

Multi-criteria Comparison of Savings Accounts on the Czech Market

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Abstract

Even though interest rates have fallen and the profitability of savings accounts has declined, the range of savings accounts on offer on the Czech market remains relatively broad due to their popularity, especially among conservative banking clients. The choice of account is not usually only affected by interest rates, but also by other factors, such as the minimum deposit, minimum balance, cash withdrawals, the possibility to open and operate online, various bank fees, etc. The purpose of this article is to compare the savings accounts on offer in the years 2013 and 2018 in the Czech Republic through selected multi-criteria evaluation of alternatives methods and according to different clients' requirements. The main aim is not only to assess whether the focus of the banks is on a certain type of client (versatility or non-universality of the account parameters), but also to assess the development and changes in the range of products on offer in the given years.

Keywords: savings accounts, Czech market, comparison, multi-criteria evaluation.

Introduction

Saving can be characterised as an activity where a person or family sets aside some of their income with the intention of using it at a later date. Due to inflation, money kept at home gradually decreases in value. It is therefore preferable to use one of the currently available bank accounts; savings accounts, savings books or term deposits, or to invest in stock bonds or mutual funds. Unlike the various investment options, saving is not risky and there is no need to worry about any financial loss(es). However, when interest rates are lower than the level of inflation, the value of the deposited money may decrease. There are several studies that compare savings accounts'. Loke and Sherraden (2006) compared

children savings accounts in 5 countries based on 6 main factors. They concluded that it is not only the savings accounts' parameters but also the promotion, levels of inclusiveness, participation, and savings in the various schemes that increased interest among parents saving money for their children. In the analysis, Shoven and Sialm (1999) use an optimization model for the situation when the investor maximizes expected utility at the time of retirement by choosing an optimal portfolio using tax-deferred and conventional savings accounts – their results show that the conventional savings accounts are not entirely preferred by the high-income and risk-tolerant individuals but more by low-income and risk-averse people. An analysis of the situation among poor households in Nepal produced similar results (Prina 2013). The main finding was that poor households saved more when given access to basic savings accounts with no fees. The analysis of the savings accounts in Chile via regression model proved that access to a fully liquid savings account can help individuals (especially those on low-incomes) improve consumption smoothing in the face of economic shocks.

Comparisons of the savings accounts in the Czech Republic are usually conducted by students writing their Bachelor thesis (for example Bílá 2014; Ducarová 2014; Ligmajerová 2013 or Mocharová 2018). On the one hand, it seems to be easy for the students to find real data (mainly on the web pages of the banks), whilst on the other, the information and prices change every year. Making such comparisons may be viewed as an easy task because of the various online calculators (for example Mesec.cz 2018 or Usetreno.cz 2018) that exist. However, such comparisons are usually limited to comparisons of savings accounts according to the interest rates. In the rare cases where such comparisons include other parameters, they are, unfortunately, not always up-to-date.

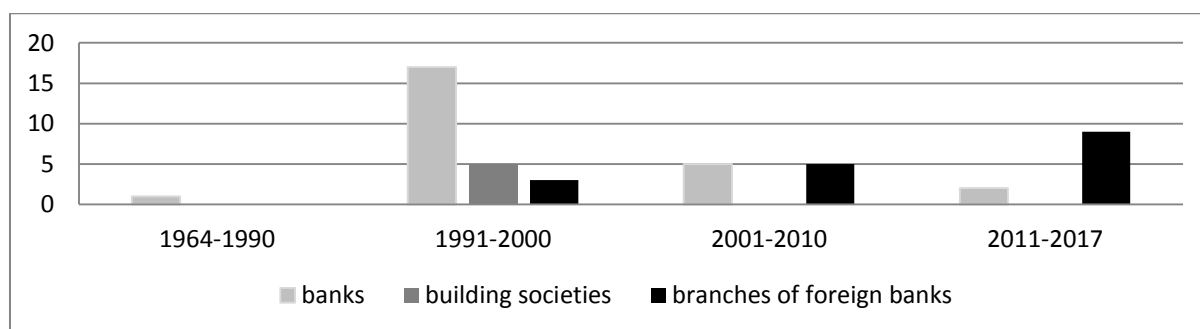
A few years ago, savings accounts were very popular in the Czech Republic because interest rates were relatively high. This encouraged consumers to deposit money rather than to borrow from banks. With the gradual fall in interest rates, which currently are up to or around 1% for savings accounts, and not much higher for term deposits, the situation has changed. Today, savings accounts offer minimal appreciation, with little hope for a growth in rates (Ligmajerová 2013). The low interest rates have stimulated the demand for consumer loans rather than saving for worse times. With more than CZK 1 trillion deposited in Czech bank accounts, banks have sufficient funds to deal with this demand and have little interest in attracting new deposits. As a result, they do not need to raise interest rates on savings accounts (Ligmajerová 2013). Despite this unfavourable situation, it is better to deposit money into savings accounts than current accounts.

