

Mertl, Jan

## Article

# The relationships and configuration of universal and optional healthcare financing schemes in Czechia

DANUBE: Law, Economics and Social Issues Review

## Provided in Cooperation with:

European Association Comenius (EACO), Brno

*Suggested Citation:* Mertl, Jan (2018) : The relationships and configuration of universal and optional healthcare financing schemes in Czechia, DANUBE: Law, Economics and Social Issues Review, ISSN 1804-8285, De Gruyter, Warsaw, Vol. 9, Iss. 3, pp. 177-192,  
<https://doi.org/10.2478/danb-2018-0011>

This Version is available at:

<https://hdl.handle.net/10419/242131>

## Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

## Terms of use:

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



<https://creativecommons.org/licenses/by-nc-nd/4.0>



## THE RELATIONSHIPS AND CONFIGURATION OF UNIVERSAL AND OPTIONAL HEALTHCARE FINANCING SCHEMES IN CZECHIA

Jan Mertl<sup>1</sup>

---

### Abstract

In developed countries, both universal and optional parts of healthcare exist. This article shows the importance and fiscal position of universally available care and suggests where it can be extended by optional financing schemes such as prepaid health programmes. We use a comparative approach, SWOT analysis and synthesis of individual mechanisms of health financing into a single health system. A simple scheme of possible health system financing configuration is created, and we classify the financial resources and schemes used accordingly. Overall this article introduces a theoretically substantiated overview of health policy options for Czechia based on principles of universally available care, solidarity, fiscal neutrality, adequate fiscal space for health and voluntary private health expenditure.

### Keywords

Health System, Health Insurance, Earmarked Taxation, Prepaid Health Programmes, Solidarity

---

### I. Introduction

Healthcare has long been the second most important fiscal subsystem and its role in the national economy is indisputable. Its analysis cannot be reduced to economic efficiency in the narrow sense of the word, as the results at best comprise the positive economic balance of its individual parts. This is certainly useful, but it is not enough for an accessible and well-functioning healthcare; such healthcare also has not only its ethical, civic, and solidarity dimension, but also an individual utility dimension. Similarly, healthcare is a factor of competitiveness for both the whole economy and every citizen and thus a major determinant of economic development (Mertl & Vychová, 2009). We can theoretically classify health systems' configurations according to social models, which illustrate also their fiscal position and approach to their financing (Vostatek, 2013).

---

<sup>1</sup> The University of Finance and Administration, Estonská 500, 101 00 Prague 10, Czech Republic.  
E-mail: jan.mertl@outlook.com

Of great importance is the availability and quality of healthcare in both the universal and optional part (Krebs, 2015). Although the optional part was considered problematic for ethical and ideological reasons in the past, the development of both economics and medicine shows that the availability of different treatment methods, the needs of social groups and the differentiation of patients' claims lead to accepting the possibility of offering health services that are not directly required to maintain and improve health, and can therefore be provided on an optional basis.

At the same time, the need for general availability of health care in the population, both for medical (effective prevention and treatment of illness) and for social reasons, continues to be urgent and indispensable. At a time of increasing income and wealth differentiation (IMF, 2015), it is impossible at the current stage of development of civilization to expect that every citizen can obtain the needed health care individually or accept the reduction of universal health care to cover basic or only catastrophic care for the poor in the sense of the liberal social model (Titmuss, 1974). Such trends would mean a systemic creation of a so-called two-tiered healthcare system with a weak, unclear and charity-based universal part, resulting in negative impact on the health status of the population, availability of care, but also on the nature of medical practices themselves. Certain signals in this direction can be seen, for example, in Czech stomatology, where even the dentists themselves see problems, as there are considerable differences in the standards of care between dentists, depending on the location, the individual approach of the doctor and the clientele's creditworthiness (Šmucler, 2016). It is hard to imagine the acceleration of these trends in other fields of medicine. Although some variations will always exist, a good universal system depends on the degree, character, and existence and cultivation of standards available to every patient. A tough issue for health care financing can be population ageing, which puts pressure on universal health care financing and complicates the affordability of an optional one. There are projections made under various scenarios that suggest that the impact could be significant, especially when improperly or inadequately managed (European Union, 2018). Given the length and scope of this article, we cannot cover this aspect in detail, but we recognize its importance.

