

**From the Editor:** In this issue of showCASE, our Senior Economist reports on the results of his original study, in which he quantifies foreign language skills in terms of wage premia on the Polish labour market. Which languages does it pay off the most to know?

## Does it pay off to learn foreign languages? Evidence from Poland<sup>1</sup>

By: [Jacek Liwiński](#), CASE Senior Economist

The progressing globalisation, accompanied by the growing international trade, foreign direct investments, and international labour migrations, cause the demand for foreign language competences grow, and according to forecasts this trend will continue in the future ([Antonietti and Loi 2014](#); [Isphording 2015](#)). In the Central and Eastern European countries, including Poland, these changes intensified after the accession to the European Union. Suffice it to say that a significant increase in the inflow of foreign direct investments to Poland has been observed since 2004, and [over 2.1 million Poles](#) migrated to other EU Member States in the period 2004-2017. Under such circumstances, the command of foreign languages is becoming one of the key competences in the global labour market. Learning two foreign languages at school is obligatory in Poland, similarly to most European countries. Furthermore, there is a thriving sector of private language schools in Poland. In the European context, language skills are promoted by means of initiatives such as the Erasmus programme, which is co-financed from public funds together with individual financial contributions. Since language education involves expenses, it seems interesting from the economic point of view whether this type of education brings any benefits to individuals in the labour market, and wage benefits in particular.

### Why should foreign language skills increase wages?

The literature refers to three reasons why proficiency in foreign languages should influence earnings. First, foreign language skills can have a positive impact on productivity, since they enhance the effectiveness of communication at work. This includes both internal communication – with peers or managers – and external communication – with clients or suppliers ([Ku and Zussman 2010](#)). Secondly, learning a foreign language, and then using it, can translate into improved cognitive skills and, consequently, greater productivity at work. [Adesope et al. \(2010\)](#) shows that bilinguals have a cognitive advantage over monolinguals in the so called executive functions involving mental flexibility, inhibitory control, attention control, and task switching as well as creativity, flexibility, and originality in problem solving. Hence, the above two channels of the impact on wages correspond with the human capital theory, as they perceive the increments of skills to be the source of higher earnings. The third explanation refers to the signalling theory ([Spence 1973](#)). Based on it one can

<sup>1</sup> This text is a part of the working paper: [Liwiński, Jacek, 2018., 'The Wage Premium from Foreign Language Skills,' GLO Discussion Paper Series 251, Global Labor Organization \(GLO\)](#).

argue that the command of a foreign language may be a signal to employers of greater abilities and cognitive skills, thereby suggesting higher potential productivity.

### **What does international empirical literature show?**

There are three strands of studies on the wage premium from foreign language skills. The first and the most popular one covers the wage premium earned by immigrants in the host country. It is well established in this literature that immigrants with the host country language skills obtain a positive wage premium. The second group of studies refers to the wage premium from bilingualism obtained by natives in multilingual labour markets. Most of those studies show that proficiency in a second language is remunerated in the labour market. The third and final strand of literature focuses on the wage premium from the command of foreign languages earned by the natives. Most of these studies concentrate on the command of English, with only a few analysing premiums from other languages (see: [Ginsburgh and Prieto-Rodriguez 2011](#); [Williams 2011](#); [Di Paolo and Tansel 2015](#)). The literature in this stand finds a positive wage premium from the command of English, while in some countries – from other foreign languages, too.

### **What does our analysis show in case of Poland?**

Our analysis is based on the Human Capital Survey (BKL) for the period of 2012-2014.<sup>2</sup> The survey is a unique source of data on human capital resources of Poles, and it also provides information about the situation of individuals in the labour market. Importantly for this study, the survey questionnaire contains questions about foreign language skills. Respondents were asked to list all languages they were familiar with and to assess the level of command for the three languages they knew best (using a six-grade scale) in four linguistic competences: reading, writing, speaking, and listening comprehension. Our sample consists of 14,145 individuals who were self-employed or employed on a contract and who reported their earnings.

We estimated hourly net earnings<sup>3</sup> through regression analysis (ordinary least squares), with our independent variables being the level of foreign language skills (basic, intermediate, and advanced) and the circumstance of working at home or abroad, while controlling for respondents' other skills ( $S_i$ ) and other factors that may have an impact on earnings ( $X_i$ ). The results of estimation, presented in Table 1, show that an advanced command of a foreign language yields on average a wage premium of 6% to individuals working in Poland and as much as 22% to those working abroad.

