Monthly Bulletin of Economic Trends

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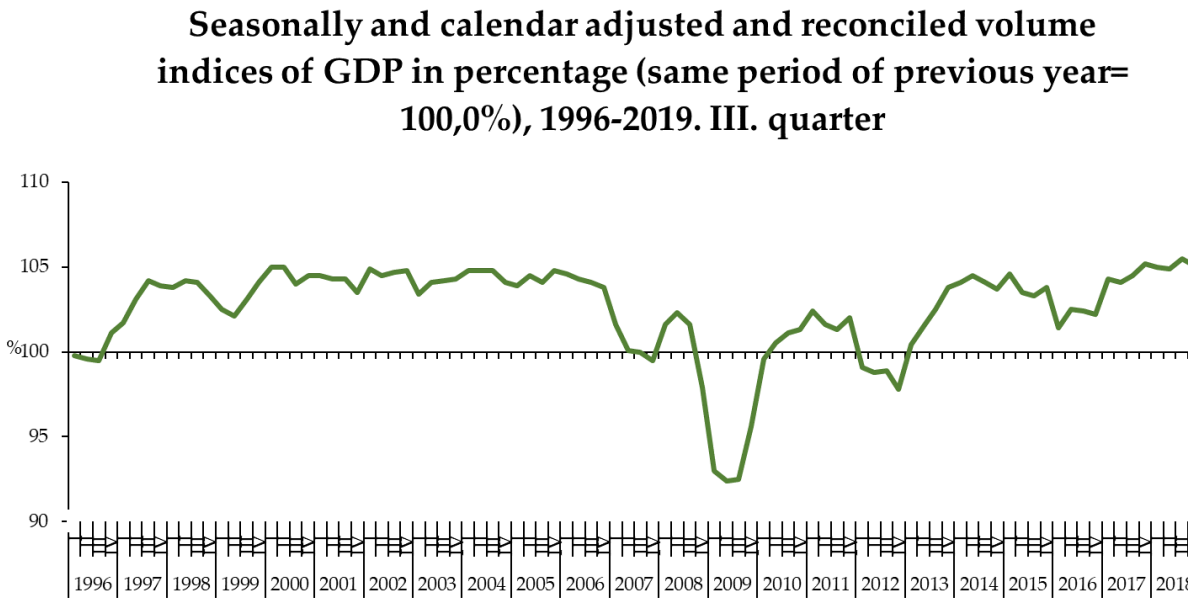
Macroeconomic trends in Hungary

Hungarian economic tendencies will be presented in the article below via an overview of the most important macroeconomic indicators such as GDP, employment, gross wages, investments, industrial production and foreign trade, from directly after the crisis to 2019.

In 2009 the Hungarian economy found itself in a remarkably deep crisis. The recession was almost as severe as the transformational crisis (1991-1995) caused by the regime shift. The crisis resulted in plummeting economic performance - GDP fell 6.5% by the end of the year 2009. This downward tendency slowed down in the first half of 2010, turning into growth in mid-2010, and in the second half of the same year the growth rate was back at the pre-crisis level. Then in 2011, owing to the crisis of the Eurozone, the international economic environment became quite unfavourable again. The Hungarian economy relapsed in 2012, with GDP dropping by 1.5%. Finally, recovery came in 2013 with a growth rate of 2.2%, and the next year saw a 4.1% growth year-on-year. There was a mild slowdown in 2015 and 2016 with growth rates of 3.5% and 2.2% respectively, followed by a surge to 4.1% in 2017. 2018 was a top year when GDP growth shot up to 5.1%. The first three quarters of 2019 saw similar growth rates. In the first two quarters, economy grew by 5.2%, and in the third quarter the rate was somewhat lower at 4.8% compared to the same period of the previous year.

