiv v držení velkých bank, jejich výška je ale jistým způsobem limitována, není

možný růst těchto aktiv do nekonečna). Tento vztah má číslo 23 (viz. obr. 1). Upravený model je zadán se změnou čísla 1 následujícím způsobem.

1	23	QEA	LTA	viz. obr. 1
2	RED	QEA	LOA	
3	RED	QEA	NOP	
4	SUP	QEA	CAP	
5	SUP	QEA	DE1	
6	SUP	QEA	DE2	
7	RED	QEA	PCO	
8	RED	QEA	LCA	atd.

Řešením tohoto modelu je následujících 9 možných scénářů. I přes drobné rozdíly v korelačních maticích pro velké banky a pro bankovní centra je koncové řešení pro oba tyto vzorky shodné.

	LTA	LOA	NOP	CAP	DE1	DE2	PCO	LCA	NPL	REP	QEA
1	+++	++-	+-	+++	+++	+++	+-	+-	+++	+++	+++
2	++0	+0	+0	++0	++0	++0	+0	+0	++0	++0	++0
3	++-	++	++	++-	++-	++-	++-	++-	++-	++-	++-
4	+0+	+0-	+0-	+0+	+0+	+0+	+0-	+0-	+0+	+0+	+0+
5	+00	+00	+00	+00	+00	+00	+00	+00	+00	+00	+00
6	+0-	+0+	+0+	+0-	+0-	+0-	+0+	+0+	+0-	+0-	+0-
7	++	++	++	++	++	++	++	++	++	++	++
8	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0
9	++-	+++	+++	++-	++-	++-	+++	+++	++-	++-	++-

Scénář číslo 5 reprezentuje ustálený stav, který je také ideálním stavem celkové ekonomiky. Tento stav je ale vždy pouze krátkodobý a přechodný, v praxi dochází rychle k výchylkám. Tato výchylka může být způsobena právě například zásahem vlády formou kvantitativního uvolňování, kdy dochází k pohybu z rovnovážného stavu do scénáře číslo 1 nebo do scénáře číslo 9.

Scénář číslo 1 představuje stav monetární expanse, kdy vlivem kvantitativního uvolňování dochází k nárůstu celkových aktiv bank, klesá NOPAT v poměru k celkovým aktivům, roste rizikový kapitál, zvyšují se vklady a poměr nových půjček a bankovních akreditivů k celkovým aktivům z důvodu jejich růstu klesá. Zvyšuje REPO sazby odvo-

zená od dluhopisů jištěných dosavadními hypotékami a klesají náklady na vklady, protože při kvantitativním uvolňování dochází k poklesu všeobecné úrokové míry. Opakem je scénář číslo 9, který představuje restriktivní stav, kdy se snižuje množství oběživa, klesají celková aktiva banky a z hlediska poměru k nim se zvyšuje podíl nových půjček NOPAT. Klesá množství vkladů obou typů a rostou náklady na jejich vedení.

Mezi jednotlivým scénáři je celkem 16 možných přechodů, které jsou definovány šipkami v grafu. Žádný ze scénářů není terminálem, tedy z každého scénáře je možný posun do dalšího, banky s vysokou hodnotou aktiv tedy mají velkou manévrovací schopnost zvrátit nepříznivý vývoj do dalšího scénáře.

Při zahájení kvantitativního uvolňování je pro následný návrat do rovnovážného stavu definována cesta:

5 → 1 → 2 → 3

kdy je možný návrat do rovnovážného scénáře číslo 5 nebo přes přechodný scénář číslo 6 do stavu monetární restrikce, který dále pokračuje:

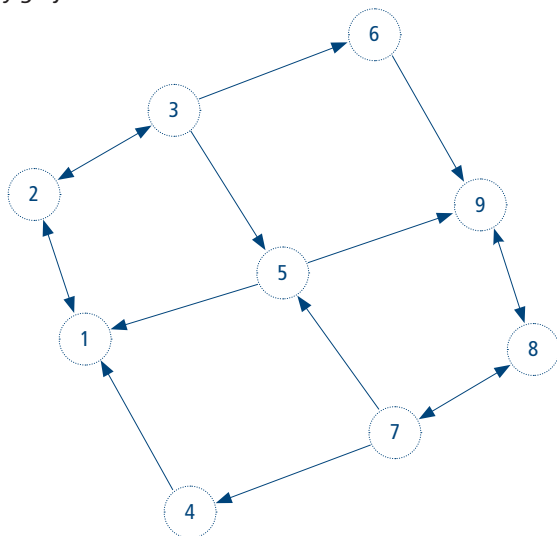
9 → 8 → 7

Ze scénáře číslo 7 je možné opět pokračovat bez návratu do rovnovážného stavu přes přechodový scénář číslo 4 opět do stavu monetární expanse nebo se ekonomika dostává do ustáleného stavu rovnováhy ve scénáři číslo 5.

Ze sledovaných proměnných jsou některé závislé, které má banka pod vlastní kontrolou a některé nezávislé, které sama nemůže ovlivnit. Vzájemné závislosti mezi těmito proměnnými udávají jejich trendy v jednotlivých scénářích. Velké banky a bankovní centra se mohou svou vnitřní politikou a řízením závislých proměnných přizpůsobit vývoji nezávislých a tím ovlivnit posun do dalšího scénáře při nepříznivém vývoji, například při monetární expanzi a růstu celkových aktiv (scénář číslo 1) zvýšit množství poskytovaných nových



→ Obrázek č. 4 » Přechodový graf



Pramen: Dohnal a Kocmanová (2016)

*Příležitostné selhání menších institucí a příležitostné značné ztráty u větších institucí jsou dle jeho názoru součástí běžného fungování finančního systému a ve skutečnosti plní pozitivní funkci tím, že účastníkům trhu připomínají jejich povinnost uplatňovat disciplínu nad činností zprostředkovatelů, s nimiž obchodují. Stabilitu bankovního systému mohou ovlivnit endogenní šoky přímo uvnitř finančního systému, které se dále šíří formou nákazy nebo exogenní šoky, které vznikají vně tohoto systému. Dalšími zdroji nestability je provázanost bankovního a finančního sektoru a morální hazard zejména velkých bank.*

půjček a posunout se tímto do scénáře číslo 2, který je pro ni příznivější z důvodu lepšího poměru NOPAT k celkovým aktivům.

## 4. Závěr

Proměnné, použité pro konstrukci modelu v této případové studii nejsou založeny na numerických kvantifikátorech, ale jsou definovány jako heuristické trendy, které na sebe navazují přesně definovanými možnostmi. Směr a rychlost trendu je definována jeho druhou derivací.

V případové studii bylo zpracováno kvalitativní analýzou 11 proměnných. Zvlášť byl vypracován model pro sektor velkých bank s objemem aktiv 20 až 90 miliard USD a pro sektor bankovních center s celkovým objemem aktiv nad 90 miliard USD. I přes drobné rozdíly v korelačních maticích, které byly zdrojem pro tuto analýzu, bylo zjištěno, že koncové řešení je pro oba tyto vzorky shodné. Pro sestavení koncového modelu byly počítačovým algoritmem vyloučeny nepodstatné vazby. Určující vazby mezi proměnnými udávají koncové řešení, kterým je 9 možných scénářů.

Možné scénáře vývoje udávají trendy jednotlivých proměnných v daném stavu. Mezi scénáři je rovněž definováno 16 možných přechodů, které jsou znázorněny v přechodovém grafu. Obě skupiny bank mají dobrou možnost reagovat na vnější vývoj nezávislých proměnných a jsou možné plynulé přechody mezi scénáři, z nichž žádný není pouze zdrojem (existují pouze přechody z něj, nikoliv do něj) ani terminálem (existují přechody pouze do něho, nikoliv z něj). Při nepříznivém vývoji tedy vždy existuje cesta do příznivějšího scénáře.

Pro stabilitu velkých bank a bankovních center rovněž svědčí fakt, že primárním zájmem vlády je stabilita bankovního sektoru a při nepříznivé situaci je vláda připravena vždy intervenovat v pro-

spěch těchto důležitých bank. Malé a střední banky tento „ochranný štít“ vlády postrádají a při krizi jsou více ohroženy selháním.

V původní korelační matici, která byla východiskem pro zpracování, je zjištěna negativní korelace mezi kvantitativním uvolňováním a množstvím úvěrů, ačkoliv při QE roste deposit bank. Tato skutečnost se dále projevuje i v šetření trendů. Toto zjištění nasvědčuje faktu, že v počátcích QE nebyl růst úvěrů takový, jaký by odpovídal rostoucí peněžní zásobě. Tento fakt mohl být zapříčiněn počáteční opatrností bankéřů při půjčkách domácnostem a nefinančním institucím při nejistotě vývoje celkové ekonomické situace společnosti, která se mohla jevit jako riziková.

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**→ ABSTRAKT**

Metoda kvantitativního uvolňování společně s dalšími programy Fed na podporu hospodářského růstu v období 2009 až 2014 měla kromě monetární stimulace zpomalující ekonomiky stabilizovat celkovou situaci. Z odstupem času lze říci, že se podařilo zamezit zadrhnutí toku peněžních prostředků ve finančním sektoru díky uvolnění značného objemu peněz do oběhu. Rozhodně však nelze říci, že došlo ke stabilizaci stavu, použití nestandardních nástrojů monetární politiky naopak způsobilo rychlý růst bankovních deposit, který je potencionálně vysoce proinflačním prvkem. Kvantitativní uvolňování mělo u bank s mezinárodním přesahem také vliv na celosvětové finanční trhy díky efektu přelévání. V této případové studii je šetřen dopad kvantitativního uvolňování zejména na ziskovost, výšku bankovních deposit, celkových aktiv, kapitál Tier1 a množství nových půjček v sektoru velkých bank a bankovních center v USA v období let 2005 až 2010. Bylo zjištěno, že kvantitativní uvolňování ve své růstové fázi snižuje ziskovost bank a je provázen rychlým nárůstem celkových aktiv. Vzájemné souvislosti byly znázorněny pomocí přechodového grafu, který zachycuje růst či pokles jednotlivých proměnných v každém z jednotlivých scénářů a jsou zde definovány také možnosti přechodů mezi nimi. Oba segment bank si zachovávají své manévrovací schopnosti a při nepříznivém vývoji situace vždy existuje možnost přechodu do příznivějšího scénáře, žádný není koncovým stavem (terminálem).

**KLÍČOVÁ SLOVA**

Kvantitativní uvolňování; monetární stimulace; aktiva bank; heuristický trend; půjčky

**Influence of Government Measures on the USA Banking Sector – Description Using Heuristic Trends****ABSTRACT**

The quantitative easing method, along with other Fed programs to support economic growth between 2009 and 2014, was intended to stabilize the overall situation in addition to the monetary stimulus to the slowing economy. From time to time, we can say that the flow of funds in the financial sector has been prevented by a significant amount of money being put into circulation. However, it cannot be said that the situation has stabilized; on the contrary, the use of non-standard monetary policy instruments has led to rapid growth in bank deposits, which is a potentially highly inflationary element. Quantitative easing also had an impact on global financial markets for banks with an international overlap due to the spill-over effect. This case study investigates the impact of quantitative easing, in particular on profitability, bank deposits, total assets, Tier1 capital and the amount of new loans in the US major banks and banking centers sector in the period 2005–2010. The growth phase reduces banks' profitability and is accompanied by a rapid increase in total assets. The interrelationships were illustrated using a transition graph that shows the growth or decline of the individual variables in each of the scenarios, and the options for transitions between them are also defined. Both bank segments retain their maneuverability, and in the event of unfavorable developments, there is always a possibility of transition to a more favorable scenario, none of which is a terminal.

**KEYWORDS**

Quantitative easing; monetary stimulation; bank assets; heuristic trend; loans

**JEL CLASSIFICATION**

C58; E44; G17



# Daňová konkurenceschopnost podniků cestovního ruchu zemí V4

► Ing. Lenka Farkačová (roz. Říhová), Ph.D. » Vysoká škola finanční a správní,  
Katedra ekonomie a managementu, Estonská 500, 101 00 Praha, Česká republika; email: lenka.rihova01@gmail.com

## \* 1. Úvod

S postupující globalizací roste tlak na schopnost konkurenceschopnosti jednotlivců, skupin, organizací, ale i ekonomik. Historicky je koncept konkurenceschopnosti spojen s konceptem konkurence, který se vyvinul v době kapitalismu. Pokud je soutěž zvláštním typem ekonomického prostředí, pak je konkurenceschopnost schopností ekonomického subjektu přežít v tomto prostředí. Od 80. let 20. století má teorie konkurenceschopnosti stát se novým subsektorem teorie ekonomiky, který zkoumá faktory ovlivňující konkurenceschopnost států a regionů a je zvláště užitečný pro analýzu nových procesů ekonomické globalizace (Zane et al., 2019).

Přestože pojem konkurenceschopnost je frekventovaně používaný pojem, jeho vymezení se často liší. V nejobecnější rovině lze konkurenceschopnost chápat jako schopnost dosahovat stanovených cílů – tedy schopnost efektivním, flexibilním a inovativním způsobem využívat zdroje tak, aby byly uspokojeny zájmy všech zainteresovaných subjektů (Palatková a Zichová, 2014).

O konkurenceschopnosti živě diskutuje široká odborná veřejnost, a to na všech úrovních. Makroekonomický pohled je věnován konkurenceschop-

nosti jednotlivých států, kde je sice klíčovým indikátorem HDP, ale kde je zohledňováno i dalších dvanáct pilířů v podobě infrastruktury, pracovního trhu, finančního trhu, vzdělání, zdravotní péče apod. (WEF, 2016). Logicky navazujícím tématem jsou pak metody zvyšování konkurenceschopnosti států například pomocí zvyšování vzdělání a školení zaměstnanců (Buracas, 2017). Konkurenceschopnost je měřena i u podniků, ovšem za použití odlišných kritérií, odvislých od charakteru podnikání či jednotlivých trhů.

Vedle zastánců konkurenceschopnosti jsou i kritici této myšlenky. Tito autoři pak konkurenceschopnost prohlašují za doslova svůdnou myšlenku, která slibuje snadné odpovědi na složité problémy. Výsledkem této posedlosti však jsou nesprávně přidělené zdroje, obchodní frikce a špatná domácí ekonomická politika (Krugman, 1994).

Jak vyplývá z provedené literární rešerše, konkurenceschopnost podniků může zásadně ovlivnit fiskální politika dané země. Předkládaná práce je proto zaměřena na daňovou konkurenceschopnost podniků. Práce obsahuje analýzu nejdůležitějších typů daní v oblasti cestovního ruchu v zemích V4 a jejich vliv na mezinárodní konkurenceschopnost podniků.



→ Nejvýznamnější daní v tomto pojetí je daň z přidané hodnoty (DPH), která má přímý vliv na finální cenu zboží a služeb spotřebovaných turisty. Celková úroveň přímého zdanění spotřeby turistů je počítána jako vážený průměr sazeb DPH za každou vybranou zemí. Subjekty podnikající v pohostinství navíc čelí vysokému podílu nákladů na pracovní sílu vůči nákladům na ostatní kapitál, které mohou být také přeneseny na turisty prostřednictvím vyšších cen.

Cílem práce je poskytnout žebříček vybraných zemí podle výše daňové zátěže přímo uvalené na spotřebu (DPH) v oblasti turismu a určit tak relativní daňovou konkurenceschopnost zemí V4 jako turistických destinací pro rok 2019. Cíle práce bude dosaženo pomocí modelového srovnání založeného na identifikaci relevantních daní a určení jejich významnosti prezentované přířčenou váhou.

## 2. Ekonomický význam oblasti cestovního ruchu

Cestovní ruch lze nazvat průřezovým odvětvím z důvodu jeho vlivu a návaznosti na odvětví další, kterými jsou oblasti jako inženýrské stavebnictví, specializované stavební činnosti, maloobchod, doprava, informační činnosti, činnost v oblasti nemovitostí, reklamy a průzkum trhu a další. Vymezení pojmu cestovní ruch je z tohoto důvodu často rozličné.

Mezinárodně je cestovní ruch definován jako činnost osob cestujících do míst a pobývajících v místech mimo své obvyklé prostředí po dobu kratší než jeden ucelený rok, za účelem trávení volného času, obchodu a za jinými účely nevztahujícími se k činnosti, za kterou jsou z navštíveného místa odměňováni (ČSÚ, 2020).

Přesto, že výše uvedená definice v maximální možné míře vymezuje pojem cestovní ruch, je nutné upozornit na to, že obyvatelé jednotlivých států Evropské unie mohou tento výraz chápat odlišně. Chápání pojmu cestovní ruch značně ovlivňuje vy-

spělost země. Země na severu Evropské unie, ve srovnání s jižními státy, jsou charakterizovány rozvinutějším průmyslem a urbanizací, ale vyššími příjmy obyvatel i vyššími náklady práce (Beran a Říhová, 2015). Obyvatelé těchto hospodářsky vyspělých zemí tak mají odlišný úhel pohledu na trávení volného času, hotelnictví a cestovní ruch jako celek na rozdíl od obyvatel méně vyspělých zemí. Na druhou stranu rychlé probíhající změny mění i některé jižní státy na více hospodářsky rozvinuté, což se odráží i ve specifiku vnímání a participace na cestovním ruchu. Například v minulosti ze zemí jižní Evropy nesměřovaly velké počty turistů do zahraničí, ale tyto země měly a stále mají velké domácí trhy cestovního ruchu, které musí současně uspokojit poptávku zahraniční i tamní klientely (Horner a Swarbrooke, 2003).

Tato práce je zaměřena na daňovou konkurenceschopnost čtyř evropských zemí, a to České republiky, Slovenska, Maďarska a Polska z pohledu podniků cestovního ruchu. Nebylo by vypovídající porovnávat například země diametrálně kulturně odlišné, výsledky takového porovnání by nebyly relevantní. Přesto nelze opomenout pohled na cestovní ruch v celosvětovém měřítku. Podle nejaktuálnějších údajů z roku 2015 je Evropa ve srovnání s ostatními kontinenty světa z pohledu cestovního ruchu nejrychleji rostoucí oblastí (WTO, 2016), mezinárodní příjezd turistů se v roce 2015 zvýšil o 5 %. Rychlý růst zájmu o země Evropy tak nejen stupňuje apel na zaměření se na konkurenceschopnost podniků v cestovním ruchu, zároveň se jedná o pozoruhodnou informaci s ohledem na rozlohu zemí Evropy v globálním měřítku. V tomto kontextu je vhodné zmínit také určitou křehkost cestovního ruchu. Důkazy křehkosti tohoto odvětví můžeme pozorovat například v návaznosti na hrozby v podobě omezení cestovního ruchu v důsledku celosvětových nemocí jako je COVID-19, kvůli kterému došlo k omezení pohybu turistů (WHO, 2020).<sup>1</sup> Makroekonomický pohled na vý-

<sup>1</sup> Poznámka autora: tato práce vznikla v prvním kvartálu roku 2020, kdy přesný dopad na cestovní ruch nebyl a nemohl být přesně kalkulován.

Tabulka č. 1 » Příjmy a výdaje cestovního ruchu v platební bilanci v letech 2010 a 2015

Území	Příjmy			Výdaje		
	(mil. EUR)		Poměr k HDP 2015 (%)	(mil. EUR)		Poměr k HDP 2015 (%)
	2010	2015		2010	2015	
Česko	5 419	5 465	3.3	3 216	4 304	2.6
Maďarsko	4 235	4 797	4.4	1 821	1 649	1.5
Slovensko	1 684	2 192	2.8	1 471	1 917	2.4
Polsko	7 259	9 440	2.2	6 505	7 154	1.7
EU-28	76 117	115 808	0.8	86 503	101 026	0.7

Pramen: Eurostat (2015)

znam cestovního ruchu v zemích EU-28 je ilustrován v tabulce č. 1.

Jak ilustruje tabulka č. 1 pro Českou republiku je cestovní ruch významný, v roce 2015 tvořil příjem z cestovního ruchu vůči HDP 3.3 %. V porovnání s průměrem v EU-28 se jedná o nadprůměrnou hodnotu. Další zemí, která bude v této práci analyzována, je Slovensko. Na Slovensku v roce 2015 tvořil příjem z cestovního ruchu vůči HDP 2.8 % a v případě Maďarska se jedná dokonce o 4.4 %.

