ACCRUED-TO-DATE PENSION ENTITLEMENTS IN SOCIAL INSURANCE: FACT SHEET

Croatia

Information as of December 2023

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1. Table 29 column A: Defined contribution schemes (funded, non-general government)

1. General description of the scheme and the calculation model	
a. Coverage of the scheme	
In column A we recorded mandatory fully funded defined contribution (DC) scheme based on individual capitalised savings (2nd pension pillar). *Pension contribution rate is 5% (legally regulated rate) from the gross wage of each employees and self-employed who were 40 years of age or younger in 2002 when the scheme was introduced. Those at age 40-50 could choose whether they wanted to be in the 2nd pillar. In accordance with pension insurance act, employees pay 100% contribution to the 2nd pillar but the transaction is made in such a way that the company transfer directly amount to the mandatory pension funds.* *There is an exception for employees working in hazardous and arduous professions and those who are employed on certain working places in the military and police and for them contributory periods are credited in an extended duration. For these categories additional contributions to the mandatory pension funds are paid on top of their gross wage by their employers meaning that this additional cost is covered by employers and not households.* Please note: Actual contributions were split to D6111 and D6131. *This scheme has a coverage rate of about 87% of total workforce since this type of scheme is mandatory for persons who were 40 years of age or younger in 2002, when the scheme was introduced. Persons who were between 40 to 50 years of age in 2002 could choose whether they want to participate in 2nd pillar.* *There are four mandatory pension funds in Croatia: (1) Raiffeisen pension funds, (2) AZ Fond, (3) PBZ Croatia osiguranje and (4) Erste Plavi.* *Funds accumulated from above mentioned four mandatory pension funds on the individual savings accounts are transferred at the moment of retirement, from the pension fund to Raiffeisen Mirovinsko Osiguravajuće Društvo (RMOD), which is the only pension insurance company in Croatia that is in charge of payout of pensions from the mandatory 2nd pillar. An insurer can choose whether s/he wants to receive pension payment as a lump-sum or annuity or both.* *Transfers from 2nd pillar to the 1st pillars was possible for insurers who were in year 2002 between age of 40-50 and have chosen to be in the two-pillar system (both the 1st and the 2nd). Since accumulated amount when calculating pension formula was less in comparison to persons who have chosen to stay in the mono pillar system (just in the 1st pillar), government enabled them to transfer these funds to the first pillar so that they do not receive lower pensions.* *The data sources consist of both regulatory and accounting data.*	
b. Institutional set-up	
Data sources/ suppliers	*REGOS (The Central Registry of Affiliates)* *CROATIAN PENSION INSURANCE INSTITUTE (HZMO)* *Raiffeisen Mirovinsko Osiguravajuće Društvo (RMOD; Raiffeisen Pension Insurance Company)* *CROATIAN FINANCIAL SERVICES SUPERVISORY AGENCY (HANFA)*
Which institution is running/managing the	*Croatian Bureau of Statistics (CBS)*

calculations?	
2. Any other comments	

2. Table 29 column B: Defined benefit schemes and other non-defined contribution schemes (funded, non-general government)

This type of occupational pension scheme does not exist in Croatia.

3. Table 29 column D: Defined contribution schemes (funded, general government)

This type of occupational pension scheme does not exist in Croatia.

4. Table 29 column E: Defined benefit schemes (funded, for general government employees, classified in financial corporations)

This type of occupational pension scheme does not exist in Croatia.

5. Table 29 column F: Defined benefit schemes (funded, for general government employees, classified in general government)

This type of occupational pension scheme does not exist in Croatia.

6. Table 29 column G: Defined benefit schemes (unfunded, for general government employees, classified in general government)

This type of occupational pension scheme does not exist in Croatia.