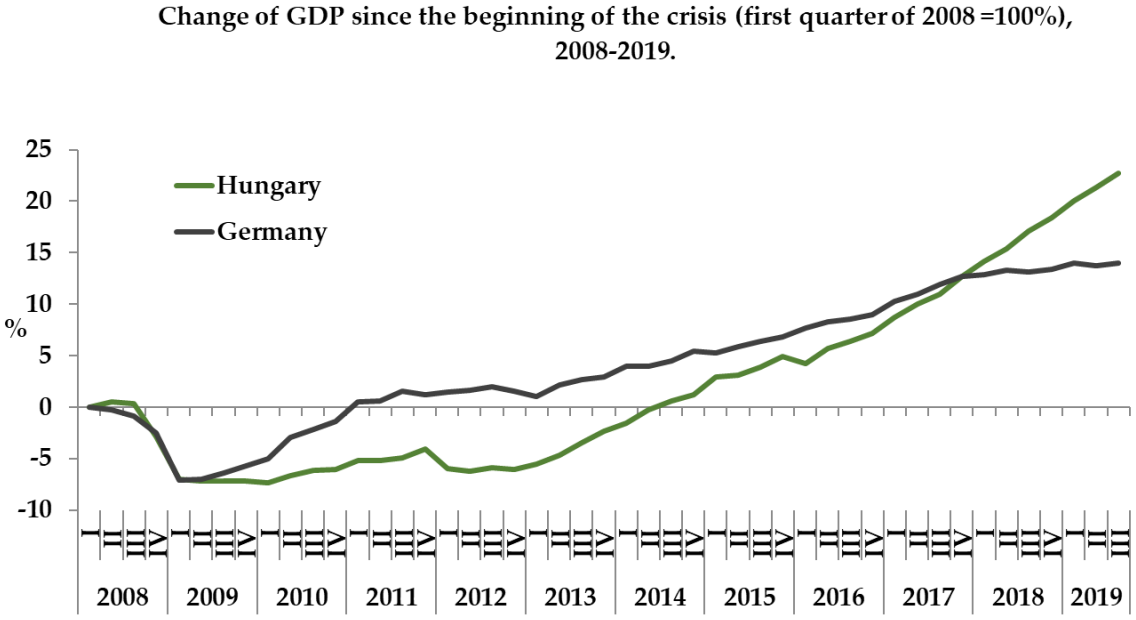
Recovery after the crisis was much slower in Hungary than in its number one target country for exports, Germany. On all accounts, the Hungarian crisis was much deeper than the one Germany had to recover from. Furthermore, recovery in Hungary could only start later than in Germany. Although recession affected the two economies at an equal strength and at an equal speed, in the first quarter after the turning point in 2009 the German economy could recover remarkably quickly. By early 2011 the German economy had been back at pre-crisis levels and has grown almost unintermittently ever since. Hungary, on the other hand, had to deal with a prolonged recession, only reaching pre-crisis levels in the third quarter of 2014. The growth rate difference between the two economies levelled out between the first quarter of 2016 and the fourth quarter of 2017, and in 2018 the Hungarian growth rate spiked up and overtook that of Germany. In 2019 the Hungarian growth rate difference was 6-7% over Germany (see Figure 2).

Figure 1 Volume index of GDP



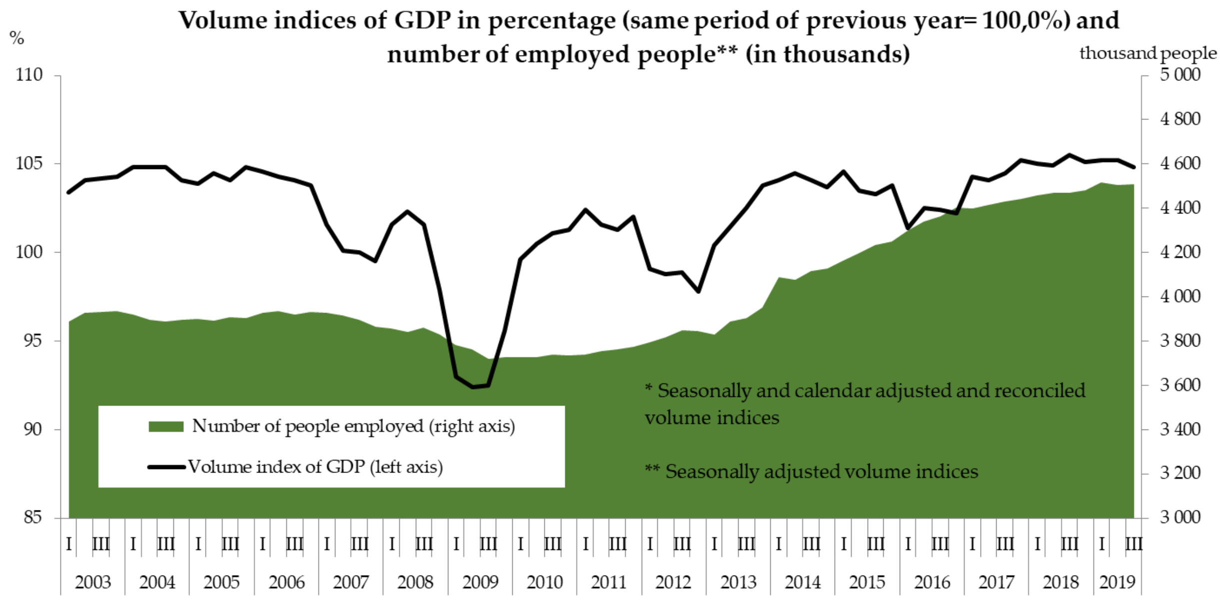
Source: Hungarial Central Statistical Office

