

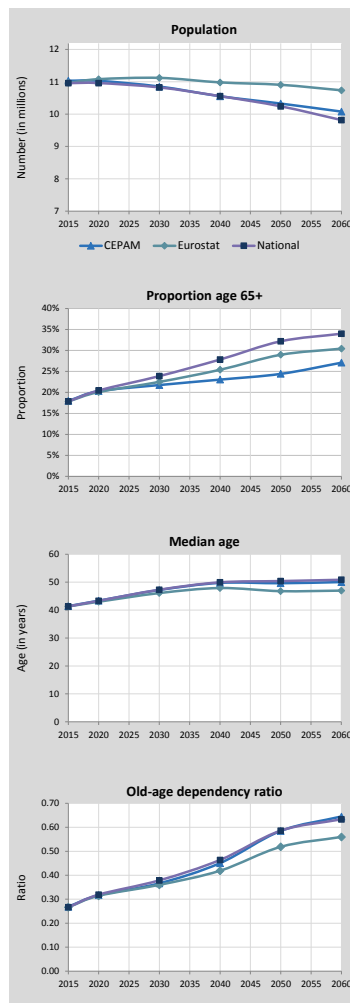
# Czech Republic

## Detailed Human Capital projections to 2060

### Comparison of CEPAM projections with other sources

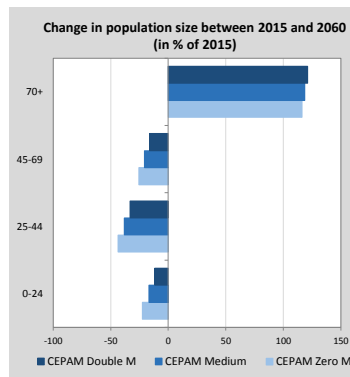
Demographic indicators - CEPAM Medium Scenario (SSP2), Eurostat and national projections		2015	2020	2030	2040	2050	2060
Population (in millions)	CEPAM	10.60	10.60	10.42	10.13	9.90	9.65
	Eurostat	10.54	10.65	10.69	10.55	10.48	10.31
	National	10.53	10.53	10.40	10.13	9.81	9.39
Proportion age 65+	CEPAM	18.0%	20.3%	21.8%	23.1%	24.4%	27.1%
	Eurostat	17.8%	20.1%	22.5%	25.4%	29.0%	30.4%
	National	17.9%	20.5%	23.9%	27.8%	32.2%	34.0%
Proportion below age 20	CEPAM	19.4%	20.2%	19.3%	17.6%	18.0%	18.4%
	Eurostat	19.6%	20.5%	20.3%	19.2%	19.8%	20.5%
	National	19.5%	19.9%	18.4%	16.7%	17.0%	17.0%
Median age	CEPAM	41.4	43.4	47.2	49.7	49.6	50.0
	Eurostat	41.3	43.0	46.1	47.9	46.8	47.0
	National	41.3	43.3	47.3	50.0	50.4	50.9
Old-age dependency ratio (65+/15-64)	CEPAM	0.27	0.32	0.37	0.45	0.58	0.65
	Eurostat	0.27	0.31	0.36	0.42	0.52	0.56
	National	0.27	0.32	0.38	0.46	0.59	0.63
Young-age dependency ratio (0-14/15-64)	CEPAM	0.23	0.25	0.22	0.21	0.25	0.26
	Eurostat	0.23	0.25	0.24	0.23	0.27	0.28
	National	0.23	0.24	0.21	0.20	0.23	0.23
Parent support ratio (85+/50-64)	CEPAM	0.09	0.10	0.12	0.21	0.31	0.49
	Eurostat	0.09	0.11	0.13	0.20	0.27	0.40
	National	0.09	0.11	0.15	0.25	0.34	0.47

