

Czech Pension Reform Plan

Jaroslav Vostatek*

Abstract. Czech public pensions are incomprehensible for its participants. Pension theory recommends their splitting into two pension pillars: a flat pension and an earnings-related pension. The government failed to formulate a pension reform, attracting pure marketing. Minister of Labor and Social Affairs assumed the initiative, declaring to realize a “fair” pension reform. Her plan includes a separate flat/basic old-age pension at the level of 28% of NAE. Fair amount/bonus shall be introduced for each child raised (for one parent). Another fair bonus shall be generated to all participants with more than 35 years of insurance. The Prime Minister responded with the OECD pension review. This Review confirmed the 2 tiers but not e.g., the “fair” bonuses. A key recommendation is to strengthen the role of the funded system in the overall pension system, in the neo-liberal style. We compare the mentioned pension reform plans with typical welfare regimes, and we present a simple solution for Czechia.

Keywords: Czech pension system, pension reform, pension pillars, welfare regimes

JEL Classification: H55; J32; G51; P51; I38

Introduction

The Czech pension system consists of two pension pillars: public “pension insurance” (first pillar) and private “supplementary pension savings” (third pillar). Occupational pensions are de facto prohibited; only soldiers, police and firefighters have special additional schemes funded by the state. In parallel to the “supplementary pension savings”, there is also the traditional and unit-linked “private life insurance” – with state support, which is identical and common to supplementary pension savings only for employer contributions. Investment in housing is becoming increasingly important as a form of old-age security.

The Czech Constitutional Court (2010) concluded that “whole complex design of the pension system is non-transparent to a degree that it is de facto incomprehensible for its addressees; and for the majority of the insureds the calculated amount of the pension benefit becomes unverifiable”. The Court declared the provisions of the Pension Insurance Act on bend points and reduction coefficients unconstitutional and abolished the respective section of the Act. The government has reintroduced the first bend point within the so-called small pension reform. Unfortunately, the ‘small pension reform’ (2011) did not increase the transparency and clarity of the pension system. A comprehensible system of indexing the percentage amount of pensions is also missing; after the introduction of parameterization of the basic pension amount, the indexation in the percentage amount of the old-age pension depends on the total room for increasing the average old-age pension, the increase in the basic amount being deducted; so far, no one has even tried to explain the logic of this dependence of the indexation of the percentage-based amount on the valorization of the basic pension amount. The only comprehensible parameter of the Czech “pension insurance” has been the basic pensionable age, which is differentiated for women according to the number of children raised (a remnant of the timid Communist pension policy).

Fair Pension Reform Plan

In 2018 the new Czech government made a relatively general commitment to a pension reform: the universal old-age security ought to be defined, the equivalence principle strengthened, and people should be motivated to use the subsidized individual old-age products (Babiš et al., 2018). The pension reform proposal ought to be elaborated by a “professional working team”. Instead of the governmental pension commission the Minister of labor and social affairs Maláčová established a separated “Fair Pension Commission”, as her consulting body, with more than 40 members. The Fair Pension Plan is the result of the work of this Ministry. Its first version was published in January 2020 and the second version in May 2021, shortly before the general elections.

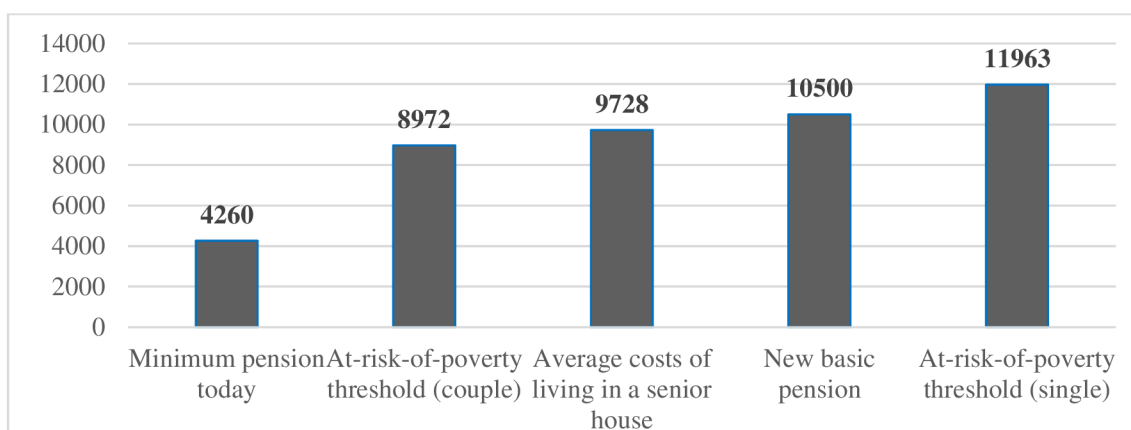
The Fair Pension Plan introduces 2 pension pillars, instead of the hitherto single pillar “pension insurance”, as recommended by more analysts in the previous decade. In its first version, the basic component of the old-age pension of 10% of the national average wage (NAE) triples to 30% of NAE, to better reflect the minimum cost of living of pensioners. The bend point and the respective reduction coefficient (26%) are abolished by disappearing in the new lower percentage component (first pension pillar in the World Bank typology): the accrual

