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High Employment Rate Maintained by Growing Number of Working Persons of The Elder Age

The total number of working persons is essentially affected by an extraordinary increase in the number of the employed aged 60-64 years. Since 1995 their number grew by 154 thousand persons to yield almost a quarter of million in 2015. Recently the number of working persons aged 65+ years has been growing as well. Their number reached 108 thousand persons in the last year and the growing trend in the number has been continuing this year.

**The Population Has Been Getting Older at Fast Pace**

In twenty years the population of the Czech Republic grew by almost 219 thousand and reached 10 546 thousand people in 2015. The population ageing can be documented in the trend in frequency of persons at the limit for old-age retirement and older. Since 1995 the number of the aged 60+ years grew by 776 thousand to reach 2 634 thousand in the last year. The number of younger sexagenarians (60-64 years of age) grew by 230 thousand to yield 724 thousand in the two decades, yet in the recent years a decline in the number of this age group can be seen. The age group 65+ years has shown a different development. In the twenty years their number increased by almost 550 thousand and has been growing fast every year. According to the middle alternative of the Czech Statistical Office demographic projection their number is to reach two million as early as in the next year.

Since 1995 the total number of working persons has grown by almost 80 thousand persons yet the number of working persons aged 60+ years has increased by over 188 thousand persons. In the whole twenty-year period the numbers of working males and females have grown by 122 thousand and 66 thousand, respectively. The work involvement of the elderly has been affecting total employment the decisive way.

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| **Population cohorts of selected age groups by economic status in 2015** |
|  |  |  |  |  |  |  |  |  |
| Age groups | Population | Economic status |
| The employed | The unemployed | The economically inactive  |
| 2015 | increase2015/1995 | 2015 | increase2015/1995 | 2015 | increase2015/1995 | 2015 | increase2015/1995 |
|  | Total |
| **Total** | **10545.9**  | **218.6**  | **5041.9**  | **79.3**  | **268.0**  | **60.0**  | **5236.0**  | **79.3**  |
| 60+ years | 2633.7  | 775.5  | 356.1  | 188.4  | 8.5  | 1.1  | 2269.1  | 586.0  |
|  |   |   |   |   |   |   |   |   |
| 60-64 years | 724.2  | 230.2  | 248.5  | 153.7  | 7.3  | 3.1  | 468.4  | 73.4  |
| 65+ years | 1909.5  | 545.3  | 107.6  | 34.7  | 1.2  | -2.0  | 1800.6  | 512.5  |
|  | Males |
| **Total** | **5182.0**  | **163.5**  | **2837.3**  | **52.5**  | **125.4**  | **27.3**  | **2219.3**  | **83.7**  |
| 60+ years | 1138.9  | 395.6  | 227.7  | 122.3  | 6.2  | 1.3  | 904.9  | 272.0  |
|  |  |  |  |  |  |  |  |  |
| 60-64 years | 346.9  | 120.9  | 165.7  | 105.3  | 5.6  | 2.7  | 175.7  | 12.9  |
| 65+ years | 792.0  | 274.7  | 62.1  | 17.0  | 0.7  | -1.4  | 729.3  | 259.1  |
|  | Females |
| **Total** | **5363.9**  | **55.1**  | **2204.6**  | **26.9**  | **142.7**  | **32.7**  | **3016.7**  | **-4.4**  |
| 60+ years | 1494.8  | 379.9  | 128.4  | 66.1  | 2.2  | -0.2  | 1364.2  | 314.0  |
|  |  |  |  |  |  |  |  |  |
| 60-64 years | 377.3  | 109.3  | 82.8  | 48.4  | 1.7  | 0.4  | 292.8  | 60.5  |
| 65+ years | 1117.5  | 270.5  | 45.5  | 17.7  | 0.5  | -0.6  | 1071.4  | 253.4  |
|  |  |  |  |  |  |  |  |  |
| *Source: CZSO, Labour Force Sample Survey* |  |  |  |  |  |

The number of working persons aged 60+ years significantly outnumbers the number of working persons aged under 25 years and the number of working persons aged 65+ years is even five times higher than the number of the young working persons under 20 years.