Figure 2: Change of Hungarian GDP compared to German gross domestic product, since the outbreak of the 2009 crisis



Source: Hungarial Central Statistical Office, Destatis

Figure 3: GDP change versus unemployment change



Source: Hungarian Central Statistical Office

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Employment and gross wages

The spillover effect of the economic crisis had a profoundly negative impact on the Hungarian labour market. In 2009 GDP fell dramatically, after which there was a significant drop in employment figures. After the turning point, when the economy finally turned positive, the labour market also followed suit with some delay. In spite of the fact that GDP dropped again in 2012, employment figures shot up and returned to the pre-crisis level due to a quick surge in the number of public workers. Starting in 2013, GDP was on the rise, in line with employment – although public work was still a significant component. The positive tendency continued between 2016 and 2018; the general positive growth of GDP wavered at times, but employment showed a stable growth since 2016. However, the growth rate of the number of people employed has slowed since 2018, rising further in 2019 – with a slight drop in the second and third quarters (see Figure 3).

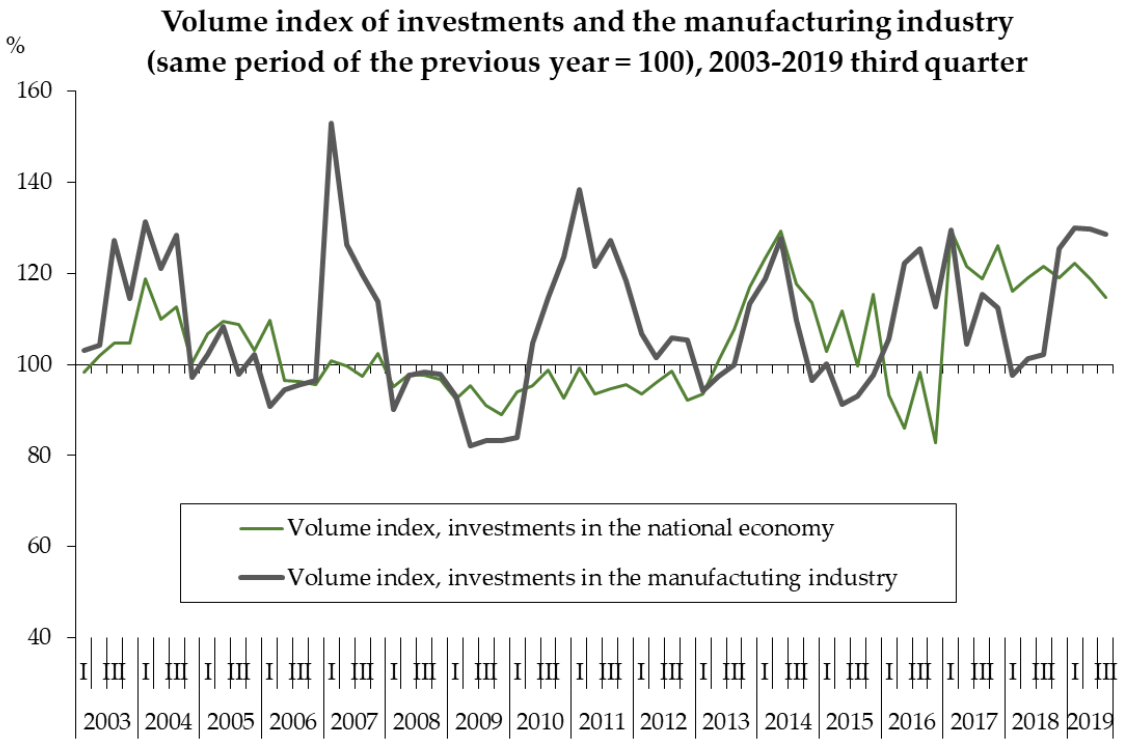
Gross average wages in the private sector have been rising at an increasing speed in the period after 2012. In the public sector, the pace of growth was far less consistent. Year-on-year, wages increased by 10.9% in the private sector and by 12.1% in the public sector in 2018. The trend continued in 2019 with average wages rising steadily: from January to September there was a year-on-year growth of 10.8% in both sectors of the economy. The gross average wage of full-time workers was HUF 359 900.