7. Table 29 column H: Social security pension schemes (unfunded)

1. General description of the scheme and the calculation model	
a. Coverage of the scheme	
Column H represents the social security pension scheme i.e. state pension scheme (1st pillar pension scheme). It is mandatory with 100% coverage. *Public pension scheme is a mandatory pension insurance scheme based on the intergenerational solidarity (pay- as-you-go system). It includes the whole general population in terms of old-age pension, early old-age pension, deferred old-age pension, disability pension, survivor pension, special pensions (police officers, prosecutors, defense officers, rescue servicemen etc.). It is administrated by the Croatian Pension Insurance Institute (HZMO) and financed by contributions and state budget transfers.* *Pension contribution rate is 20% and it is applied on the contribution base of self-employed and the gross wage of employees. The contribution rate for the public pension scheme (1st pillar) is 15% and 5% is related to the 2nd pillar. There are categories of employees working in hazardous and arduous professions and those who are employed on certain working places in the military and police and for them contributory periods are credited in an extended duration. For these categories additional contributions are paid on top of their gross wage by their employers. Rate of employers pension contributions depend on the degree of contribution period extension: 2 months added per year of work - 4,86%, 3 months added per year of work -7,84%, 4 months added per year of work - 11,28% and 6 months added per year of work - 17,58%. If a person is insured in both pillars, these contributions are also divided between two pillars: ¾ goes to the first pillar and ¼ goes to the second pillar.* *Minimum contribution base for employees is set at 0.35 of the average national gross wage while for self- employed is between 0.35 and 1.1 of the average gross wage. Maximum contribution base for employees and self- employed is 6 times the average gross wage.*	
b. Institutional set-up	
Data sources/ suppliers	*Ministry of Finance* *Croatian Pension Insurance Institute (HZMO)*
Which institution is running/managing the calculations?	*Actuary from Croatian Pension Insurance Institute (HZMO)* *Croatian Bureau of Statistics (CBS)*
c. Major formulas: Benefit formula; Indexation of benefits	
Benefit formula	***Pension benefit (PB)*** *is calculated according to the pension formula:* ***PB = personal points (PP) x pension factor (PF) x actual pension value (APV) x basic pension factor (BPF)*** ***Personal points (PP)*** *valuate earnings and employment record of the insured person by:* ***PP = insurance period (IP) x average value points (AVP) x initial factor (IF).*** ***Insurance period (IP)*** *is the period in which pension insurance was active and pension contributions are paid. Insurance period is expressed in years.* ***The average value point (AVP)*** *is calculated in the way that annual wage earned by the future pensioner in each year of insurance is divided by the economy-wide average wage in that year. This ratio is averaged over the entire insurance period. For example, a person who received wage in amount of the average national wage in her/his entire career will have the average value point of 1.0.* ***The initial factor (IF)*** *aims to valuate timing of retirement. For old-age retirement at statutory retirement age it takes the value of 1. For early retirement, it is lowered by decrement rate of 0.2% for each month of earlier retirement compared to the statutory age. Depending on the years of insurance. A person at the age of 60, with at least 41 years of insurance period, is entitled to early retirement without any reduction of the pension benefit. In case of deferred retirement, i.e. at the age exceeding the statutory retirement age and qualifying period of at least 35 years, the initial factor increases by 0.45% per month of deferment, where maximum deferment is set at 5 years. The initial factor for disability pension is 1.* ***The pension factor (PF)*** *accounts for the type of pension. It takes value of 1 for old-age*

	and early retirement pensions. For disability pensions, the pension factor equals 1 in case of total disability; in case of partial disability it amounts 0.8 if the person is unemployed or 0.5 if employed or self-employed. ***Actual pension value (APV)*** *is the monetary value of one personal point. As of July 1st 2023, the value of APV was 12.13 EUR* ***The basic pension factor (BPF)*** *is calculated as an average share of the first pillar contribution rate (15%) in the total (first and second pillar) contribution rate (20%=15% first pillar rate 15% + 5% second pillar rate), in the period from 2002 until the current year. Currently, this factor equals 0.75 (15%/20%).* *The pension benefit determined by the formula described above is increased by pension supplement of 27% that is granted to all new mono-pillar pensions from the general pension scheme.* *Public pension benefit of pensioners who acquire also II. pillar pension, has two components calculated on the basis of contribution period acquired before and after 2002 (the year of introduction of II. pillar):* ***(i)*** *for the contribution period acquired until 2002 above mentioned formula is applied,* ***BPF=1*** ***(ii)*** *for the contribution period acquired from 2002 above mentioned formula is applied,* ***BPF=0,75*** Pension formula for persons insured in the 1st pillar only *=* *personal points (PP) x pension factor (PF) x actual pension value (APV) x 1.27* Pension formula for persons insured in the 1st and 2nd pillar *=* *personal points (PP) x pension factor (PF) x actual pension value (APV) x 0.75* *Pension formula for persons insured in both pillars that have periods of pension insurance before the introduction of the 2nd pillar in 2002 =* *personal points (PP) x pension factor (PF) x actual pension value (APV) (for insurance period before 2002) +* *personal points (PP) x pension factor (PF) x actual pension value (APV) x 0.75 (for insurance period after 2002)*
Indexation of benefits	*Indexation of benefits is performed through regular adjustment of the* ***Actual pension value (APV)*** *which occurs twice a year according to specific rules that take into account the average wage and consumer price developments. In July, the APV is increased by 50% of the average gross wage increase plus 50% of consumer price inflation in the previous six months. In January, the APV increases by a rate that is a combination of wage and price increases in the previous year in one of the following proportions: 70%:30%; 50%:50%; or 30%:70%. If wage and price rises are close, then 50% - 50% adjustment is taken; otherwise, it will be 70% by the indicator (wage or price rise) with a higher rate of change. However, rate of adjustment in January will be reduced by adjustment already taken in July.* *A simple interpretation of the APV indexation mechanism is that it is regularly adjusted with wage and price change in a 70%:30% proportion, where the 70%-weight is given to indicator that has increased at a higher rate. If the above adjustment rule results in a negative value, there will be no change in the APV.* *For example, if in a given year average wage growth rate is 3.5% and average CPI growth rate is 2% then APV will be adjusted by 3.05% (3.5 * 0.70 + 2 * 0.30 = 3.05).*
d. Type and structure of the calculation model	
The model and structure of the data are developed in a way to comply with the Technical Compilation Guide for	