### 3. Cestovní ruch a daňová zátěž

S ohledem na povahu odvětví cestovního ruchu jakožto průřezového odvětví (definováno v předcházející části práce) lze konstatovat, že cestovní ruch ovlivňují nejen daně spojené přímo s cestovním ruchem (daně specifické), ale i daně všeobecné. Toto dělení daní pro cestovní ruch podporuje i Světová organizace cestovního ruchu, ANTA (2003), Gooroochurn a Sinclair (2003), či Durbarry a Sinclair (2001). Mezi všeobecné daně vztahující se k cestovnímu ruchu lze řadit:

- daň z přidané hodnoty u zboží a služeb;
- daně spojené s dopravou (daň z pohonných hmot, poplatky za pronájem vozu apod.);
- daň z příjmů pro podniky (popřípadě specializované daně vztahující se k restauracím a podnikům);

- daň z příjmů u zaměstnanců (sociální zabezpečení, příplatky apod.);
- dovozní cla;
- daň vztahující se k vlastnictví pozemků či dalšího majetku;
- další daně.

Mezi specializované daně pro cestovní ruch je možné řadit:

- mezinárodní dopravní poplatky (letecká doprava, daně a cla, letiště/námořní přístavy/silnice);
- turistické poplatky pro návštěvníky;
- vstupní a výstupní daně a povolení (vízové poplatky apod.);
- místní poplatky za ubytování;
- daně spojené s hazardními hrami.

Pro turismus je nejvýznamnější daní daň z přidané hodnoty uvalená na statky finální spotřeby. Pro členské země Evropské unie je uplatňována minimální hodnota daně z přidané hodnoty ve výši 15 %. Ve vybraných případech je možné využít i sníženou sazbu daně z přidané hodnoty ve výši 5 % či nulovou sazbu daně (OJEU, 2006), z pohledu cestovního ruchu je důležité, že sníženou sazbu daně z přidané hodnoty mohou vlády aplikovat na ubytovací služby.

Cílem této práce je poskytnout žebříček vybraných zemí podle výše daňové zátěže přímo uvalené na spotřebu v oblasti turismu a určit tak relativní daňovou konkurenceschopnost jednotlivých zemí jakožto turistických destinací pro rok 2019. →

→ **Tabulka č. 2 » Přehled daňových sazeb v České republice, Slovensku, Maďarsku a Rakousku v roce 2019 v %**

Země	Standardní výše daně z přidané hodnoty	Snižená výše daně z přidané hodnoty	Super nízká či nulová daň z přidané hodnoty	Hotely (ubytování)	Restaurace (jídlo)	Bary a kavárny (pití)		Obchody	
						Nealkoholické nápoje	Alkoholické nápoje	Jídlo	Nealkoholické nápoje
Česká republika	21	10/15	–	15	15	15	21	10/15	15
Maďarsko	27	5/18	–	18	5	27	27	5/18/27	27
Slovensko	20	10	–	10	20	20	20	20/10	20
Polsko	23	5/8	–	8	8	8	23	8	8

Pramen: European Commission (2019), vlastní zpracování

Z toho důvodu je v tabulce č. 2 uveden přehled daňových sazeb v České republice, Slovensku, Maďarsku a Polsku v roce 2019.

Pro posouzení konkurenceschopnosti je důležité posoudit i další kulturní, ekonomická a další specifika analyzovaných zemí. Z tohoto důvodu budou po analýze daňových relací posuzovány i další oblasti, které úzce ovlivňují podnikání v cestovním ruchu, jako je nelegální práce či monetární politika.

## 4. Určení konkurenceschopnosti podniků v cestovním ruchu v České republice, Slovensku, Maďarsku a Polsku

Daně jsou významným veřejným příjmem, statistiky ukazují, že více než 90 % veškerých příjmů veřejných rozpočtů jsou právě příjmy povahy daňové (Hamerníková a Maaytová, 2007). Zároveň tak daně zásadním způsobem ovlivňují chování jednotlivých subjektů v ekonomice, obzvláště pak motivy k podnikání.

K určení daňové konkurenceschopnosti podniků v oblasti cestovního ruchu je nutné zohlednit

nejprve daň z přidané hodnoty. Jedná se o nepřímou všeobecnou daň ze spotřeby. Podléhá jí dodání zboží, poskytování služeb, převod nemovitostí či dovoz zboží ze zahraničí. (Hamerníková a Maaytová, 2007)

Sazba daně z přidané hodnoty je nejen diferencovaná, ale zároveň má z pohledu cestovního ruchu odlišnou váhu pro jednotlivé položky. Pro posouzení daňové konkurenceschopnosti z pohledu daně z přidané hodnoty byly nejdříve vybrány položky, které jsou s cestovním ruchem úzce spjaty. Vybranými položkami jsou: ubytování, jídlo, nealkoholické a alkoholické nápoje, kulturní akce, sportovní události a vnitrostátní přeprava cestujících. Těmto položkám byly následně přiděleny váhy dle jejich významnosti.

Položka nejvýznamnější, tedy položka s největší vahou je ubytování, následuje položka jídlo, alkoholické nápoje, vstup na sportovní události a kulturní akce, dále vnitrostátní přeprava a poslední položkou s nejnižší vahou jsou nealkoholické nápoje. Konkrétní výše vah u jednotlivých položek byly stanoveny na pomoci odhadu nákladů z pohledu turistů.



Tabulka č. 3 níže obsahuje sazby podle jednotlivých položek turistických výdajů a vážené průměrné sazby na spotřebu turistů. Pro větší přehlednost jsou u jednotlivých položek uvedeny i konkrétní váhy.

Z tabulky č. 3 výše vyplývá, mimo výsledků uvedených v následujícím odstavci, i několik dílčích poznatků. Zajímavý je pohled na samotné výše daně z přidané hodnoty v analyzovaných zemích. Slovensko lze ve srovnání s ostatními analyzovanými zeměmi charakterizovat jako zemi s větší jednotností výše daně z přidané hodnoty. U posuzovaných položek je na Slovensku výše daně z přidané hodnoty na úrovni 20 %. V Polsku je pak daň z přidané hodnoty celkově nejnižší ve vybraných položkách, přičemž nejnižší sazba 8 % nejen u potravin, ale i u vnitrostátní přepravy cestujících, ubytování apod. V České republice jsou potraviny také zatíženy nižší daní z přidané hodnoty (15 %), naopak nejvyšší sazby daně se nacházejí v Maďarsku.

Poslední řádek tabulky č. 3 představuje vážený průměr daně z přidané hodnoty, tedy klíčový záznam. Nejnižší průměrnou váženou sazbou daně z přidané hodnoty jsou zatíženy subjekty v Polsku

(9.26 %) a naopak nejvyšší zatížení je v Maďarsku (21.6 %). Druhé největší daňové zatížení je v tomto ohledu na Slovensku (20.00 %). Česká republika na pomyslném třetím místě (daňové zatížení 16.02 %).

Pro posouzení daňové konkurenceschopnosti je mimo daně z přidané hodnoty nutné zohlednit i další aspekty. Jedním z těchto aspektů se může jevit jako relevantní spotřební daň.

Spotřební daně jsou selektivní daně ze spotřeby, kterým podléhá pět komodit zboží. Jedná se o daň z minerálních olejů, daň z lihu a lihovin, daň z vína, piva a meziproductů a o daň z cigaret a tabákových výrobků. Základem daní je počet fyzických jednotek. Sazby jsou pevné a diferencované (Hamerníková a Maaytová, 2007).

Teoreticky by bylo vhodné spotřební daň zahrnout do úvah o daňové konkurenceschopnosti, spotřební daň výrazně ovlivňuje finální cenu produktů a tím i konkurenceschopnost podniků. Ovšem podnikatelské subjekty se často snaží vyhýbat daňové povinnosti, a to nejen v České republice, ale i v ostatních zemích Evropské unie (European Commission, 2015). Obzvláště u spotřební daně není vyhýbání se daňové povinnosti složitou zále-

**Tabulka č. 3 » Sazby podle jednotlivých položek turistických výdajů a vážené průměrné sazby na spotřebu turistů (v %), 2019**

Skupina položek a jejich odpovídající váhy	Česká republika	Maďarsko	Slovensko	Polsko
Ubytování (hotel) 0,45	15 (6.75)	18 (8.1)	20 (9.0)	8 (3.6)
Jídlo 0,15	15 (2.25)	27 (4.05)**	20 (3.0)	8 (1.2)
Nealkoholické nápoje 0,05	15 (0.75)	27 (1.35)	20 (1.0)	8 (0.4)
Alkoholické nápoje 0,10	21 (2.1)	27 (2.7)	20 (2.0)	23 (2.3)
Kulturní akce (show, divadlo, kino) 0,09	15 (1.35)	18 (1.08)	20 (1.8)	8 (0.72)
Vnitrostátní přeprava cestujících 0,07	21 (1.47)*	27 (1.89)	20 (1.4)	8 (0.56)
Vstup na sportovní události 0,09	15 (1.35)	27 (2.43)	20 (1.8)	8 (0.48)
<b>Vážený průměr DPH</b>	<b>16.02</b>	<b>21.6</b>	<b>20.00</b>	<b>9.26</b>

\* Snížená sazba 15 % je v případě pravidelné přepravy, kterou běžní turisté nevyužijí.

\*\* Snížená sazba se vztahuje pouze na čerstvá vejce, živá a jatečně upravená prasata, mouku apod., přičemž lze přepokládat, že turisté budou preferovat jiné druhy zboží

Pramen: European Commission (2019) a vlastní výpočty na základě vytvořeného modelu



→ žitostí. Ilustrujícím teoretickým příkladem může být pivovar na území České republiky, v jehož případě se sazba spotřební daně může pohybovat od 16 Kč/hl do 32 Kč/hl (zákon č. 353/2003 Sb., zákon o spotřebních daních). Sazba daně je pro pivovar významným faktorem pro určení prodejní ceny. V případě, kdy se pivovar rozhodne zvýšit produkci z původních 45,000 hl ročně na 55,000 hl ročně, stoupne pro něj sazba spotřební daně z 19.20 Kč na 22.40 Kč. Pivovar by tak byl nucen zvýšit prodejní cenu piva, což by snížilo jeho konkurenceschopnost. Spotřebitelé by zvýšení ceny nemuseli akceptovat a mohli by výrobek tohoto producenta nahradit výrobkem jiného pivovaru. Samozřejmě by zde bylo možné snížit náklady z rozsahu, ovšem tuto možnost není možné aplikovat při zvýšení produkce o pouhých 10,000 hl ročně. Pivovaru se tak nabízí další možnost, a to založení nového pivovaru a rozdělení produkce, dosáhl by tak snížení sazby spotřební daně díky vyhýbání se daňové povinnosti. Právě obcházení daňové povinnosti je důvodem pro nezahrnutí spotřební daně do úvah o daňové konkurenceschopnosti podniků v rámci cestovního ruchu.

Dalším nákladem, který souvisí s konkurenceschopností podniků, jsou náklady na zaměstnance, respektive náklady práce a práce jako výrobního faktoru<sup>2</sup>. Již od roku 2008 dochází na území

Evropské unie jakožto celku k postupnému růstu nákladů práce (Beran a Říhová, 2015), nutné je ale zaměřit se na každou jednotlivou analyzovanou zemi zvlášť. Hodinové náklady práce v České republice, Slovensku, Maďarsku a Polsku zobrazuje tabulka č. 4.

Nejvyšší hodinové náklady práce vykazuje Česká republika, ovšem pokud se podíváme na tempo růstu hodinových nákladů, pak je nejvyšší tempo růstu v případě Slovenska (27,5 %). Naopak nejnižší hodinové náklady vykazuje Maďarsko. Z pohledu hodinových nákladů práce je nejlevnější zemí pro zaměstnavatele, včetně podnikatelů/zaměstnavatelů v cestovním ruchu, Maďarsko, druhou nejlevnější zemí je Polsko.

Při určení výše mzdy se zaměstnavatel musí rozhodovat na základě více faktorů, jako jsou legislativní podmínky a nároky na spravedlivou odměnu, výkonost zaměstnance apod. Celkově je možné náklady na zaměstnance rozdělit na přímé a nepřímé a to následovně – přímé náklady:

- mzdy a platy;
- sociální požitky;
- Nepřímé náklady:
- zákonné;
- ostatní sociální výdaje a náklady, personální náklady, daně a dotace.

Strukturu přímých a nepřímých nákladů ilu-

**Tabulka č. 4 » Hodinové náklady práce v analyzovaných zemích v letech 2011–2016, v EUR**

Země	Úroveň v eurech						přírůstek v % 2016/2011	roční přírůstek v % 2016/2011
	2011	2012	2013	2014	2015	2016		
Česká republika	10.5	10.0	9.7	9.4	9.8	10.3	-1.9	-0.4
Maďarsko	7.4	7.3	7.7	7.7	7.9	7.8	6.8	1.3
Slovensko	8.0	8.9	9.2	9.7	10.0	10.2	27.5	5.0
Polsko	7.3	7.9	8.1	8.3	8.6	8.7	19.2	3.6

Pramen: Beran (2019), vlastní zobrazení

<sup>2</sup> V reakci na jistou nejednotnost ve výpočtu nákladů práce vytvořil Výzkumný stav práce a sociálních věcí, v.v.i. jednotnou metodiku výpočtu, kterou využívá i Ministerstvo práce a sociálních věcí ČR. Metodické poznatky i výstupy v podobě pravidelných bulletinů jsou v této části práce využity jako informační zdroj. Údaje o nákladech práce jsou zveřejňovány zpětně s minimálně dvouletým zpožděním. Z tohoto důvodu jsou v analyzovány náklady práce v letech 2011–2016.

Tabulka č. 5 » Struktura nákladů práce analyzovaných zemích v letech 2011–2016 v %

Země	Položka	podíl v %						přírůstek v p.b. 2016–2011
		2011	2012	2013	2014	2015	2016	
Česká republika	přímé náklady (mzdy a náhrady)	73.1	73.0	73.2	72.3	73.5	72.8	-0.3
	nepřímé náklady celkem	26.9	27.0	26.8	26.6	26.5	27.2	0.3
Maďarsko	přímé náklady (mzdy a náhrady)	74.0	75.7	76.7	76.7	75.9	74.4	0.4
	nepřímé náklady celkem	26.0	24.3	23.3	23.3	24.1	25.6	-0.4
Slovensko	přímé náklady (mzdy a náhrady)	73.8	74.2	73.1	73.2	70.4	73.5	-0.2
	nepřímé náklady celkem	26.3	25.8	26.9	26.8	26.0	26.5	0.2
Polsko	přímé náklady (mzdy a náhrady)	83.6	82.1	81.5	81.9	81.4	81.6	-2.0
	nepřímé náklady celkem	16.4	17.9	18.5	18.1	18.6	18.4	2.0

Pramen: Beran (2019), vlastní zobrazení

struje tabulka č. 5. Z podílu přímých a nepřímých nákladů práce v České republice, Maďarsku, Slovensku a Polsku je zřejmá jistá podobnost napříč analyzovanými státy.

Důležitým aspektem je i struktura a celkové zdanění mezd v jednotlivých zemích (tabulka č. 6). Zajímavý rozkol je v případě sociálního zabezpečení hrazeného zaměstnancem a zaměstnavatelem. Zatímco v České republice a na Slovensku participace zaměstnance oproti zaměstnavateli třetinová, v Maďarsku je participace zaměstnance mnohem vyšší.

Z analýzy zdanění mezd a nákladů práce je možné sestavit jistý žebříček konkurenceschopnosti v České republice, Maďarsku, Slovensku a Polsku. Žebříček ukazuje, ve kterých zemích mají podnikatelé nejnižší náklady na výše uvedené položky a dosahují tak zvýhodnění, daňové konkurenceschopnosti v porovnání s podniky v ostatních státech. Žebříček konkurenceschopnosti je zobrazen v tabulce č. 7.

Z pohledu na žebříček konkurenceschopnosti podniků na daň z příjmu i celkové zdanění mezd je patrné, že nejméně konkurenceschopné je Maďarsko. Naopak Polsko díky malé daňové zátěži vychází jako země s největší konkurenční výhodou.

Z provedených analýz vyplývá, že konkurenceschopnost podniků v cestovním ruchu v Polsku má velmi dobrou pozici z pohledu výše zásahů fiskální politiky na toto odvětví, a to, jak pokud jde o spotřební daň, daň z přidané hodnoty, tak i o náklady spojené se zaměstnáváním pracovníků. Druhou největší konkurenční výhodou pak dosahují podniky v České republice. Přestože polské, stejně jako české podniky podnikající v oblasti cestovního ruchu jsou daňově konkurenceschopné, jejich úspěšnost může být ovlivněna i dalšími významnými vlivy, na které je zaměřena následující část práce.



→ **Tabulka č. 6 » Struktura zdanění mezd v analyzovaných zemích v letech 2011–2016 v %**

Země	Položka		podíl z nákladů práce v %						přírůstek v p.b. 2016–2011
			2011	2012	2013	2014	2015	2016	
Česká republika	Sociální zabezpečení:	zaměstnanec	8.2	8.2	8.2	8.2	8.2	8.2	0.0
		zaměstnavatel	25.4	25.4	25.4	25.4	25.4	25.4	0.0
	Daň z příjmu		8.9	8.8	8.8	9.1	9.2	9.4	0.5
	Celkem		42.5	42.4	42.4	42.6	42.8	43.0	0.5
Maďarsko	Sociální zabezpečení:	zaměstnanec	13.6	14.4	14.4	14.4	14.4	14.4	0.8
		zaměstnavatel	22.2	22.2	22.2	22.2	22.2	22.2	0.0
	Daň z příjmu		13.6	12.8	12.5	12.5	12.5	11.7	-1.9
	Celkem		49.4	49.4	49.0	49.0	49.0	48.2	-1.2
Slovensko	Sociální zabezpečení:	zaměstnanec	10.6	10.5	10.2	10.2	10.2	10.2	-0.4
		zaměstnavatel	20.8	21.8	23.8	23.8	23.8	23.8	3.0
	Daň z příjmu		7.5	7.4	7.1	7.2	7.4	7.5	0.0
	Celkem		38.9	39.6	41.1	41.2	41.3	41.5	2.6
Polsko	Sociální zabezpečení:	zaměstnanec	15.5	15.3	15.3	15.3	15.3	15.3	-0.2
		zaměstnavatel	12.9	14.4	14.4	14.4	14.4	14.4	1.5
	Daň z příjmu		5.9	5.8	5.9	6.0	5.0	6.1	0.2
	Celkem		34.3	35.5	35.6	35.6	34.7	35.8	1.5

Pramen: Beran (2019), vlastní zobrazení

**Tabulka č. 7 » Žebříček konkurenceschopnosti zemí V4 pro oblasti: hodinové náklady práce, daň z příjmu, celkové zdanění mezd**

Země	Hodinové náklady práce	Daň z příjmu	Celkové zdanění mezd
Česká republika	1.	2.	2.
Slovensko	2.	3.	3.
Maďarsko	4.	1.	1.
Polsko	3.	4.	4.

Pramen: Vlastní výsledky na základě předchozí analýzy

## 4.1 Další významné vlivy ovlivňující konkurenceschopnost podniků v cestovním ruchu nejen v České republice

Mimo zásahy fiskální politiky, které významnou měrou ovlivňují konkurenceschopnost podniků nejen v cestovním ruchu, je nutné upozornit i na

existenci vlivů dalších. Následující část práce je proto zaměřena na stručnou deskripci dalších vlivů ovlivňujících konkurenceschopnost podniků v cestovním ruchu.