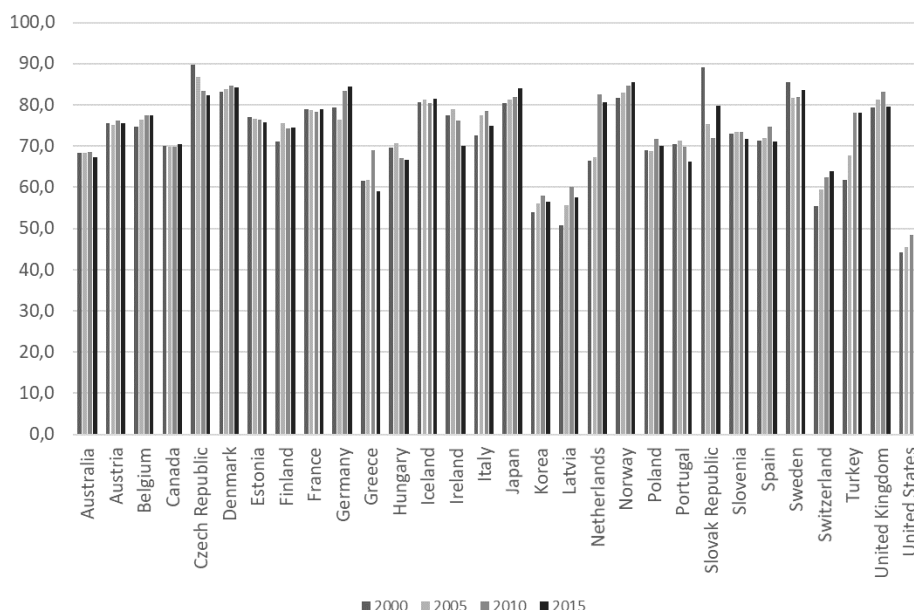
The aim of this article is to define the elementary attributes of universal and optional health care financing and show their possible application in the Czech health care system. The methods used include a comparison of health expenditures at the macroeconomic level, SWOT analysis of prepaid health financing schemes, comparative approach to the universal and voluntary part of healthcare and synthesis on the application of those two parts in a single functional health care system. We have studied how particular schemes of health care financing (including health savings accounts) are defined in theory and researched their practical implementation in developed countries. When designing prepaid health programmes and their position in the system, we have tried to avoid common points of failure that have been observed internationally. Since their construction is intentionally simple in financial terms, we evaluated their position within the health system and classified their attributes into a SWOT matrix so that the reader can see what they can offer and where are their limitations. We use positive economics to describe how health financing schemes work and what their characteristics are, but part of the statements concerning

the health system's configuration is normative, suggesting how the Czech health system should be configured to maintain and expand its performance for the future.

## II. Macroeconomic Dimension of Health Expenditure

In this chapter we utilize graphs that serve as a starting point for our analysis and as an overview of the macroeconomic situation in health financing in OECD countries. The following Figure 1 shows the level of public (compulsory) and inversely (100-public) the level of private (voluntary) expenditures in selected OECD countries. Figure 1 shows that over 15 years, except for the Netherlands, Latvia, Slovakia, Switzerland and Turkey, this share remained relatively stable and the fluctuations were within 10 percentage points, e.g. one tenth of the health budget. In addition, it shows that Czechia is within a group of countries that have a high share of public expenditure on health – above 80 percent. But we can also note that over the last 15 years this share has decreased slightly, having been nearly 90 percent in 2000, so the trend can be characterized as slightly decreasing the role of public (compulsory and solidarity-based) financing.

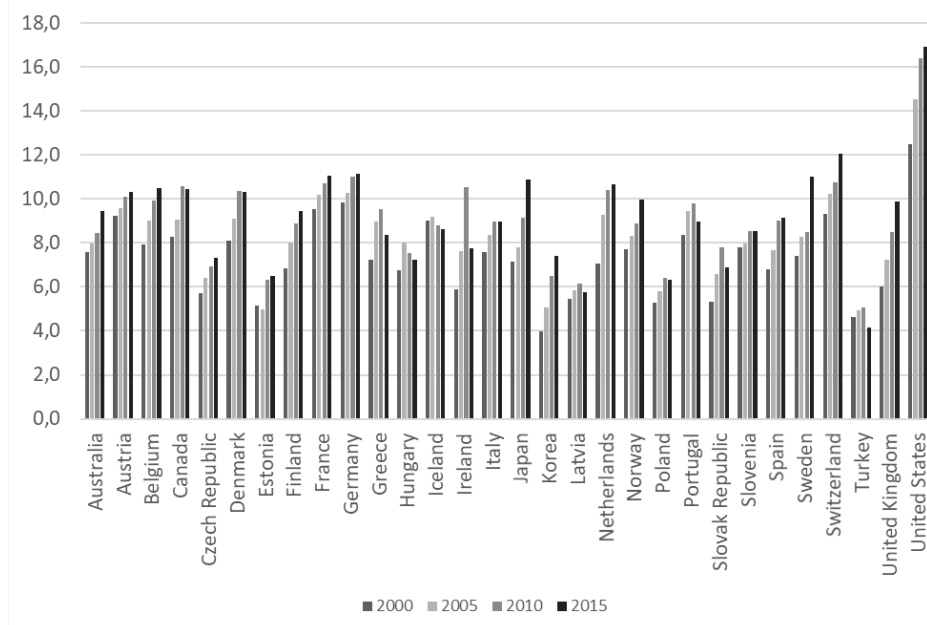
**Figure 1: Share of public exp. on total health exp., selected OECD countries, 2000–2015**



Source: (OECD, 2017). 2015 OECD Estimation

If we compare the overall expenditure for health care relative to GDP (Figure 2), Czechia ranks among those countries with a low share of total health expenditure to GDP – 7.3% GDP in 2015 (OECD, 2017).