The employment growth is noticeable namely in the age group 60-64 years and is in an essential way affected by a gradual increase of the retirement age limit, as can be seen especially in the employment rate trend in the five recent years. Legislation impacts are simultaneously, however, to a certain extent already partially compensated by a decline in the total number of persons of this age, which has been occurring since 2010.

The employment rate of the aged 65+ years is naturally substantially lower than that of the previous five-year age group. In the whole twenty-year period it fell within the range 3.7% and 5.3%. In the last year, however, there is a visible increase in this employment rate (5.6%) and this trend has been observed this year so far. This confirms the fact that according to preliminary data for the second quarter of this year the number of working persons of this age has already grown even to 126 thousand.

The working persons older than 65 years are clearly dominated by the retired with regular old-age pension. In 2015 they accounted for 99 thousand of 108 thousand of all working persons of this age. Other pensions occur just rarely. In the last year the group of working persons who did not applied for pension (around 9 thousand) was rather important.

Ageing brings changes especially in physical shape. This is reflected in type of occupations and simultaneously in structure of economic activities of elder working persons. In the group of the aged 60-64 years there is no noticeable difference in structure of occupations and economic activities compared to younger working persons. They are less frequently working in occupations of technical and professional working persons and in trade and services. On the contrary, younger sexagenarians work more often in positions of managers, professionals and also craft and repair workers.

**Where The Older than 65 Years Work**

Things essentially change after 65 years of age have been reached. The number of craft and related trades workers and working persons in other physically demanding occupations as plant and machine operators, and assemblers drops rapidly. Conversely, the share of the elderly in managerial and control positions is high. The main difference from the structure of all working persons consists in there is an extremely high number of the aged 65+ years in the group of professionals. Two out of five working persons in this class are Prague residents. The share of professionals in employment of the aged 65+ years exceeded 22%, but in all working persons aged 15+ years it was mere 15%. At the same time the elderly work more frequently as auxiliary and non-qualified workers.

The number of working males aged 65+ years outnumbered that of females of this age (62.1 thousand compared to 45.5 thousand in the last year). Yet in the last year the number of females was absolutely higher than the number of males in occupations as clerical support workers, service and sales workers, professionals, and elementary occupations.

The structure of occupations is pronounced in a significant manner in structure of economic activities as well. The share of persons working in manufacturing attained over 27% in total employment of the national economy in the last year, which is almost six times more than the share of working persons in professional, scientific and technical activities. Yet the share of working persons aged 65+ years in the section of professional, scientific and technical activities reached almost 14% of the total number of working persons of this age and surpassed manufacturing in the last year. Besides manufacturing, the shares in construction and in transportation and storage decline with growing age as well.

The elderly aged 65+ years are more frequently employed than younger persons in tertiary sector, namely in professional, scientific and technical activities, then in education, administrative and support service activities, human health and social work activities, and in arts, entertainment and recreation. This does not hold for public administration and defence; compulsory social security.