Demographic assumptions underlying projections		2010-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060
Total fertility rate	CEPAM	1.53	1.59	1.61	1.66	1.69	1.71
	Eurostat	1.64	1.70	1.73	1.76	1.78	1.80
	National	-	-	-	-	-	-
Life expectancy at birth (in years)							
Male	CEPAM	76.0	77.1	78.2	80.3	82.4	84.5
	Eurostat	76.3	77.3	78.2	79.9	81.6	83.1
	National	-	-	-	-	-	-
Female	CEPAM	81.8	82.8	83.9	86.0	88.1	90.2
	Eurostat	82.2	83.0	83.8	85.2	86.5	87.8
	National	-	-	-	-	-	-
Five-year net migration flow (in thousands)	CEPAM	26.7	31.7	36.8	46.7	55.0	61.2
	Eurostat	103.8	95.1	88.3	98.0	77.7	54.9
	National	-	-	-	-	-	-



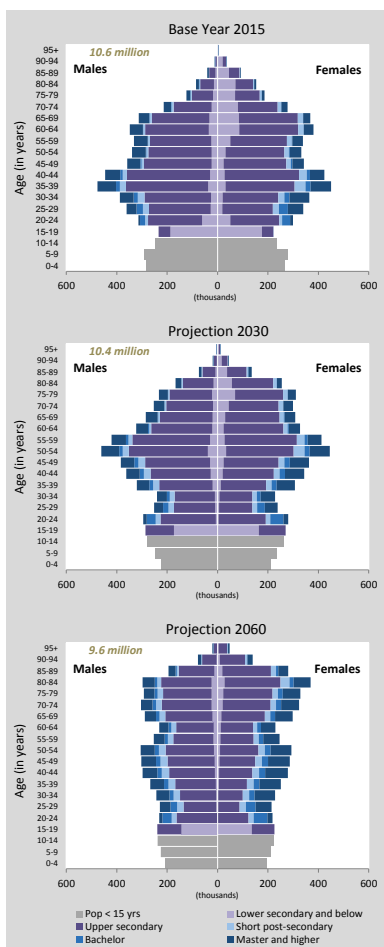
### Changes in population size and structure according to CEPAM scenarios (impact of migration)

Population size according to CEPAM projections to 2060		2015	2020	2030	2040	2050	2060
Population (in millions)	Zero M	10.60	10.57	10.31	9.90	9.54	9.12
	Medium	10.60	10.60	10.42	10.13	9.90	9.65
	Double M	10.60	10.63	10.53	10.34	10.23	10.13
Population 0-24 (in millions)	Zero M	2.67	2.59	2.56	2.26	2.12	2.07
	Medium	2.67	2.60	2.59	2.33	2.23	2.22
	Double M	2.67	2.61	2.63	2.40	2.33	2.36
Population 25-44 (in millions)	Zero M	3.25	2.98	2.24	2.04	2.12	1.83
	Medium	3.25	3.00	2.29	2.14	2.25	2.01
	Double M	3.25	3.01	2.35	2.23	2.37	2.17
Population 45-69 (in millions)	Zero M	3.45	3.53	3.71	3.63	2.84	2.56
	Medium	3.45	3.53	3.73	3.68	2.95	2.73
	Double M	3.45	3.53	3.75	3.74	3.05	2.89
Population 70+ (in millions)	Zero M	1.23	1.47	1.81	1.97	2.46	2.66
	Medium	1.23	1.47	1.81	1.97	2.47	2.69
	Double M	1.23	1.47	1.81	1.98	2.48	2.71



# Czech Republic (Continued)

## Pyramids by education, CEPAM Medium



## Detailed Human Capital projections to 2060

### Human Capital indicators, CEPAM Medium (SSP2)

	2015	2020	2030	2040	2050	2060
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#### Population age 25+: highest educational attainment (columns sum to 100%)

E1-E4 - lower secondary and below	12.4%	11.0%	8.8%	7.0%	5.7%	4.9%
E5 - upper secondary	66.7%	66.7%	66.2%	64.5%	62.1%	59.2%
E6 - short post-secondary	5.1%	5.4%	5.9%	6.6%	7.5%	8.3%
E7 - bachelor	2.3%	2.7%	3.4%	4.5%	5.4%	6.3%
E8 - master and higher	13.5%	14.3%	15.7%	17.4%	19.4%	21.3%
Mean years of schooling (in years)	12.55	12.73	13.04	13.39	13.73	14.04