* prof. Ing. Jaroslav Vostatek, CSc.; Department of Finance, Faculty of Economic Studies, University of Finance and Administration, Prague, Estonská 500, 101 00 Prague, Czechia, jaroslav.vostatek@vsfs.cz

rate is simplified and set at 0.39% per year. The new coefficient of 0.39% is equivalent to the current effective (marginal) accrual rate between the two current thresholds: the current accrual rate is 1.5% on 26% of earnings ($1.5\% \cdot 26\% = 0.39\%$). The pension plan illustrates the amounts of monthly first-pillar pensions using the coefficient 0.0325%, which is 0.39% divided by 12 (months).

The size of new (fair) basic old-age pension (WB zero pillar) was not computed from the existing parameters but derived basically from the at-risk-of-poverty thresholds (minimum cost of living of pensioners) – see Figure 1. The basic old-age pension/component is to be indexed to wages as is currently the case, while the earnings-related component should be indexed in payment with prices only. The reasons for this different indexation approaches were not explained, we may only guess that the zero-pillar indexation was derived from logic of the fair minimum pension (at-risk-of poverty threshold) and that the same approach to the first-pillar indexation seemed to be unaffordable. These indexation rules are likely to increase the role played by the basic component as retirees age.

Figure 1: Basic old-age pension in the 2020 Fair Pension Plan



Source: MPSV (2020).

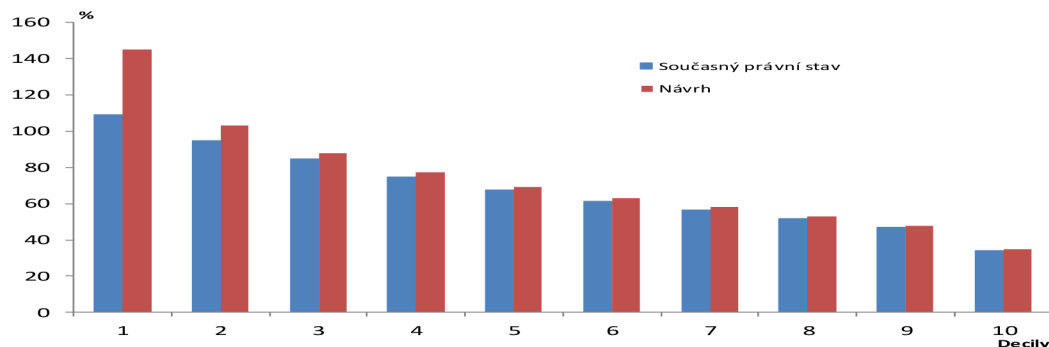
The ministerial derivation of the size of the new basic old-age pension from the at-risk-of-poverty thresholds is not enough precise. These data are from December 2018, and they ought to be indexed to mid-2020; we get some 11,043 CZK monthly (instead of 10,500 CZK), which corresponds to 31.7% of NAE (instead of 30%).

Next to the new mentioned general percentage component of the old-age pension there are 2 further special fair components of this pension:

- 240 CZK monthly as an additional pension for participants with a career longer than 41 years, for each year of insurance above 41 years; this bonus is justified by the technical parameters used in the separation of the 2 pension pillars (Comment: it is basically due to “low” size of the basic pension.),
- 500 CZK monthly per child as an additional childcare bonus for one parent, next to the validation of periods of childcare up to four years of age, also for retirees; this bonus is justified by the lower female (paid out) pensions.

The overall immediate effect of the fair pension reform on the retiree incomes ought to be positive – see Figure 2.