**Figure 2: Share of total health exp. on GDP, selected OECD countries, 2000–2015**



Source: (OECD, 2017). 2015 OECD Estimation

We can see that the significant differences between countries (e.g. Czechia – 7.3% vs the Netherlands – 10.7% vs the USA – 16.9% in 2015) support the statement about multifactorial causes of the health expenditure level and overall system effectiveness. Health spending growth has been moderate since 2000 but has been markedly slower since the global financial crisis in 2008–2010. Despite the recent slowdown in health spending, concerns about the fiscal sustainability of the health system remain large (OECD, 2015). We can still say that countries with a more centralized or government-budget based system tend to have a lower share of health expenditure on GDP (which was a general rule of health economics, e.g. 20 years ago), but the case of the United Kingdom or Denmark shows that even their shares increased and can now be compared to systems with a more decentralized institutional structure with autonomous health insurance budgeting like Germany, France or Switzerland (OECD, 2015).

In this sense, we can imply that, even if the Czech system might be perceived as having problems with internal effectiveness (Hrstková, 2015), which is often cited as a reason to limit public expenditure, statistical data (OECD, 2017) support (at least) keeping Czech public health expenditure at current levels, and possibly increasing private health expenditure if it is desired by public policy in order to decrease total solidarity and increase total equivalency.

### **III. The Significance and Financing of the Health System's Universal Part**

A universally accessible health care system must provide every citizen with the care he/she objectively needs to maintain and improve his/her health. Such care must therefore be medically complete and based on best practice methods. Its content changes over time based on advances in medicine, the situation of patients and the incidence of diseases in the population. At the same time, it is expedient to support positive externalities – prevention, healthy lifestyle, dispensing of chronic diseases, complex multidisciplinary treatment of diseases. This is by no means merely a solidarity reimbursement to those in need or the remediation of an acute worsening of the health conditions – such care is usually the least effective (e.g. increased use of emergency services).

On the theoretical level, there are several ways to fund universally available health care.

- General taxation – healthcare is financed from the government budget as a mixed public good, similarly to primary and secondary education, the army, the police or the judiciary (Peková, 2011).
- Social health insurance – healthcare is funded through individual social insurance schemes for selected population groups, it is mandatory for these groups, premiums are set as a percentage of working income up to the ceiling and the range of covered health care is limited by the level of those groups (Vostatek, 2000), (Vostatek, 2010).
- Earmarked health tax (Bloom, Cashin, & Sparkes, 2017) – healthcare is funded by earmarked (hypothecated) proportional payroll or personal income tax, or part of excise taxes, in the form of automatic direct fiscal allocation of these resources for health care.
- Regulated competition for multiple health insurance plans – the so-called basic healthcare package offered by health insurers is sold at a market price, strong regulation and government support for the sale of these products is required.

If a model is to be used in a given country and there is a motivation to implement it within a public choice that subsequently occurs, a country typically sticks with the chosen model in the long term despite consciousness or manifestations of its disadvantages. At the same time, in practice the chosen model typically becomes dominant and is supplemented by a smaller system for situations or citizens that are not satisfactorily served by the dominant model (Donabedian, 1971), (Williams, 1997). In Great Britain, this dominantly concerns the National Health Service (NHS) funded by the government and regional health authorities (Cylus & Richardson, 2015); in Germany, a significantly modified social health insurance funded through the central health insurance fund and the pluralist insurance companies structure (Busse & Blumel, 2014); in the Netherlands, the compulsory two-component nominal premium funding basic package healthcare (Boerma, Kroneman, Berg, & Groenewegen, 2016), in the US the Obamacare system organizing a regulated market for exchange plans (Gineken & Saltman, 2013). The last option, i.e., the regulated competition of insurance plans with pressure to provide a universally offered range of care, is the most complicated and costly, forming the basis for countries where

there is no or weak consensus on universally accessible and financed health care for every citizen. In European countries, there is no need to deal with it because there is a long-term consensus on universality and there is no need to complicate this with the detailed and demanding regulation of commercial providers, who cannot, in principle, guarantee it in the long term by means of market-based methods (Němec, 2008).

From the fiscal point of view, it is possible to directly allocate funds for healthcare and make up the fiscal space for health (Barroy, Dale, & Sparkes, 2016) based on the following techniques, mechanisms and principles:

- Proportional tax (% of income) – “earmarked” health tax (Mertl, 2017b). It is possible to collect it either from labour income/wages (§ 6, 7 of the Act No. 586/1992 Coll.), then it is a payroll health tax. Or also from all other categories of income (§ 8, 9, 10 No. 586/1992 Coll.), then it is a classic proportional income health tax.
- Insurance premium ceilings, the possibility of differentiating the premium rate at the level of individual insurance companies and social groups, defined benefits linked to the premiums paid and social groups – if they are introduced, these are typical elements of social insurance (Vostatek, 2000). At present, however, given the universality of the care and sharing of health risk at national level, social health insurance in its original pure form is virtually absent in health financing.
- Solidarity in health – the premium (health tax) depends only on income rather than on health status = the prohibition of cream-skimming among insured. If this is desired, participation in the system must be mandatory at least for selected social groups (ideally for all citizens).
- Solidarity in income – given (as stated above) by a relative share (percentage rate) of income allocated for healthcare financing. That is important, since in the case of a single absolute amount (as it is in private healthcare financing), there would be the destruction of income solidarity, and it would be a form of “earmarked poll tax on health”, which would result in a significant burden on citizens with medium and lower incomes.
- Share of revenue (subsidy) from excise or general taxes – the result is, among others, a reduction in the direct burden of the labour factor (in the wake of wider aspects of the efficiency of the tax mix). This role is currently fulfilled in Czechia with the amount paid for state-insured persons (who generally are not expected to have working income), that health insurance companies receive from the government budget (969 CZK per person since 1. 1. 2018). *Ceteris paribus*, the reduction or cancellation of this amount would put pressure on an increase in the existing health insurance rate (13.5%).