Investments

At a national level the volume of investments dropped back considerably in 2009 compared to the previous year as a result of the crisis outburst (investments decreased by 8.6%). The declining tendency slowed down in the years that followed, however, the volume of

investments only turned positive in 2013 (6.2%) In 2014 and 2015, growth was 21% and 7.3% respectively, then it dropped back again in the year 2016 (10%). In 2017 there was a great upturn in the volume of investments (24%) followed by a year that was still dynamic - though tuned down somewhat - with investment growth at 18% in 2018. In the first three quarters of 2019 the dynamism of the previous years seems to have broken, with 22.3% year-on-year growth in the first quarter, 18.3% in the second, and 14.8% in the third. Going against the general trend, investments in the processing industry experienced an average year-on-year growth of 30% (see Figure 4).

Figure 4 : Volume index of investments and manufacturing



Source: Hungarian Central Statistical Office

Industrial production

Industrial production showed a similar tendency to those of the indicators discussed so far – owing to the crisis, industrial output decreased considerably in 2009, followed by a period of mild growth, then a decline in 2012 due to recession processes. In 2013, production grew by 1.1%, and in the two years that followed, growth was above 7%. There was a slight drop (0.9%) in 2016, but growth has been solid again since 2017. The volume index of industrial production shows a growth of 6.2% in the period between January and September, 2019. For the same period, the exports of industrial goods and

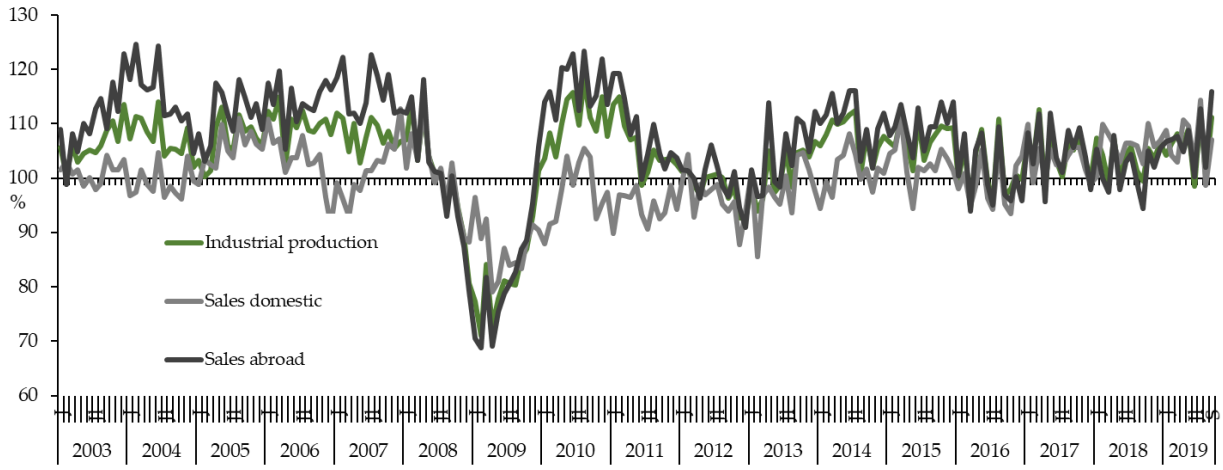
domestic sales grew by 7.3% and 6.5% respectively (see Figure 5).

Foreign trade

Year-on-year foreign trade flow started to decline in late 2008 as a result of a worsening European business climate. Nevertheless, in 2008 the volumes of both exports and imports exceeded those of the previous year. Then in 2009 there was a great fall – exports and imports dropped back by 12.7% and 17.1% respectively. In 2010 foreign trade figures were back again at pre-crisis levels. Growth slowed down in 2011, and in 2012 exports volume growth was only 0.7% year-on-year. At the same time imports volume growth was negative at -0.1%. From 2013, exports and imports have grown steadily. In the period from January to October 2019, the exports volume index increased by 7.4% compared to the same period of the previous year, while imports grew by 6.8%. Exports totaled at EUR 91 980 M (HUF 29 782 bn), and the total value of imports was EUR 87 578 M (HUF 28 351 bn). Foreign trade had a sufficit of EUR 4.6 bn, which was EUR 719 M less than in the year before.