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| **Numbers and shares of working persons by economic activity section of CZ-NACE** **in selected age groups in 2015** |
|  |  |  |  |  |  |  |  |  |  |
| Occupations by economic activity section of CZ-NACE | 15+ years | 60+ years | Of which |
| 60-64 years | 65+ years |
| Number (thousand) | % | Number (thousand) | % | Number (thousand) | % | Number (thousand) | % |
| **Total** |  | **5041.9**  | **100.0**  | **356.1**  | **100.0**  | **248.5**  | **100.0**  | **107.6**  | **100.0**  |
| **CZ-NACE** | **Section** |   |   |   |   |   |   |   |   |
|  |   |   |   |   |   |   |   |   |   |
| Agriculture, forestry and fishing | A | 147.5  | 2.9  | 16.2  | 4.6  | 12.2  | 4.9  | 4.1  | 3.8  |
| Mining and quarrying | B | 37.8  | 0.8  | 3.6  | 1.0  | 3.3  | 1.3  | 0.2  | 0.2  |
| Manufacturing | C | 1376.8  | 27.3  | 65.8  | 18.5  | 51.2  | 20.6  | 14.6  | 13.6  |
| Electricity, gas, steam and air conditioning supply | D | 49.2  | 1.0  | 3.8  | 1.1  | 2.7  | 1.1  | 1.1  | 1.0  |
| Water supply; sewerage, waste management and remediation activities | E | 57.1  | 1.1  | 6.1  | 1.7  | 4.3  | 1.7  | 1.8  | 1.7  |
| Construction | F | 396.0  | 7.9  | 29.1  | 8.2  | 23.8  | 9.6  | 5.3  | 4.9  |
| Wholesale and retail trade; repair of motor vehicles and motorcycles | G | 615.7  | 12.2  | 32.3  | 9.1  | 21.5  | 8.6  | 10.8  | 10.0  |
| Transportation and storage | H | 297.6  | 5.9  | 19.7  | 5.5  | 16.0  | 6.5  | 3.6  | 3.4  |
| Accommodation and food service activities | I | 197.2  | 3.9  | 10.2  | 2.9  | 6.7  | 2.7  | 3.5  | 3.2  |
| Information and communication  | J | 141.5  | 2.8  | 6.4  | 1.8  | 4.5  | 1.8  | 1.8  | 1.7  |
| Financial and insurance activities  | K | 118.1  | 2.3  | 6.0  | 1.7  | 3.8  | 1.5  | 2.2  | 2.0  |
| Real estate activities | L | 44.9  | 0.9  | 6.5  | 1.8  | 4.2  | 1.7  | 2.3  | 2.2  |
| Professional, scientific and technical activities | M | 237.5  | 4.7  | 30.0  | 8.4  | 15.2  | 6.1  | 14.8  | 13.8  |
| Administrative and support service activities | N | 128.9  | 2.6  | 14.9  | 4.2  | 9.3  | 3.8  | 5.6  | 5.2  |
| Public administration and defence; compulsory social security | O | 316.2  | 6.3  | 23.4  | 6.6  | 18.3  | 7.4  | 5.2  | 4.8  |
| Education | P | 322.8  | 6.4  | 29.5  | 8.3  | 18.0  | 7.3  | 11.4  | 10.6  |
| Human health and social work activities | Q | 351.6  | 7.0  | 32.3  | 9.1  | 22.2  | 8.9  | 10.1  | 9.4  |
| Arts, entertainment and recreation | R | 81.7  | 1.6  | 8.8  | 2.5  | 4.5  | 1.8  | 4.3  | 4.0  |
| Other service activities | S | 90.0  | 1.8  | 7.2  | 2.0  | 3.5  | 1.4  | 3.7  | 3.4  |
| Activities of households as employers | T | 31.8  | 0.6  | 4.2  | 1.2  | 3.0  | 1.2  | 1.2  | 1.1  |
|  |  |  |  |  |  |  |  |  |  |
| *Source: CZSO, Labour Force Sample Survey* |  |  |  |  |  |  |

**The Elderly with Higher Education Show High Work Involvement**

Males and females aged 65+ years often work in positions for which formal higher education is required. Last year the share of all working persons with secondary education with A-level examination and graduates with tertiary education in total employment of persons aged 15+ years reached 60.8%. The share of the same persons in the group of the aged 65+ years was substantially higher – 68.7%. It is especially the share of university graduates that is higher than that in all working persons in the Czech Republic. While the share of the tertiary education graduates attains almost one quarter (23.3%) in all working persons, among the aged 65+ years it is already one third (33.4%) in working persons.