What is interesting, the respondents employed in Poland obtain a wage premium from an advanced command of almost any of the languages covered by the analysis. The premium is particularly high from advanced knowledge of Spanish (29%), Italian (20%), and French (19%). The premium from an advanced command of English and German is much lower (8% and 5%, respectively). Such a substantial difference may be due to the fact that the command of the first three languages referred to above is very rare among Poles (these languages are declared by 0.4%, 0.8% and 1.7% of the respondents, respectively), while the last two are much more common (34% and 16% respectively). Interestingly, the command of Russian does not bring

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<sup>2</sup> The Human Capital Survey was conducted in the years 2010-2014 by the Polish Agency for Enterprise Development (PARP) in co-operation with the Jagiellonian University.

<sup>3</sup> The earnings are expressed in 2014 prices.

any wage benefits at all. This outcome may be depressing especially to individuals who studied in Poland before the economic transition, as learning Russian had been mandatory in Polish schools and universities until 1990.

**Table 1. Ordinary least squares estimations of wage on foreign language skills**

<i>Model specification</i>	Any	English	French	German	Russian	Italian	Spanish
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Elementary foreign language skills	- 0.042** *	- 0.062** *	-0.030	-0.033	-0.033	-0.167	- 0.220** *
Intermediate foreign language skills	0.031** *	0.044** *	0.071	0.020	0.000	-0.047	0.017
Advanced foreign language skills	0.061** *	0.075** *	0.187** *	0.052*	-0.027	0.199**	0.289**
Elementary foreign language skills & working abroad	0.012	0.205	0.174	0.017	-0.029	- 0.962**	0.298** *
Intermediate foreign language skills & working abroad	0.198** *	0.001	0.231	0.060	-0.060	-0.286*	0.055
Advanced foreign language skills & working abroad	0.220** *	0.165** *	-0.070	0.109	- 0.248**	-0.341*	-0.059
Working abroad	0.129** *	0.245** *	0.286** *	0.257** *	0.306** *	0.300** *	0.287** *
Other skills ( $S_i$ )	yes	yes	yes	yes	yes	yes	Yes
Other control variables ( $X_i$ )	yes	yes	yes	yes	yes	yes	Yes
Number of observations	14,145	14,145	14,145	14,145	14,145	14,145	14,145
R2	0.228	0.227	0.224	0.225	0.224	0.225	0.224

*Notes:* \*\*\*/\*\*/\* stand for 1%, 5% and 10% significance respectively.

*Source:* Author's own analyses based on the Human Capital Balance survey data.

Another interesting finding is that English is the only foreign language the command of which has a positive impact on wages earned abroad. Individuals with an advanced command of this language earn 16.5% more when working abroad and 7.5% more when working in Poland. Furthermore, English is the only foreign language bringing a wage premium while working in Poland, even if the command is intermediate (4.4%).

## Conclusions

The analysis presented above shows that, in general, foreign language skills yield wage benefits to Poles. Yet, these benefits are strongly differentiated, depending on the language and on whether one is employed in Poland or abroad. It seems that it is definitely worth to learning Spanish, Italian, and French, as fluency in

these languages yields very high wage premiums (29%, 20%, and 19%, respectively). The wage returns to fluency in English or German are lower but positive (8% and 5%, respectively). On the other hand, fluency in Russian is not rewarded at all on the Polish labour market. As far as employment abroad is concerned, only proficiency in English brings wage benefits (16%).

Finally, the results of the analysis justify public and private investments in the development of language competences. The progressing globalisation and the resultant growth of demand for language competences suggest that investments in learning foreign languages will translate into wage benefits in the future, too. In this context, the special role of English is worth stressing. It is the only one of the languages covered by the analysis that, if adequately mastered, brings wage benefits both in Poland and abroad. Therefore, proficiency in English seems to be one of the key competences on the contemporary labour market.

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## Trade, Innovation, Productivity

*The Sustainable Development Goals (SDG) and the 2030 Agenda promises of a co-ordinated policy response countering poverty and environment degradation in emerging economies leave a lot to be desired in terms of functionality. Worryingly, the recent decrease in external financing in SDG recipient economies ([the OECD reports](#) a 30% decline both in private FDI (2016/17) and project finance (2018 Q1) in emerging economies) coincides with a dramatic surge in the demand for domestic and external funds fuelled by population growth and geopolitical tensions. While donor countries have failed to deliver on their promises, the recipient low-income economies' domestic fiscal and trade policies call for a major overhaul. Yet, it is not a threat to emerging-markets – [research](#) shows that declining financing of sustainable development combined with weak support for the private sector growth (reflected in intensifying trade wars and growing barriers to investment) threaten to hit hard advanced and emerging markets alike.*