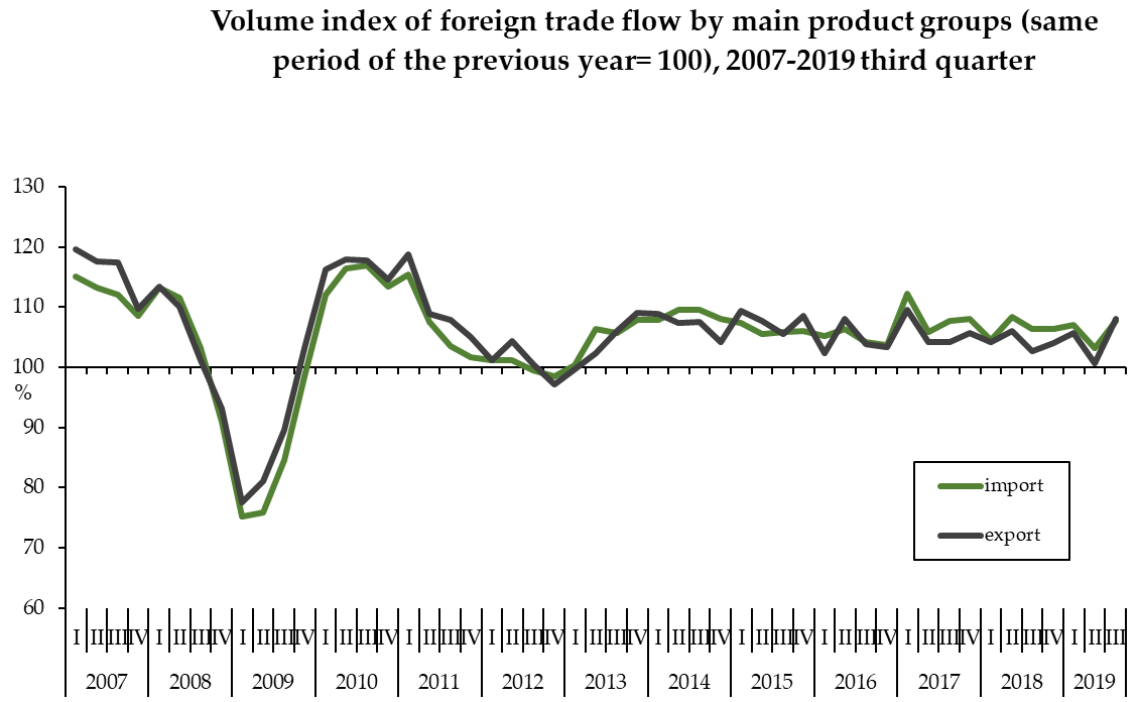
Figure 5: Volume index of industrial production and sales

Volume index of industrial production and sales (same period of the previous year= 100%), 2003 - September 2019



Source: Hungarial Central Statistical Office

Figure 6: Volume index of foreign trade flows



Source: Hungarial Central Statistical Office

Motivating factors behind students' secondary education plans and career choices

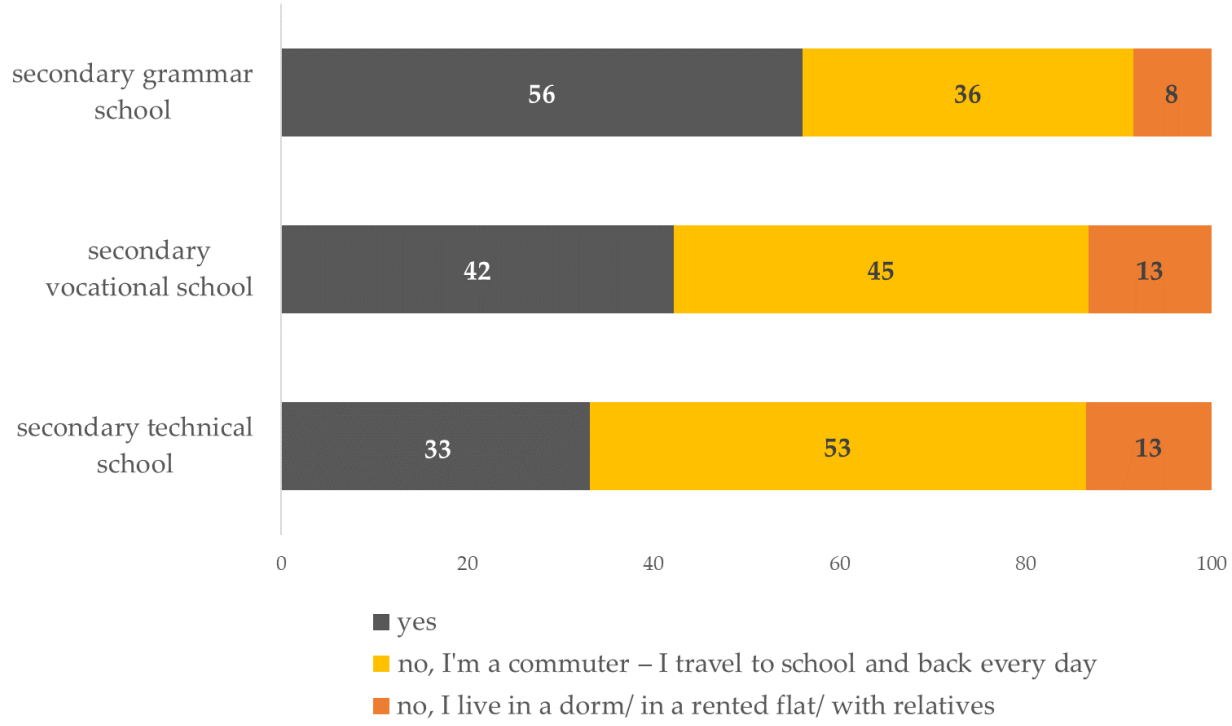
The ongoing career motivation survey conducted by HCIC IEER (Hungarian Chamber of Industry and Commerce Institute of Economic and Enterprise Research) has the double task of analysing pupils' and their parents' motivations behind their children's school and career choice, and reveal the factors (including personal and social factors as well as the influence of the family and the school) that affect the choice regarding school type (secondary grammar school, secondary vocational school, secondary technical school) and the specific school itself. This analysis focuses on the differences between career and school choice motivations of students studying at various levels of education, at various school types; the paper is based on the survey conducted in the period between 30 September and 29 November 2019 by HCIC IEER at secondary grammar schools of 4-5 year curricula, at secondary vocational schools (in non-vocational type of classes) and at secondary technical schools. Respondents at all school types were 9th grade full-time students. Our sample is representative, i. e. it reflects the 2019 national rates of 9th grade students with regard to region and training level.