Odvětví ubytování, stravování a pohostinství v České republice je dlouhodobě oblastí s nejnižší průměrnou mzdou v porovnání s průměrnými mz-

dami ve všech ostatních odvětvích (ČŠÚ, 2017). Příčinou či případně důsledkem takto nízkých mezd je přítomnost šedé ekonomiky. Šedá ekonomika je významným fenoménem, na který se zaměřuje celá řada autorů (Schneider 2012; Schneider 2014; Nikopour a Habibullah, 2010). Popis šedé ekonomiky a její případná minimalizace je o to složitější, že ani její měření, respektive odhadování není jednoznačné (Zídková, 2012). Praxí v České republice je oficiální vyplácení jen malé části mzdy, tak, aby zaměstnavatel minimalizoval své náklady, další část odměny získá zaměstnanec „na černo“ v podobě hotovostní platby. Podniky se tak díky netradičnímu snižování nákladů stávají více konkurenceschopnými, ovšem ne cestou, která by byla pro ekonomiku či společnost jako celek žádoucí. Jistou modifikací tohoto druhu snižování nákladů je i švarcsystém, neboli situace, kdy pracovníci v podniku nejsou v pracovněprávním vztahu, ale pracují jako osoby samostatně výdělečně činné (dále jen OSVČ). V takové situaci OSVČ pracuje výhradně pro jeden podnik a využívá ke svému výkonu pomůcky daného podniku. V této situaci dochází k nelegální aktivitě z důvodu obcházení daňové povinnosti apod. (Veber, Srpová a kol., 2012). Další možností je pohyb OSVČ v oblasti stínové ekonomiky, tedy vytváření nehlášené či neregistrované podnikatelské činnosti za účelem vyhýbání se daní. Tato činnost se ale pohybuje za hranicí zákona a je tak trestně postižitelná.

Obzvláště cestovní ruch je pak v posledních několika letech silně ovlivněn sdílenou ekonomikou (Wachsmuth, Weisler a Kagermeier, 2018), a to především v oblasti ubytování. Jistý rozruch napřích Evropskou unií, ale i USA a dalšími kontinenty přináší internetová platforma Airbnb. Jedná o Peer-to-Peer transakce, které se často pohybují v oblasti šedé/stínové ekonomiky. Pro turisty je ubytování cenově atraktivní, ovšem nízkých cen pronajímatelé často dosahují tím, že se vyhýbají daňové povinnosti. Přestože se především města snaží vyvíjet snahu k eliminaci tohoto trendu, není stále ještě nastaven jednotný rámec přístupu.

Konkurenceschopnost podniků podnikajících

v oblasti cestovního ruchu ovlivňuje nejen situace ve státu podnikání a vliv fiskální politiky, ale i další oblasti ekonomiky, situace v zahraničí a vztah se zahraničím, v tomto případě reprezentovaným měnovým kurzem. S ohledem na analyzované země je nutné zvážit vztah užívaných měn jednotlivých států, tedy Eura v případě Slovenska, české koruny v případě České republiky, polského zlotého v případě Polska a maďarského forintu a jejich dopad na konkurenceschopnost podniků. Za nedávný milník pro tuto oblast lze považovat zásah České národní banky, která držela směnný kurz během období 11/2013 až 4/2017 na fixní výši. Během tohoto období docházelo k oslabení koruny vůči euru díky devizovým intervencím (ČNB, 2017). Oslabení koruny v kontextu mezinárodního cestovního ruchu znamenalo posílení eura, tedy růst bohatství zahraničních turistů vůči tuzemcům. Pro zahraniční návštěvníky tak byly ceny v České republice příznivější, a právě tento krok České národní banky měl ambici posílit motivaci zahraničních turistů navštívit právě Českou republiku. Pro podniky podnikající v cestovním ruchu v tuzemsku taková situace znamená zvýšení konkurenceschopnosti oproti zahraničním podnikům. Příliv zahraničních turistů by pak mohl zapříčinit větší spotřebu a tím i růst HDP. Kroky České národní banky sice původně nebyly zaměřeny na cestovní ruch, ovšem dopady postupů České národní banky ovlivnily i tuto oblast.

## 5. Doporučení a diskuze

Výsledky analýzy nasvědčují tomu, že podniky v Polsku a v České republice jsou daňově/cenově více konkurenceschopné a oproti podnikům v cestovním ruchu na Slovensku či a Maďarsku mají významnou konkurenční výhodu. Nástroje fiskální politiky tak nabízejí výbornou výchozí situaci pro tyto podniky. Z dlouhodobého hlediska by ovšem fiskální politika zemí neměla být zaměřena na cenovou konkurenceschopnost podniků. Přílišný apel na cenovou konkurenceschopnost může vést k minimalizaci nákladů podnikateli a tím i ke sni-





*S postupující globalizací roste tlak na schopnost konkurenceschopnosti jednotlivců, skupin, organizací, ale i ekonomik. Historicky je koncept konkurenceschopnosti spojen s konceptem konkurence, který se vyvinul v době kapitalismu. Pokud je soutěž zvláštním typem ekonomického prostředí, pak je konkurenceschopnost schopností ekonomického subjektu přežít v tomto prostředí. Od 80. let 20. století má teorie konkurenceschopnosti stát se novým subsektorem teorie ekonomiky, který zkoumá faktory ovlivňující konkurenceschopnost států a regionů a je zvláště užitečný pro analýzu nových procesů ekonomické globalizace.*

žování výdajů určených na mzdy zaměstnanců. Snižování mezd v odvětví cestovního ruchu, kde jsou již nyní mzdy podprůměrné, nepovede ke zvýšení kvality služeb a dlouhodobě tak bude způsobovat oslabení konkurenceschopnosti. Existence šedé ekonomiky a využívání švarcsystému ukazuje na rozkol mezi inkasem daně z příjmů zaměstnanců a živnostníků. Dílčí rozhodnutí i celkové směřování fiskální politiky by mělo podporovat motivaci podniků stát se nejen cenově konkurenceschopnými, ale hledat konkurenceschopnost i v kvalitě nabízených statků a služeb.

Velkým problémem, který by dnešní ekonomiky měly řešit, je otázka regulace sdílené ekonomiky. Pro cestovní ruch se jedná především o platformu Airbnb (Airbnb, 2020), která je zaměřena na ubytovací služby. Na druhou stranu přehlédnout nelze ani další platformy, jako je Uber zaměřený na přepravu lidí (Uber, 2020). Extrémně nízké ceny vzniklé díky těmto platformám mají velký dopad na tvorbu ceny práce v ekonomice. Obzvláště pro Českou republiku, kde jsou mzdy na nízké úrovni, je tento dopad nepřehlédnutelný. Přičemž nízké ceny služeb jsou dány zdánlivým příležitostným podnikáním, které jedinci realizují nad rámec svého hlavního příjmu, často plynoucího ze zaměstnání. Pro funkční konkurenceschopné podniky v oblasti cestovního ruchu je proto zapotřebí vytvořit konstruktivní rámec regulace sdílené ekonomiky, který v současné chvíli chybí.

## 6. Závěr

Cílem práce bylo poskytnout žebříček vybraných zemí podle výše daňové zátěže přímo uvalené na spotřebu v oblasti turismu a určit tak relativní daňovou konkurenceschopnost zemí V4 jako turistických destinací pro rok 2019.

Pro posouzení daňové konkurenceschopnosti z pohledu daně z přidané hodnoty byl vytvořen modelový propoččet, který je svým obsahem a konstrukcí značnou přidanou hodnotou této práce. Pro modelový výpočet vážené sazby daně v jednotlivých státech byly nejdříve vybrány položky, které jsou s cestovním ruchem úzce spjaté. Vybranými položkami byly: ubytování, jídlo, nealkoholické a alkoholické nápoje, kulturní akce, sportovní události a vnitrostátní přeprava cestujících. Těmto položkám byly následně přiděleny váhy dle jejich významnosti. Nejnížší průměrnou váženou sazbou daně z přidané hodnoty jsou zatíženy subjekty v Polsku (9.26 %) a naopak nejvyšší zatížení je v Maďarsku (21.6 %). Druhé největší daňové zatížení je v tomto ohledu na Slovensku (20.00 %). Česká republika na pomyslném třetím místě (daňové zatížení 16.02 %).

Z analýzy zdanění mezd a nákladů práce je možné sestavit jistý žebříček konkurenceschopnosti. Při pohledu na žebříček konkurenceschopnosti podniků na hodinové náklady práce, daň z příjmu i celkové zdanění mezd je patrné, že nejméně konkurenceschopné je Maďarsko.

Naopak největší konkurenční výhodu dosahuje Polsko.

Z provedených analýz vyplývá, že konkurenceschopnost podniků v cestovním ruchu v Polsku a v České republice má velmi dobrou pozici, pokud jde o výši zásahů fiskální politiky do tohoto odvětví, a to jak z pohledu daně z přidané hodnoty, tak i nákladů spojených se zaměstnáváním pracovníků.

České podniky podnikající v oblasti cestovního ruchu jsou daňově konkurenceschopné, ovšem jejich úspěšnost může být ovlivněna i dalšími významnými vlivy, jako je přítomnost šedé ekonomiky a zásahy monetární politiky.

Diskutabilní ovšem zůstává, zda je z dlouhodobého hlediska strategické zaměření na daňovou/cenovou konkurenceschopnost podniků v cestovním ruchu vhodnou taktikou. V dlouhodobém výhledu je nejen pro podniky, ale i celou ekonomiku cennější konkurenční výhoda vyplývající z inovací, růstu kvality produktů a služeb a mzdových relací přibližujících se mzdovým relacím v ostatních vyspělých ekonomikách. Mix těchto faktorů by podpořil nejen růst HDP, ale i větší spokojenost obyvatel.

Nelze také přehlédnout, že přesto že podniky v Polsku a v České republice podnikající v oblasti cestovního ruchu jsou z v komparaci s podniky v Maďarsku a Slovensku cenově konkurenceschopné, je nutné přihlídnout ke kulturním odlišnostem zemí. Nelze předpokládat, že při udržení nejnižších cen bude turismus v České republice neustále růst. Dříve či později se u turistů může projevit zákon klesajícího mezního užítku a po opakované návštěvě České republiky budou chtít navštívit i ostatní země.

Přestože problematika konkurenceschopnosti v cestovním ruchu je velmi široká, pro počátek 21. století by žádné ekonomiky neměly podceňovat především vliv sdílené ekonomiky. Sdílená ekonomika ve své současné podobě je oblastí s nedostatečnou regulací vytvářející prostor pro stínovou ekonomiku a obzvláště v oblasti přepravy cestujících a ubytování. Extrémně nízké cen těchto neregulovaných služeb v oblasti sílené ekonomiky mimo jiné negativně ovlivňují i tvorbu mezd a cen práce obecně. Velmi žádoucí by bylo vytvoření regulace sdílené ekonomiky, ovšem nikoliv s cílem eliminace tohoto trendu.

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## ABSTRAKT

Konkurenceschopnost na úrovni podniků je pro národní ekonomiku důležité téma, ovšem mezinárodní konkurenceschopnost podniků je přímým vyjádřením převahy daného státu. Eskalující nárůst konkurence je nyní znatelný v mnoha odvětvích, přičemž každé odvětví zároveň postihují jiné hrozby. Jedním ze specifických odvětví je cestovní ruch. Jedná se totiž o odvětví, jehož ceny jsou z velké části odvislé od nákladů prá-

ce a další daňové zátěže. Předkládaná práce je proto zaměřena na analýzu nejdůležitějších typů daní v oblasti cestovního ruchu v zemích Visegrádské skupiny (V4), tj. v České republice, Slovensku, Maďarsku a Polsku. Výběr zemí byl proveden na základě obdobného politicko-kulturního vývoje v rámci regionu střední Evropy. Nejvýznamnější daň v tomto pojetí je daň z přidané hodnoty (DPH), která má přímý vliv na finální cenu zboží a služeb spotřebovaných turisty. Celková úroveň přímého zdanění spotřeby turistů je počítána jako vážený průměr sazeb DPH za každou vybranou zemi. Subjekty podnikající v pohostinství čelí vysokému podílu nákladů na pracovní sílu vůči nákladům na ostatní kapitál, které mohou být také přeneseny na turisty prostřednictvím vyšších cen. Cílem práce je poskytnout žebříček vybraných zemí podle výše daňové zátěže přímo uvalené na spotřebu v oblasti turismu a určit tak relativní daňovou konkurenceschopnost zemí V4 jako turistických destinací pro rok 2019.

#### KLÍČOVÁ SLOVA

Konkurenceschopnost podniků; DPH; V4; zdanění

### The Tax Competitiveness of Tourism Enterprises in V4

#### ABSTRACT

Competitiveness at the level of enterprises is an important issue for the national economy, but the international competitiveness of enterprises represents a direct expression of the state's superiority. The escalating growth of competition is now noticeable in many sectors, with each sector simultaneously facing different threats. Tourism is a specific sector with prices that are largely dependent on labour costs and other tax burdens. The paper is focused on the analysis of the most important types of taxes in tourism in the Visegrad Group (V4) countries, ie in the Czech Republic, Slovakia, Hungary and Poland. The selection of countries was based on similar political and cultural developments within the Central European region. The most important tax in this regard is value added tax (VAT), which has a direct impact on the final price of goods and services consumed by tourists. The total level of direct tax on tourist consumption is calculated as the weighted average of VAT rates for each selected country. Entities conducting business in hotel and catering face a high share of labour costs relative to the cost of other capital that can also be transferred to tourists through higher prices. The aim of the paper is to provide a ranking of selected countries according to the amount of tax burden directly imposed on tourism consumption and thus determine the relative tax competitiveness of the V4 countries as tourist destinations for 2019.

#### KEYWORDS

Business Competitiveness; VAT; V4; Taxation

#### JEL CLASSIFICATION

E62; Z3; H2



# Předpověď vývoje HDP za využití prognostické chyby minulých predikcí: překročí české instituce svůj stín?<sup>1</sup>

► Ing. Jiří Šindelář, Ph.D. » Vysoká škola finanční a správní, Estonská 500, 101 00 Praha, Česká republika;  
email: sindelar@mail.vsf.s.cz

► Ing. Michal Erben » Vysoká škola finanční a správní, Estonská 500, 101 00 Praha, Česká republika;  
email: michal.erben@briggsco.cz

## \* 1. Úvod

Predikce vývoje hrubého domácího produktu (HDP) centrálních veřejných institucí představují pro většinu ekonomických aktérů významnou signální informaci. Kromě efektu na strategické plánování firem a domácností, který popisuje například Jaimovich a Rebelo (2009), jde o zásadní informaci pro sestavování plánu vládního rozpočtu, jehož úspěšné plnění chybí prognózy přímo ovlivňuje (Frankel, 2011). Není proto překvapením, že přesnost predikcí veřejných institucí, jako je ministerstvo financí či centrální banka, prochází zejména na západ od našich hranic periodickou evaluací v rámci odborné diskuze (viz Keere-man, 1999; Danielsson, 2008; Allana, 2013). Tyto studie v naprosté většině identifikovaly významné problémy centrálních predikcí s předvídáním strukturálních změn, jako jsou typicky náhlé propady ekonomiky vyvolané šokovým činitelem – za všechny jmenujme finanční krizi let 2007–2008 a související obrácení hospodářského cyklu.

V českém prostředí se většina analýz prognóz HDP pohybuje z různých důvodů na hranici využitelnosti, ať už jde o studie zaměřené na extrémně krátký horizont (Arnoštová et al., 2011), s omezenou datovou základnou (Antal et al., 2008; Antoníčková et al., 2009), anebo s problematickým metodologickým aparátem (Novotný a Raková, 2011; Vacková, 2014; MF ČR, 2013). Autoři proto ve své minulé publikační činnosti zevrubně zhodnotili jak přesnost predikcí veřejných institucí (Šindelář, 2017), tak metodické dopady využívání různých typů dat o vývoji HDP (Šindelář a Budinský, 2016). Přestože tyto analýzy nepotvrdily přítomnost systémové chyby v prognózách, potvrdily neschopnost předvídání obrátů hospodářského cyklu, jak shrnuje tabulka č. 1.

V současné době charakteristické prudkými hospodářskými otřesy souvisejícími s globální pandemií Covid-19 je téma přesnosti ekonomických prognóz opět velmi aktuální. Pandemie představuje bezpochyby onen šokový činitel, který velmi pravděpodobně povede k obrácení většiny

<sup>1</sup> Tento článek byl podpořen ze zdrojů institucionální podpory pro dlouhodobý koncepční rozvoj výzkumné organizace — Vysoké školy finanční a správní.

vyspělých ekonomik do recese (Fernandes, 2020). Predikční schopnost veřejných i soukromých institucí tak bude v čase bezpochyby předmětem intenzivní diskuze. Než však tato diskuze nastane, nabízí se možnost využít minulé nepřesnosti prognóz k experimentálnímu odvození prognózy aktuální. Jde o přístup založený na tzv. chybové funkci (*loss-function*), která se běžně využívá v kvantitativních predikčních metodách (viz též Granger, 1969; Granger, 1999) a kterou dále rozpracoval v makro kontextu např. Hoss (2016). Cílem tohoto článku je tedy s využitím metody analogie s minulou prognostickou chybou odvodit experimentální prognózu růstu reálného HDP České republiky v roce 2020. Za tímto účelem je článek rozdělen do celkem čtyř částí, kdy po nezbytném teoretickém úvodu následuje přehled použitých dat a metod, poté v sekci výsledků dochází k samotnému odvození prognózy a následně k její diskuzi a sumarizaci závěrů.

## 2. Data a metody

Pro naši analýzu využíváme časovou řadu predikcí vývoje reálného HDP České republiky z dílny Ministerstva financí ČR (MF) a České národní banky (ČNB). Jedná se o predikce ( $F_t$ ) s horizontem 18 měsíců, které tvoří fiskálně kritickou informaci (tyto jsou publikovány většinou v červnu/červenci roku předcházejícího roku, jehož reálné HDP je predikováno). Časová řada má celkem 23 úseků, popisujících vývoj v letech 1996–2018<sup>2</sup>, a jejím zdrojem jsou obě zmiňované instituce (MF ČR, 2020; ČNB, 2020). Co se týče dat o následném skutečném vývoji reálného HDP ( $Y_t$ ), zde využíváme data z letního vydání *OECD Economic Outlook* (OECD, 2020) publikovaného v roce následujícím po roce, jehož HDP bylo prognózováno. Jde o takzvaná brzká data (*early outturn*), která jsou standardní pro ověřování přesnosti prognóz – přestože dle předchozí studie (Šindelář a Budinský, 2017) není mezi brzkými a posledně známými daty (*most recent outturn*) statisticky významný rozdíl

**Tabulka č. 1 » Přesnost prognóz HDP veřejných institucí**

Perioda	MF (18M)		ČNB (18M)	
	MAE	RMSE	MAE	RMSE
1996–2018 (celá perioda)	2.4	2.99	1.9	2.52
1996–2001	2.6	3.03	1.9	2.01
2002–2007	1.9	2.05	1.7	1.89
2008–2013	3.0	4.08	2.4	3.52
1996–1998 (první recese)	3.9	4.00	–	–
1999–2002 (oživení)	1.1	1.34	1.4	1.68
2003–2007 (prudký růst)	2.2	2.24	2.0	2.07
2008–2010 (druhá recese)	3.9	5.27	3.2	4.54
2011–2013 (stagnace)	2.1	2.35	1.6	2.04
2014–2018 (návrat růstu)	1.1	1.42	1.0	1.12

Pozn.: MF = Ministerstvo financí ČR; ČNB = Česká národní banka; MAE = Průměrná absolutní chyba (Mean Absolute Error); RMSE = Průměrná čtvercová chyba (Root Mean Squared Error); 18M = horizont prognózy 18 měsíců  
Pramen: Šindelář (2017) — aktualizováno

<sup>2</sup> Archiv dat ČNB je mírně kratší a začíná rokem 1998.

→ z hlediska výsledné přesnosti prognóz.

Základním stavebním kamenem analýzy z hlediska metod jsou dvě chybové funkce (*loss-function*), které definujeme takto ( $A_t = Y_t - F_t$ ):

- Absolutní chyba:

$$L(A) = \text{mean}(|A|)$$

- Čtvercová chyba:

$$L(A) = \text{mean}(A^2)$$

Obě chybové funkce kalkulujeme dvojím způsobem: (i) pro všechny roky daných časových řad predikcí MF/ČNB a (ii) pouze pro roky, ve kterých došlo k obrácení cyklu, tj. změny z růstu na pokles HDP. Získali jsme tak celkem 4 hodnoty chyb, na které navazuje aplikace finální metody – analogie. Na prognózy MF a ČNB z léta 2019 jsou aplikovány jednotlivé hodnoty chyb a tímto způsobem jsou odvozeny meze odhadu experimentální prognózy pro rok 2020 a kalkulován střed odhadu.