Since account selection does not have to depend solely on the interest rate, the analysis presented in this paper seeks to compare a range of savings account on offer in the years 2013 and 2018 based on several criteria. The criteria were selected based on information provided by banks online or provided by bank staff personally (data was collected by students and used for example in Mocharová 2018). For this comparison, multi-criteria evaluation of alternatives methods are used.

Czech banking sector and savings accounts

Banks, especially commercial banks, are specific business entities operating in a regulated competitive environment (Banerjee and Duflo 2011). The competition in this sector on the Czech market is big. According to the Czech National Bank, 47 banks and foreign branches of banks were registered at the end of March 2018 (CNB 2018). Most of these were established after the Velvet Revolution in the period 1991-2000 (not only commercial banks, but also building societies and the first branches of foreign banks). Another “boom” occurred in the period 2007-2011 with the emergence of new “low-cost banks” (mBank, Citibank, Fio banka, Air bank – see Figure 1). These banks mainly operate online and offer nearly all their products without any bank charges. According to data for 2016 (Mesec.cz 2018), a number of these low-cost banks made it into the Top 10 on the basis of client numbers, although the value of the loans and deposits they held fell well short of those held by the traditional banks such as ČS, ČSOB and KB (see Table 1).

Figure 1: Number of banks according to date of establishment



Source: CNB 2018

Table 1: Top 10 banks in 2016 according to client numbers

Bank	Number of clients (in thousands)	Assets (in CZK billions)	Loans (in CZK billions)	Deposits (in CZK billions)
ČS	4,707	1,066	577	786
ČSOB	2,803	1,085	618	752
KB	1,654	922	595	699
Moneta	970	139	109	116
Fio banka	670	80	13	77
mBank	630	not known	20	34
Air bank	515	83	32	78
Raiffeisen bank	500	318	214	227
Unicredit bank	350	635	367	371
Equa bank	250	44	31	40

Source: Brans, Vinkce and Mareschal 1986, Mesec.cz 2018

Savings accounts can be described as “deposits on demand characterised by unlimited disposability, high deposit rates and low fees for maintenance and account operations” (Banerjee and Duflo 2011). These accounts usually combine the features of current

accounts and the terms of long-term deposits. These terms target the most common types of customers, i.e. those who prefer higher returns and those who prefer higher liquidity. The main benefits of savings accounts include quick access to money, easy transfer between current and savings accounts, and the fact that all deposits in savings accounts are legally insured for up to EUR 100,000 per person. The disadvantages of savings accounts are:

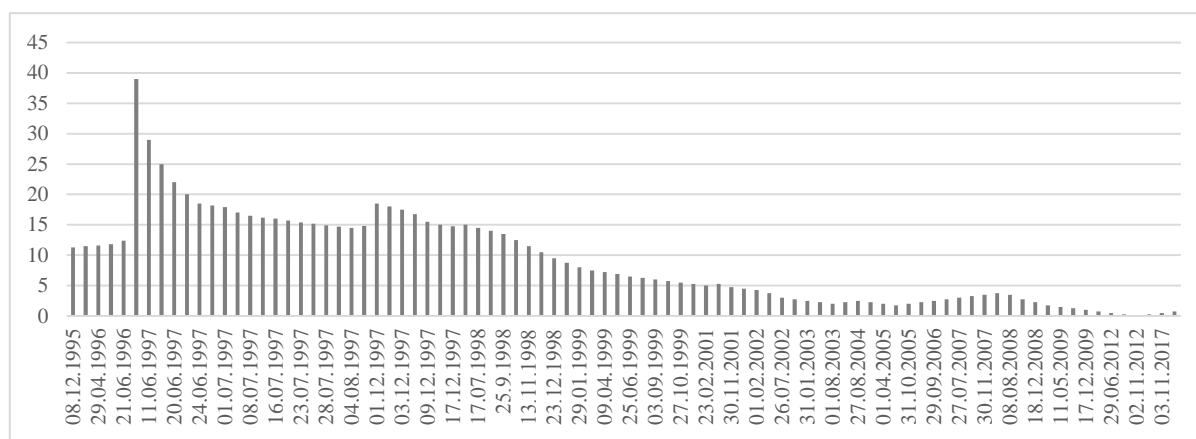
- very low yield, no savings account at current interest rate will cover inflation;
- they cannot be used to make payments (this is only possible from a current account);
- the money deposited in them appreciates slower than under other investment products (building society savings, time deposits, money market funds);
- they are subject to so-called "interest rate uncertainty" (the interest rate is determined by the bank based on the development of the financial markets, competition and the policy of the Czech National Bank);
- the number of permitted transaction accounts is limited;
- there is no possibility to make direct ATM withdrawals;
- the interest earned on savings is taxed at 15%.

The main criterion for choosing a savings account is the interest rate, which currently ranges from 0.1 to 1.1%. However, other criteria and conditions set by banks are also important. In the majority of cases, these include:

- fees - for account management and administration, etc.;
- minimum deposit requirement - some banks require a minimum deposit of up to CZK 5,000;
- minimum balance requirement - some banks require a minimum balance of up to CZK 10,000;
- interest rate bands – the interest rate is determined by the amount of the deposit (some banks decrease the rate of interest rate as the account balance increases, i.e. the more money you have on your savings account, the lower the interest rate). The highest interest rate is for amounts up to CZK 200,000, with the interest rate for higher sums decreasing accordingly.

Some banks pay out interest by forcing customers to set up a current account, which they must actively use. For example, clients need to make at least five card payments per month, etc. The range of savings accounts on offer and the terms are constantly changing. The interest rate on savings accounts is not fixed, but is determined by the banks, which set it on the basis of the current state of the money market, or on the repo rate set by the Czech National Bank. Figure 2 illustrates the development of the repo rate over a long period of time, and which is directly reflected in the announced interest rates on savings accounts. The trend among the low-cost banks is to offer savings accounts with low or no fee because high fees discourage their use – especially among people on lower incomes (Banerjee and Duflo 2011).

Figure 2: Two-week repo rates as set by the Czech National Bank



Source: CNB 2018

Material and Methods

In this paper, we compare savings accounts as alternatives offered to customers by Czech banks in the years 2013 and 2018 from the customer's point of view. The aim of the analysis was to select the most suitable savings account according to pre-selected criteria. Data was taken from the web pages of the banks (as in Ligmajerová 2013 and Mocharová 2018) and also from the web accounts comparator (Loke and Sherraden 2006). This problem can be solved by using several multi-criteria evaluations of alternative (MCEA) methods. In accordance with similar analyses of bank or building society accounts (Bílá 2014, Hwang and Yoon 1981 and Kuncová, Sekničková and Kánová 2015), the same or similar methods, such as WSA, TOPSIS and PROMETHEE II, were also applied, including non-dominance analysis and the conjunctive method.