#### Age gap: highest educational attainment (ratio 35-44/50-64)

E1-E4 - lower secondary and below	0.57	0.82	0.80	0.62	0.48	0.50
E5 - upper secondary	0.98	0.90	0.90	0.95	0.93	0.91
E6 - short post-secondary	1.64	1.86	1.27	1.14	1.23	1.20
E7 - bachelor	4.93	3.87	1.91	1.30	1.23	1.21
E8 - master and higher	1.10	1.18	1.27	1.20	1.23	1.21
Mean years of schooling (35-44 minus 50-64)	0.83	1.07	1.33	0.81	0.60	0.56

#### Gender gap (population age 25+): highest educational attainment (ratio male/female)

E1-E4 - lower secondary and below	0.52	0.57	0.69	0.86	1.04	1.15
E5 - upper secondary	1.14	1.13	1.11	1.11	1.13	1.17
E6 - short post-secondary	0.66	0.69	0.74	0.82	0.90	0.95
E7 - bachelor	0.81	0.81	0.81	0.79	0.77	0.76
E8 - master and higher	1.12	1.03	0.91	0.81	0.74	0.70
Mean years of schooling (male minus female)	0.34	0.21	0.01	-0.17	-0.34	-0.47

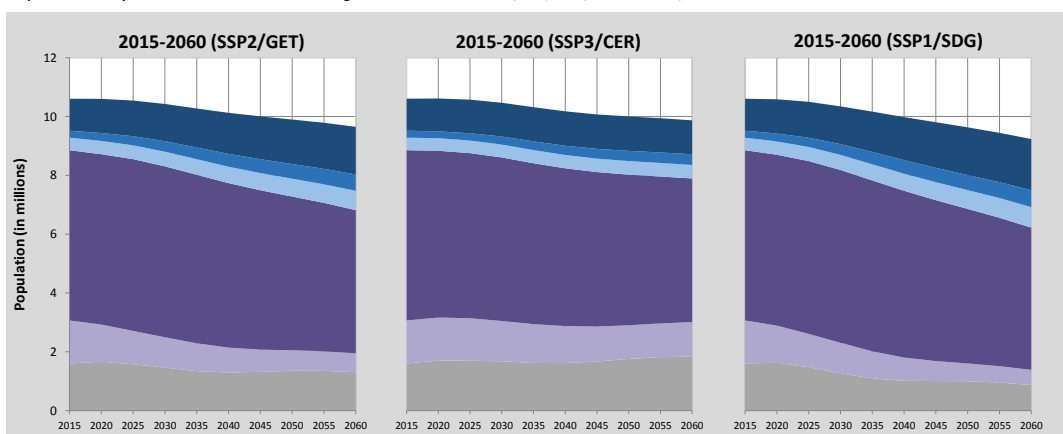
#### Women age 20-39: highest educational attainment (columns sum to 100%)

E1-E4 - lower secondary and below	8%	6%	3%	2%	1%	1%
E5 - upper secondary	61%	61%	60%	55%	50%	46%
E6 - short post-secondary	7%	7%	7%	8%	10%	10%
E7 - bachelor	7%	9%	11%	13%	13%	15%
E8 - master and higher	16%	18%	19%	22%	26%	28%
Mean years of schooling (in years)	13.61	14.05	14.33	14.61	14.89	15.09

#### Age gap among women: highest educational attainment (ratio 35-44/50-64)

E1-E4 - lower secondary and below	0.42	0.63	0.69	0.55	0.44	0.48
E5 - upper secondary	0.99	0.87	0.88	0.93	0.89	0.85
E6 - short post-secondary	1.54	1.56	0.94	1.02	1.26	1.24
E7 - bachelor	5.05	4.09	1.94	1.31	1.26	1.24
E8 - master and higher	1.33	1.47	1.51	1.27	1.26	1.24
Mean years of schooling (35-44 minus 50-64)	1.72	1.88	1.85	1.20	0.85	0.88

## Population size by educational attainment according to three scenarios: SSP2/GET, SSP3/CER and SSP1/SDG



Colour legend as in pyramids above

### Education scenarios

SSP2/GET : Global Education Trend Scenario (Medium assumption)

SSP3/CER : Constant Enrollment Rates Scenario (assumption of no future improvements)

SSP1/SDG : Sustainable Development Goal Scenario (universal primary and secondary education by 2030)