For Czech conditions, our previous analysis recommended maintaining the “earmarked” proportional tax on wages or whole personal income and their guaranteed allocation to the health services (Mertl, 2017b). Maintaining a subsidy from general or excise taxes to reduce the burden of the labour factor and partially offset when using the excise tax ratio, the negative externalities of tobacco, alcohol and transport is also possible (Bloom,

Cashin, & Sparkes, 2017). Simultaneously, the degree of simplicity and transparency of the relevant tax mechanisms must also be considered, as they are a significant efficiency factor of public financing (Mertl, 2017b).

In case there exists a multi-payer system, central redistribution of collected health contributions is required based on the cost indices of the individual insurance groups or clients. This means that a particular health insurance company receives a different amount of money than an individual client's compulsory payment. Therefore, it does not make sense to continue to pay the contributions directly to individual health insurance companies (as is done now in Czechia), but to the central fund organized by the Financial Administration or Ministry of Health, from which redistributed premiums will be paid to health insurance companies.

As far as direct payments are concerned in the universal part of the system, it is obvious that they have an almost exclusively regulatory sense here, as the patient does not gain additional benefit for them, but instead directs his behaviour in a system with possible problematic consequences. The experience from Germany (Busse & Blumel, 2014) shows that they have been criticized for not having big impact for high income people because of their relative level, while they can limit access to care to poor people with budget limitations. It seems possible to leave them where they are clearly penalizing (overuse of emergency services) or the patient pays for non-medical activities (hospital stay, administrative confirmation). We ought to note that theoretically, the financing of healthcare purely from the government budget, directly from a share of general taxes and without insurance companies, or more precisely "one insurer" as a regional structure of public administration in the style of the British NHS (single-payer), is technically feasible and, from the point of view of classical public finance theory, easier to manage and potentially cheaper. However, it depends significantly on the quality of governance, the consistent application of public governance practices, the willingness to introduce/increase the tax progression from personal income and the acceptance of a monopoly in health care payments in the existing pluralist structure of health care facilities, including outpatient care. These conditions are not fulfilled in Czechia, and a multi-payer system has already been put in place, the cancellation of which does not have significant political support.

The choice between a single-payer and multi-payer model is regularly the subject of expert analysis and public discourse. Comparative analyses show (OECD, 2015) that neither model is better or more effective in itself; what matters much more is the implementation and compatibility with the country's environment and priorities. At the same time, however, we have observed the surprising stability of model selection within one country. Therefore, this choice is typically a decision for decades, which must have political support for a long time ahead and therefore possible more radical reform in this direction should be approved, for example by a three-fifth (constitutional) majority in parliament.

Within the universal system, it is desirable to work more with techniques of positive motivation, i.e., the systematic evaluation of participation in preventive activities and preventive examinations, effective behaviour (Madrian, 2014) within the system (e.g., patient movement between physician, specialist and hospitals, reduce drug overuse and overtreatment, etc.). If support is provided within public choice, consideration may also



be given to allocating a specified small percentage of the health budget to the level of health insurers in the form of health tax credits or other benefits (e.g. once per year). All such measures, however, predict first the fiscal financial pillow, from which they will be funded before any positive effects from the better health of the insured can arise. Conversely, negative motivation in the sense of penalizing for undesirable behaviour cannot be recommended, even in accordance with the knowledge of behavioural economics (Matjasko, Cawley, Baker-Goering, & Yokum, 2016), as this works very weakly or not at all. Moreover, patients must be treated even when their health condition in relation to their behaviour or choice deteriorates.

Nevertheless, the universal part of the system must not be subject to permanent pressure on the erosion of the medical standard that it guarantees. It is not true that there are no additional options, as shown in the next chapter, current medicine and the development of associated services offer a range of voluntary options for private spending. The often-heard theory that “we should pay for banal illnesses directly so that the more serious could be paid through solidarity” is not applicable, especially when we know that the overall volume of health expenditure in Czechia is already relatively low within OECD. Moreover, serious illnesses often arise through neglect or non-treatment of malignancies or their early stages. Similarly, the costs of treating serious illnesses are such an essential component of reimbursements that any savings on “banal” care do not address the situation of their coverage. In any case, it is necessary to maintain the medical standard of treatment for all illnesses, while recognizing that it is a difficult task and that in the universal system there is always the risk that accessibility of care will become formal in a certain segment, region or diagnosis. However, this is better than when it is inaccessible apparently and *ex ante*, because in cases of such unavailability it is always possible to claim the relevant rights of patients who are refused in commercial systems for simple financial reasons on the principle that there is no objective requirement for their treatment in those systems.