Student traits at school types

One of the general conclusions of our survey involving 9th grade students is that the bigger the city a student comes from the more likely it is that they will study further at a secondary grammar school or at a secondary vocational school in the same city. Since the vast majority of pupils who live in a smaller settlement can only get secondary education far from their homes, they either become commuters or find another solution (dormitory, renting a flat) to be closer to their schools. As in smaller towns or villages, there are only secondary technical schools or secondary vocational schools available, pupils living there are more likely to choose those school types. It is worth to add those technical students – especially those attending secondary technical schools – are more likely to have come from a village elementary school, often in another county, before starting their secondary education (see Figure 1).

Unfavourable regional, cultural and material conditions (deprivation) mostly hit students attending secondary technical schools. Compared to students of the other two school types, a larger proportion of technical school students live in small settlements, and the majority are not residents of the town their school is located in (they're commuters or live in a dorm, etc.). Most of them have parents without a secondary education certificate (mother: 60%, father: 70%). The secondary technical school students' deprived state is also highlighted by the fact that 35% have no books apart from their school textbooks, and 48% cannot go on a holiday with their family at least once a year. Regarding deprivation, secondary grammar school students are much more fortunate, while secondary vocational school students are more or less a distant second.

Figure 1: Rate of students attending each school type with regard to whether they live and study in the same city (%)



Source: IEER, 2019 ($n_{grammar}$=2290; $n_{vocational}$=2024; $n_{technical}$=1539)

Focusing on primary school results, technical school students have the worst results at school: 8% of them are too old, most likely due to being repeaters (17 years of age or older whereas normally their age should be around 14-15), 53% of them have average or below average 8th grade school reports, and 37% failed at least one subject in 8th grade. Their counterpoints are grammar school students: there is hardly anyone over 17 (1%), only 3% failed a subject in 8th grade, and 69% finished 8th grade with excellent marks. As far as school performance is concerned, vocational school students are in between grammar school students and technical school students.

Plans for further education and what is realised

Secondary grammar school students generally attend to the school type (94%), to the school (76%) and to the training (80%) that they chose to try first in the entrance procedure, i. e. the one they wanted to go to the most. Vocational and technical school students were much less fortunate in this respect (secondary vocational school: 77%, 67%, and 75% respectively, secondary technical school: 85%, 67%, and 69% respectively). The results also indicate the trend that the decision of a grammar school student is generally influenced by the institution (40%), whereas the institution is much less of an influencing factor for a vocational school student (23%) and a technical school student (21%); for them, what they want

to learn and at which training are decisive (secondary grammar school: 25%, secondary vocational school: 41%, secondary technical school: 48%). The overwhelming majority (83%) do not regret the decision they made about their schooling. Some, however, would now choose a different school and a different training (7%), the same school but a different training (6%), or a different school but the same training (4%). Grammar school students are more satisfied with their decision (86%) than vocational school students (82%) and technical school students (78%).

Factors influencing further education choices

Regardless of the type of school chosen, the strongest influence on the choices was exerted by parents and relatives. A staggering 73% of secondary grammar school students claim that their family was one of the three strongest influencing factors, but even for students of the other two school types, the rate is over 60%. Family and relatives are followed by secondary education brochures and open days, classmates and pupils of the same age, invariably for all three school types. Vocational and technical school students were more likely to rely on career day experiences, career orientation experts and primary school class teachers (in vocational schools) than grammar school students (see Table 1).