*Russia has imposed economic sanctions on Ukrainian citizens and companies, but their impact on the Ukrainian economy will be limited.*

The [sanctions](#), which were imposed on November 1, concern the freezing of assets of 322 Ukrainian citizens – among them Ukraine's Defence Minister, Interior Minister, former Prime Ministers Yulia Tymoshenko and Arseniy Yatsenyuk, businesspeople, and 126 MPs – and of 68 organisations, including a major chemicals company Dniproazot and the truck manufacturer KrAZ. While selected industries might suffer, such as the inorganic chemistry industry, which accounted for 16% of Ukrainian exports to Russia in the first eight months of 2018, the overall economic impact of the sanctions is not expected to be significant, as most of the affected companies have limited exposure to trade with Russia. Rather, the sanctions are perceived as [an exercise of the Russian soft power](#) in the run-up to Ukrainian presidential and parliamentary elections scheduled for March and October 2019, respectively.

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## Labour Markets and Environment

*General computer and internet skills yield a substantial wage premium in Poland*

Due to the rapid technological change and globalisation, computer and internet skills belong to the group of key competences currently in demand by employers. Those skills allow to quickly acquire information from various sources located worldwide, process it efficiently, and communicate with others. An econometric analysis based on data from three waves of the Human Capital Balance survey (BKL, 2012-2014) shows that the wage premium from general computer and internet skills amounts to 12-17% in case of individuals residing in Poland. This can justify incurring public and private expenditures on teaching these skills at schools.

*In 2017, Poland issued as many as 471 Blue Cards, ranking fourth in the EU, according to Eurostat.*

The greatest number of Blue Cards was issued by Germany (20,541), followed by France (1,031) and Luxembourg (671). The Blue Card is a work permit that allows high-skilled non-EU citizens to work and live in any Member State except Denmark, Ireland, and the United Kingdom. It was introduced in 2009 in order to attract talent to the EU. However, the EU-wide use of this instrument is rather modest, with 24,305 documents issued in 2017. Since 2015, the European Commission has been a strong advocate of a broader use of the Blue Card and a revision of the Blue Card Directive. Meanwhile, the negotiations between the European Parliament and the Council on the recast of the Directive have been blocked due to disputed issues such as the recognition of professional experience, minimum wage, and the labour market test.

## Macroeconomics and Public Finance

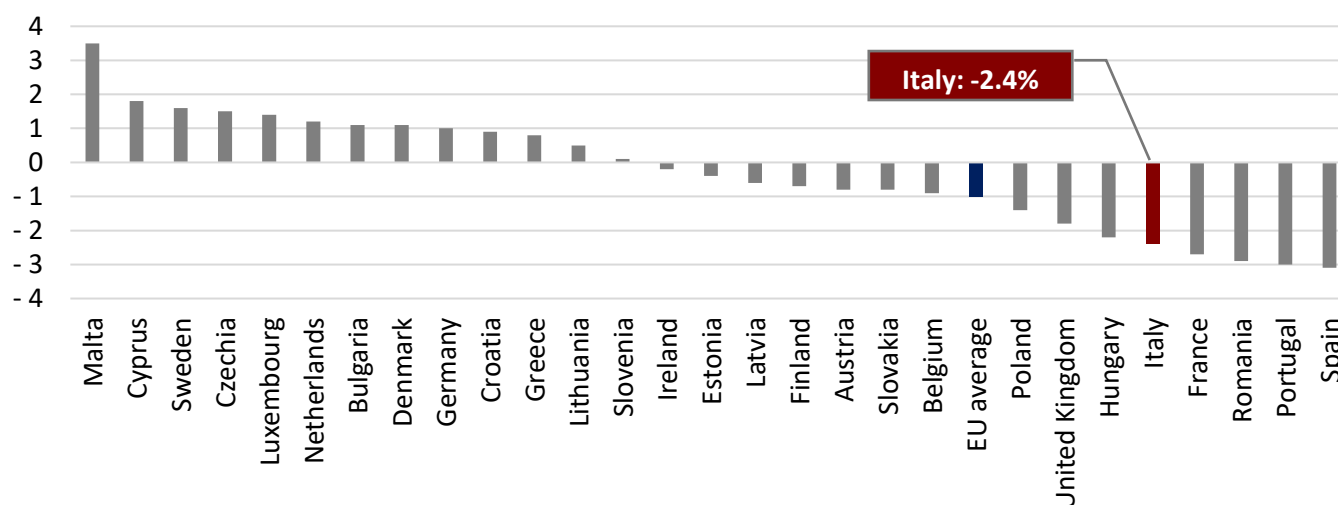
According to CASE's rough estimates, adjusting the VAT rules on deductions for passenger car expenses to the PIT and CIT limits could have an annual budgetary impact of around PLN 3 billion – but not just yet.