Figure 2: Old-age pension increases now and just after the Fair pension reform in 10 income deciles (% of the respective assessment base)



Source: MPSV (2020).

The second version of the Fair Pension Plan (MPSV, 2021) has brought several important parametric changes. The new fair basic old-age pension has been lowered to 28% of NAE. There is no more reference to the at-risk-of-poverty thresholds. The explanation refers to the “dignified” pension needed for persons that had acquired the sufficient length of insured period. In the first year of force (2023) this benefit might amount thus to some 10,104 CZK monthly.

Contrary to the lowering of fair basic old-age pension, the Ministry has basically increased the bonus for a longer insurance period; the bonus rate itself has decreased from 240 CZK to 0.5% of NAE but the minimum number of needed career years has decreased from 41 to 35. The outcome in a typical case of 45 years “done” is: $10 * 0.5\% \text{ NAE} = 1,772 \text{ CZK}$. The former fair scheme gets in this case $240 * 4 = 960 \text{ CZK}$ monthly. The logic (necessity) of this bonus has not been explained (again).

Another innovation is a reduction of the minimum years of required coverage (work and non-work validated periods) to be eligible to an old-age pension at retirement age: from 35 to 25 years. The Ministry refers here to the recommendation of the OECD Review. (See later.)

An improvement are several adjustments in the calculation of the reference wage in case of the so-called non-contributed periods. It refers mainly to the periods of childcare (up to 4 years of age), this period shall no longer reduce the average reference wage used for the calculation of the pension. It is done on the recommendation of the OECD Review to “remove the double penalty related to the impact of non-validated periods on pension benefits”. An example presented by the Ministry: the reference wage of a mother increases from 34,274 to 35,415 CZK monthly.

The fair pension bill modifies the calculation of survivor pensions: to avoid a negative effect of the reform of old-age pensions on the survivor pensions. The disability pensions are not to be reformed at all.

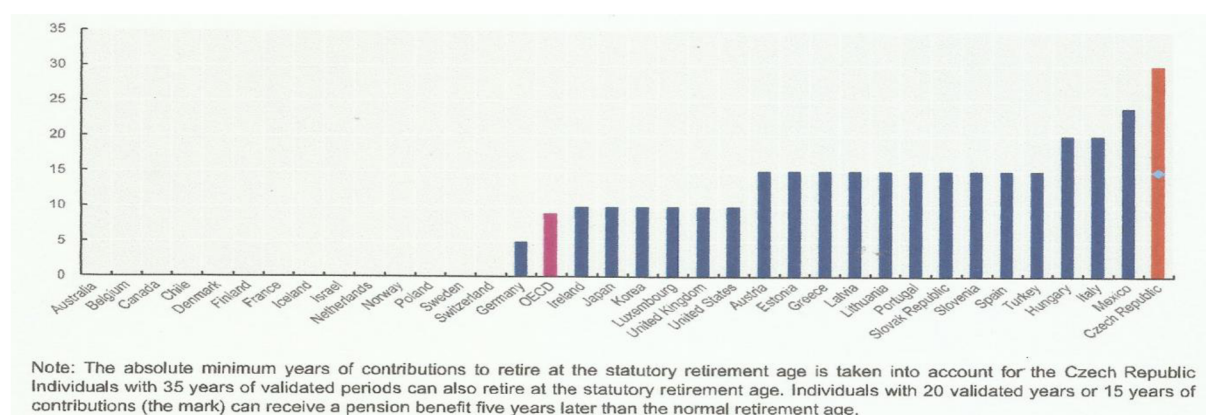
Not surprisingly, the government has not debated the submitted Fair Pension Plan.

OECD Pension Review

OECD (2020) provides an assessment of the Czech “retirement income provision from an international perspective and focuses on the capacity of the pension system to deliver adequate retirement income in a financially sustainable way. The review highlights OECD best practices for the design of pensions by covering all components of pension systems: safety nets, public pay-as-you-go schemes and private funded plans”.

According to the OECD, Czechia is “an outlier with the longest period to be eligible for earnings-related pensions ... On average among OECD countries, it is equal to nine years. In many countries, it is less than one year” (OECD, 2020). Figure 3 demonstrates this (alleged) extremeness. The OECD key recommendation No. 1 is “drastically reduce the minimum number of years required to be eligible to both the basic pension and the earnings-related component at the statutory retirement age, and make the basic pension benefit proportional to the validated contribution period; move towards ensuring that the first year of contribution generates entitlements” (OECD, 2020). Afterwards the Ministry of Labor and Social Affairs reduced the basic number of years required to be eligible to the old-age pension from 35 to 25 years in its pension reform proposal.