#### **IV. Optional Prepaid Health Programmes’ Role**

The development of medicine and the socio-economic environment has brought new treatment options and health services for patients. Likewise, some patients’ demands for comfort, the time of health professionals and the extent of consumed health services are increasing. Although this has several ethical connections, it is currently recognized in developed countries that health professionals can also provide care to those patients who have higher requirements than others, and these requirements are not strictly objectively justified by their health status. This moves us from the category of care that must be provided into the category of care a patient may or will want to consume. In this context, optional healthcare schemes can be created that can be used to finance and provide it.

The first option is logically private health insurance. Although it has suitable features for some scenarios, it also has many problems that are not addressed well using the market mechanism. This is mainly due to information asymmetry and adverse selection issues, which in many cases lead to the failure of the health insurance market (Cutler & Zeckhauser, 1997). The individual’s health risk is one of the worst quantifiable and insurable risks on the market, develops unpredictably among individuals, and its possible evaluation through

medical underwriting constitutes a reason for major legal and ethical disputes. In addition, in the case of high-quality healthcare, it is sometimes difficult to look for a randomness element that is generally necessary for the use of insurance mechanisms. However, for example, in accident insurance, the usual risks (death, disability, permanent consequences, pain, hospitalization due to an accident) can be insured even without examining the state of health in the sense of a previous illness. Critical illness insurance, hospitalization or long-term care insurance can also be sold, and, last but not least, general private health care insurance, albeit its marketability is low for the stated reasons.

It is also possible to pay for optional healthcare directly out-of-pocket, which is the simplest form, but it has many limitations (e.g. financial hardship at the time of treatment, time-limited decisions in asymmetric positions, the highly limited ability of typical patient to “shop around” for the best price) leading to the marginal role of these schemes in developed countries (OECD, 2017).

A suitable option for extending schemes of optional healthcare financing comprises is prepaid health care programmes. Their economic construction is relatively simple and consists in the regular allocation of the amount chosen (e.g. monthly or yearly), for which the client receives a healthcare package according to their preferences and needs. Therefore, there is no need to quantify health risks or otherwise complicate entry into the product, although it is of course advisable to adapt the package to the needs and health of the client according to their preferences or as a result of expert advice when purchasing the product. Different clients can therefore have different packages for the same money, as will be shown below.

**Table 1: Prepaid packages’ examples for 9 000 CZK yearly subscription**

Healthy	Already sick (e.g. cardiovascular condition)
1 000 CZK for services of nutrition advisor	2 000 CZK for additional services/consultations at cardiologist, lower co-payments for advanced drugs that he takes regularly
1 000 CZK for wellness services	1 500 CZK advisory services of physiotherapist and physical training aimed at cardiovascular rehabilitation
1 000 CZK for annual specific complex screening of civilization diseases	500 CZK for vitamins and dietary supplements
2 000 CZK for lifestyle activities and therapies (exercise, relaxation)	1 000 CZK contribution for a home cardio monitoring device
2 000 CZK for better services at general practitioner (email/callback/SMS), additional consultations/screening	2 000 CZK for better services at general practitioner (email/callback/SMS), regular monitoring of health status
2 000 CZK for vitamins, vaccination and reimbursement of regulation expenditures if introduced/expanded in universal part of the system	2 000 CZK for lifestyle activities (exercise, relaxation) specific for cardiovascular diseases

Source: author

Let us assume that a patient can allocate 750 CZK for his health services monthly, e.g. 9 000 CZK annually (the amount can be lower or higher in practice according to the individual budget limitation and willingness to pay). Therefore, he can buy a prepaid package for this price, which we can see also as a subscription price for participation in the programme.

He then is offered, according to his preference and/or health status, a package of health services that he can consume for that money during a year. It can be offered purely according to his demonstrated preference, or he can get advice from a doctor, according to his health status, on which services he would the most benefit from.

It is clear that the structure of benefits can differ according to the status of the patient and is highly dependent on the creativity of the scheme providers. In addition, we can imagine that employers will provide partial or full financing of those packages as a specific employment benefit. Thus, it can also serve as a factor of market differentiation and choice. If desired, special prepaid schemes can be created for, e.g. dental, eye or spa (wellness) care.

In practice, these schemes make sense especially as an extension of a universally available system because international experience with health savings accounts shows that they have disadvantages that become highly prominent if they are not supported by a compulsory universal system – then they quickly fail with the poorer or sicker population (Hoffman & Tolbert, 2006) or when clients grow old and require more expensive care (Avera, 2017). One of the disadvantages of health savings accounts is also the “pressure to save”, which means adverse health care seeking behaviour (Dody, 2014) in order to preserve money saved into the account. Therefore, suggested prepaid health packages provide no special incentives to save money there and the amount paid should be fully spent for specified health services during the chosen period.

Employers can contribute to the financing of these programmes, even in relation to workload compensation by influencing their content. Similarly, if the client is involved in the optional extension of the pension system (Mertl & Valenčík, 2017), then a part of the benefits from this extension may also be used to pay for the subscription.

As opposed to out-of-pocket payments, these schemes have benefits in terms of facilitating the creativity of health insurers and healthcare facilities in organizing and implementing care, economies of scale (large volumes of care can be planned and provided based on the batch of valid pre-paid contracts), promoting regional development, predictability and transparency of funding for the client and for healthcare facilities and reducing the difficulties with financing and decisions at the time of the treatment and health services’ consumption. The overall position of these healthcare schemes can be summarized in the following table, which we have created based on the socioeconomic characteristics of prepaid health programmes as a voluntary extension of universal system.