From January 1, 2019, new rules on deducting expenses in PIT and CIT related to the use of passenger cars in a company will enter into force. In case of cars used for private purposes next to commercial ones, 75% of the related expenses will be deductible for income tax purposes. It is therefore justified to ask whether the new limits in PIT and CIT should not be followed by a change in the limit applicable to VAT from 50% to 75%, which would be consistent with the regulations adopted in income taxes. However, before an appropriate legislative proposal is submitted by the government, a new derogation decision for Poland is to be issued by the Council of the EU. This means that, from the beginning of 2019, instead of a simple, coherent system, two separate settlements of expenses related to the use of passenger cars in companies will be applied – for the time being without negative consequences for the budget.

*The European Commission rejected Italy's budget plan for the next year.*

The decision comes as a result of the new Italian government's sharp withdrawal from the fiscal tightening agreed with the European Commission. There are many reasons why we should be worried about this situation. First, Italy, with its public debt over 130% of GDP, is the second most indebted country in the EU after Greece. Second, Italy is among the countries with the highest budget deficit in the EU (see Figure A below). Third, a large part of Italian sovereign debt is held by the domestic banking sector, the financial fundamentals of which are questionable. Problems of the banking sector might drag down the government and vice-versa. Four, Italian sovereign debt market is the biggest in the entire EU, and any repercussions for the financial markets could potentially be catastrophic. Five, Italian economy is almost ten times the size of the Greek economy, effectively making it too big to save. The Italian government was given three weeks to adjust the budget, but government officials declared that they would not respond to pressures from the European Commission.

**Figure A: General government deficit (-) or surplus (+) in 2017 (% of GDP)**



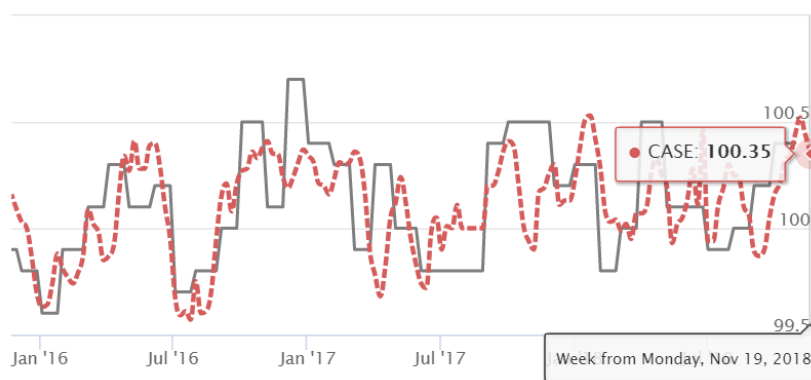
Source: Own elaboration based on Eurostat data

### The weekly online CASE CPI

The online CASE CPI is an innovative measurement of price dynamics in the Polish economy, which is entirely based on online data. The index is constructed by averaging prices of commodities from the last four weeks and comparing them to average prices of the same commodities from four weeks prior. The index is updated weekly. For more information on our weekly online CASE CPI, please visit: <http://case-research.eu/en/online-case-cpi>.

The latest results (19.11.2018) of our Online CASE CPI Index show that prices in November continue to raise month to month (0.35%), although slightly more slowly than at the end of October (0.44%). The high level of index was mostly driven by price increases in the *Transportation* and *Foodstuffs* categories. The only category where average prices were lower than a month before was *Clothing* (-0.01%).

### Our weekly online CASE CPI



Online CASE CPI ( - - - ) vs GUS CPI ( — )

### Monthly CASE forecasts for the Polish economy

Every month, CASE experts estimate a range of variables for the Polish economy, including future growth, private consumption, and foreign trade, current account balance, and the CPI.

CASE economic forecasts for the Polish economy  
(average % change on previous calendar year, unless otherwise indicated)

	GDP	Private consumption	Gross fixed investment	Industrial production	Consumer prices
2018	4,6	4.3	6,7	4.5	2.1
2019	3.5	3.6	3.3	3.8	2.3

	Nominal monthly wages	Merchandise exports (USD, bn)	Merchandise imports (USD, bn)	Merchandise trade balance (USD, bn)	CA balance (USD, bn)
2018	4.5	233.4	235.2	-1.8	-3.9
2019	3.7	242.7	244.6	-1.9	-4.1

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