Figure 3: The minimum years of coverage required is extremely high in Czechia



Source: OECD (2020)

The data in our Figure 3 generate a great misunderstanding: in standard cases the elderly have more than 35 validated years at the statutory retirement age – in this sense there is no need to realize the OECD key recommendation No. 1; another question is if (and how) these “components” are to be proportionally reduced in extreme/rare cases with less than 30-35 validated years. Also, we should differentiate between the (future) basic/flat pension and the earnings-related pension. UK data (10 years) represent a partial truth only: the elderly

get full basic pension after 35 years of (paid) national insurance contributions; we might follow them. The (pure) earnings-related pension should have a quite different design e.g., according to the OECD recommendation.

The OECD key recommendation No. 2 is to “simplify the benefit formula such that entitlements earned for each contribution period are clearly identified ... and people can better anticipate their future pension level. This can be done by calculating earnings-related entitlements using a constant effective accrual rate across earnings levels (up to a ceiling) while adjusting the basic pension benefit to achieve redistributive objectives” (OECD, 2020). “Proposals by the Fair Pension Commission in January 2020 (triple the basic pension level and constant effective accrual rate of 0.39%) would greatly simplify and go a long way in mimicking the current pension formula ... at retirement ... The Commission proposals imply a high level of basic pension and a low level of accruals in international comparison, consistent with maintaining high progressivity ... Other components of the Commission proposals add some new complexity: complex options to grant new pension credits, additional bonuses for childcare and long (more than 41-year) careers” (Boulhol and Geppert, 2020).

Moreover, the OECD concluded that in Czechia, “due to generous childcare credits, ... a /childcare/ career break has no impact on future pensions whatever the earnings level. By contrast, this career break generates a loss of 4% on pensions on average across OECD countries for average-wage workers”. These are results of the OECD pension model, which “compares pension benefits for women who stop working during five years from age 30 to care for their two children born when the mother was aged 30 and 32 (at age 35 they are assumed to resume full-time work until the normal retirement age) compared with the full-career case” (OECD, 2020).

Next OECD key recommendations are: Implement the legislated increases in the retirement ages and their convergence between men and women and link the unified retirement age to gains in life expectancy, for example to transmit two-thirds of increases of life expectancy at older ages to the statutory retirement age. Raise the minimum early retirement age and adjust early retirement ages to life expectancy as well. Eliminate age-specific credits for unemployment periods” (OECD, 2020).

The Pension Review also recommends to “raise the contribution base of the self-employed from its current level of 50% to 75% of profits to better harmonise contributions and entitlements between employees and the self-employed with similar earnings” and to “Avoid encouraging self-employment through lower contributions, which generate lower pension entitlements. If there is a political choice to support self-employment, make any subsidy explicit by financing the contribution gaps compared with employees having similar income through general taxes” (OECD, 2020).

The final key recommendation to Czech public pensions is to “Consider shifting part of the financing (of at least some redistributive components) to taxes to boost pensions for people earning more than the average wage” (OECD, 2020).

Chapter 4 of the OECD review evaluates the Czech voluntary funded pension system against “OECD international best practices”. The Czech “third pension pillar” has large coverage of the population but small contributions, the state provides significant financial incentives. Low performance of the pension funds stems from conservative investment strategies due to the annual non-negative return guarantee – according to the OECD review. Participants mostly withdraw lump sums (instead of regular payments).

The first key recommendation to the Czech voluntary funded pensions is to strengthen the role of these pensions in the overall pension system by “introducing a new, occupational pension scheme, or by improving the design of the existing supplementary pension schemes... The Czech Republic is the sole OECD country where the funded pension system only consists of a voluntary personal pension scheme. All the other countries have several pension schemes, sometimes combining mandatory and voluntary, occupational and personal plans. This allows pure voluntary personal schemes to have rules that are more lenient with respect to participation, contributions and withdrawals. The Czech Republic lacks this intermediate layer between public pensions and voluntary personal pensions. One option could be to introduce a voluntary occupational pension scheme, where employers could elect to establish a plan for their employees, and employees could choose whether to join that plan. This would help increasing the role of employers in retirement income provision. Alternatively, the Czech authorities could build on the strength of the current supplementary pension scheme and improve it” (OECD, 2020).