**Table 2: SWOT analysis of prepaid health programmes’ role**

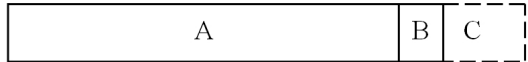
<p><b>Strengths</b></p> <p>Synergic effect with universal health coverage, while keeping public and private resources separated</p> <p>Non-discriminatory approach according to the health status of a client</p> <p>Patient has real choice about the character and volume of provided services</p> <p>Lowering transactional costs, reducing information asymmetry and increasing economies of scale compared to situation when the patient buys the services individually and/or at the moment of treatment</p>	<p><b>Opportunities</b></p> <p>Possibilities of truly voluntary allocation of private resources for health care</p> <p>Possibility of individual or group targeting of those schemes, e.g. at young people, employees of certain branches, the elderly people</p> <p>Options for health providers and health insurance companies to be creative about the content of those packages</p> <p>Transparency for client about the allocation of his resources</p>
<p><b>Weaknesses</b></p> <p>Construction of the package can be perceived as “not necessary for healthy and not enough for sick”</p> <p>The amount of resources that individual can allocate might be too low for the programme to be useful for him/her</p> <p>Does not cover bigger (catastrophic) expenditures nor provides full coverage for listed situations (as health insurance does)</p> <p>Those who can utilize it the most (sick/poor) might not be able to afford to buy it</p>	<p><b>Threats</b></p> <p>Some medical branches can offer more to packages than others</p> <p>Character of competition and regulation on the market</p> <p>Unclear influence on the overall health system effectiveness</p> <p>Requires to be backed up by universal system (which is present in Czechia but if not maintained well can threaten even the working of programmes)</p>

Source: (Mertl, 2017a), updated

**V. Possible Configuration of Health Financing Resources**

If funding of these programmes is integrated at the level of health insurers (while maintaining the separation of public and private resources), they can function from the client’s perspective transparently as one health insurance product, consisting of compulsory health income tax and an optional subscription to the selected pre-paid programme.

**Figure 3: The possible configuration of health financing resources**



Source: author

The parts “A + B” together make up the compulsory universal system as described in the third chapter. Their fiscal volume is defined by the public resources that are collected through public finance techniques and are centrally redistributed according to the cost indexes. If we want to make a fiscally neutral proposal for Czechia, the current level of the health insurance rate (13.5%) can be preserved in the form of an earmarked health tax and the share of excise tax or general taxation can be added as the replacement of state insured persons’ contribution (Mertl, 2017b). Now Part “B” is very small and consists only of preventive programmes financed from the so-called “Prevention fund” of public health insurance companies. It can be abandoned if we want to have a pure universal system as part “A” only. Or vice versa, if desired by public choice, part “B” can be slightly (it will always have marginal share) expanded to individual motivation strategies within the universal system, such as health tax credit or programmes for chronic diseases management, as done by social health insurance companies in Germany (Busse & Blumel, 2014). Part “C” is the optional private amount, which can be primarily used for prepaid health packages.

The suggested scheme and configuration may appear a bit like the so-called two-component (income-related and nominal premiums) health insurance used in the Netherlands (Boerma, Kroneman, Berg, & Groenewegen, 2016). The very substantial difference is that the absolute (nominal) part “C” is strictly optional in our concept and delivers additional health services extending the standard; while the Dutch absolute (nominal) health insurance premium primarily targets the variation of the total amount paid for the basic health care package, and thus tries to utilize price competition within the universal part of the system. Moreover, large social groups in the Netherlands must be fiscally subsidized (by health allowances) to be able to buy the basic package with nominal premium, whereas the prepaid packages need not be subsidized at all (because their purchase is fully voluntary). Thus, in the Netherlands, there is strong hidden erosion of public funding and provision of a universal health care. On the contrary, the system of prepaid programmes as the extension of medically complete universal system enables a truly optional allocation of private resources, while preserving clear public financing of universal health care.

## **VI. Conclusion**

The universal part of the system must be medically complete, but in current healthcare systems there is space for both universal and optional funding schemes. The reason is advances in medicine, the socioeconomic environment of developed countries and the population’s increased expectations. At the same time, however, the construction of financing schemes cannot be left only to an invisible market hand. Because of market failure, information asymmetry and significant differences in a population’s health status and incomes, such solutions in themselves have nowhere in the world led to acceptable results.

We have showed several theoretical options for how to finance the universal part of the health system. For Czechia, we recommend the evolution of current health insurance to the earmarked proportional tax on wages/personal income and the redistribution of its

revenue through the central health insurance fund to health insurers according to their structure of insured. The current payment for state-insured persons should be technically transformed to pure subsidy to the central health insurance fund from the government budget. This will allow for a continuing reduction in the tax burden on labour, or in case of excise taxes' share even a partial compensation of the negative externalities associated with the consumption of tobacco and alcohol. In this article, we assumed a fiscally neutral approach that technically transforms public health financing, but suggested scheme allows also the change of public health expenditure level (visible in earmarked tax rate) if required for example by population's ageing or simply decided by public choice. Determining the level of public financing and the content of universally available care is a highly complex task beyond this article's scope, but we are aware that the regular update of care that is available universally must be done in relation to socioeconomic effectiveness, available resources, demographic situation, medical necessity and benefits for patients.