### 3. Výsledky

Je-li základním stavebním kamenem naší analýzy chybovost prognóz institucí v uplynulých letech, musí být prvním prezentovaným výstupem shrnutí vývoje podkladové difference  $A_t$ . Jak tedy vypadalo její rozdělení, coby základu pokročilejších chybových funkcí, v letech 1996–2018? Odpověď podává následující sada histogramů (obrázek č. 1).

Absolutní četnosti vcelku jasně ukazují, že těžiště hrubé chyby predikcí MF spočívalo v poslední části intervalu (konkrétně jde o hodnotu  $A_t = -0,6$ ). Naopak první interval je velikostí jasný *outlier*, jde o skutečně mimořádnou hodnotu odhadu z předkrizového roku 2008, kdy ministerstvo predikovalo růst HDP ve výši +4,8 %, avšak realitou byl pokles o -4 % ( $A_{2008} = -8,8$ ). Obdobně si vedla i česká centrální banka.

I zde je rozdělení chybových odchylek velmi podobné. Zatímco těžiště chyb nacházíme v pravé části grafu (průměrná  $A_t = -0,3$ ), levá část vyjadřuje ojedinělou extrémní hodnotu z prognózy roku

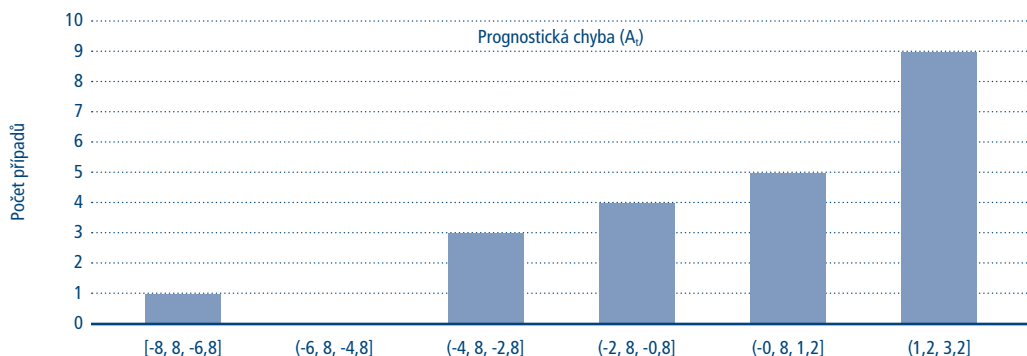
2008. Tehdy se ČNB predikovala sice uměřenější růst HDP ve výši +3,6 %, nicméně i to ve srovnání s realitou znamenalo výjimečně vysokou výslednou chybu ( $A_{2008} = -7,6$ ). Z pohledu prognóz a jejich extrémního vychýlení tak u obou institucí platí, že přerod České republiky do hospodářského propadu roku 2009 byl natolik nenadálý, že se v podstatě zcela vymykal představám jak MF, tak ČNB o 18 měsíců dříve. Nyní už k samotnému odvození prognózy růstu reálného HDP na rok 2020. Po aplikaci dříve zmíněného postupu docházíme k těmto výsledkům (obrázek č. 3).

Experimentálním postupem tedy odhadujeme pokles české ekonomiky (reálného HDP) v roce 2020 o -9,5 % až -11,0 %, coby intervalu daného středy obou odhadů. V neoptimističtější scénáři by mohlo jít o „kladnou nulu“ v rozsahu +0,1 % až +0,5 %, zatímco v pesimistickém případě prognóza ukazuje propad až o -31,7 % až -34,3 %. To je skutečně masivní hospodářský propad.

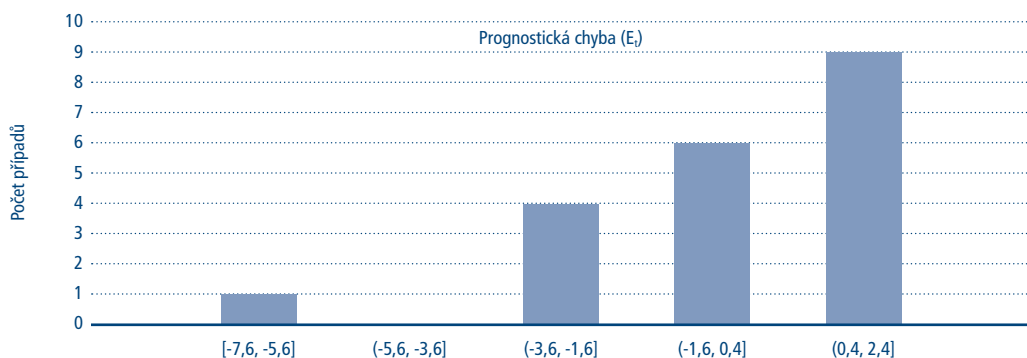
### 4. Diskuze a závěr

Jak se „popasovala“ naše experimentální prognóza s aktuálními (duben/květen 2020) predikcemi jednotlivých institucí a dalších aktérů? Obecně jsme v naší predikci výrazně skeptičtější, než obě sledované instituce. Ministerstvo financí (MF ČR, 2020) predikuje pokles zhruba na polovině našeho středního odhadu (-5,6 %). Česká národní banka (ČNB, 2020) je o poznání skeptičtější, možná i díky pozdějšímu měsíci vydání prognózy, a odhaduje pokles HDP blízko horní hrany středu naší predikce (-8,0 %). V tomto směru je tedy naše experimentální prognóza skeptičtější než obě centrální instituce. Ale nikoliv, než privátní aktéři, jež se většinou pohybují velmi blízko našemu odhadu, ať je to Horská et al. (2020) či Hampl (2020).

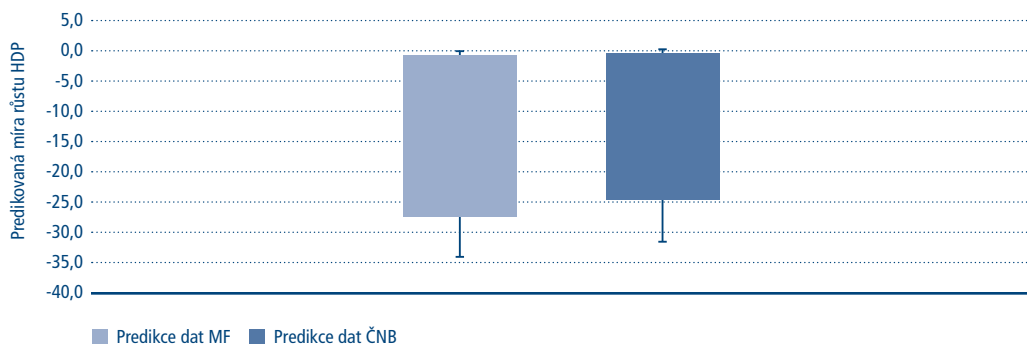
Z metodologického pohledu je třeba poznamenat, že míra podobnosti – a tudíž limity analogie – minulých hospodářských propadů a současné pandemie není absolutní. Naopak, i přes možnou podobnost co do magnitudy dopadů jde na úrovni příčiny o velmi odlišné fenomény (Fernandes,

**Obrázek č. 1 » Rozdělení prognostické chyby růstu reálného HDP — MF**

Pramen: vlastní výzkum s využitím MF ČR (2020)

**Obrázek č. 2 » Rozdělení prognostické chyby růstu reálného HDP — ČNB**

Pramen: vlastní výzkum s využitím ČNB (2020)

**Obrázek č. 3 » Experimentální prognóza růstu HDP ČR v roce 2020**

Pramen: vlastní výpočet



2020). Zatímco poslední významný obrat v letech 2008–2009 byl zapříčiněn nerovnováhou v rámci systému, koronavirus je exogenní činitel úplně mimo mantinely — a tudíž není ani klasickou „černou labutí“ (Petropoulos a Makridakis, 2020). To má i prognostické konsekvence. Zatímco v létě 2008 už bohatě probleskovaly informace o negativním vývoji v sektoru finančních institucí USA, propuknutí pandemie Covid-19 na jaře 2020 bylo půl roku zpět informačně zcela nepředeslané. To implikuje, že i chybovost aktuálních predikcí může být (značně) vyšší.

Námi odvozená prognóza ekonomického růstu je výsledkem poměrně jednoduché metody, niko-

liv výsledek komplexního modelování. I jako taková však indikuje výrazné snížení ekonomické aktivity v České republice, v souhrnném ročním pohledu. V tomto přisvědčujeme nezávislým analytikům, kteří shodně s námi očekávají ve většině scénářů vyšší pokles reálného HDP, než centrální instituce. I se všemi návaznými dopady (vývoj příjmů resp. deficitu státního rozpočtu<sup>3</sup>). Náš přístup bude možné v průběhu času dále vylepšovat, zahrnutím dynamiky vývoje přesnosti prognóz s postupujícím časem. Tzv. inkrementální zvýšení přesnosti může dále upřesnit vývoj chybové funkce, což představuje stěžejní směr pro další výzkum a analýzy.

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<sup>3</sup> Jde o úzce propojené veličiny, i predikčně — viz. též Šindelář (2015).



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## ABSTRAKT

Článek se zabývá odvozením experimentální prognózy růstu reálného HDP České republiky v roce 2020, coby obdobím intenzivně ovlivněném globální pandemií Covid-19. Náš odhad je založen na aplikaci sady chybových funkcí minulých prognóz veřejných institucí (Ministerstvo financí, Česká národní banka) na jejich před-koronavirové predikce z léta 2019. Výsledkem je interval odhadu hodnoty růstu ekonomiky, který ve svém středu implikuje pokles výkonu o zhruba desetinu oproti roku 2019. Jakkoliv jde o zjednodušený přístup, naše metoda při současném stavu informací naznačuje, že hospodářský pokles může být výrazně vyšší, než ten predikovaný výše zmíněnými veřejnými institucemi.





## KLÍČOVÁ SLOVA

GDP prognóza; Covid-19; chybová funkce; chyba prognózy; Česká republika

## Forecasting GDP Growth Using Past Forecasting Error: Will Czech Institutions Learn from Past Mistakes?

### ABSTRACT

*This paper deals with experimental forecast of real GDP growth of the Czech economy in 2020 that is in period significantly affected by the global Covid-19 pandemics. Our prediction was created by applying set of loss functions related to past forecasts of public institutions (Ministry of finance, Czech national bank) onto their pre-coronavirus summer 2019 forecast. Results create range of potential output growth, whose mean value implies real GDP decrease by about one-tenth in current year. Although the method is rather simple, it (based on current information) indicates that economic activity might decrease notably more, than predicted by the mentioned public bodies.*

### KEYWORDS

GDP forecast; Covid-19; loss function; forecasting error; Czech Republic

### JEL CLASSIFICATION

C53; E37; E32; E00



# Anchoring Bias and Representative Bias: Two Classroom Experiments

- Ing. Michal Blahout » Department of Economics and Management, Faculty of Economic Studies, University of Finance and Administration, Estonská 500, 101 00 Prague, Czech Republic; email: [blahout.michal@mail.vsfz.cz](mailto:blahout.michal@mail.vsfz.cz)
- Doc. Mgr. Ing. Petr Wawrosz, Ph.D. » Department of Economics and Management, Faculty of Economic Studies, University of Finance and Administration, Estonská 500, 101 00 Prague, Czech Republic; email: [wawrosz.petr@mail.vsfz.cz](mailto:wawrosz.petr@mail.vsfz.cz)

## \* 1. Introduction

Behavioral economics is currently one of the dynamically developing disciplines. Within the framework of economic theory and practice, it is based on modern psychological knowledge about the behavior and decision-making of human beings. It is a field that stands on the border of many social sciences. Although it is mainly a sub-discipline of economics that comes from psychology, it is also based on other behavioral sciences such as sociology, cultural and social anthropology, neuroscience or behavioral aspects of biology, geography, law and political science (Camerer and Loewenstein, 2004; Gintis, 2007). The topicality of this area of social science research is also evidenced by the fact that its two prominent representatives of behavioral economics recently received the Nobel Prize in Economics. In 2002, psychologist Daniel Kahneman was recognized 'for integrating economic analysis with the principal knowledge of cognitive psychology, especially in uncertain conditions, thus laying the foundations for a new area of research' (Nobelprize, 2002). In 2017, the award was given to economist Richard Thaler 'for his contribution to behavioral economics' (Nobelprize, 2017).

While standard economic theory assumes that humans are rational beings who make sensible and beneficial decisions, behavioral economics confronts this assumption with knowledge about the activities of real people (Camerer and Loewenstein, 2004), which uses the knowledge of behavioral sciences to improve traditional economic models (Cartwright, 2011). In summary, it can be stated that behavioral economics is defined in relation to the standard current of economics by rejecting the concept of full rationality, which it replaces with limited rationality. According to behavioral economics, a person does not behave like a homo oeconomicus, but shows signs of irrationality. His decisions include emotions, feelings, prejudices and cognitive abbreviations, social patterns of behavior and relationships in social and reference groups.

One of the essential factors that, according to behavioral economics, influences our decision-making, are the so-called heuristics. These can be defined as problem-solving procedures that increase the probability of decisions based on the principle of reducing possibilities and solutions (Lewis, 2012). Heuristics simplify human decision-making, but using them can lead to wrong decisions. Heuristics can be used both consciously and unconsciously. In the case of a conscious variant, →

→ people voluntarily give up a higher chance of finding the best solution, either because they want to save time or because they are unable to use better procedures to find a solution to the problem. Unconscious use of heuristics is a very practical system for everyday life that makes work easier. Its goal is to reduce the effort required to make routine decisions. Thanks to heuristics, the human mind is not overwhelmed by repetitive decisions and can focus on more important tasks. The speed of decision-making in repetitive processes is thus significantly accelerated (Shah and Oppenheimer, 2008). Although the use of heuristics itself limits the rational evaluation of decisions, decisions made using heuristics may not be wrong. Most heuristic decisions are correct (or at least appropriate enough). However, if, as a result, systematically erroneous solutions occur, the theory (e.g. Chen, Duckworth and Chaiken, 1999) uses the term behavioral bias.

Whether people commit behavioral bias is examined in behavioral economics through, among other methods, experiments. Experiments can be divided into a number of categories, a frequently used method is the so-called laboratory experiment, where selected individuals must fulfill a certain task under given conditions. Experiments do not necessarily take place in the laboratory, they can be performed in schools (classes), etc. As a typical example of an experiment in the category of behavioral economics, it is possible to describe a situation where selected individuals firstly write the last two digits of their birth number and it is examined whether the amount of the two-digit birth number affected the individual answers to other questions (e.g. Ariely, 2009). A number of objections can be, of course, raised against individual experiments. For example, that a selected sample of experiment participants is seldom representative. Alternatively, that the experiment is not a real decision, the participants in the experiment are not at risk of significant losses, etc. (for details see, for example, Bardsley, 2010). Despite these limitations, the results of individual experiments

are published and discussed (e.g. Chaudhuri, 2009; Hey, 2019). If, for example, an experiment with the last two digits of a birth number shows that the answer depends on the value of the birth number, it can be assumed that even in real life, where a person is not exposed to an artificial stimulus but a number of external influences that he often does not even realize and its decision is influenced by these circumstances. These can cause the person in question not to choose the optimal variant for himself.

The aim of this article is to verify the existence of two behavioral bias (anchoring bias and representative bias) through two experiments that took place at the University of Finance and Administration. The article has the following structure. The first chapter (literature review) briefly introduces how the biases are grasped by behavioral economics. The second chapter presents the goals, hypotheses of our experiments and how these goals and hypotheses were tested. The third chapter brings results. The discussion and conclusion deal with the limits of the experiments, the reasons for the results and indicate the possibilities for further research.

## 2. Literature review

### 2.1 Anchoring bias

Anchoring is defined (Corr and Plagnol, 2018) as a heuristic, based on which people tend to estimate the magnitude of the target value based on the magnitude of the value presented to them before this estimation. It is not even necessary to present some value before estimation, people make different estimates even on the basis of unfinished calculations (Kahneman and Tversky, 1974). In their classic experiment, Kahneman and Tversky (1974) asked university students to estimate the percentage of African countries represented at the UN. The students were divided into groups, and before the question was asked, a wheel of fortune was spinning in front of them. It was found that the

number from the wheel served as an anchor – students' estimation of the percentage of African states in the UN differed significantly depending on the value of the number.

The effect cannot be reliably resisted, even if a man is aware of its presence in its thinking. Anchoring has a documented effect on human decision regardless person personal characteristics, abilities, and knowledge (Furnham and Boo, 2011). Campbell and Sharpe (2009) found significant evidence that financial market forecasting professionals focus mainly on past data, especially data from the near past. In everyday life, anchoring bias can be encountered, for example, when negotiating a price. The first offer, usually much higher than the expected selling price, will provide the buyer with an anchor, according to which he will then orient himself. Price reduction, even to market value, will automatically be taken as a discount.

Following Kahneman and Tversky (1974), a number of studies have been published that deal with anchor heuristics, including areas such as general knowledge (Epley and Gilovich, 2001; Mussweiler and Strack, 1997, 1999 and 2001), betting valuation (Chapman and Johnson 1994), estimation of probability of uncertain events (Plous, 1989, Chapman and Johnson, 1999 and 2002), valuation of purchasing decisions (Ariely, Loewenstein and Prelec, 2003), self-performance perception (Cervone and Peake, 1986). Usually, the anchoring heuristic is demonstrated in two steps, where in the first step the judge is asked to compare the numerical anchor and the target value (comparative judgment) and then it determines its own estimate (absolute judgment). In such cases, we speak of standard anchoring (Tversky and Kahneman, 1974). In order for the numerical anchor to have an effect on human judgments, a comparative step used in standard anchoring is not necessary. People can anchor to a number even if they are not explicitly asked to compare the anchor and the target value together (Wilson et al., 1996). Wilson et al. (1996) identified this phenomenon as a funda-

mental anchor. It is enough if people have a number in their head, such as the price of a certain product, number in an address or the date of submission of a task. Without people realizing it, all these numbers can affect their judgments. To explain the differences in the effects of different anchors and the different mechanisms behind their processing, it is therefore appropriate to divide the individual anchors according to certain criteria, namely:

- According to the content of the relevant information: here the anchors are divided into informative and non-informative. Informative anchors have something to do with the final estimate and contain information that could refine it. For example, the original price of discounted goods contains some information about the original value of these goods, from which the new price may probably be derived. An example of the use of an informative anchor is the case where the final judgment on the amount of the rape sentence was influenced by the sentence proposed by state attorney (Englich, Mussweiler and Strack, 2005). Hastie, Schkade and Payne (1999) came up with similar results, in their experiment in court the members of the jury proposed higher financial compensation for the damage if the plaintiff asked for a large amount. This anchor was a relevant, informative estimate for the jury members. Non-informative anchors can be any irrelevant numbers that are not related to the estimate at all. An example of anchoring to a non-informative anchor could be a judge whose decision on the amount of the penalty was influenced by accidental dice throwing (Englich, Mussweiler, and Strack, 2006), athlete's performance estimates affected by his jersey number (Critcher and Gilovich, 2008), the prediction how the product will be solved affected by the product number (ibid.) or the already mentioned experiment of Tversky and Kahneman (1974), when the anchor was generated by spinning the wheel of fortune. However, any influ-



- ence by such an irrelevant and non-informative anchor is in itself flawed (Chapman and Johnson, 1999). English et al. (2006) tested the strength of the anchoring effect depending on the relevance of the anchor, but failed to find the effect of this factor. Contrary to this finding, Mussweiler and Strack (1997) achieved different results in their experiment. Participants estimated the height or width of the Brandenburg Gate after being presented with a numerical value as an anchor, which was designated as either height or width. Participants were much more affected by this anchor in cases where the tested dimension and the presented anchor in both cases represented same dimension (e.g. either both two represent height or both two represent width). The anchorage was weak if one dimension was height and the other width. In other words, information about one dimension was less useful for estimation if information concerned another dimension.
- According to the origin: here we divide the anchors into external, obtained from the external environment, and internal anchors, those that a person itself generates from its memory and knowledge. An example of an external anchor is when estimates of how much people were willing to spend for dinner at a restaurant were affected by a number in the restaurant's name. If the restaurant's name was 'Studio 17', people were willing to pay an average of \$ 24.58 for dinner. If the restaurant's name was „Studio 97,“ people estimated that they would pay an average of \$ 32.84 for dinner (Critcher and Gilovich, 2008). Values that serve as anchors are often generated by people themselves, from their own knowledge and experience. The anchors generated in this way differ from those submitted by an external source. Anchors provided by an external source are taken (at least for a limited time) seriously, while anchors generated from their own knowledge people know from the beginning that they are only approximate (Epley and Gilovich, 2001).