The OECD experts think that our third pension pillar might play a role like the occupational pension pillars in Western countries. To achieve it they formulated these (further) key recommendations:

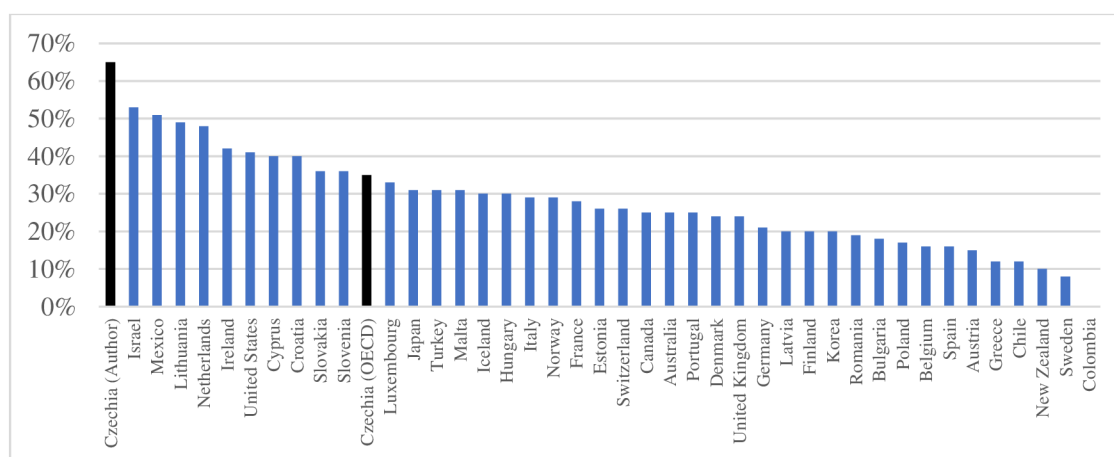
- “Improve the performance of pension funds by encouraging or nudging participants to switch to participating funds as they have more flexibility to pursue growth investment strategies because they do not have to provide an annual non-negative return guarantee, and by promoting the access to an appropriate default investment strategy.
- Better align fees charged to participants with the costs incurred by the pension management companies by analysing the cost of investing in different asset classes and applying a regressive scale for management fees to pass on economies of scale to participants as assets under management grow.

- Encourage participants to contribute more by redesigning some elements of state financial incentives, setting up a mechanism where contributions increase automatically up to a pre-set maximum, promoting employer contributions, and providing information about expected benefits from the entire pension system.
- Lengthen contribution periods by increasing the minimum saving period to withdraw retirement benefits and keep the state financial incentives.
- Consider introducing automatic enrolment into an occupational pension plan or a participating fund, with appropriate default contribution rates and investment strategies.
- Extend the take-up of products providing lifelong retirement income by discouraging the lump sum pay-out option and increasing the attractiveness of life annuities through additional product features (e.g. guaranteed period, survivor option, or profit sharing)” (OECD, 2020).

The main purpose of purchasing Czech supplementary pension insurance does not involve individual security in old age. The purpose is to divest excess liquidity and the tax optimization. The construct of supplementary pension insurance was also of fundamental significance to many participants: it was a simple bank savings product with a high degree of state support in the form of state contributions (originally up to 50%!) with a guaranteed non-negative nominal yield. The fiscal illusion that the state support is free also played a significant role. „...the third pillar is not really a pension scheme. It is akin to a tax-advantaged savings account. The system should not be presented to the public as a source of meaningful future replacement income“ (World Bank, 2017). „Personal pensions have relatively wide take-up in only a few Member States (over 60% coverage in Czechia, over 30% in ... Germany) while in most Member States take-up is moderate and fragmented, and in some, nearly non-existent“ (EC, 2017). „Pillar 3 (voluntary retirement savings) should not receive ... subsidies, which are regressive and also have not been shown to have any significant effect on private saving“ (Willmore, 2000).