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| **Numbers and shares of the working persons by educational attainment in selected age groups in 2015** |
|  |  |  |  |  |  |  |  |  |  |
| Educational attainmentCZ-ISCED 2011 | Total | Males | Females |
| Age group |
| 15+ years | 60-64 years | 65+ years | 15+ years | 60-64 years | 65+ years | 15+ years | 60-64 years | 65+ years |
|  | Number (thousand) |
| **Total** | **5041.9** | **248.5** | **107.6** | **2837.3** | **165.7** | **62.1** | **2204.6** | **82.8** | **45.5** |
|  |   |   |   |   |   |   |   |   |   |
| Primary education | 200.0 | 13.3 | 5.7 | 96.6 | 6.6 | 1.0 | 103.4 | 6.6 | 4.7 |
| Secondary education without A-level examination  | 1775.6 | 100.6 | 27.9 | 1164.9 | 82.6 | 19.0 | 610.7 | 18.0 | 8.9 |
| Secondary education with A-level examination  | 1891.0 | 78.2 | 38.0 | 963.1 | 41.2 | 18.6 | 927.9 | 37.0 | 19.3 |
| Higher education  | 1174.4 | 56.4 | 35.9 | 612.2 | 35.1 | 23.4 | 562.1 | 21.3 | 12.6 |
|  | Percentage |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |
|  |   |   |   |   |   |   |   |   |   |
| Primary education | 4.0 | 5.3 | 5.3 | 3.4 | 4.0 | 1.7 | 4.7 | 8.0 | 10.3 |
| Secondary education without A-level examination  | 35.2 | 40.5 | 26.0 | 41.1 | 49.9 | 30.6 | 27.7 | 21.7 | 19.6 |
| Secondary education with A-level examination  | 37.5 | 31.5 | 35.3 | 33.9 | 24.9 | 30.0 | 42.1 | 44.7 | 42.5 |
| Higher education  | 23.3 | 22.7 | 33.4 | 21.6 | 21.2 | 37.7 | 25.5 | 25.7 | 27.6 |
|  |  |  |  |  |  |  |  |  |  |
| *Source: CZSO, Labour Force Sample Survey* |  |  |  |  |  |  |

**Share of The Self-Employed Grows with Age**

Differences between elder and younger working persons are noticeable in the structure of occupations and economic activities and, especially, in shares of persons with respective educational attainments. They significantly differ in economic status of working persons as well. The prevailing share of all working persons aged 15+ years are employees, and their share attained 82.7% in 2015. They are followed with a certain margin by the own-account workers (13.2%), and then the self-employed with employees (3.5%). In the age group of younger sexagenarians the share of employees declines and the shares of the self-employed with and without employees (own-account workers) grow.

Then, in the age group of 65+ years, the share of the self-employed in the main job, including contributing family workers reached almost forty per cent (38.7%). A high share of the self-employed in this age group is significant both in females and, first of all, in males. The share of the self-employed males in this age group attained even 43% of all working males.

**Great Variability of Employment of The Aged 65+ Years in The EU28**

The unified methodology of the labour force sample survey enables to obtain trustworthy information on work involvement of elder persons in occupations in respective EU Member States. In the whole European Union there were 5.1 million persons aged 65+ years working last year and their share in the total number of working persons reached 2.3%. This is slightly more than in the Czech Republic (2.1%). Differences between countries are significant. In 14 countries the share of elder working persons is higher than that in the Czech Republic. It is high in Baltic and Nordic countries and in the United Kingdom, as well as in Romania and the absolutely highest one can be found in Portugal. In the neighbouring countries of the Czech Republic elder persons over 65 years of age are more involved in Germany than in the Czech Republic. In other neighbouring countries the share of working persons of this age group is lower and in Slovakia it is the lowest in the whole the European Union.

In the Czech Republic the share of the self-employed in the aged 65+ years is substantially higher than in younger working persons. In the European Union, however, the number of the self-employed in the main job, including contributing family workers, even dominates the number of employees (53.6% in the EU compared to 38.7% in the Czech Republic). It is, fist of all, a result of a high number of the self-employed without employees in numerous countries, mostly in the South of Europe as, for instance, Greece, Croatia, Italy, Portugal, and Slovenia. Extreme values are found in Romania where virtually every elderly working person is a self-employed or a contributing family member (96%).