Material

According to the data selection, in 2013, there were 21 alternatives offered by 17 banks, and in 2018, 23 alternatives offered by 15 banks. For each of the pre-selected criteria, it was necessary to assign a weight. For the comparison, the weight vectors for two different types of clients were used. For Client Type 1, criteria C1-C4 (fees and not required current account) are the most important, with equal weights allocated to each, followed by C6, C10 and C11, also with equal weights allocated to each. For Client Type 2, the most important criterion is C1 with 50% importance, followed by C2 and C4. All the weights are presented in Table 2.

Table 2: Criteria weights for the two selected types of clients

Criterion/ Client Type	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
Client Type 1	0.133	0.133	0.133	0.133	0.046	0.099	0.02	0.02	0.02	0.099	0.099	0.066
Client Type 2	0.50	0.15	0.05	0.10	0.02	0.05	0.02	0.02	0.02	0.03	0.02	0.02

Source: Authors

The comparison is based on 12 pre-selected criteria that describe all the main factors of the savings accounts that are published by the banks. These are:

1. Interest rate – usually the most important factor for clients (this criterion should be maximised).
2. Transaction fees - charges associated with the transfer of money between accounts (this criterion should be minimised).
3. Current account – a necessity to have a bank account in the given bank – these are allocated binary values, either 0 or 1, where 0 means no current account is necessary (this criterion should be minimised).
4. Current account fees - maintenance fees that are necessary to pay for the current account (this criterion should be minimised).
5. Standing orders – the possibility to set up a standing order – 0/1 value representing no/yes respectively (this criterion should be maximised).
6. Online creation – the possibility to set up the savings account online -0/1 value representing no/yes respectively (this criterion should be maximised).
7. Frequency interest is credited – the more frequent the interest is credited, the more the resulting amount increases for the client. In most cases, interest is accrued monthly. As the criterion is expressed by the annual frequency interest is credited, it should be maximised.
8. Interest bands – this criterion is only of interest to clients if they want to put more money into their account and are wondering if a limit is set for the account – 0/1 values were allocated, where 1 is the better case for the client (this criterion should be maximised).
9. Fixed rate – this rate is usually a bonus rate added to the basic rate of interest – 0/1 value allocated (this criterion should be maximised).
10. Minimum deposit requirement – minimum amount of money that must be deposited into the account (this criterion should be minimised).
11. Minimum balance – minimum amount of money that must always be in the account (this criterion should be minimized).
12. Cash withdrawal option – the possibility to withdraw money from an ATM.

Methods

For the comparison of the accounts it is possible to use various methods, such as statistical methods, econometric models, data envelopment analysis (DEA) models, or multi-criteria decision making (MCDM) models, especially the multi-criteria evaluation of alternatives (MCEA), which is sometimes referred to as the multi-attribute decision-making method (MADM). The theory of the multi-criteria evaluation of alternatives offers many different methods for solving this kind of problem, such as conjunctive and disjunctive methods, WSA, TOPSIS, ELECTRE, PROMETHEE, VIKOR, AHP, etc. (Fiala 2006, Figueira, Greco and Ehrgott 2005 and Prina 2013). The selection of the method is influenced by the aim of the decision because some methods are only able to find good (or acceptable) and bad (non-acceptable) alternatives, whereas the aim might be to find the winner, i.e. the best

alternative out of the compared ones with respect to the selected criteria, or to find the preferential order of the alternatives. As stated in Prina 2013, the question “Which method is the best for a given problem” is usually more difficult to answer. It is for this reason that more methods are applied in this article in order to finally decide which one is more appropriate for the selected case. In accordance with similar articles (Bílá 2014; Hwang and Yoon 1981), it was decided to use several MCEA methods for the comparison, in particular the conjunctive, WSA, TOPSIS and PROMETHEE II methods supplemented by non-dominance analysis. For the majority of the calculations, the SANNA add-in application was used.