The vision of the OECD experts about the need to develop state support for the third pension pillar in Czechia was derived from an international comparison of state support for private pension schemes, compiled by the OECD (2018). According to this comparison, Czechia is “only” above average in its fiscal stimulation for the main private pension plans; this is given by the processing method: the OECD study ranked supplementary pension savings paid by participants as the main Czech private pension plan; the calculation presupposes savings at the amount of 5% of the gross wage throughout the entire active life. In reality, the participants’ average saving is at the level of a mere 2.3% of wages which means a state contribution at the amount of 24.3% of the participants’ contributions. As such, the state support for higher contributions on the part of the participants, as modelled by the OECD, is relatively low here. Moreover, a typical Czech client in 2018 had only saved for 8 years; the OECD presupposes the payment of contributions for a period of 45 years. The OECD calculation is marked as Czechia (OECD) in Figure 4, while the real value of the fiscal stimulation is marked as Czechia (Author): 65.1% of the employer’s contribution – the highest value among all the countries. Almost all other countries have occupational pensions, which are of considerably greater significance than personal pensions, as their main pension plan; in Czechia, the occupational pensions have merely been “substituted” by the employers’ contributions to the personal pensions.

Figure 4: Financial incentives in the main private pension plans in 2018: % from the pension contributions of an average earner



Source: OECD (2018), author

The OECD recommendations for the reform of the third pension pillar unilaterally prefer the neo-liberal pension policy which would lead to its transformation into a so-called second pension pillar according to the World Bank typology. The interest of Czech pension companies in such a reform is understandable, but it is at odds

with the standard task of the third pension pillar in the OECD countries. The role of any occupational pension funds should be derived from the interests of the trade unions and the employers. There is a certain “pension gap” in Czechia but public policy may also focus on the social-democratic (welfare regime) policy: to strengthen the social pension insurance. Voluntary supplementary pension insurance of this type could also be considered.

Products such as the new British individual savings account (ISA) or the Canadian tax-free savings account (TFSA) may constitute an optimal solution for the Czech third pension pillar. Their fundamental behavioral trick lies in the fact that the client is limited in the amount of annual or life-long deposits/investments that can be made (for example, up to 60,000 CZK per annum under our conditions), but unlimited regarding the time and amount when making withdrawals from the savings. “The TFSA is a long-term investment vehicle. Its best use is for saving for retirement!” (Kasper, 2021). These products are subject to the TEE tax regime; it is simple and does not require the agendas of state contributions and tax deductions. Tax-free savings/investment accounts also open an equal business opportunity for all the appropriate financial companies; the superfluous companies fall back. The exemption of any yields from taxation can also be supported by the argument that the interest/appreciation (for people) is low, inflation is around 3% and therefore any tax mainly taxes inflation.

Technical Pension Reform Plan

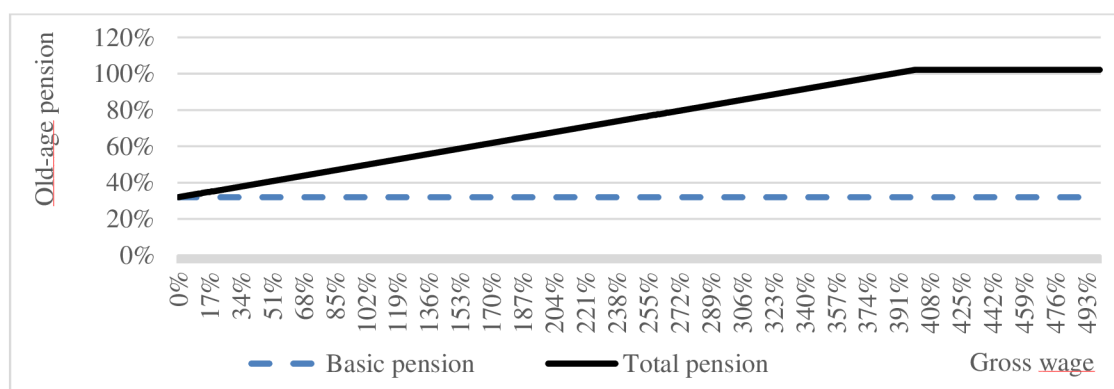
The OECD Review has confirmed the suitability of dividing the Czech public pension pillar into two tiers. A “technical” pension reform should not revise the high progressivity of the public pensions, as far as possible. In an average, typical case, the amount of the new old-age pension should be the same as up to now. The only entry number for such a reform, we need, is the length of the career: we may insert 45 years (for the retiree in 2023). The pension with this career is the same, also in relation to the NAE, in the interval from the hitherto bend point. We have computed (reversely) the data below this point, and we have got the size of the new basic of the pension: 31.98%, rounded to 32% of NAE – see Figure 5. Last year it could be the highest flat old-age pension in the world – for a couple of pensioners. In relation to the net NAE, the single-pensioner flat benefit in New Zealand might be higher. (From 2021 we have a severely lower taxation of wages and the “pension gap” has therefore increased; for the average new pensioner, the relation to net NAE decreased from 66.3% to 61.5%.)