# Czech Republic (Continued)

## Alternative scenarios to 2100

### Projection results by scenario (SSP1-SSP3)

	2015	2020	2030	2050	2060	2075	2100
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#### Population (in millions)

SSP1 - Rapid Development	10.60	10.59	10.35	9.63	9.23	8.44	7.35
SSP2 - CEPAM Zero Migration	10.60	10.57	10.32	9.54	9.12	8.33	7.59
SSP2 - CEPAM Medium	10.60	10.60	10.42	9.90	9.65	9.15	8.93
SSP2 - CEPAM Double Migration	10.60	10.63	10.53	10.24	10.13	9.87	10.06
SSP3 - Stalled Development	10.60	10.61	10.47	10.00	9.87	9.76	10.70

#### Proportion age 65+

SSP1 - Rapid Development	18.0%	20.5%	24.2%	36.5%	41.1%	44.4%	51.7%
SSP2 - CEPAM Zero Migration	18.0%	20.3%	23.3%	32.8%	35.3%	34.3%	37.8%
SSP2 - CEPAM Medium	18.0%	20.3%	23.1%	31.8%	33.9%	32.7%	35.8%
SSP2 - CEPAM Double Migration	18.0%	20.2%	22.8%	31.0%	32.8%	31.6%	34.6%
SSP3 - Stalled Development	18.0%	20.1%	22.0%	27.8%	27.6%	22.9%	22.4%

#### Proportion below age 20

SSP1 - Rapid Development	19.4%	19.9%	17.7%	13.8%	13.2%	11.3%	10.2%
SSP2 - CEPAM Zero Migration	19.4%	20.2%	19.3%	17.8%	18.1%	17.2%	16.7%
SSP2 - CEPAM Medium	19.4%	20.2%	19.3%	18.0%	18.4%	17.6%	17.1%
SSP2 - CEPAM Double Migration	19.4%	20.2%	19.4%	18.2%	18.6%	17.9%	17.4%
SSP3 - Stalled Development	19.4%	20.6%	21.3%	22.8%	24.6%	25.6%	26.4%

#### Proportion of women age 20-39 with post-secondary education

SSP1 - Rapid Development	26.0%	28.9%	33.6%	46.7%	52.2%	60.5%	69.7%
SSP2 - CEPAM Zero Migration	26.0%	28.8%	32.6%	41.3%	45.1%	51.2%	60.1%
SSP2 - CEPAM Medium	26.0%	28.7%	32.4%	40.9%	44.7%	50.8%	59.7%
SSP2 - CEPAM Double Migration	26.0%	28.6%	32.2%	40.7%	44.4%	50.6%	59.5%
SSP3 - Stalled Development	26.0%	24.8%	22.8%	23.3%	23.1%	23.0%	22.9%

#### Mean years of schooling, age 25+

SSP1 - Rapid Development	12.6	12.7	13.0	13.8	14.1	14.7	15.4
SSP2 - CEPAM Zero Migration	12.6	12.8	13.1	13.9	14.2	14.7	15.2
SSP2 - CEPAM Medium	12.6	12.7	13.0	13.7	14.0	14.5	15.1
SSP2 - CEPAM Double Migration	12.6	12.7	13.0	13.6	13.9	14.4	15.0
SSP3 - Stalled Development	12.6	12.7	13.0	13.5	13.7	13.8	13.8

### Demographic assumptions underlying SSPs

	2015-2020	2020-2025	2030-2035	2050-2055	2060-2065	2075-2080	2095-2100
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#### Total fertility rate

SSP1 - Rapid Development	1.43	1.37	1.28	1.26	1.27	1.27	1.27
SSP2 - CEPAM Zero Migration	1.53	1.59	1.63	1.70	1.71	1.71	1.71
SSP2 - CEPAM Medium	1.53	1.59	1.63	1.70	1.71	1.71	1.71
SSP2 - CEPAM Double Migration	1.53	1.59	1.64	1.70	1.71	1.71	1.72
SSP3 - Stalled Development	1.65	1.88	2.09	2.27	2.30	2.34	2.38