Because of specific features of the sample survey more detailed data on structure of elderly working persons by economic activity are not published for small countries, or solely such data are given which are trustworthy concerning sample survey criteria. For the reason this paper further here deals only with employment of the elderly in large sections of economic activities and in selected countries.

**The Czech Republic Belongs to Countries with A High Share of Employment of The Elderly in Professional, Scientific and Technical Activities**

In the whole EU there are seven sections of economic activities in each of which there are at least a quarter of million working persons aged 65+ years. The sections are agriculture, forestry and fishing; manufacturing; construction; wholesale and retail trade; repair of motor vehicles and motorcycles; professional, scientific and technical activities; education; and human health and social work activities. Almost 70.0% of all persons aged 65+ years work in these sections.

Data on economic activities in the next table are compared for eight countries as follows: Czech Republic, Germany, Spain, France, Italy, Netherlands, Sweden, and United Kingdom. The countries contribute seventy per cent to total employment in the EU28. The share of the countries in the total number of the working elderly persons aged 65+ years in the EU is a bit higher (71.0%).

The selected countries show a below average share in employment of the aged 65+ years in the primary sector, in which the share is mere 28% of all elder working persons in the sector in the EU28. In the primary sector over a half of the elderly work in three countries as follows: Romania (32.3% of the whole EU), Portugal (15.6%), and in Poland (6.4%).

In other selected economic activities sections it is different and share in these countries fell within the interval 78% and 80% of the EU total. The countries show the utmost highest share in employment of the elderly in professional, scientific and technical activities (almost 84% of the whole EU). The Czech Republic belongs to countries with a high share of the elderly in this section in employment. The numbers of the employed in this section is remarkable namely in Italy, Germany, and in the United Kingdom, mostly in legal and legislation activities.

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| **Shares of working persons in selected economic activities sections and in selected countries and in the total number of working persons aged 65+ years in the EU28** **in 2015** |
|  |  |  |  |  |  |  |  | Percentage |
| Territory | Shares of working persons in selected countries and in the total employment of the aged 65+ years in the EU |
| Total | In selected section of CZ-NACE |
| A | C | F | G | M | P | Q |
| EU 28 | **100.0**  | **100.0**  | **100.0**  | **100.0**  | **100.0**  | **100.0**  | **100.0**  | **100.0**  |
|  |  |  |  |  |  |  |  |  |
| **Czech Republic**  | **2.1**  | **0.5**  | **3.5**  | **2.0**  | **1.6**  | **3.2**  | **3.5**  | **2.0**  |
| Germany | 20.2  | 5.6  | 27.0  | 24.0  | 24.3  | 22.1  | 16.0  | 22.8  |
| Spain | 2.9  | 1.4  | 2.8  | 2.2  | 4.0  | 3.1  | 3.7  | 2.2  |
| France | 5.9  | 2.6  | 2.7  | 4.8  | 5.1  | 7.0  | 5.5  | 10.5  |
| Italy | 9.6  | 6.5  | 14.8  | 8.9  | 14.7  | 13.4  | 7.0  | 7.1  |
| Netherlands | 4.0  | 1.8  | 2.0  | 2.1  | 4.4  | 5.4  | 4.2  | 3.6  |
| Sweden | 3.5  | 2.1  | 2.2  | 4.1  | 2.2  | 6.0  | 5.0  | 5.0  |
| United Kingdom | 23.0  | 7.6  | 23.1  | 31.8  | 22.5  | 23.3  | 32.3  | 27.0  |
|  |  |  |  |  |  |  |  |  |
| *Source: Eurostat, Labour Force Survey* |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Notes:  | A- Agriculture, forestry and fishing | M - Professional, scientific and technical activities |
|  | C-Manufacturing |  | P - Education |  |  |
|  | F-Construction |  |  | Q- Human health and social work activities |  |
|  | G- Wholesale and retail trade; repair of motor vehicles and motorcycles |  |  |  |  |

Intensity of work involvement of the elderly is best characterised by the employment rate (share of working persons in the total number of persons of the given age). The data released by Eurostat enable to compare differences between states in the employment rate of the elderly by educational attainment. On the contrary to other EU Member States, in the Czech Republic persons with primary education work much less. A lower employment rate is demonstrated also in persons with secondary education (with apprenticeship certificate or with A-level examination). Yet in the Czech Republic the numbers of persons with the secondary education dominate higher age groups and also the age group from 35 years to retirement.