The new percentage amount of the old-age pension is 0.39% of the annual earnings. Disability and survivor pensions should also undergo a similar reform of the parameters. An adequate solution for the disability pension is to have 3 basic disability basic amounts of pensions (17.33%, 24.67%, 32% of NAE) and 3 earnings-related accrual rates (0.13%, 0.26%, 0.39%), both depending on the disability level, as up to now.

A similar reform of the survivor pensions may lead to these simple parameters: basic amount of pension of 20% of NAE and accrual rate 20% from the real or potential old-age or disability pension of the deceased.

The ruling governments may be expected to revise the pension parameters and constructs, preferably alongside “their” welfare regimes. For these purposes the indexation of benefits may be used as well, as is the case e.g., in the United Kingdom. The basic/flat pensions might be defined in absolute terms. Anyway, there is no reason to reserve the wage indexation to the first tier (flat) pensions and to tie the price indexation to the second tier (earnings-related) pensions. My guess is that it will be inversely, more likely. We have to expect that complex reforms of both pension tiers will follow. The best technical solution of the second tier is the Austrian system of “pension account” (Pensionskonto) where the accrual old-age pension is computed annually and definitively (wage indexation follows). This system enables e.g. the annual increases of the accrual rate 0.39%.

Figure 5: Technical old-age pension reform plan (% of NAE)



Source: Author

The Czech tax structure is significantly different from the average of the OECD countries: we apply a very low taxation for personal incomes, and we have a high share of social security contributions. Social security con-

tributions paid by the employees are not deducted from the personal income tax base. The social security contributions should, in principle, correspond to the design of the different social protection branches, they should not substitute taxation of income or consumption, as is the case primarily with the Czech health insurance premiums which constitute unfair income taxation. The pension insurance premium with the rate of 28% of the gross salary is justified for roughly 30% only because the flat-rate old-age pension is predominant in Czechia and should, similarly to general health care, be financed from general taxes – not from insurance premiums. Under these circumstances, the primary Czech fair solution lies in integrating the employee insurance premiums (10.5% from gross wage) into the personal income tax. The total flat personal income tax rate would be $15\% + 10.5\% = 25.5\%$. The employer social security contributions could/should be unified to one rate as well.

Conclusions

Czechia should finalize the “small pension reform” (2011) to make the public “pension insurance” comprehensible for most of the participants, including politicians. The first “move” shall be the abolition of the (low) bend point and (very low) reduction coefficient. We call it “technical pension reform” and it separates a huge basic/flat old-age and full disability pension at the level of 32% of national average wage (NAE) from the remaining, real social pension insurance, in case of old-age pensions and full disability pensions with the accrual rate 0.39%. The additional public costs are negligible. This pension reform may be considered as neutral in the political sense, all political parties and movements might agree. Conceptually we reveal a mixture of the modern liberal and social-democratic welfare regimes.

The basic partial disability pensions and survivor pensions will also be adjusted in the same way. All parameters will be applied to the new pensions, antecedent (full) old-age and disability pensions will be increased only in cases that they are lower than 32% of NAE.

We derived the parameter 32% of NAE from the actual average career of 45 years. The first Fair pension plan applied another parameter: the at-risk-of-poverty thresholds from December 2018; that is why the Ministry used the parameter 30% of NAE only ... and it generated an additional bonus for pensioners with more than 41 years of career. It is an accumulation of mistakes. We do not know a similar construct abroad, too. The same case is the additional child bonus; the existing validation of periods of childcare up to four years of age may be improved, of course.

We recommend defining the basic pensions in absolute terms (CZK), not as a percentage of NAE, to enable a gradual relative decrease of this benefit via its indexation, using cost-of-living adjustments (COLA). The reason is that we expect that most politicians will prefer the social insurance pension pillar. The optimal design of the earnings-related pension pillar is the Austrian system of “pension accounts”, containing real annual calculation of pension increments and balances. The accrual rate (0.39%) thus may be simply increased from the defined years in this pension accounting. As for the indexation of paid-out pensions, we prefer using the wage index.