#### Life expectancy at birth for females (in years)

SSP1 - Rapid Development	82.3	83.8	87.0	93.2	96.3	101.0	107.2
SSP2 - CEPAM Zero Migration	81.8	82.8	85.0	89.2	91.3	94.5	98.8
SSP2 - CEPAM Medium	81.8	82.8	85.0	89.2	91.3	94.5	98.7
SSP2 - CEPAM Double Migration	81.8	82.8	84.9	89.2	91.3	94.4	98.7
SSP3 - Stalled Development	81.3	81.8	82.9	85.2	86.3	87.9	90.0

#### Migration – net flow over five years (in thousands)

SSP1 - Rapid Development	26.7	31.3	39.3	51.5	54.6	57.2	53.6
SSP2 - CEPAM Zero Migration	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSP2 - CEPAM Medium	26.7	31.7	41.9	58.3	63.9	69.3	68.3
SSP2 - CEPAM Double Migration	53.4	62.6	80.9	109.1	117.8	125.0	118.8
SSP3 - Stalled Development	17.8	10.8	0.1	0.1	0.1	0.1	0.1

### Ageing indicators by scenario

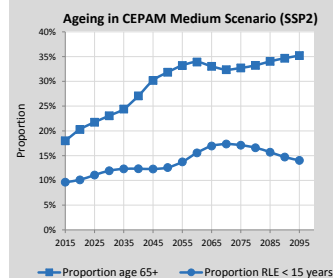
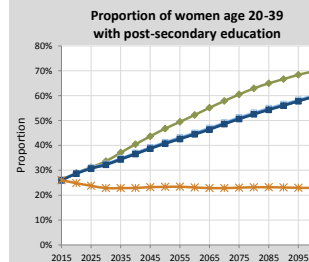
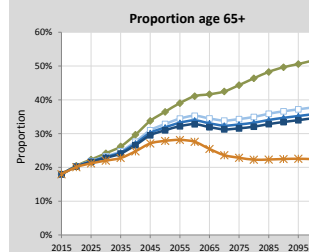
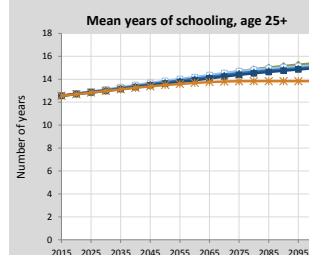
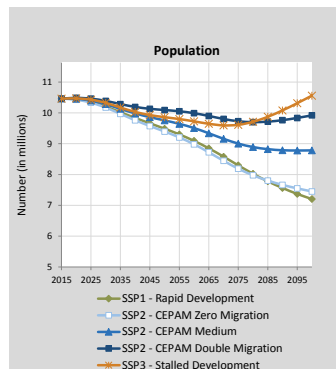
	2015	2020	2030	2050	2060	2075	2095
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#### Median age

SSP1 - Rapid Development	41.4	43.5	48.2	55.0	56.5	60.9	65.6
SSP2 - CEPAM Zero Migration	41.4	43.4	47.5	50.6	51.0	52.3	53.0
SSP2 - CEPAM Medium	41.4	43.4	47.2	49.6	50.0	50.9	51.5
SSP2 - CEPAM Double Migration	41.4	43.3	46.9	48.9	49.3	50.0	50.6
SSP3 - Stalled Development	41.4	43.2	46.2	44.4	43.0	40.2	39.7

#### Proportion with less than 15 years of remaining life expectancy (RLE)

SSP1 - Rapid Development	9.6%	10.1%	12.0%	12.6%	15.6%	17.1%	14.0%
SSP2 - CEPAM Zero Migration	10.1%	11.0%	13.0%	13.9%	16.9%	16.1%	13.5%
SSP2 - CEPAM Medium	10.1%	11.0%	12.9%	13.4%	16.1%	15.1%	12.5%
SSP2 - CEPAM Double Migration	10.1%	10.9%	12.8%	13.0%	15.4%	14.3%	11.9%
SSP3 - Stalled Development	10.5%	11.8%	13.8%	14.9%	16.0%	12.4%	10.3%