Pension Data in National Accounts. The model is a deterministic macro simulation model that is based on a cohort approach, i.e. aggregated data are used in calculations.
2. Assumptions and methodologies applied
a. Discount rate
Nominal discount rate of 4% for base case and 3% and 5% for sensitivity analysis.
b. Wage growth
Assumptions that the EPC-AGE working group will use to project pension expenditure in the Ageing report.
c. Valuation method: ABO/PBO
Projected benefit obligation (PBO) approach is applied.
3. Data used to run the model
a. Mortality tables
Mortality tables are used from the EPC-AGE working group.
b. Entitlement statistics; other relevant statistics
Data on pension beneficiaries and average pensions by age, gender and type of pension, and on contributors by age and gender are gathered from the administrative database of the Croatian Pension Insurance Institute.
4. Reforms incorporated in the model
The model incorporates all pension reforms that have been legislated until the 31 December 2018
5. Specific assumptions
a. How are careers modelled?
Model uses data on present new pensioners (average age of retirement, average pension, years of service, pension points etc.) for modelling careers and future pension levels of current contributors taking into the account all relevant changes in the labour market and pension system.
b. How are survivor pensions calculated?
Survivor pensions for current pensioners are calculated using the data on current pension beneficiaries and average pensions by age and gender and applying relevant mortality rates, while for orphan pensions relevant statistics and rules that regulate duration of pension receipt are also taken into account. ADL for survivor pensions of current contributors are calculated applying a factor that is reflecting the ratio of the survivor pension expenditures and the old age pension expenditures in the base year.
c. How is the retirement age modelled over time?
Retirement age is modelled in accordance with the endorsed legislative that defines gradual increase in the legal retirement age. In 2018 old age retirement age is 65 years for men; retirement age for women is 62 years, increasing 3 months each year until reaches 65 years in 2030. From 2031 it increases 3 month each year both for men and women until reaches 67 years in 2038. Model takes into the account probabilities that cohorts of contributors will reach the legal retirement age and probabilities that contributor will exercise their right on the pension payment based on their age and years of service in the year in which they fulfill conditions for retirement.
d. Other specific features of the model
6. Any other comments

8. Table 29 column K: Entitlements of non-resident households

Data are not available.

9. Links to (national) publications providing further information on the pension schemes

PENSION ENTITLEMENTS IN THE REPUBLIC OF CROATIA, 2018
https://podaci.dzs.hr/2021/en/31535

The 2018 Pension Adequacy Report Country Profiles - Volume II (Croatia, page 103-111)

Link: https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8085&furtherPubs=yes

The 2018 Ageing report – Croatia Country fiche on pension projections

Link:
https://ec.europa.eu/info/publications/economy-finance/2018-ageing-report-underlying-assumptions-and-projection-methodologies_en

REGOS (The Central Registry of Affiliates: www.regos.hr

HZMO (*CROATIAN PENSION INSURANCE INSTITUTE):* https://www.mirovinsko.hr/en

Raiffeisen mirovinsko osiguravajuće društvo (RMOD): www.rmod.hr

CROATIAN FINANCIAL SERVICES SUPERVISORY AGENCY (HANFA) - https://www.hanfa.hr/en/