The Czech third pension pillar requires fundamental reform simply because essentially it does not perform its general basic function: securing the elderly. This pillar has practically no significance for most people throughout the world. The real purpose of this Czech pillar is to divest excess liquidity and the tax optimization. The so-called supplementary pension savings and similar products have degenerated in Czechia extremely, it is a waste of public money. A transformation according to the OECD recommendations is a pure reform to an inefficient neo-liberal “second” pension pillar. The amalgamation of the occupational and personal pensions in common OECD pension “tiers” neglects their different roles in the OECD countries and in the welfare regimes as well. Most people need a flexible savings pillar like the new UK individual savings accounts (ISA) or the Canadian tax-free savings account (TFSA); the TEE tax regime is a simple and effective state support.

Occupational pension plans should be allowed/regulated in our country.

Own housing is the real third pension pillar in most OECD countries. We may include the housing benefits for the pensioners to this pillar in Czechia.

A tax reform would support the Czech pension reform because the social insurance pension rate is too high, and it might/should be substantially reduced in favor of the too low personal income tax rate. From the point of view of the adaptation of the tax structure to the respective welfare regime, the elimination of the public health insurance premium should be preferred. Anyway, the employee premiums may be simply integrated into the personal income tax and henceforward the total social security contribution may be paid by employers. Thus, the appropriate reform of the self-employed pensions, taxes and contributions will be also easier.

References

BABIŠ, Andrej, et al., 2018. Programové prohlášení vlády České republiky. [online]. Praha: Úřad vlády České republiky. [Accessed 19 August 2021]. Available from: <https://www.vlada.cz/assets/jednani-vlady/programove-prohlaseni/Programove-prohlaseni-vlady-cerven-2018.pdf>

BOULHOL, Hervé, GEPPERT, Christian, 2020. Public pensions. OECD Pension Review: Czech Republic, Chapters 1 & 3. Presentation at the Fair Pension Commission meeting, Prague, 27 November 2020

CONSTITUTIONAL COURT, 2010. *Rozhodnutí Ústavního soudu ČR: Nález ÚS 8/07*. [online]. [Accessed 19 August 2021]. Available from: nalus.usoud.cz/Search/GetText.aspx?sz=pl-8-07

EC, 2017. Commission Staff Working Document accompanying the Proposal for a Regulation of the European Parliament and of the Council on a pan-European Personal Pension Product (PEPP). [online]. Brussels. [Accessed 13 August 2019]. Available from: <https://data.consilium.europa.eu/doc/document/ST-10654-2017-ADD-1/en/pdf>

KASPER, Ryan, 2021. The New 2020 TFSA Explained. Money after Graduation. [online]. [Accessed 13 August 2019]. Available from: <https://www.moneyaftergraduation.com/tfsa-explained/>

MPSV, 2020. Varianty nastavení parametrů reformovaného důchodového systému. 9. zasedání Komise pro spravedlivé důchody, 10. 1. 2020. Praha: MPSV.

MPSV, 2021. Návrh zákona, kterým se mění zákon č. 155/1995 Sb., o důchodovém pojištění, ve znění pozdějších předpisů, zákon č. 582/1991 Sb., o organizaci a provádění sociálního zabezpečení, ve znění pozdějších předpisů, a zákon č. 589/1992 Sb., o pojistném na sociální zabezpečení a příspěvku na státní politiku zaměstnanosti, ve znění pozdějších předpisů. Vypořádání připomínek k tomuto materiálu. Praha: MPSV.

OECD, 2018. OECD Pensions Outlook 2018. [online]. Paris: OECD Publishing. [Accessed 19 August 2021] Available from: https://doi.org/10.1787/pens_outlook-2018-en

OECD, 2020. OECD Reviews of Pension Systems: Czech Republic. [online]. Paris: OECD Publishing. [Accessed 19 August 2021]. Available from: <https://doi.org/10.1787/e6387738-en>

WILLMORE, Larry. (2000). Three Pillars of Pensions? A Proposal to End Mandatory Contributions. [online]. United Nations DESA Discussion Paper No. 13. [Accessed 19 August 2021]. Available from: <https://www.un.org/esa/desa/papers/2000/esa00dp13.pdf>

WORLD BANK, 2017. Capital Market Assessment / Market Development Options: Czech Republic. [online]. Washington: The World Bank. [Accessed 19 August 2021]. Available from: <https://www.mfcr.cz/cs/soukromy-sektor/kapitalovy-trh/podnikani-na-kapitalovem-trhu/2017/zprava-svetove-banky-o-kapitalovem-trhu-29766>