Table 1: Rate of students attending each school type with regard to the most important factor that made them choose that particular secondary school type (%) [$n_{grammar}$=2301; $n_{vocational}$=2056; $n_{technical}$=1584]

	Secondary grammar school	Secondary vocational school	Secondary technical school	Total
Parents, relatives	73	62	63	67
Secondary school brochures, open days	49	49	36	46
Classmates, friends, acquaintances	46	31	37	39
Internet	27	31	27	28
Primary school class teacher	20	19	29	22
Primary school career orientation days	12	21	19	17
Career orientation experts	8	21	20	16
Primary school teacher	14	7	9	10
Chance (it just happened so)	8	11	12	10
Media	6	7	7	7

Source: IEER 2019

Note: Respondents could choose not more than three factors.

For all three school types, it is true that the strongest argument for choosing a school is that the student will learn there what they like and what they are interested in (secondary grammar school: 52%, secondary vocational school: 66%, secondary technical school: 59%). Secondary grammar school students also mentioned other important factors, such as fame and acknowledgement (51%), quality teaching (47%), and adequate preparation for tertiary education (35%). These factors are present but play a much less marked role in the choice taken by secondary vocational school students (prestige: 30%, quality of the education: 19%, preparation for tertiary education: 21%) –, but they also prize a safe place on the labour market after finishing school more (27%) than grammar school students. This latter is also regarded by secondary technical school students as an important factor (24%). In comparison with students attending the other two school types, technical school students' choices are much less influenced by the quality of given school (21%) and teaching (8%), and the prospects of tertiary education (8%). Technical students, however, were more likely to mention easy admission (18%) low requirements (7%), and external forcing factors (for example being rejected by other schools 7%, compulsory education until the age of 16: 5%).

A choice of training seems to be guided by similar viewpoints to choosing a school, and this is true for all three school types. Also regardless of school type, interest in certain training is clearly the number one reason for the final choice. (secondary grammar school: 65%, secondary vocational school: 75%, secondary technical school: 68%). The choice of grammar school students was more strongly driven by factors such as the prestige of the given training (35%), previous results from primary school (29%) and future education (26%) than those of vocational and technical school students. (secondary vocational school: 27%, 15%, and 26% respectively, secondary technical school: 24%, 15%, and 9% respectively). Vocational and technical students tend to mention labour market factors such as good wages (26% and 28% respectively) and being able to find a job easily (20% and 23% respectively). Interestingly, technical school students are also motivated by family tradition (21%), and the opportunity of getting grants (16%) more than students of the other two school types.

Expectations about the future job

For students, the most important general expectation about their future job is a good salary. Earning a lot of money is the most important viewpoint for 70% of technical school students, 57% of vocational school students and 51% of grammar school students (51%). Besides money, expectations generally include that the future job should be enjoyable, useful, interesting, diverse and useful that promotes independent work and personal fulfilment; students of all school types would also like to work in a good working environment and have a lot of leisure time. Compared to grammar school students a high proportion of vocational and technical school students highlighted the importance of finding a job easily in case their old workplace closes down (Secondary grammar school: 7%, secondary vocational school: 14%, secondary technical school: 20%). (See table 2).

Table 2.: Rate of students attending each school type with regard to the factors they deem the most important in their future jobs (%) [$n_{grammar}$=2307; $n_{vocational}$=2047; $n_{technical}$=1582]

	Secondary grammar school	Secondary vocational school	Secondary technical school	Total
Earning a lot of money	50	57	70	58
Liking what I do	50	37	24	39
Doing an interesting work	36	33	28	33
Feeling that I do something useful	28	25	22	25
Good relationship with my workmates	19	20	25	21
A lot of spare time	18	19	15	18
Opportunities to realise my ideas	20	17	14	17
Being allowed to bring my own decisions and do my tasks independently	16	14	12	14
Calm and pleasant working environment	14	14	11	13
Finding a new job easily if my workplace closes down	7	14	20	13

Source: IEER 2019

Note: Respondents could choose not more than three factors.

Summary

In general, grammar school students mentioned a higher number of influencing factors of school and training and more expectations about a future job than vocational and technical school students, who had a less diversified set of criteria of choosing. The latter group preferred one or two viewpoints and expectations over the others, which preference was much less salient in the diverse answers of secondary grammar school respondents. In summary, our results show that students that choose to go to a grammar school have better chances to go into tertiary education, and also, they make decisions on their secondary school education more regarding preference for quality education, compared to students in technical schools. When it comes to vocational school students, generally they constitute a middle ground, regarding most factors of choosing a secondary education.