- According to plausibility: plausible anchors are among the acceptable answers, not plausible. For example, if the respondent estimates how many centimeters the tallest person in the world measures, the number anchors with a value of 1500 centimeters are unbelievable to him as it values is too high. Likewise, for example, a numerical value of 150 centimeters. The judge probably knows taller people himself and therefore does not consider this value to be a possible correct answer to the question asked. Its range of acceptable values is therefore somewhere between these extremes, and the anchors that would fall into it can be described as plausible. However, both plausible and unreliable anchors can be effective. Mussweiler and Strack (1997) asked participants in their experiment to estimate the year Einstein visited the United States after being presented with unbelievable, extreme anchors (1215 and 1992). These unreliable anchors resulted in as strong anchors as more believable anchors. It is, however, important to take into account that although plausible and unreliable anchors may have a similar effect, they may be handled by different mechanisms.

## 2.2 Representative bias

Representative heuristic means that a man categorizes certain events, people, or objects based on whether they resemble a prototype of that category. At the same time, it ignores information about the actual occurrence (Kahneman, 2011). It therefore enlists a new, conservatively dressed neighbor with glasses and a rich vocabulary more as a librarian, although, for example, employees of commercial companies are much more represented in the population (Kahneman and Tversky, 1974). This heuristic is also responsible for the so-called gambling fallacy, where one tends to believe, for example, that after the fifth roll, each time an eagle fell on a coin, it is likely that a virgin will fall on the next roll — although these events are independent

of each other. The time sequence, which wrongly indicates that one event happened before is a cause for the second one even though the phenomena are independent of each other can be also included within the heuristic (Pearl, 2009). The heuristic of representativeness is also manifested in the fact that people tend to infer the properties of the large set on the basis of its small sample, even though the small sample usually does not represented the

dramatic — such as a plane crash presented in the media or those that affect the person personally. E.g. if the victim of the assault becomes a person itself, it will sometimes have a stronger influence than if it hears about the assault on the radio (Kahneman and Tversky, 1973).

In general, it can be stated that the heuristics of representativeness means that a person judges a certain phenomenon according to how the phe-

*One of the essential factors that, according to behavioral economics, influences our decision-making, are the so-called heuristics. These can be defined as problem-solving procedures that increase the probability of decisions based on the principle of reducing possibilities and solutions. Heuristics simplify human decision-making, but using them can lead to wrong decisions.*

large set precisely (Kahneman and Tversky, 1971, Gigerenzer and Hoffrage, 1995, Sundali and Croson, 2006).

The representative heuristics is closely connected with so called availability heuristics. Availability heuristic describes situation when an individual makes a decision based on how easily he is able to recall what he considers to be typical representatives (relevant examples) of the phenomena (Gilovich, Griffin and Kahneman, 2006). If, when estimating the frequency or size of a category, a man is possible to recall easily and quickly examples from that category, it assess the whole category according to these examples. For example, people rate the risk of a heart attack based on how much they know of the individuals affected by the heart attack (Kahneman and Tversky, 1974). Like other heuristics in judgment, accessibility heuristics also replace one question with another: instead of estimating the frequency of a category, the impression of ease of fitting examples from that category is reported. Replacing questions with others must necessarily lead to systemic errors (Kahneman, 2001). It is easier to recall important events that caught our attention (politician's scandals, divorce among celebrities) as well as events that are

nomenon appears to it, how it is presented to it, rather than according to what the phenomenon really is. For example, if a thing is presented as good quality, and the presentation is associated with quality attributes (e.g. higher price, better packaging or delivery services, etc.), people will tend to attribute quality to those things according to these characteristics, although real quality may be different (Yarrow, 2014). The heuristic is often used by sellers, who may have the impression that the goods are rare and therefore must be expensive, even though there are enough of them (Leach, 2018). A typical example of the representativeness heuristic is the evaluation of other people by appearance or bearing instead of taking into account more relevant facts.

### 3. Methodology, hypotheses, goals, data

As part of testing anchoring bias and representative bias, we performed two experiments. For the anchoring bias experiment, we hypothesized that the size of the anchor assigned to experiment participants has a direct effect on the size of their numerical responses. Specifically: the average value of the answers of individual groups divided ac-





→ cording to the amount of their university number (00–19, 20–39, 40–59, 60–79, 80–99) will have the following dependence: the higher the value of the university number, the higher the average value of answers. In the case of the representative bias experiment, it is hypothesized that the participants in the experiment will state differently their drink preferences in a blind test, when they do not know which drink it is, and in a questionnaire survey, when drinks will be explicitly mentioned. The primary goal was to verify the veracity of both hypotheses.

The secondary goal of the anchoring bias experiment was to verify the results of the experiment of Ariely, Lowenstein and Prelec (2003), which took place on a sample of fifty-five participants. They were shown six products<sup>1</sup>, then asked to write for each product if they would be willing to buy it for the value corresponding to the last two numbers of their social security number. For example, if the last two digits were 75, it would correspond to a price of \$ 75. Subsequently, an auction of the given items took place between the partici-

pants, when they had to write the maximum price that they would be willing to pay for the item, in the form of a second price auction. The participants wrote their bids on their papers and then the winners were determined who could buy the items. The aim of the experiment of Ariely, Lowenstein and Prelec (2003) was not the auction itself, but to obtain data on the maximum price that subjects are willing to pay for the items and find out whether this price will be affected by the last two digits of their social security number. That is, whether participants with a smaller double number will offer less on average than those with a higher number. The results of the experiment are presented in figure 1. It follows that the size of the social security double-digit numbers affected the amount the participants were willing to pay for the goods offered. There was a direct ratio: the higher the last double digit, the higher the average bid price.

The anchoring bias experiment carried out by the authors of the article took place at the University of Finance and Administration, on a sample of one hundred and twenty-five full-time university

**Figure 1 » Average stated willingness-to-pay sorted by quintile of the sample’s social security number distribution**

Quintile of SS# distribution	Cordless trackball	Cordless keyboard	Average wine	Rare wine	Design book	Belgian chocolates
1	\$ 8.64	\$16.09	\$ 8.64	\$11.73	\$12.82	\$ 9.55
2	\$11.82	\$26.82	\$14.45	\$22.45	\$16.18	\$10.64
3	\$13.45	\$29.27	\$12.55	\$18.09	\$15.82	\$12.45
4	\$21.18	\$34.55	\$15.45	\$24.55	\$19.27	\$13.27
5	\$26.18	\$55.64	\$27.91	\$37.55	\$30.00	\$20.64
Correlations	.415	.516	0.328	.328	0.319	.419
	<i>p</i> = .0015	<i>p</i> < .0001	<i>p</i> = .014	<i>p</i> = .0153	<i>p</i> = .0172	<i>p</i> = .0013

The last row indicates the correlations between Social Security numbers and WTP (and their significance levels).

Source: Ariely, Lowenstein and Prelec (2003)

<sup>1</sup> Specifically: Wireless trackball, a set containing a wireless keyboard and mouse, a book, Belgian chocolate Neuhaus, and two types of wine.

students in the first year of bachelor's study – most participants in the experiment were about 20 years old. The group consisted of forty men and eighty-five women. Eighty participants were of Czech nationality and forty-five were of different nationalities, mainly from the states of the former Soviet Union or other post-communist countries. The experiment took place at all centers of the university – in Prague, Most and Karlovy Vary. Participants in our experiment received questionnaires, had to write the last two digits of their university number<sup>2</sup> on the first line, and were then asked to remember it. After entering this double digit, the students were asked questions for which they had to estimate a certain numerical value (price, weight, age, number, etc.). The first five questions were focused on estimating the price of five products, the photos of which were projected to them through a PowerPoint presentation. The experiment carried out here differs from the original in that participants should not have written whether they would be willing to buy the product for the last two digits of their university number, as the price in Czech crowns would be very small compared to the dollar and most products would be significantly undervalued. At the same time, there was no real auction, because due to the budget limitation, it was not possible to buy the items for the auction. The aim of our experiment was to find out whether it will be enough to write the given double digit and memorize it to create the anchoring bias.

In the second part of the anchoring bias experiment, the participants of our experiment were asked questions about economic statistics, as they were students of economics. In the third part, questions were asked for a general overview. Individual questions were marked with letters so that the question number did not create a new anchor. The text of all questions is given in the annex.

The representative bias experiment investigat-

ed which of the drinks (Coca Cola or Pepsi Cola) people prefer. As a secondary goal, he set out to verify the results of previous experiments<sup>3</sup>, in which participants in the blind test mostly preferred the drink Pepsi Cola, in the following answers, when they were asked whether they prefer to drink Coca Cola or Pepsi Cola mostly chose Coca Cola. The bias of representativeness here lies in the fact that Coca Cola is generally perceived as a more prestigious brand (Breneiser and Allen, 2011) and is therefore preferred to other beverages in surveys.

In our experiment, which was attended by 47 respondents (students of the first year of bachelor's studies at the University of Finance and Administration in Prague), a blind test was first performed, in which students were given two cups of 0.2 liters marked A and B and students had in the questionnaire, circle the letter according to which drink they like better. There was Pepsi Cola lemonade in the cup marked with the letter A and Coca Cola lemonade in the cup marked with the letter B. After each student made their selection, we asked them to write in the questionnaire form whether they preferred Coca Cola or Pepsi lemonade.

#### 4. Results

In the anchoring bias experiment, students first had to estimate the price of selected products. The hypothesis is that the level of the university number anchors the level of answers: the higher the university number, the higher the average value of the answers of individual groups. The average amount of answers of individual groups is given in table 1.

From table 1 it can be seen that we were able to partially reach similar results as in the original experiment of Ariely et al. (2003). For three products (chocolate, model, coin), an increasing price esti-

<sup>2</sup> The number identifying a student for university needs.

<sup>3</sup> Woolfolk, Castellan and Brooks (1983), Breneiser and Allen (2011). Another results can be also found on <https://www.vyplnto.cz/realizovane-pruzkumy/coca-cola-vs-pepsi-vs-kofola/>.

→ **Table 1 » Anchoring bias — questions for estimating goods prices in CZK**

The magnitude of the university number	00–19	20–39	40–59	60–79	80–99
Chocolate	212,3	241,2	199,9	240,3	277,5
Wine	633,3	842,7	726,5	873,6	738,5
Sudoku	39,7	58,6	62,8	60,8	52,5
Kinetic solar model	370,0	525,0	481,9	588,1	596,7
Coin	124,3	138,4	176,8	200,0	116,4

Source: own research

**Table 2 » Anchoring bias — questions for estimating economic variables**

	Question	Measure	The magnitude of the university number				
			00–19	20–39	40–59	60–79	80–99
Gold brick	A	Kg	17,2	14,5	18,6	21,7	24,7
Gold price versus silver price	B	X	6,5	5,0	4,8	8,8	22,9
Topical Czech unemployment	C	thousand	893,2	671,6	836,8	1217,6	1089,8
Topical Czech public debt	D	billions	37,9	25,6	42,4	11,2	51,6
Topical total debt of Czech households	E	billions	45,3	40,2	44,2	45,0	51,6
Nominal amount of Czech crown	F	billions	303,1	380,9	392,9	396,4	662,3
Number of Czechs able to work	G	thousands	4220,6	4437,5	4858,3	3329,2	4867,0
Number of government officers	H	thousands	264,6	292,4	319,8	411,4	384,3
Number of municipalities in the Czech Republic	CH	thousands	35,8	47,2	49,2	77,2	78,6
Average wage in the Czech Republic	I	thousands	28,2	26,2	25,5	23,9	24,4
Social contributions in the Czech Republic	J	Billions	31,1	37,0	75,2	12,4	22,7

Source: own research

mate can be observed with increasing anchor value. Although there are some fluctuations in the price of these products when estimating the price, they are also in the original experiment. There are two fluctuations in wine and sudoku, which may already indicate a lack of expression of the studied bias.

In the second part of the anchoring bias experiment, students responded to economic statistics,

as they were students of economics. Questions were selected for which it was unlikely that students would know the exact numbers, but at the same time they will at least know approximately what values they are in. However, some results were still very extreme. These extreme results were excluded from the experiment. The results (average values of answers) after discarded extreme results are summarized in table 2. Of the

eleven questions asked on this topic, six of them (A, E, F, G, H, CH) showed an increasing tendency depending on the increasing value of the double digits. For four questions (B, C, D, J) the bias showed a partial effect and for question I a completely opposite trend was showed.

The last eleven questions focused on a general overview. Here, too, completely meaningless answers were ruled out<sup>4</sup>. The results (average values of answers) are presented in table 3. In this range of questions, the bias manifested itself in only three questions (K, M and U). For the other questions, the bias did not manifest itself. Low bias can be explained in two possible ways. On the one hand, the questions themselves may have an impact, as the participants have no approximate idea of the values in which their estimates are to move and thus there is a large variance of their predicted values. This explanation can be demonstrated by the last question, when the participants had the

task to determine how many balls are in the container in the picture. A second possible explanation may be that the effect of the anchoring bias has already been exhausted. Thus, bias takes a relatively short time. Whether it is limited by time or by the amount of cognitive considerations and tasks may be a question for further research.

In summary, it can be stated that our experiment confirmed the existence of anchoring bias in a given design (the examinee writes down the anchor number and then answers the questions) only partially. Thus, it is not possible to generally confirm the hypothesis that with increasing value of the university number, the average value of the answers of individual groups of the examined sample will increase.

The results of our second experiment about representative bias are as follows: in a blind 17 participants selected lemonade in a cup marked with the letter A (i.e. Pepsi Cola) and 30 participants se-

**Table 3 » Anchoring bias — general overview questions**

	Question	Measure	The magnitude of the university number				
			00–19	20–39	40–59	60–79	80–99
Stockholm	K	thousands	2 258	2 476	2 600	2 616	2 374
Greenland	L	thousands	224	125	250	120	331
Islands	M	units	73 287	34 628	34 350	78 909	97 587
Countries	N	units	178	171	177	183	159
WW2	O	millions	46	31	60	33	45
Stonehenge	P	thousands	4	4	6	4	5
Elephant age	Q	units	63	71	66	83	64
Elephant weight	R	thousands of Kg	4	2	3	2	5
Galaxies	S	billions	254	60	356	226	338
Number electrons in carbon	T	Units	34	18	21	67	29
Number of marble	U	Q	1 194	1 379	1 396	1 453	1 526

Source: own research



<sup>4</sup> For example, that there are only three islands in the world, Stockholm has a population of three billion, there are two states in the world, etc.

→ **Table 4 » Coca Cola versus Pepsi Cola: a blind choice of taste**

Possibility	A	B
Number of students	17	30

Source: own research

**Table 5 » Coca Cola versus Pepsi Cola: brand preference**

Possibility	Pepsi Cola	Coca Cola
Number of students	18	28

Source: own research

lected lemonade in a cup marked with the letter B (i.e. Coca Cola). In the questionnaires, 28 participants identified Coca Cola and 18 Pepsi as their favorite drinks. The data given here are summarized in tables 4 and 5.

Our experiment in the questionnaire survey showed that its participants prefer Coca Cola lemonade to competing Pepsi Cola lemonade. However, our experiment did not confirm the result of the Woolfolk, Castellan and Brooks (1983) blind test or other tests in which the majority of participants chose the Pepsi Cola brand. In our blinded experiment, most participants chose Coca Cola as a tastier drink after drinking. It can be assumed that the participants in the blind test revealed which cola they drank. 55 % of the participants namely wrote the name of the brand, so they were already influenced by brand awareness at the time of their choice. We further think that the number of the students revealing the brand of lemonade are probably higher than 55 %. Some other information just didn't let us know. Overall, the experiment did not confirm our hypothesis that participants in the experiment will differently state the preferences of the drink in a blind test, when they do not know what the drink is, and in a questionnaire survey, when the drinks will be explicitly mentioned.

5. Discussion and conclusion

The results of our experiments are ambiguous. The anchoring bias experiment only partially confirmed this bias. The conclusions of the representative bias experiment are contradictory. In general, none of our hypotheses can be considered as a confirmed one. In the case of anchoring bias, the fact that there were relatively many questions could have played a role, so the effect of the anchor could be exhausted with increasing questions. Students were also not forced to think more deeply about the answers, they could write any number as an answer to all questions. In the experiment, the reward for the correct answer or sanctions for the wrong answer were not used, respectively, in the experiment the students had nothing to gain and nothing to lose. The experiment took place in a regular classroom, students sitting side by side. Despite the effort for peace and non-communication, their answers could be influenced by the answers of neighbors, etc. The experiment generally suggests that under the conditions described here, the effect of the anchor does not play a significant effect. Anchoring will thus rather occur in situations where there is some benefit or loss associated with the choice — e.g. the type of decision-making when buying discounted goods, when the anchor is the original price.

In the case of representative bias, the question-

naire survey confirmed Coca Cola's preference over Pepsi Cola. However, the sample on which the experiment took place is too small, the answer to the questionnaire itself may not reflect the actual preferences of the students. Whether the answer in the questionnaire corresponded to real preferences should have been confirmed or refuted by a blind test. As we describe in the third chapter, more than half of the respondents revealed which drinks are in the test. The question then is whether to test only two drinks of a given type, i.e. whether, for example, testers should not offer other types of cola. In general, there are critical objections about similar experiments (e.g. Gladwell, 2006), which state that the amount of drink drunk is too small for the tester to make a good decision that its sweetness plays a small role in answering which of the tested drinks tastes better, etc. In other words,

whether a certain drink is really preferred is known only during its long-term use. In the case of Coca Cola and Pepsi Cola, Coca Cola may be preferred because it is generally considered a more prestigious brand. However, both drinks can be, from the economic point of view classified as necessities, they are used in normal consumption and the prestige effect is currently probably low.

Although neither experiment clearly confirmed the biases examined here, the experiments cannot be considered completely unsuccessful. In the case of anchoring bias, it is valuable to find that the influence of this bias decreases if other factors influence the decision-making. In the case of the representativeness bias, testing this bias on Coca Cola and Pepsi Cola preferences turns out to be debatable.

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## Anchoring Bias and Representative Bias: Two Classroom Experiments

### ANNEX

Questions A – U testing anchoring bias:

A: How much does weigh the golden brick on the picture?

B: How much is gold expensive to silver?

C: How many people are unemployed in the Czech Republic?

D: How much is government debt in the Czech Republic?

E: How much is total debt of Czech households?

F: What is total nominal amount of Czech money (crown) in circulation?

G: How many Czech people are able to work?

H: What is number of government officers in the Czech Republic?

CH: How many municipalities are in the Czech Republic?

I: What is average wage in the Czech Republic?

J: What are social contribution in the Czech Republic?

K: How many inhabitants do live in Stockholm?

L: How many square kilometer do have Greenland?

M: How many islands are on the Earth?

N: How many countries are on the Earth?

O: How many people did die in the Second World War?

P: How old is Stonehenge?

Q: How long does in average live elephant?



- R: What is in average elephant weight?  
S: How many stars is in our galaxy?  
T: How many electrons is in carbon?  
U: How many marbles is in glass?