# Czech Republic (Continued)

## Labour force projections to 2060

### Labour force indicators

	2015	2020	2030	2040	2050	2060
<b>Labour force size, by participation and migration scenario (in millions)</b>						
Constant (CEPAM Zero Migration)	5.40	5.27	4.98	4.48	3.99	3.71
Constant (CEPAM Medium)	5.40	5.28	5.03	4.60	4.18	3.99
Constant (CEPAM Double Migration)	5.40	5.29	5.09	4.71	4.36	4.24
Swedish (CEPAM Zero Migration)	5.40	5.35	5.24	4.94	4.54	4.30
Swedish (CEPAM Medium)	5.40	5.37	5.30	5.06	4.76	4.63
Swedish (CEPAM Double Migration)	5.40	5.38	5.36	5.19	4.96	4.93
Equalization (CEPAM Zero Migration)	5.40	5.32	5.12	4.73	4.31	4.05
Equalization (CEPAM Medium)	5.40	5.34	5.18	4.86	4.52	4.36
Equalization (CEPAM Double Migration)	5.40	5.35	5.24	4.97	4.72	4.64
Constant (CEPAM Medium-low fertility)	5.40	5.28	5.03	4.56	4.03	3.65
Swedish (CEPAM Medium-low fertility)	5.40	5.37	5.30	5.01	4.55	4.21
Equalization (CEPAM Medium-low fertility)	5.40	5.34	5.18	4.82	4.35	3.98

### Labour force participation rates, age 15+, by participation scenario (CEPAM Medium)

TOTAL (Constant)	60.0%	59.1%	56.1%	52.1%	49.0%	47.8%
TOTAL (Swedish)	60.0%	60.1%	59.1%	57.4%	55.7%	55.5%
TOTAL (Equalization)	60.0%	59.7%	57.8%	55.0%	52.9%	52.2%
MALE (Constant)	69.0%	67.5%	63.6%	59.5%	56.1%	54.5%
MALE (Swedish)	69.0%	68.1%	65.6%	63.2%	60.7%	59.7%
MALE (Equalization)	69.0%	67.5%	63.6%	59.5%	56.1%	54.5%
FEMALE (Constant)	51.5%	51.1%	49.0%	45.0%	42.2%	41.4%
FEMALE (Swedish)	51.5%	52.4%	52.9%	51.8%	50.9%	51.4%
FEMALE (Equalization)	51.5%	52.3%	52.2%	50.7%	49.9%	50.1%

### Labour force (15+) by highest level of educational attainment. Columns sum to 100%.

#### (CEPAM Medium; Constant participation)

TOTAL E1-E4 - lower secondary and below	6.7%	5.7%	4.7%	3.9%	3.0%	2.4%
TOTAL E5 - upper secondary	69.5%	68.5%	65.6%	61.7%	58.4%	55.4%
TOTAL E6 - short post-secondary	5.3%	5.7%	6.8%	7.8%	8.6%	9.4%
TOTAL E7 - bachelor	3.2%	3.9%	5.2%	6.5%	7.4%	8.2%
TOTAL E8 - master and higher	15.3%	16.3%	17.7%	20.1%	22.6%	24.6%
MALE E1-E4 - lower secondary and below	6.5%	5.7%	5.0%	4.3%	3.4%	2.7%
MALE E5 - upper secondary	71.7%	70.9%	69.1%	66.0%	63.4%	61.5%
MALE E6 - short post-secondary	4.4%	5.1%	6.4%	8.0%	9.3%	10.1%
MALE E7 - bachelor	2.6%	3.2%	4.2%	5.2%	5.9%	6.5%
MALE E8 - master and higher	14.8%	15.1%	15.3%	16.4%	17.9%	19.2%
FEMALE E1-E4 - lower secondary and below	6.9%	5.6%	4.4%	3.4%	2.5%	2.0%
FEMALE E5 - upper secondary	66.7%	65.5%	61.4%	56.1%	51.9%	47.8%
FEMALE E6 - short post-secondary	6.3%	6.5%	7.2%	7.5%	7.8%	8.6%
FEMALE E7 - bachelor	4.0%	4.7%	6.4%	8.1%	9.3%	10.3%
FEMALE E8 - master and higher	16.1%	17.7%	20.6%	24.8%	28.5%	31.3%

### Labour force size by educational attainment according to three migration scenarios, 2015-2060

(Labour force participation = Constant scenario)