The vast majority of OECD countries does not rely on the competitive market for necessary and needed care with variable insurance plans or the spillover effects from the private part of the system as a tool for increasing universal availability and effectiveness. Of course, there are synergy effects and we suggest using them, but the government's direct guarantee for universally available care including the fiscal financial flows shall be maintained. We also note the significant differences between the suggested model for Czechia and the compulsory two-component (nominal) insurance premium according to the model in the Netherlands. This is a topic for further research because suggestions to implement Dutch two-component nominal health insurance have sometimes appeared in Czech public discourse.

An optional part of the system is imaginable as a real extension and superstructure over the universal part. Paradoxically, the existence of a universally available base gives social, legal and medical legitimacy to the voluntary choice of care, because medically adequate and appropriate treatment is available for both groups of patients (both standard and above-standard) and, in addition, the consumption of health care in different situations and life stages is organically intertwined.

As a possible alternative to private health insurance, which has strong limitations, prepaid schemes can be considered. We introduced them as an extension of the universal health care system and with no special incentives to save money in these schemes. As we summarized in the SWOT table, they have some unique features such as lower transaction costs and high economies of scale, room for individual client customization and provider creativity, non-discriminatory access to client health, and optional money allocation for health care packages that are individually selected with possible medical advice and recommendations. In the years 2000–2015, total Czech health expenditure was low among OECD countries and the share of public health financing was higher than average. In order to respond to demand for care beyond the universally available standard and utilize the healthcare providers' potential, this should be done, if desired, by introducing private financial schemes that will increase total health expenditure level without lowering the current level of public spending. In this way, the ratio between public and private spending may in the long run change slightly in favour of a private one (which may be desirable),

but the public will still be able to cover the necessary and objectively needed care. This is important both for the citizens that rely solely (or mainly) on universally available care, and for the citizens that will participate in the voluntary prepaid programmes, since they assume the presence of a medically complete universal system.

We dare not say that prepaid schemes are a miracle that can solve problems with health expenditure financing in Czechia. The analysis also shows their weaknesses and threats, and for some scenarios, other funding schemes may be more appropriate. Particularly in the occurrence of cases of rare and random health incidents with higher costs (such as an accident or hospitalization), it may be appropriate to offer supplementary private health insurance. However, we suggest that pre-paid programmes be seriously considered as a possibility for voluntary private spending on healthcare packages tailored to individual clients, especially when their health preferences and needs can be determined in advance. There they could help to achieve individual health benefits better than out-of-pocket payments or private health insurance, especially for people who want to invest in their health and maintain it regularly with the help of social and health services (Chytil, Klesla, & Kosička, 2015).

Generally, whenever we consider increasing private expenditure or change the degree of solidarity in health, we must decide what we want to achieve. Whether we want to regulate consumption by introducing co-payments (in fact forcing people to pay for the care they need with some regulatory effect) or whether we want to create extensions that provide additional health utility for those who effectively demand it. While not neglecting the regulatory effect (that can be appropriate for some situations), we believe that the second approach makes greater sense, given the advanced capabilities of today's medicine and related services, creating new additional voluntary health packages and programmes and offering them to those who want and can pay for them. In this way, it can be ensured that they provide additional value above the universal standard and at the same time will not jeopardize the quality and safety of care for those who do not want or cannot pay more than statutory health payments. Certainly, most health providers can today offer health care and services above the universally needed range, which could bring benefits to those who can afford it. However, we need to remind the reader that, from a social policy point of view, pre-paid programmes can be socially selective, because there will always be large social groups that will not buy them or will participate only for short periods. So, equity problems can arise again, especially if Czech wages and incomes remain at current levels or the role of universally available care is underestimated.

### **Acknowledgements**

The article has been prepared within the project "Current trends in development of financial markets", supported by the Institutional support for long-term strategic development of research organization University of Finance and Administration in 2018.