## ABSTRACT

*Behavioral economics points out that a person does not always act rationally, but its actions are influenced by various prejudices, mistakes, cognitive abbreviations, social patterns of behavior, relationships in social and reference groups, etc. Examples of irrational behavior are also so called biases. Behavioral economics uses laboratory experiments to demonstrate biases, where the participants of the experiment have to fulfill a certain task under predetermined conditions. The article describes the result of two such experiments carried out at the University of Finance and Administration, which concerned anchoring bias and representative bias. The primary goal of the article is to determine whether these biases occur with a simple experiment design. At the same time, the article follows up on other experiments carried out in the past. In the case of anchoring bias, our hypothesis is that a certain anchor (here the last two digits of the university number) affects the values of students' numerical answers. For representative bias, we assume that students will prefer different drinks in the blind test and in the questionnaire survey, even though they will always have the same choice (in our case always Coca Cola and Pepsi Cola). The conclusions of both experiments are ambiguous. The effect of the anchor was manifested only in some of the students' answers. In the blind test, most students were able to identify the drink on offer, which affected their preferences. The article thus suggests that the effect of anchoring bias is smaller than expected and doubts the possibility of testing representative bias on a blind test and a questionnaire survey of Coca Cola and Pepsi Cola.*

## KEYWORDS

*Anchoring bias; representative bias; classroom experiment; Coca Cola; Pepsi Cola*

## JEL CLASSIFICATION

*C91; D91*



# Foreign Language and the Psychotherapist, a Research from the Psychodynamic Perspective

- Enav Or-Gordon, M.A. » Department of Psychology, Faculty of Education, Charles University, Magdalény Rettigové 4, 110 00 Prague, Czech Republic; email: enavorgordon@gmail.com

- \* *'Words are the essential tool of mental treatment... for the words which we use in our everyday speech are nothing other than watered-down magic.'* (Freud, 1890)

*'He who does not know foreign languages knows nothing of his own.'* (Goethe, 1821)

## 1. Introduction

Language is one of the most important aspect of psychoanalysis – the talking cure. Word choice and associations, dreams and sentence phrasing, make the landscape of the subject's inner world, personal story and the unconscious. Language is also the means for psychological change through interpretation, interventions and the creation of insight (Forrester, 1980). Given the lingual nature of psychoanalytic psychotherapy, the case of polyglot therapists working in many languages and in languages other than their mother tongue presents a

unique opportunity to explore the place of language in therapy from a new angle.

The present research explored aspect of psychodynamic psychotherapy being performed in a foreign language, from the perspective of the therapist. Two questions guided the inquiry. The first was what is the experience of polyglot therapists in terms of their perception of language and and their perception of their work. The second related to the foreign element, and the possibility of working from a place of foreignness in relation to language and culture.

## 2. Literature overview on the subject of polyglot psychotherapists<sup>1</sup>

### 2.1 Early writings on the subject

Most early days analysts were polyglots, and treated many of their patients in diverse languages and not only in their own mother tongue. The patients themselves often had therapy in a language other

<sup>1</sup> Following Amati-Mehler and co. (1993), the term Polyglot is used to describe a person who has acquired one or more additional languages at later stages in his life, as opposed to a Polylingual, who acquired a few languages in parallel in infancy and has them as mother tongues.

The terms Bilingual refers to people having two languages at their disposition, without specification to the stage of acquisition, be it mother tongue or foreign language. The same principle applies to the term Multilingual, that refers to two languages or more.

→ than their mother tongue. Choosing a language to work with was a personal issue of consideration, as can be seen in Freud's letter to Blumgart: "[In analysis,] It would be great relief for me, if you talked German; if not, you should not criticize my English." Still, and even though the developing science was solely based on the spoken word, these early days psychoanalysts did not produce scientific articles and comments on the issue of the use of different languages in analysis, neither from a technical nor the dynamic perspective (Amati-Mehler & co., 1993).

In later years, works started to appear on the subject of patients undergoing analysis in a foreign language, but the perspective of the foreign language speaking therapist was in most part left uncommented (for example, see Krapf, 1935; Buxbaum, 1949; Greenson, 1950).

One exception is Lagache (1956), who, in an article titled "Sur le Polyglottisme dans l'Analyse" explores the different language combinations that can occur in the case of polyglot patients and psychotherapists working together. Lagache wonders whether the mother tongue is always the best language for the patient to use in psychoanalysis, and describes his own experimenting with language switches, working in mother tongue, in a foreign language and even situations of a patient talking in his preferable language and the therapist, understanding this language but not preferring it for communication, answering in another language. Lagache stresses the importance of considering

the unique implications of each cross-lingual situation and the need to interpret and choose a language and reaction accordingly. For example, he recommends to cooperate with the patient's language switch when this helps the patient reach areas of his psyche associated with this language, but to avoid from switching when the switch is being made as an attempt to block communication. Lagache also explores issues of countertransference, considering the possibility that a therapist would use his languages not for deepening of communication, but for other reasons. As an example he brings a case in which a patient in therapy in Spanish started expressing anger and swearing in his Portuguese mother tongue. The patient assumed the therapist did not speak this language. The therapist, who in fact did speak Portuguese, chose to directly answer in Portuguese and comment on the content. Lagache interprets this choice of reaction as derived from a need to sustain the therapist's position of omnipotence, and thus as wrong. A similar dilemma of whether and how to expose the therapist's proficiency in a language the patient uses while assuming it is personal and unknown to the therapist is discussed in a later article by Clauss (1998), to which I will refer later.

Although Lagache explores issues of countertransference and describes his own therapeutic experience of diverse lingual situations with his polyglot patients, he does not consider the effect of language on the polyglot therapist himself. Beyond countertransference, he does not refer to the thera-

*Language is one of the most important aspect of psychoanalysis — the talking cure. Word choice and associations, dreams and sentence phrasing, make the landscape of the subject's inner world, personal story and the unconscious. Language is also the means for psychological change through interpretation, interventions and the creation of insight. Given the lingual nature of psychoanalytic psychotherapy, the case of polyglot therapists working in many languages and in languages other than their mother tongue presents a unique opportunity to explore the place of language in therapy from a new angle.*

pist's unique relationship with his different languages, his unconscious processes that react to different languages in different ways and the therapist's personal experience of different languages in therapy. He sees the therapist's languages as available tools, useful when they enable patients to choose a language and move between languages freely.

In recent years, professional attention to the situation of cross-lingual therapy seems to be growing, due to new trends of globalization, on-line therapy and immigration. Growing cultural mobility and also advances in technology make cross-cultural encounters more frequent and much easier. For example, in the United States, the American population is becoming more culturally diverse, and foreign-born students make an increasing percentage of US academy. Family psychotherapy training programs report having more culturally diverse clients and growing numbers of non-American psychotherapists in training (Morris and Lee, 2004). These processes have led to a growing academic awareness to multi-cultural issues in general, and in the context of psychotherapy.

## 2.2 Trends in current research

Recent researches have addressed two main aspects of therapy conducted by polyglots. The technical and the dynamic. Technical questions deal with the implications of conducting therapy in a language in which the therapist does not have a perfect command, as well as the issue of how we process words and connect to them in different languages, and the nature of listening. The dynamic aspect refers to the experience of the polyglot therapist working in different language, his sense of self, the implications on the therapeutic relationship, and countertransference.

Referring to technical issues, Morris and Lee (2004) examined client's impressions of non-native English-speaking therapists in Marriage and Family Therapy (MFT). Clients reported feeling that foreign therapists made greater efforts to un-

derstand and to be understood. They reported this aspect to have had a positive effect on therapy. The researches explain this positive effect in a few ways. According to them, when the therapist starts therapy with a remark regarding his own linguistic limitations, inviting questions and clarifications when needed, he invites the client to engage on an additional level. Also, both sides have a lesser tendency to assume they understand each other and are more intrinsically encouraged to explore.

Morris and Lee approach the question of immigrant therapists from the perspective of training programs for future MFT therapists. While acknowledging the positive effect of non-native speakers therapists on therapy, they also recommend assigning foreign counsellors to co-work with a native English speaker. They also mention the importance of exposing foreign counselling students to the local culture and colloquial language.

Costa (2010) explored the implications of polyglot therapists and patients working together in a non-native language, in a research aimed mainly to the issue of immigrant patients. Some of her findings are highly relevant to the issue of the polyglot therapist: Costa found that foreign therapists naturally facilitate a positive atmosphere of trust and cooperation, especially with patients who are foreigners themselves. When both patient and therapist are immigrants using a non-native language, the situation tends to be less intimidating for the patient. Other factors that facilitate a positive atmosphere are that both share the experience of conducting themselves in a foreign language, and the experience of loss and need to adjust. When the patient finds it hard to express himself using the foreign language, the foreign therapist knows how to work naturally with meanings, beyond words.

Beyond the particular situation of the foreign patient, Costa found that polyglot therapists work well with the tension associated with not understanding, are more prone to make sure they understand and tend to ask for clarifications more open-



ly. They are more attuned to language idiosyncrasies. Some participants talked of turning their technical and emotional difficulties to an advantage. Sella (2007) found that immigrant therapists tend to use their lingual situation to the benefit of therapy. After a period of adjustment and once they were comfortable in the new language and their role, these therapists tended to use self-disclosure as well as their uniqueness in accent and their tendency to communicate in non-verbal ways as tools in therapy.

The second aspect of foreign language therapies is the dynamic aspect. In a study from 2018, Gulina and Dobrolioubova found that foreign language speaking therapists dealt with concerns and feeling of insufficiency in their second language. This had an effect on their spontaneity, limited their ability to offer observations and interpretations, and sometimes created tension not only in the therapist, but also in the patient. At the same time, many spoke of the creation of an atmosphere of trust and mutual concern, with patients sometimes developing an interest in the therapist's country of origin and language. Comparing between their mother tongue and foreign language (in this case English), some participants preferred working in their second language because in it they felt more innocent and free to ask questions. Others felt more alienated in the second language and preferred working in their mother tongue, to which they were more emotionally connected and in which they felt more creative and flexible.

All the above-mentioned contributions are the result of systematic research of the subject of polyglot therapists. The unique experience of language was also demonstrated by polyglot psychotherapists who wrote of their own personal experience of being polyglot, sometimes immigrant, psychotherapists:

In an article dealing with the role of language in cross-cultural therapeutic work, Clauss (1998) brings the case of a therapy that was conducted in English, until the patient chose to express feelings addressed to his deceased mother in his mother

tongue, Spanish. Knowing that the patient was not aware of her own command of the Spanish language, Clauss considered if and how to share this fact with her patient, in a way that would advance his work and not block communication or be motivated by her own countertransference issues. She eventually chose the right time and offered to continue the therapy in Spanish. This switch to Spanish enabled a deepening of the work.

Moving from working solely in English to working in Spanish as well, Clauss describes realising she feels different as a therapist in her two different languages. She associates these differences to the different cultural context internalized and manifested through the two languages. English is described by Clauss as analytic and stressing individualism, thus promoting a task-oriented, interpreting position in herself as a therapist. Spanish is playful and more interpersonally-oriented, thus promoting a greater emotional tone and chitchatting behaviours in the therapist. Clauss writes that her body language is also different in the different languages. She uses hand gestures and other non-verbal ways of expression much more in Spanish. The writer points out that her being a bilingual therapist helped her realize the importance of lingual context to the patient's ability to be in contact with some aspects of himself, and stresses the importance of addressing the issue of languages in therapy, paying attention to patient's as well as therapist's lingual background and their effect on transference and countertransference.

Walsh (2014) goes beyond the cultural aspects imbedded in language, and refers to personal aspects of countertransference through her own experience as a bilingual therapist, treating patients in her English mother tongue, and in Hebrew. Walsh mentions, that theories and research indicate, that the mother tongue is more emotionally charged and thus connected to a deeper inner world of associations and emotional connotations. To her surprise, she found that in her role as a therapist her experience was different; Working in Hebrew, she felt her language to be more open and

daring in her ability to explore deep anxieties and emotional experiences of her patients, than while working in English. Walsh suggests that the reason for this situation is her own personal experience of the two languages. For her, English is more charged with anxiety and unresolved conflicts. When one of her English-speaking patients worked on her own unresolved issues regarding immigration, Walsh was not free of conflict herself, and her ability to explore in English was limited. On the other hand, Hebrew is for Walsh conflict-free. It is also the language in which she was trained to become a therapist<sup>2</sup>. Thus, she finds herself freer with her Hebrew-speaking patients. Walsh stresses the importance of the therapist's understanding of his own relationship with his different languages and of unresolved conflicts connected to them.

Szekacs-Weisz (2005), a Hungarian born analyst who immigrated to England, describes the complexity of changing country and language, and adjusting professionally. Szekacs-Weisz stresses that different languages are not easily translatable. Seemingly same words have slightly different meanings or emotional tones in different languages (For example, the Hungarian use of the word *Hate* is scarce and this word has grave associations, unlike its English parallel that is used in a more casual and lighter way.) More than that, for the subject using these languages, the same word being pronounced in the different languages does not feel the same (consider the word *Mother* expressed in the mother tongue or in a foreign language. In the mother tongue this word is associated with the experience of the mother and in the foreign language much less so).

Szekacs-Weisz also explores issues of countertransference in working with different languages. In the foreign language, the therapist is less proficient and is sometimes mistaken or needs the help of his patient. This might create feelings of discomfort, lack of confidence or other reactions in the

therapist. Countertransference issues also arise when the foreign therapist has an opportunity to treat a patient with the same mother tongue as his. Szekacs-Weisz describes the joy of working again in a language she knows emotionally and intimately, but also warns of the danger of sharing a joint illusion of sameness, that is contra-productive to therapy.

The same point is being made by Akhtar in his article "Technical Challenges Faced by the Immigrant Psychotherapist" (2006). Akhtar mentions the need to stay neutral while treating immigrants of the same native language and country as the immigrant therapist, and not colluding in an illusion of "us" of the same descent and language, and "them", the locals. Another challenge is staying neutral in relation to native patients and be open to learn from the patient regarding his own unique experience.

Stahl Freedman (2017), an Israeli born therapist who worked a few years in France discuss some issues regarding the unique therapeutic relationship that might develop when a foreign therapist works with a local patient. Working with a young French woman, she sometimes needed to rely of her patient's help with her French. This state, while uncomfortable, paradoxically enabled the therapeutic alliance to become stronger. Stahl Freedman found that the patient herself had a strong subjective experience of being a stranger in her own culture and family, and therefore felt more comfortable with a foreign therapist. The work with a foreign therapist also offered her a different role model, alternative to that of her own culture.

As is evident from this short literary review, the issue of the polyglot therapist working in several languages is wide and concerns many aspects of therapy. It touches upon the issue of communication, and goes beyond the technical to the issue of listening openly without assuming to understand. Regarding the therapeutic relationship, it was

<sup>2</sup> The issue of the language of training will be discussed in the section "further analysis".



→ shown that therapists make adjustments to compensate for their lingual imperfections and knowledge of culture, for instance by asking for more clarifications. Cross-cultural therapies also have an effect on the transference level. For the therapist, language is a meaningful element, far from being a simple tool. It is associated to self-perception, behaviour and feelings of competence.

### 3. The current study

The study set out to explore the **experience of language in psychotherapy from the perspective of polyglot psychotherapists** working in diverse languages.

The study deals with the experience of language and with professional development, which are processes that have a profound influence on subjects' lives. Furthermore, its perspective is psychodynamic and the therapists who participated in it are naturally highly insightful. For these reasons, the research method that seemed most appropriate was Interpretative Phenomenological Analysis (IPA). IPA is an idiographic method appropriate for small sample size, in depth interviews. IPA "is concerned with the detailed examination of individual lived experience and how individuals make sense of that experience." (Eatough and Smith, 2008, p. 179). IPA attempts to go beyond the thematic description to the interpretative level. Thus, the researcher strives to identify the themes that come up in participants' texts and also to interpret participants' statements and point at issues and parameters participants are less aware of<sup>3</sup> (Eatough and Smith, 2008).

The research was based on interviews with nine polyglot therapists. The sample of therapists is unique in two aspects:

Unlike other studies that interviewed therapists who immigrated and then studied to become therapists, participants in the current study started

working in a foreign tongue in different circumstances and stages of their lives, some in the context of immigration and some not.

The second aspect is that of the foreign language itself. Most past researches and many of the personal contributions focusing on polyglot therapists related to cases of using English as the foreign language (some exceptions are Stahl Freedman, 2017, who presented her work in French and Clauss, 1998, who worked in Spanish). In that context, it seemed interesting to explore cases in which therapists immigrated or incorporated foreign languages that are not English, or not only English. For this reason, the current study focused on participants that used diverse foreign languages: Italian, Hebrew, Czech, German, French, and Spanish. English was also used by some of the participants, but not as an exclusive foreign language in therapy.

Data gathering: Semi-structured in-depth interviews were conducted by the author. Eatough and Smith (2008) suggest "IPA interviews while starting with structure in the form of an interview schedule can in fact veer towards what may appear like an unstructured format as researchers emphasise the participants as story-tellers rather than respondents." (p. 188). In the same spirit, interviews started with a few direct questions concerning basic biographical, professional and lingual information and then evolved into an open discussion, following an invitation to share thoughts and experience associated to working in different languages. Participants were invited to develop personal and theoretical insights on the subject. Clarifications were made when necessary.

Interviews were conducted in English, Hebrew or Czech, according to participants' preferences and the author's ability. The language of the interview was always one of the languages the participant uses in therapy. Interviews were about an hour and a half long and took place in person or

<sup>3</sup> An example of such interpretation is the analysis of Antonella's and Joel's different use of the concept Empathy, presented in the section "The polyglot therapist's work".

**Table 1 » Participants\***

Name	Title	Professional orientation	Language in therapy**	Mother tongue	Status and current residence	Age	Other languages	Place of major training
Pavel	psychologist	Psychodynamic	Czech Italian	Czech	CR	35	English German	CR
Luciana	psychoanalyst, supervisor	Lacanian psychoanalytic	Hebrew Spanish	Spanish	Israel, Immigrant (40)***	57	English	Paraguay
David	psychologist	psychodynamic	English Hebrew Czech German	Hebrew	CR, Immigrant (30)	55	Arabic	CR
George	Psychologist in internship	psychodynamic	Hebrew Arabic	Arabic	Israel	35	English	Israel
Alina	Music therapist	Lacanian psychoanalytic	Hebrew Russian	Russian	Israel, Immigrant (19)	55	English	Israel
Inbal	psychologist, supervisor	Psychodynamic	Hebrew Spanish Portuguese	Portuguese	Israel, Immigrant (22)	50	English	Israel
Edith	psychologist	Psychodynamic	English Hungarian Hebrew	Hungarian	Hungary	35	French Czech	Hungary
Joel	psychologist, supervisor,	Psychodynamic	Hebrew English French German	French	Israel, Immigrant (24)	75		Canada
Antonella	psychologist	CBT and Interpersonal psychotherapy	Italian French English	Italian French	Slovakia (temporary)	50		Italy

\*Names and identifying details have been changed.

\*\* Languages in therapy are presented according to frequency of use, from the most frequent to the least frequent.

\*\*\* Number in parenthesis represents the age at immigration.

via videocall. Interviews were recorded and a transcript in English was created by the author.

Data processing: Data was processed with an aim to go beyond the explicit and reach deeper levels of meaning (Finlay, 2009). Reading of the interviews was done on several levels: the facts, the participants' experiences, their introspections, the process of coming to more introspections during the interview, and the researcher's interpretation of the contents as well as the dynamics of the inter-

views. Each interview was read a few times then analysed to identify emerging themes. Themes from all the interviews were gathered and compared to identify overlapping themes. These were then grouped to major subjects. Explaining factors that could create a more coherent narrative over different interviews were proposed (Eatough and Smith, 2008).

Participants: Participants were gathered through professional networks. Table 1 presents



- the participants in the research, their age, professional title, their professional orientation, mother tongue, languages used in therapy, current residence and status (immigrants or not), and place of professional training.

## 4. Findings

Three themes and two subthemes emerged from the data, here presented from the widest to the more specific: 1. **Polyglot therapists' relationship with their different languages** 2. **Identity**. 3. **The polyglot therapist's work**. This last theme was found to have two subthemes: 1. **Technical issues**. 2. **Nonverbal elements**. Following is a description of themes and subthemes:

### 4.1 Polyglot therapists' relationships with their different languages

Participants expressed a personal and professional interest in the issue of language and were keen to describe their experiences and share their thoughts. Many of their observations and insights went beyond the question of therapy and concerned the process of language acquisition and its context, their relationships with the different languages and their awareness to language. Since these elements make the foundation of the polyglot therapist's work, these general comments of relationship to language make the first theme.

The process of language acquisition itself seemed to have had an effect on participants' relationship with these languages. For some, this process was difficult and confronted them with feelings of incompetence. Luciana, who immigrated to Israel in her forties, described a dramatic moment that preceded her active Hebrew speaking phase. For a while, she experienced herself as not able to communicate in any language:

"...maybe 2 months when we were in Israel and went out to eat pizza, and I found myself not knowing how to order a pizza. Such a trivial thing.

Then I went through a serious crisis, accompanied by the crisis of immigration... well, I went through some distinct periods. This pizza crises, we can call it, I became mute... really, I could not speak. Not totally but I really found it hard. I had a crisis with the language itself!"