The group with tertiary education shows a different situation. These are persons who earned university education in the 1960s and 1970s when the share of higher education graduates was in the Czech Republic substantially lower than it is at present. In the Czech Republic the share of working persons in the total number of university graduates aged 60-64 years is above average compared to that in the EU28; and in the elder age group of 65-69 years it is the fifth highest of all EU Member States (27%). Higher shares are only in two Baltic States, Sweden, and Malta. The Czech Republic university graduates older than 70 years feature above-average employment as well.

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| **The employment rate of persons with tertiary education in selected age groups in the EU Member States in 2015** |
|  |  | Percentage |
| Territory | Age group |
| 60-64 years | 65-69 years |
| **EU28** | **56.0**  | **19.6**  |
| Belgium | 40.0  | 8.4  |
| Bulgaria | 54.1  | 17.9  |
| **Czech Republic** | **61.3**  | **27.0**  |
| Denmark | 61.5  | 23.2  |
| Germany | 67.9  | 21.8  |
| Estonia | 69.3  | 40.0  |
| Ireland | 52.3  | 21.5  |
| Greece | 30.4  | 11.3  |
| Spain | 50.3  | 11.4  |
| France | 46.0  | 11.5  |
| Croatia | 54.0  | 10.1  |
| Italy | 66.7  | 20.6  |
| Cyprus | 48.6  | 13.2  |
| Latvia | 63.4  | 25.7  |
| Lithuania | 64.6  | 30.2  |
| Luxembourg | 35.1  | 10.8  |
| Hungary | 37.7  | 10.5  |
| Malta | 34.9  | 27.3  |
| Netherlands | 66.0  | 21.1  |
| Austria | 44.7  | 16.3  |
| Poland | 51.5  | 24.2  |
| Portugal | 50.3  | 14.6  |
| Romania | 40.3  | 9.3  |
| Slovenia | 28.2  | 7.9  |
| Slovakia | 47.6  | 15.9  |
| Finland | 56.3  | 18.4  |
| Sweden | 77.2  | 30.0  |
| United Kingdom | 53.7  | 26.6  |
|  |  |  |
| *Source: Eurostat, Labour Force Survey* |  |  |

The employment rate of university graduates, both males and females, after 65 years of age is in the Czech Republic substantially above the EU average. This is documented also by data for males and for females aged 65-74 years. In 2015 in this ten-year group of elderly working persons in the Czech Republic there were every fourth male of all having tertiary education and 17% females with this educational attainment working. The employment rate of university graduates in the EU28, however, attained 20% males and 12% females in this age group.

**Extent of Work Involvement of The Elderly with Secondary Education Important for Total Employment**

In the Czech Republic the number of person aged 65+ years will exceed the limit of two million next year. In 2020 there will be 2.2 million and 2.5 million in 2030 of such persons. In less than fifteen years they will form almost a quarter of the whole population. Because of that the need to create suitable jobs for older males and females will be even more important. A vast portion of these persons are graduates from secondary schools and apprentice schools. While females are significantly more focused on being employed in the sector of services, an extremely high share of males with apprenticeship certificate work in the secondary sector.

Total employment is and will be in a significant manner affected by the move of generations from the 1960s and 1970s to the elder age. This group as well as older generations feature a substantially higher share of secondary education and a lower share of university graduates. Working persons of younger generations weaker in numbers feature a high share of tertiary education graduates and the difference between the generations will be of long-tem effect.

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