## References

- Avera. (2017). *Avera health plans*. Retrieved February 15, 2018, from Health Savings Account (HSA) Qualified: <https://www.averahealthplans.com/app/files/public/57113/avera-health-plans-hsa-explanation.pdf>.
- Barroy, H., Dale, E., & Sparkes, S. (2016). *Assessing fiscal space for health expansion in low- and middle-income countries: a review of the evidence*. Geneva: WHO. Retrieved February 15, 2018, from [http://www.who.int/health\\_financing/documents/assessing-fiscal-space/en/](http://www.who.int/health_financing/documents/assessing-fiscal-space/en/).
- Bloom, D., Cashin, C., & Sparkes, S. (2017). *Earmarking for health. Theory and Practice*. Geneva: WHO.
- Boerma, W., Kroneman, M., Berg, M., & Groenewegen, P. (2016). *Health system in transition: Netherlands*. European Observatory on Health Systems and Policies: WHO. Retrieved February 15, 2018, from [http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0016/314404/HIT\\_Netherlands.pdf?ua=1](http://www.euro.who.int/__data/assets/pdf_file/0016/314404/HIT_Netherlands.pdf?ua=1).
- Busse, R., & Blumel, M. (2014). *Germany: Health system review*. European Observatory on Health Systems and Policies: WHO.
- Cutler, M., & Zeckhauser, R. (1997). *Adverse selection in health insurance*. Cambridge: NBER Working paper 6107.
- Cylus, J., & Richardson, E. (2015). *United Kingdom: Health system review*. Health Systems in Transition: WHO. Retrieved February 15, 2018, from [http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0006/302001/UK-HiT.pdf?ua=1](http://www.euro.who.int/__data/assets/pdf_file/0006/302001/UK-HiT.pdf?ua=1).
- Donabedian, A. (1971). Social Responsibility for Personal Health Services: An Examination of Basic Values. *Inquiry*, 8(2), 3–19.
- Dody, R. (2014). High-Deductible Health Insurance Policies with Health Savings Accounts: A Policy Review. *SPNHA Review*, 10(1), Article 5. Retrieved August 17, 2018, from <https://scholarworks.gvsu.edu/spnhareview/vol10/iss1/5>.
- European Union. (2018). *Ageing report 2018: Economic & Budgetary Projections for the 28 EU Member States (2016–2070)*. Luxembourg: Publications Office of the European Union. Retrieved August 5, 2018, from [https://ec.europa.eu/info/publications/economy-finance/2018-ageing-report-economic-and-budgetary-projections-eu-member-states-2016-2070\\_en](https://ec.europa.eu/info/publications/economy-finance/2018-ageing-report-economic-and-budgetary-projections-eu-member-states-2016-2070_en).
- Gineken, E., & Saltman, R. (2013). *United States of America: Health system review*. European Observatory on Health Systems and Policies: WHO.
- Hoffman, C. & Tolbert, J. (2006). *Savings accounts and high deductible health plans: Are they an option for low-income families?* Retrieved August 17, 2018, from <https://kaiserfamilyfoundation.files.wordpress.com/2013/01/7568.pdf>.
- Hrstková, J. (2015, 5 22). *Zdravotnictví, černá díra rozpočtu?* Retrieved February 15, 2018, from <http://archiv.ihned.cz/c1-64047590-zdravotnictvi-cerna-dira-rozpocet>.
- Chytil, Z., Klesla, A., & Kosička, T. (2015). Economic Interpretation of Human Behaviour in Terms of Health Promotion. *Prague Economic Papers*, 24(4), 371–385.
- IMF. (2015). *Causes and Consequences of Income Inequality: A Global Perspective*. Washington: IMF.
- Krebs, V. (2015). *Sociální politika*. Praha: Wolters Kluwer.



- Madrian, B. (2014). Applying insights from behavioral economics to policy design. *Annual Review of Economics*, 663–688. Retrieved from <https://www.annualreviews.org/doi/10.1146/annurev-economics-080213-041033>.
- Matjasko, J., Cawley, J., Baker-Goering, M., & Yokum, D. (2016). Applying Behavioral Economics to Public Health Policy. *American Journal of Preventive Medicine*, 50(5S1), 13–19. Retrieved February 15, 2018, from <https://www.sciencedirect.com/science/article/pii/S0749379716000635>.
- Mertl, J. (2017a). Prepaid Schemes in Czech Health Care System. *Sborník z konference TPAVF 2017* (pp. 140–146). Praha: VŠE.
- Mertl, J. (2017b). The possibilities of transition from health insurance contributions to earmarked health tax in the Czech Republic. *Ekonomický časopis*, 65(7), 668–687.
- Mertl, J., & Valenčík, R. (2017). Improving sustainability of human resources through pension system extension. *Proceedings of the International Scientific Conference of Business Economics, Management and Marketing ISCOBEMM 2017* (pp. 180–191). Zaječín: MU Brno.
- Mertl, J., & Vychová, H. (2009). Vazby vzdělání a zdraví v kontextu ekonomického rozvoje. *Politická ekonomie*, 57(1), 58–77.
- Němec, J. (2008). *Principy zdravotního pojištění*. Praha: Grada.
- OECD. (2015). *Fiscal Sustainability of Health Systems: Bridging Health and Finance Perspectives*. Paris: OECD.
- OECD. (2017). *OECD Health Data Statistics*. OECD iLibrary: OECD.
- Peková, J. (2011). *Veřejné finance: teorie a praxe v ČR*. Praha: Wolters Kluwer.
- Šmucler, R. (2016). *Naše stomatologie je několik rozdílných vesmírů*. Retrieved February 15, 2018, from Medical Tribune: <https://www.tribune.cz/clanek/40339-nase-stomatologie-je-nekolik-rozdilnych-vesmiru>.
- Titmuss, R. (1974). *Social policy: an introduction*. London: Allen & Unwin.
- Vostatek, J. (2000). *Sociální a soukromé pojištění*. Praha: Codex Bohemia.
- Vostatek, J. (2010). Zdravotní pojištění a zabezpečení (základní vývojové tendence). *Zdravotnictví v ČR*, 8(3), 100–109.
- Vostatek, J. (2013). Politická ekonomie financování zdravotní péče. *Politická ekonomie*, 61(6), 834–851.
- Williams, A. (1997). *Being Reasonable About the Economics of Health*. Cheltenham: Edward Elgar Publishing.