Inbal immigrated to Israel and started her internship in a foreign language, Hebrew. In her case, decreased levels of competency in the new language were experienced as an intellectual impairment. She described the emotional encounter with the difficulties of a new language as dominating her internship years:

"the feeling I had all through my internship was that I am retarded. I mean, I knew I was not really retarded just because I did not know the language, I had many rational explanations to convince myself that I was not, but the feeling was that I was retarded. Also, when my Hebrew improved, even more so."

The encounter with a new language at a later stage of life can affect self-perception and self-esteem, as the learner suddenly finds himself unable to communicate as freely as he is used to in his mother tongue. Episode of muteness are not uncommon (Granger, 2004). Luciana's and Inbal's choice to go back and describe these experiences says something not only of the process they went through, but also of the insight this process enabled them to gain, regarding communication and its complexity.

Inbal went on to describe a state of split, alternating between feelings of competence and incompetence in regards to her lingual functioning:

"I think that I lived in two dissociative worlds. I had my work life in which I pretended to function and... as if someone else does not speak the language, not me, with me all is well, I asked what things meant... I also got this supervision suggesting me to use this impediment and ask and get

more information, to expand the relationship, so I did it but it did not feel real to me. And in my heart, when I returned home, I broke down.”

For some, the split in the initial stages was between their mother tongue, which they experienced as perfect, and the foreign language. George's mother tongue is Arabic and he does his internship in Hebrew. He also speaks English and uses it mainly for his professional reading:

“at the beginning I thought that with Arabic everything is perfect, I can do therapy, I am a Superman in therapy. And all of a sudden, I realized that when I feel the difficulty of the Hebrew it is not only the word. There is the knowledge, reading, studies, what I understand and not understand, what I should still learn, more than language it has to do with knowledge, with my ability to do therapy... I see that also in Arabic, that when I seek for a word it is also a professional difficulty and something is weaker...”

As we can see in George's example, in time a process of integration occurred, and this enabled him to understand his relationship with language in a more complex way. He became aware of professional difficulties through noticing changes in his language functioning.

The personal process of language acquisition and its context seemed to have an effect on the unique relationships participants had with each of their languages. David's mother tongue is Hebrew, and he also speaks English, Arabic, German and Czech:

“Hebrew is easy and I love it. English is easy and I love it, but not as I love Hebrew... Czech was never close to me and I did not like it. German is my... grandmother tongue. This explains why it was so close to me, I heard my mother use it and almost swear in German. This is why I learned it so fast.”

When George was asked to say something about each of his languages, his choice of words

expressed a strong emotional component in his relationship to these languages:

“to the Arabic I would say I love you, mmm... But I also must love your sisters. English — stay a little, one day we will be together. Hebrew — I love you and need you.”

As can be seen in David's words regarding German, some emotional connotations to specific languages are directly associated with relationships or personal experiences that happened in the context of this language. Edith's mother tongue is Hungarian and second language is English. She also speaks Hebrew and her spouse is Israeli. She talked of the fact that in spite her good command of Hebrew, she does not feel self-confident speaking this language, because of her familial context:

“It is hard when I have a lower status in the family because Hebrew is not my mother tongue and it's a language I started to learn when I was 14, it puts me in a whole different situation.”

Participants were not always aware of the full scale of their emotional reaction to a specific language. David talked of his second and most therapeutically used language, English, as being as natural to him as his mother tongue, but when he was asked about the possibility of treating patients exclusively in his mother tongue, he said:

“Oh, that would be great! Great! I would not miss the English at all. Not at all.”

Also a manifestation of an unconscious relationship to language, Alina expressed her perception of her mother tongue, Russian, as unfit for emotional work:

“There is something in Russian that makes it very very hard to turn it into an analytic language.” At the same time, she was not able to pinpoint this “something”.



Walsh (2014) proposed the term *Transference to Language* to describe polyglots' relationship to language: "I suggest that we each possess what may be termed *transference to language* or transference to a state of mind triggered by language. A language, like any other significant object in our lives, will evoke within us a particular set of affective experiences, defences, anxieties, projections, and so forth." (p. 69) The term *Transference to Language* demonstrates the fact that languages function as internal objects, with which polyglots have an inner relationship.

Another aspect of polyglots' relationship to language is their tendency to consider language as an object of cognitive exploration. Researches have shown that due to their mastery of more than one language system, polyglots tend to be more conscious of language patterns, a capacity that was termed *Multilingual Awareness* (Jessner, 2016; Pavlenko, 2006). In the present study, some participants talked of noticing language, its effect on them or the meaning of concepts that expanded thanks to their ability to think and express thoughts in diverse languages. Luciana described a feeling of insight that is created in the move between languages:

"It reminds me how these Freud-Lacan reading groups occur, because we come from different origins, there are always a few books in different languages. The same book translated to different languages. And the work is enriched thanks to the fact that each one brings his own translation. Again, in the transferring between languages the work is being built... Something new is being created... like a network of meanings."

Multilingual awareness is assumed to be enhanced in professionals dealing with language (Pavlenko, 2016; Jessner, 2006). Psychologists working under the assumptions of the psychoana-

lytic theory work first and foremost in the realm of language, being the primary object of exploration and basic tool of the *Talking Cure* (Forrester, 1980). For this reason, polyglot therapists' tendency to develop multilingual awareness can be high.

Jessner (2016) defines two kinds of multilingual awareness: Cross-lingual awareness and metalinguistic awareness. *Cross-lingual awareness* is the awareness to differences and connections between languages. David identified a characteristic of Czech structure, that dramatically affected his interpersonal experience in this language. Czech has an honorific pronoun system, that English and Hebrew do not have<sup>4</sup>:

"I think I understand one of the reasons why I feel less connected in Czech. This is similar in Hebrew and English, that there is the YOU form... this form of addressing with VY bothers me... This distance makes me feel bad and it does not exist in English."

Speaking a mother tongue that does have honorifics, Luciana talked of the lack of honorific *Usted* in Hebrew:

"[this] does affect. It creates closeness. The therapy goes in the ways of the obvious, the friendship, the similar, the Other, it is less possible to do this movement, to gain distance... Tu, you in Spanish, is the mirror, you and me are similar. Usted gives distance and allows asymmetry."

Beyond differences in formal second person speech, Luciana was able to point out a difference between the Spanish informal second-person, and the Hebrew informal second-person:

"But Hebrew does not have it but it is more direct, says to the point. But demands another presence."

<sup>4</sup> Honorific subject pronoun system uses designated pronouns to signal relative social status and closeness between speaker and listener, in many European languages expressed by the T-V distinction (such as Ty or Vy in Czech, tu or vous in French) (Agha, 1994).

Not of a mirror, not of the similar, but another presence.”

Jessner (2016) goes on to define *metalinguistic awareness* as “the ability to focus attention on language as an object in itself or to think abstractly about language and, consequently, to play with or manipulate language.” (p.42) Some participants shared metalinguistic thoughts regarding the foreign nature of language itself.

David: “Maybe when we assume that two people sharing the same language do not need to translate – maybe this is not so true, there is a translation anyway.”

Luciana talked of language as being on the border between understanding and not understanding, thus being foreign:

“When I had this crisis and I told my friend in Paraguay, on the phone, listen, this and that is happening to me, and she said, Luciana, anyway we speak a different language. Which means the unconscious is a different language that we build in therapy, that is the effect of therapy. This is how I would define some of the therapeutic work... that anyway, whenever we speak, we do not know what we are saying.”

Both these citations demonstrate the development of metalinguistic concepts, that stems from the polyglot therapist’s work with more than one language. At the experience level, it seems that for polyglots who have learned their foreign language at a later age, even when fluency and good command are achieved, something about the language always stays foreign. After living and working almost two decades in Hebrew, Luciana felt she was still dealing with a foreign language. She was still learning new words, still aware of her accent and imperfections. At the same time, a feeling of foreignness seemed to have developed in regard to the mother tongue as well:

“Today I am in a whole different place... we speak a mixed language and it is hard for me to speak Spanish. When we are with friends the Spanish kind of buzzes in my ear.”

An intriguing example of Luciana’s distance from both her mother tongue and her foreign language came up during the interview, that was conducted in Hebrew. She could not find a word in Hebrew, and then also not in Spanish:

“...I don’t have the word in Hebrew (Interviewer: so say it as you have it in any language) I also don’t have it in Spanish... (smiles) this happens a lot.”

## 4.2 Identity

Languages is connected to identity, as our view of ourselves is mediated by language: the words the people around us use to describe us and to talk to us with, our own words while thinking of ourselves, and our world view. One’s name, derived from his mother tongue and carrying lingual and emotional associations, is a central element in the self, an element that is also lingual (Hallowell, 1953). Luciana talked of having to find anew all the elements of her identity, including her identity as a therapist, after immigrating to Israel:

“I advise you to make the connection to identity. Together with my mother tongue fell also my identity. Everything that I was and believed that I was, a psychologist, a mother, all the names we give ourselves, names of identity. When I started to work, it was hard for me to make them [colleagues] know who I was. And I came [to Israel] at 40, I had a history behind me... it is not like I started here.”

Alina moved from living in Russian to living in Hebrew as a part of a long process of separation. She immigrated with her family from Russia to Israel at the age of 19. While her parents and many other Russian immigrants continued to live in a lin-



→ gual and cultural “bubble” in Israel, Alina chose to be more open to local culture. She learned the language and went on to study at the university. In Russia she was planning to become a professional cellist. In Israel she chose a new career path and studied to become a therapist, in Hebrew. She also married an Israeli, non-Russian-speaking man:

“The Hebrew language is the language of my independent life, not from home, not from my parents... my life when I exited home was in Hebrew.”

Inbal used similar words to describe her two identities in her two languages, Portuguese is for her the identity of a child in her family, and Hebrew represents her adult self:

“Portuguese, I like the way it sounds, a musical language, I am attached to it. And Hebrew... You know what? The two languages are like two homes. Two homes. Both are mine and I feel at home in both of them... Portuguese is my childhood home, my parent’s home, and Hebrew is the home I built. The adult Inbal. I also chose this language”

In his book *Migration and Identity: Turmoil, Treatment, and Transformation* Akhtar (1999) refers to immigration-related identity changes as the *third separation*, an extension of the separation-individuation process portrayed by Mahler (Mahler, Pine and Bergman, 1975). The process of distancing from the past, from language and culture of origin, and incorporating a new language, culture and relationships leads to a *psychic rebirth* and enables autonomy and separation from the country of origin.

Joel, who immigrated twice in his life and speaks four languages, described his sense of self as a mosaic:

“...a continuum of mosaic. I am composed from all kinds of parts, experiences, countries... That it is not only a language but also a place and a stage in life.”

Luciana expressed a sense of her personality being more enriched, going beyond the two specific cultures she has lived in:

“I have changed, my identity has changed a lot and I see myself today as a woman of the world. Not even as an Israeli or as a Paraguayan, not that, a little of this and a little of that and I can be today, maybe I exaggerate but to be anywhere in the world and also to speak more languages. Woman of the world.”

Joel’s description of his self as a continuum or mosaic, and Luciana’s sense of self-enrichment demonstrate Akhtar’s description of the new-formed self as a result of immigration as *hyphenated identity*, “one that might possess greater than usual breath of experience — a sense of relativity, knowledge and, at times, wisdom.” (p. 83)

Identity is also connected to identity as a therapist. As Luciana mentioned, when she immigrated her whole identity fell, and with it her professional identity as well. In a similar vein, the ability to work in many languages was experienced as developing one’s identity and as a source of self-confidence:

Edith: “I call it my flying carpet. That my multilingual professional background is my flying carpet. I can go with it anywhere and I’m sure that I will live. I’ll be able to make a living.”

Edith also talked of feeling different while seeing patients in Hungarian or English, in comparison to Hebrew:

“I think... [in Hebrew] I more feel that I am like a service provider then like I’m a healer”

Beyond their own identity being composed of several identities, it seems that moving between cultures enables polyglots to perceive cultures from an outsider’s perspective, to become aware of cultural differences and the contextual nature of human



behaviour. Although he feels at home with the Italian emotional style, Pavel is aware of its relativity:

“If we were to see an Italian family and a Czech family behaving in a similar way, the outside might look the same but each inner experience would be completely different. The Italian family might be only discussing something, whereas the Czech family is experiencing a serious crisis.”

Akhtar refers to this perspective of immigrants as a sense of relativity, the ability to see cultural context as relative and themselves as simultaneously inside and outside the context.

#### 4.3 *The polyglot therapist's work*

Echoes of the complex relationship to language and high awareness to language, as well as identity issues, find their way into the therapist's work. For participants, language seemed to be an object in therapy. In the beginning phases of foreign language use in therapy they described paying more attention to language itself. Some perceived this heightened attention as positive:

Luciana: “When I started [seeing patients in Hebrew] I felt I was a better therapist because I did not take anything for granted”.

Some perceived this attention to language as an interfering factor. After a few years of working as a therapist in his mother tongue Czech, Pavel has decided to expand his clinic and see patients also in Italian:

“I think I might be more concentrated on the [technical aspects of] language, more than on what the patient says [content], unfortunately, more than with Czech.”

George, who is starting his second year of internship in a foreign language, described an active struggle with language:

“Today I am at war with the language, it is still frustrating, as I said, some days I feel that I control it and some days I feel that it controls me.”

Being aware of language as an element in therapy is a consequence of technical difficulties and also of the fact that a foreign language is less natural to the therapist than his own mother tongue. I will consider the specific technical aspects of foreign language use in therapy in the section dedicated to this subtheme. In the present section I shall continue to describe the development of the element of attention to language in therapy as a whole.

In time, and with the improvement in language command and experience, therapists seemed to be less preoccupied with language, and perceived their attunement to language as positive and contributing to their work.

Joel: “My rationalization as a therapist was, I don't understand everything, so I need to listen better.”

David: “I guess it makes me try harder, because it is not as fluent. I am more aware, try harder, even English is easy but not as easy as Hebrew so it makes me make greater efforts.”

Inbal: “I think that the theme of languages is very sensitive to me, being understood by the patient is important to me, and also vice versa, it made me very sensitive to the question of what is the meaning of what is being said. Also in regular meetings with colleagues, I am the one who asks this question all the time... Many things are taken for granted. For example, a father says “the child is very stubborn”. What does he mean by that? I will not rest until I hear some examples and understand. I do not assume that I understand, and this is an advantage.”

Participants noticed an effect the use of foreign language had on their hearing and listening in therapy. For George, the transfer from his Arabic mother tongue to Hebrew in the therapeutic room extracts him from his usual verbal context, and



→ stresses the uniqueness of the therapeutic situation:

“According to Bion, you need to enter therapy with no memory. When I go in to see a patient in Hebrew and I open the door, and tell myself, OK, I need to refresh my vocabulary, I need to refresh the language. It is not what you tell yourself when you enter therapy with an Arabic speaker. It is more spontaneous, without this worry, without this concern. Without standing at the door and telling myself, OK, now I enter this room to do therapy.”

Luciana: “Some things I understood more thanks to the shift to another language, helped me locate myself in a different position in therapy... it makes me work more on the language. Not to take it for granted...”

Some therapists talked of being able to hear and notice new things in the language thanks to their move between languages. The following is an example of how an understanding of a theoretical concept evolved thanks to the reencounter with this concept as it is represented in a new language.

David said that when he learned the Czech word for anxiety — *úzkost* — he realized something fundamental about anxiety itself. Unlike the Hebrew word (that is associated with *worry*), the Czech word is connected to the word *úzko*, *narrow*. Being a foreign-Czech speaker, the connection between *úzkost* and *úzko* was immediately apparent to David, and added for him another layer of meaning and experience, that he was not aware of before. Being anxious is like feeling stifled in a narrow place.

Language has an effect on the therapeutic relationship. For some, the level of command and emotional relationship to a specific language were referred to as affecting the therapist’s potential levels of empathy. Antonella’s mother tongues are Italian and French. She has started to work also in

English two years ago. She talked of her English as limiting her ability for empathy:

“The way I talk of course I don’t have the vocabulary of Italian. The way I feel a little bit yes, I am not so confident so I am really careful. It is not automatic; I am more rational than emotional. So lower levels of empathy.”

On the other hand, others felt that the lingual gap between them and their patients brought them closer and created greater empathy.

Joel: “I feel that it [empathy] does not come easily. I need to overcome this distance. To think, what did she mean? What does he mean? I have to be more active in decoding. To ask, to listen, it is less natural. I discovered that if I think that I know, I miss. This is the disadvantage that is an advantage. I need to ask more questions, I have no choice, I understand less, and that brings closer.”

It seems that the reason for the difference between these two therapists in their experience of empathy stems from their perception of it. Antonella says that when she herself is more logical than emotional in the therapeutic situation, she is less empathetic. She perceives empathy as an emotional state, that is a result of a specific situation. This perspective is evident in Antonella’s next statement regarding empathy:

“When the culture is different than mine, or, better, when I don’t know about the specific culture, then of course, no, for me, I have more difficulty with empathy. In understanding the feelings and emotions because feelings and emotions in my opinion are so much related to culture.”

Unlike Antonella, Joel perceives himself as more empathetic when he has to think and ask more questions. He is describing a cognitive process, that may create closeness through understanding. Joel is a psychodynamic therapist and

Antonella is more affiliated with cognitive theories. It might be suggested that the differences in their use of the term *empathy* stem from their different theoretical standpoints (For an overview of different definitions of empathy in psychotherapy see Duan and Hill, 1996).

Another element that contributes to the feeling of closeness or distance is the emotional depth of the language. Participants in the current study noticed that sometimes words in the foreign language are experienced more intellectually and less emotionally than words in the mother tongue. This was sometimes experienced as an impediment:

Pavel: "I did notice some time ago, that words [in Italian] don't touch me so much, because after all this is not... I need to understand more through logic than through emotions. I notice that: Attention, this is strong emotion that is being expressed here, but I don't get it immediately... Sometimes they speak very emotionally and use very vulgar words, the Italians, and when [I think about it] I realize the level of this and what they are trying to express..."

In the earliest contribution to the subject, Sándor Ferenczi in his article "On Obscene Words" (1911) writes of patients who were unable and unwilling to express obscene words in their mother tongue, using foreign words and technical terms instead. Utterance of the obscene words in the mother tongue was accompanied by great shame and distress. Ferenczi explains, that this difference is due to the fact that obscene words in the mother tongue are highly charged with bodily and sexual contents, while in a later acquired language the parallel words have a more abstract quality to them. Amati-Mehler (2010) adds, that when it comes to words in a new language, much less or no inhibition and repression have taken place. As a result, the act of saying or hearing obscene words in the mother tongue is an emotionally charged act that usually includes embarrassment, and in the second language these elements are missing, ren-

dering the pronunciation of obscene words much easier.

As was presented above, Szekacs-Weisz (2005) shows that not only obscene words, but also other words in the mother tongue are more emotionally charged. To this issue Edith said:

"There is definitely a depth to the [native] language that cannot be repeated."

Polyglots also shared observations regarding the situation of treating patients with the same mother tongue as their own. Therapists who move between their mother tongue and other languages in therapy gain a new perspective on their mother tongue as well, and experience working in their mother tongue as one of the many lingual experiences available to them as therapists. Luciana talked of her realisations regarding her Spanish mother tongue and her own use of it, after having gained experience also in Hebrew. Her outsider's perspective is apparent as she uses the word *they* to describe Spanish speakers:

"In Spanish, and I also see that for the French as well, there is *jouissance* in the language. They like to say things that you can summarize in two words, say them in a looong sentence and there is enjoinment in the language, yes, of the use of language, and I was like that."

Luciana's comment "I was like that" reflects changes in her own use of her mother tongue that accompany these realisations.

Unlike the typical situation in which therapist, patient and context (country) all share one same language, the situation of immigration creates all kinds of language combinations. Immigrant therapists who have gone back to their mother tongue in therapy identified influences on transference and countertransference. Edith, whose mother tongue is Hungarian and worked a few years in Greece, described the implications of treating Hungarian patients in a foreign country:



→ “When someone came into my office and they were Hungarian, then they came to a Hungarian therapist in Athens, immediately we use the second person. In Budapest it might have been different with the same person... immediately we start closer because we are one kind, type.”

Luciana said that when she has a chance to go back to working in Spanish, she enjoys the language itself. This creates a countertransference phenomenon she has to resolve. She stresses that enjoying the language itself in therapy is problematic:

“I go back to the other side, so I tend to slide to the jouissance of the language.”