The results also highlight the fact that the future education outlook of secondary grammar and vocational school students is much healthier, with a clear demand for quality than that of technical school students. However, in most respects, secondary vocational school students comprise a transient category between grammar school and technical school students.

International trends

Changes in the production, consumption and employment situation in certain major international economies compared with peer expectations and the previous period.

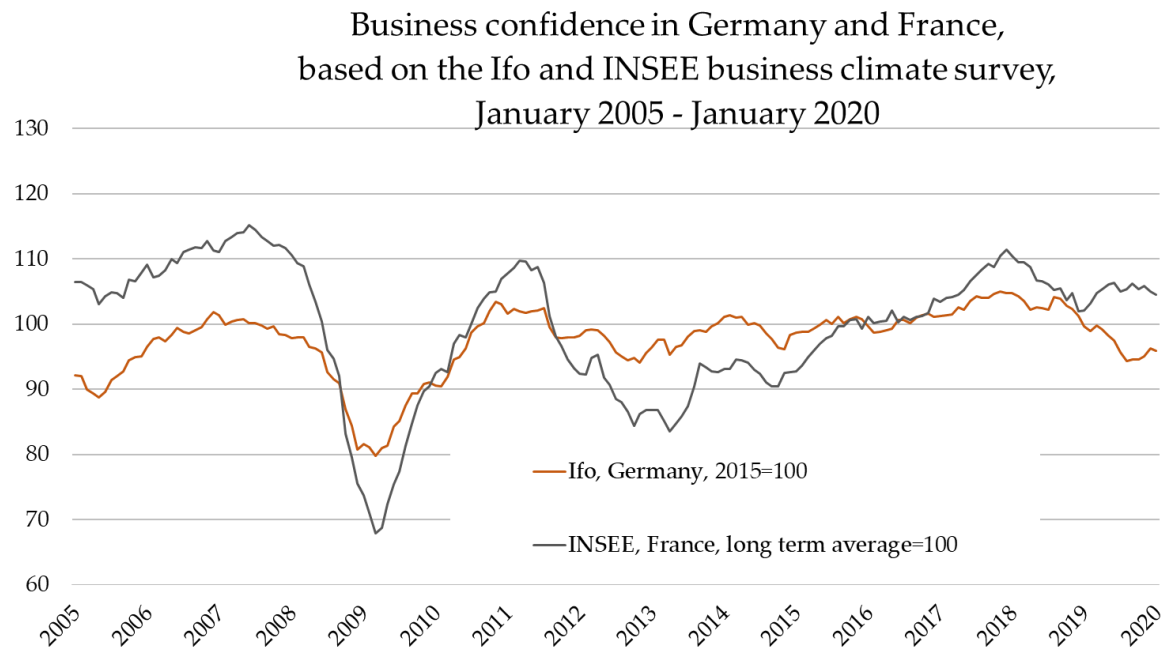
		Period in review	Actual data	Expectations	Previous period
Germany	Unemployment Rate	(Jan)	**5.0%**	**5.0%**	**5.0%**
	Manufacturing Purchasing Managers Index	(Jan)	**45.2**	44.5	43.7
	IFO Business Climate Index[1]	(Jan)	**95.9**	**92.9**	**96.3**
France	INSEE Business Climate Index[2]	(Jan)	**106.8**		**106.8**
USA	Unemployment Rate	(Jan)	**3.6%**	3.5%	3.5%
	CB Consumer Confidence Index	(Jan)	**131.6**	128.0	128.2
	Manufacturing Purchasing Managers Index	(Jan)	**51.7**	52.5	52.4
China	Manufacturing Purchasing Managers Index	(Jan)	**50.0**	50.0	50.2

[1] https://www.cesifo-group.de/ifoHome/facts/Survey-Results/Business-Climate/

[2] http://www.insee.fr/en/themes/indicateur.asp?id=105

The rest of the data source: http://worldeconomiccalendar.com

In Germany, the IFO business climate index shows a slight decline, compared to previous period. The manufacturing purchasing manager index (PMI) demonstrates an increase, doing better than previously expected. Unemployment rate for Germany stagnates at the same level. The French INSEE business climate index remains unchanged compared to the month prior. In the United States, the CB consumer confidence index started to increase after the slump experienced in the previous months and does better than expected. The manufacturing PMI suffered a slight drop. The unemployment rate remained virtually the same, with only a 0.1% increase. The Chinese manufacturing PMI showed dropped with 0.2 %.



Sources: www.ifo.de, www.insee.fr

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