In the chapter cited above, Szekacs-Weisz (2005) describes a similar joy in going back to working in her mother tongue, the language she feels she knows in the most intimate way. Such encounters stress how unnatural she actually feels in her new language.

### 4.3.1 Subtheme: Non-verbal elements

The non-verbal element was referred to by many participants, who considered them as part of language or communication. Pavel noticed non-verbal elements as expressing cultural styles:

“[Italians] have many expressions, nonverbal ways to express things without words. It might be international ways but for them it is more important and used much more... I know that I [also] do that but...All kinds of sighs are very common [for instance] ‘*Ma, Dai!*’ there is relatively a lot.”

Joel talked of intonation and rhythms as universal and going beyond specific languages. For him, this presented a way of understanding and communication with his patients, when his verbal skills were not perfect:

“The listening is for tonality. To emotions that express themselves. Because I don’t understand

each and every word. That is the advantage. The disadvantage, because you don’t understand everything, it pulls us more to the emotional level. The music.”

“What do the French say? *C’est le ton qui fait la musique*. The tonality. So, even if I tell a story in a language that the patient does not completely understand, the message will pass through the tonality. Because of the flow.”

In “Illusions and Disillusions of Psychoanalytic Work” Green (2011) explores the relationship between the unconscious and language. Green writes, that the element of the voice speaking is the soul of communication. Language is present in the human life as a sensual experience, way before words start to have symbolic meaning. “The voice is much more than a physiological mechanism. There is a destination before there is an addressee (Sebeok, 1974). A pure, “scientific” linguistics, without subjectivity, without affect, without a speaking subject, seeks implicitly to eliminate the human dimension of language.” (p. 20)

When Joel talks of telling a story in a language the patient might not understand well, he points at two distinctive elements of communication: the verbal element, and tonality. While the verbal element relies on the “scientific” structure and content of lingual signs, tonality is the subjective aspect of language Green is describing. Joel’s speech might not be perfect in some languages, but his ability to communicate remains high, and, as he points out, this sometimes even becomes an advantage.

David talked of the advantage of being highly aware of non-verbal communicational elements, as he considered the masking element of verbal language. This realisation occurred to him thanks to his position as a foreign language speaking therapist:

“I lost one more thing as my language skills improved, some things you lose. We used to have therapy groups, I liked them and I felt I was doing

well...because I was not good at understanding the language. And thanks to that I could see the unspoken, nonverbal reactions of people. Hesitations, someone trying to be dominant, someone being shy. You see that clearly because the language does not reach you. Today the language gets to me so I deal with the language. I almost do not see what is going on. The language masks, I have gained the language and lost something, I see less.”

As can be seen in this example, as his language skills improved, David’s attunement to non-verbal elements decreased, but his awareness to these elements and to language has evolved.

#### 4.3.1 Subtheme: Technical issues

Participants mentioned different technical issues concerning language mastery, comprehension and flow. Some described concerns and fears they have had while taking their first steps as therapists in a foreign language.

Luciana: “I was afraid of the language. Of not being understood, of not understanding”.

George: “The beginning was difficult... what now? What next? What will happen? I know that the language is not that good and I shared this in the interview and I said and they knew that... but I did not understand that it was not a big deal.”

Pavel: “I had some concerns. Will I understand, what kind of people will come, what will they need, will we understand each other.”

Antonella felt limited by her vocabulary:

“...especially for synonyms, when you say something the same word can have different meanings so it is very important. When I speak Italian or write I am so careful in using the right word... that my sentence would have the right... meaning... it is very important.”

Participants also talked of the importance of understanding the cultural context. Inbal de-

scribed struggling with situations in which she did not understand the culture-specific expressions of her patients:

“I remember this boy [client] who cried out ‘Mommy!’ in the middle of the session... I brought this to my supervision, as I thought the patient was calling me ‘mother’. But the thing was, that he said this word as a sign of being scared and startled. I did not know that that was the way kids [in Hebrew express the state of] get startled.”

Others stressed the importance of making efforts to get to know the cultural context:

Antonella recommended other polyglot therapists: “Studying the language of course, culture as I told you before, and if possible, having a life experience from that country or meeting people from that country. It is very very important to understand the approach these people have and their general aspects.”

Pavel: “To be in contact with the language – communicate, talk to people, listen to music, but, again, for me language is connected to culture. With the development. When a person uses language to describe what he went through, he talks of the surroundings from which he came.”

Another element of language proficiency is fluency. Shortcomings in the therapist’s language mastery can cause pauses in the flow of the session, for example when the therapist pauses to look for a word, or when he asks regarding the meaning of some expression the patient has used. George said that when he started working in Hebrew, he felt discomfort and stress whenever he had to stop and look for a word. After a while he could see the positive aspects of his pauses:

“this I learned from a psychologist who also had the same difficulties at the beginning and today has great experience and she once told me that sometimes you need this silence, when you want



→ to remember or to find the right word, and this time is good, also to see the patient, also silence is meaningful in therapy.”

David realised pauses create an opportunity for the patient to take his own words less for granted, to think and listen to himself more closely:

“I sit with one client with whom all is fluent and with another with whom we are sometimes stuck. Stuck because I don’t understand something and I need to ask him. Then he has to stop and interrupt his own flow, which can be a little brutal, to explain something. Which patient experiences more development, more change? I am not sure the patient with the flow is better off in therapy. I don’t know, maybe the second case is better. Now, when does it get stuck? When two people do not share the same language, because he says something in his own language and I ask what he meant by that, I interrupt him and he stops and explains. But maybe I made him think by interrupting and asking.”

The proportion of time and thought dedicated to technical issues during the interviews was significantly different between participants: Joel, David, Edith, Inbal, Luciana, Pavel and Alina spoke very little of technical issues and did not tend to develop this theme even when asked of it directly. Antonella spoke of technical issues somewhat more. George talked of technical issues spontaneously, much more and also in the context of the interview itself:

(Interviewer: what are your thoughts regarding language in therapy?) “OK, I can start and use the task we are performing now. If I was to do the same task in Arabic I would have given more, I would have expressed more, and... from this point we can refer to therapy. In this conversation there is also this frustration sometimes, that I want to

say something and it is hard, to express something more accurately, the same happens sometimes.”

It seems that the amount of time and thought dedicated to technical issues is in correlation with the duration of time these therapists work in foreign language. The first participants have more than ten years of practice actively using a foreign language. That might explain their relatively little reference to technical difficulties.

Both Antonella and George use their foreign languages in therapy less than three years. Both of them also had their interviews conducted in the foreign languages to which they were referring as connected to technical issues (Antonella in English, George in Hebrew). This might explain why they related to technical issues more. Still, George was much more preoccupied with the subject. What might explain the difference between these two participants?

A possible explanation for George’s higher preoccupation with the foreign language might be that unlike Antonella who is incorporating English and French after having acquired many years of therapeutic experience in her mother tongue Italian, George is at the beginning of his career as a therapist. He is dealing with the task of becoming a therapist as well as performing in Hebrew in parallel. This means that he is dealing with technical issues that have to do with foreign language as well as difficulties that have to do with the acquisition of therapeutic skills. This makes the whole process more taxing for him.<sup>5</sup>

Going back to participants with a longer history of foreign language use, many described the process of foreign language acquisition as never-ending, demanding constant practice and efforts of improvement.

Pavel: “[Regarding my mother tongue] There was a time when I tried to read and enrich my vocabu-

<sup>5</sup> The issue of the language of training will be discussed in the section “further analysis”.

lary, but with Italian I still do it. I have a feeling that it is still not enough.”

Luciana experienced this element as exciting and refreshing:

“Not a week goes by that I don’t learn something new. Still! Yesterday we celebrated 18 years in Israel.”

Despite an ongoing improvement in their command of the foreign language, after the first adjustment period, technical aspects of language were not perceived as an issue or an obstacle.

David: “There is a good flow also in Czech, for me. I don’t find it hard to talk... the experience is fluent.”

Edith: “Yes, maybe [in my mother tongue] I am more sophisticated in my metaphors and... or... maybe my jokes are different... But still, I don’t think it has any influence on the effectivity of the therapy.”

Joel and others talked of “The disadvantage becoming an advantage.” An interesting example of this statement can be found in the next example, from Edith’s interview. Edith’s mother tongue is Hungarian, she also treats patients in English. She describes her work in English with a Czech patient. In this case, both therapist and patient have an occasional technical difficulty, and the solution, using a third language, helps keep the flow and enhances communication:

“It happens a lot with my Czech patients that they don’t find a word and they say it in Czech. Or I have a weird vocabulary in Czech that sometimes I know a word that I remember first in Czech. I just had it yesterday, I used the word for small gym ladder, žebřík, that I don’t know in English. I wanted to use it as a metaphor and I used this word, and she [the patient] felt encouraged to also say a word in Czech and so we had an exchange. She did not switch to Czech but she had an expression after-

wards in therapy that she didn’t find an English word so she said it in Czech.

Interviewer: How do you feel about these moments in therapy?

Edith: Nice. It’s nice because I feel that they appreciate it... from the point of transference- countertransference it’s as if I can give an extra. And they do feel as if they could receive an extra. Because our agreement is about English so anything that comes on top is... Its more like a funny thing.”

Edith’s work and flow with her patient demonstrate the flexibility and diversity that can be achieved in a multilingual environment.

Regarding language, technical issues and the position of the therapist Luciana concluded:

“It is not a matter of command of language. It is a matter of work. You need to work inside the language.”

## 5. Discussion

The study presented in this article was aimed at exploring the experience of language in psychotherapy from the perspective of polyglot therapists working in diverse languages. Participants spoke of their perception of language in general — the process of its acquisition, their relationships with their languages, and thoughts about languages that expressed high awareness to language. They also talked of identity and the ways they perceive it is affected by their different lingual contexts. Relating to their role as therapists, participants mentioned technical issues such as language fluency and nonverbal issues such as accent. Beyond these issues, participants talked of their polyglot situation as enriching their work and creating sensitivity to patients’ speech, attuned hearing and empathy. These findings demonstrate the complexity of the process of becoming a polyglot therapist, and the wide effect it can have on the polyglot therapist, personally and professionally.

Considering the different themes that were





→ identified in participants' interviews and analysing them, it seems that all the presented aspects had a common theme, and that is, **the perspective of being a stranger or an outsider**:

In the process of learning a language, participants talked of the experience of language being strange to them and of themselves as being outside of communication. They described their struggle to own the language and make it familiar. At the stage of language fluency, there was a notion of forever learning the language thus looking at it from the outside, a vantage point that promoted awareness to language and to its relativity. Relationship with language was also affected by the context and meaning of using one language, while having other languages in the background. Identity was described as composed of different elements stemming from different lingual and cultural systems, composed of two identities (for example, Alina and her childhood and mature selves in different languages), as a mosaic composed of many different languages, life experiences and places (Joel). Sometimes, identity was perceived as going beyond particular cultures (as Luciana talked of not being Israeli or Paraguayan, but a woman of the world).

The position of the stranger is not foreign to psychoanalysis. In his "Recommendations to Physicians Practicing Psycho-Analysis" Freud (1912) deals with the issue of reciprocity in the relationship between doctor and patient. Freud writes, that unexperienced practitioners might be inclined to share personal information and become familiar with their patients in order to ease the atmosphere of the session, to minimize resistance, to enrich the patient with their own knowledge and experience, and to establish a reciprocal relationship, as is accustomed in everyday social interactions.

Freud presents a strong stand against such practices, and thus draws a distinct line between psychoanalysis and any other social or professional encounter. Psychoanalysis is aimed at the unconscious. The unconscious does not present itself according to the principals of social conventions.

Freud states, that familiarity with the therapist will result in greater resistance, complications in the transference and a situation where the patient is not at the centre of the interaction. Thus, Freud recommends the doctor should keep his position as a stranger to the patient, "The doctor should be opaque to his patients and, like a mirror, should show them nothing but what is shown to him." (p. 118)

In the current research, although some of the participants experienced the position of the stranger as burdening and interfering with their competencies, most of them referred to the "stranger" quality of their experience as contributing to their role as therapists. For example, Joel mentioned not knowing and making an effort to get to know the patient as the way to achieve empathy. Luciana talked of the need to remind herself not to feel too familiar with her Spanish-speaking patients. David talked of pauses and questioning the meaning of words spoken in therapy as advancing the patient. Inbal talked of the advantage of not taking word meanings for granted and not assuming to be familiar with the language. These polyglot therapists practice their role from the position of strangers naturally, being strangers to their foreign language and culture and also having an outsider's perspective to their mother tongue and culture of origin. As Mekhitar Garabedian, a Syrian born, Armenian artist living in Belgium, writes:

"Bilingual or multilingual consciousness is not the sum of two languages, but a different state of mind altogether, defined by (the mode of) translation. As a foreigner you are constantly translating, in both directions. You find yourself in a position in which you can no longer speak of a mother tongue — always in between (two) languages." (Garabedian, 2013, p. 617)

Exploring the element of the stranger in psychoanalysis further, we can see that it goes deeper than the relationship to particular languages and beyond the therapeutic relationship. One of

Freud's greatest achievements was the conceptualisation of the unconscious as the unknown, strange element, located in the centre of the psyche (Kristeva, 1991). Processes in the unconscious were identified as directly related to conflict and symptoms. Thus, the unconscious has become the centre of the psychoanalytic exploration (Freud, 1915).

In the article "Vocation of Exile: Psychoanalysis and Judaism", Betty Bernardo Fuks (1999) sees psychoanalysis as "the practice of the non-identical, of deidentification and a practice of the desire of difference..." (pp. 8). According to Fuks, psychoanalysis has two major principals. One is the exploration of the unconscious, the elements of the self that are strange and unfamiliar. The second principal is the never-ending process of becoming, which she calls *Devenir* –becoming a subject who knows something about the strange parts in himself. The psychoanalyst himself is always on the path of becoming a psychoanalyst.

As was demonstrated, polyglot therapists have a stranger's or outsider's element in their experience of language, culture and themselves. Thus, it can be suggested that the polyglot position encourages the therapist to explore strange elements in himself, in language, and in his patient. This exploration can be fruitful, as it is in the core of the never-ending process of becoming a therapist.

### 5.1 Further analysis

The research was aimed at the question of different languages in therapy and the therapist's experience of them. Interpretation of the data beyond the level of participants' themes points to another factor that might be influential in polyglot therapist's experience. This factor is the language of psychotherapeutic learning and training. This factor will be explored and discussed in further work.

### 5.2 Shortcomings and suggested further research

The research was not comparative and as such, cannot conclude that the unique relationship to language which was described above and includes transference to language and lingual awareness, is more typical to polyglots than to monolingual therapists. All psychodynamic therapists work with and in the language, and thus it is expected that they should have a higher awareness to language than laymen. However, it is safe to say that polyglot therapists have a more diverse experience with languages, given the simple fact that they are practicing in a diversity of languages. In order to deepen our understanding of the issue, it might be interesting to conduct a research interviewing polylingual as well as monolingual therapists. It might also be interesting to interview more therapists who are making their first steps at expanding their work to more languages.

As was mentioned in the opening remarks regarding the design of the current research, given the multitude of researches of polyglot therapists for whom English is their foreign language, in the current research it was decided to explore other languages. Another potentially interesting theme for exploration is therapists' use of English vs. other languages as additional languages for therapy.

Two of the participants found English to be qualitatively different than other foreign languages they use in therapy. David talked of how important it is for him to stay up to date in slang in his mother tongue, Hebrew. He continues:

"With English I don't care because there are a lot of English languages, English is just a working tool for me... I use it off the shelf and don't ask any questions."

In this comment, David identifies English as having many forms, "there are a lot of English languages". The many forms of English present some flexibility, as David does not feel he has to achieve



→ a high level of English according to one specific and strict language model (in terms of accent, slang, grammar). David also calls English “a working tool”, an expression he does not use while speaking of his other languages, Hebrew, German and Czech. In the next passage, Edith expresses similar thoughts:

“English is an Esperanto, that I speak with people who are typically not American or English and it’s a kind of Esperanto, and then again, it’s a common language and its equalizing between us, but even with my American and British clients, somehow its OK that for me it’s a second language and for them it’s a mother tongue, it’s not... I think it’s more acceptable.”

Going on to talk of her self-consciousness while speaking Hebrew in a Hungarian accent, Edith said that if a patient came to her asking for therapy in Hebrew, she would feel obligated to refer him to a native Hebrew-speaking therapist. But she does not feel that way when a native English-speaking patient comes to her. This, not only due to her greater confidence in English, but also because of what she perceives as a more open nature of English itself:

“but I don’t think that it is different in Israel than in Denmark or in the Czech Republic. Like, I don’t think I would have got less judgment in Czech. It is just these specific small languages, it is also the patriotism, it’s this local pride, that I’m not sure that there is any other language in the world like English who can give that [local patriotism] up.”

By calling it Esperanto, Edith identifies English as a lingua franca, and as such, she feels that English is more tolerant to a variety of accents and grammar forms, and is relatively detached from specific cultural associations (in Edith’s words, patriotism of small, local languages).

In recent years and considering the spread of the English language beyond English speaking

countries, linguists deal with the question of whether English, when not native, should be considered as a second language, or as a lingua franca. (for example, see Jenkins, 2006, Seidlhofer, 2009). Dedović-Atilla and Dubravac (2017) explain, that unlike foreign languages, lingua franca belongs to all its users, and in the case of English not only to its native speakers. That means that the language is open to alternative ways of expression, accents and styles, including some forms that would be considered as erroneous in standard English. English’s unique status might explain why both David and Edith find that working in English is less conflictual and more flexible.

Further research might compare English in its use as a lingua franca, English that function as a second language (in cases where a therapist immigrates to an English-speaking country and is then expected to have a deep command of the local English and culture) and other foreign languages.

The question of the use of English as a lingua franca seems relevant since a growing number of therapeutic interactions is cross-cultural and conducted using English as a middle language, that is not a native language to either therapist or patient.

## 6. Concluding remarks

The importance of the study of polyglot therapists is twofold. For polyglot therapists, such researches can provide with a theoretical and practical framework that is not developed enough in the literature, despite the fact that the phenomenon of polyglot therapists existed from the very beginning psychoanalysis.

Furthermore, the study of the situation of polyglot therapists goes beyond this particular circumstance and can shed light on matters that are relevant to all those practicing psychotherapy. Through their discussion of different aspects of their polyglot experience, participants presented ways in which they strive to find their place as therapists on the continuum between stranger and familiar. But while for polyglot therapists the experience of

being a stranger to language or culture is sometimes more natural, in fact all therapeutic encounters are cross-cultural and cross-lingual encounters, as patients are always unfamiliar, bringing to the therapy room their own, subjective and unique language and experience, most of which is unknown, unconscious, to themselves as well. Discussing this point in his “Recommendations to Physicians Practicing Psycho-analysis”, Freud (1912) writes that the analyst should refrain from

relying on his previous knowledge, assuming to already know the patient. The therapist, bringing to the therapeutic encounter his language, theory and experience, finds himself encountering a new subjective world, and should be willing to learn his patient’s new language and culture, for “Within himself as well as in the external world, he [the analyst] must always expect to find something new.” (Freud, 1912).

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## Foreign Language and the Psychotherapist, a Research from the Psychodynamic Perspective

### ABSTRACT

*The theme of the polyglot therapist working in a few languages has been the focus of some researches in recent years. It was shown, that working as a therapist in a language other than one own's mother tongue brings about technical implications, but also has an effect on psychotherapists' work and the dialogue between therapist and patient on many other levels. The present research explored aspect of psychodynamic psychotherapy being performed in a foreign tongue, from the perspective of the therapist. The research is unique in its sample of participants: polyglot psychotherapists who started working in a foreign tongue in different circumstances and stages of their professional lives, some in the context of immigration and some not. The languages practiced as foreign tongues by participants of the current study were diverse: Italian, Hebrew, Czech, German, French, and Spanish. English was also used by some of the participants. Three themes appeared in participants' interviews: 1. Polyglot therapists' relationship with their different languages. 2. Identity. 3. The polyglot therapist's work, with two subthemes: 3.1. Technical issues. 3.2. Nonverbal elements. Different qualities of polyglot therapists are presented and explored, and the issue of the stranger and its relevance to the polyglot therapist's work, as well as to the work of psychodynamic therapists in general are discussed.*

### KEYWORDS

*Polyglot; Multilingual; Cross-Lingual Therapy; Cross-Cultural Therapy*

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