The multi-criteria evaluation of alternatives (MCEA) model focuses on problems with discrete decision spaces with a predetermined set of alternatives representing the different choices of action available to the decision maker (Prina 2013). It contains a list of p alternatives $A = \{a_1, a_2, \dots, a_p\}$, a list of k criteria $F = \{f_1, f_2, \dots, f_k\}$ and an evaluation of the alternatives according to each criterion in the criteria matrix. For some methods, additional information like aspiration levels, criteria order or criteria weights are necessary (Fiala 2006; Figueira, Greco and Ehrgott 2005).

The conjunctive method is a basic method for which it is necessary to determine the required values of each criterion. The decision-maker must set their requirements for each criterion $f_i, i=1, 2, \dots, k$ accordingly. Afterwards, the alternatives which fulfil all of these requirements are selected as the good ones. This method does not use weights and does not create a final order of alternatives. It only separates the alternatives into acceptable and non-acceptable (Fiala 2006).

The WSA (Weighted Sum Approach) sorts the alternatives based on the values of their utility functions, which in this case are assumed to be linear. It requires weights to be allocated to the criteria. The higher the utility value, the better the alternative is Prina (2013). When applying this method, the first step is to normalise the values of each criterion. The aim of this step is to abolish the influence of different units and different scales. The normalised values for each criterion range on a scale from 0 to 1 and indicate the percentage of the maximum or minimum value (depending on the type of criterion, which may be either maximising, i.e. higher values are preferred, or minimising, i.e. lower values are preferred). The formula for the normalisation of the maximization criterion type is:

$$r_{ij} = \frac{y_{ij} - D_j}{H_j - D_j} \quad (1)$$

where y_{ij} is the value of the alternative i in criterion j , D_j is the minimal value of the criterion j and H_j is the maximal value of the criterion j . In case of the minimization criterion type the formula is:

$$r_{ij} = \frac{H_j - y_{ij}}{H_j - D_j} \quad (2)$$

In the second step, the final utility $u(a_i)$ value for each alternative a_i is calculated using the criteria weights v_j :

$$u(a_i) = \sum_{j=1}^k r_{ij} \cdot v_j \quad (3)$$

The TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) method ranks the alternatives using the relative index of the distance of the alternatives from the ideal and non-ideal alternative. The higher the relative index of distance, the better the alternative is. The user only needs to supply information on the weights to be allocated to each criterion (Lai and Liu 1994). The required input information includes decision matrix Y with information about all the selected alternatives a_1, \dots, a_p according to all the criteria f_1, \dots, f_k and weight vector v for these criteria. This decision-making approach can be summarised in the following steps (detailed description of steps and notation in Hwang and Yoon 1981; Lai and Liu 1994):

- normalisation of the decision matrix according to the Euclidean metric:

$$r_{ij} = \frac{y_{ij}}{\sqrt{\sum_{i=1}^p y_{ij}^2}}, \quad \forall i = 1, K, p, \quad j = 1, K, k, \quad (4)$$

- calculation of the weighted decision matrix $W = (w_{ij}) = v_j \cdot r_{ij}$, and from the weighted decision matrix W the identification of the vectors for the hypothetical ideal H and basal D alternatives for each criterion

$$H_j = \max_i (w_{ij}), \quad \text{pro } j=1,2,\dots, k \quad (5)$$

$$D_j = \min_i (w_{ij}), \quad \text{pro } j=1,2,\dots, k \quad (6)$$

- measurement of the Euclidean distance for every alternative to the ideal and to the basal alternatives for each criterion:

$$d_i^+ = \sqrt{\sum_{j=1}^n (w_{ij} - H_j)^2} \quad \text{and} \quad d_i^- = \sqrt{\sum_{j=1}^n (w_{ij} - D_j)^2}, \quad \forall i = 1, K, p, \quad (7)$$

- determination of the relative ratio of each alternatives distance to the basal alternative:

$$c_i = \frac{d_i^-}{d_i^+ + d_i^-}, \quad \forall i = 1, K, p, \quad (8)$$

- ranking of the alternatives according to the maximising ratio c_i .

The PROMETHEE II method belongs to the PROMETHEE (Preference Ranking Organisation METHOD for Enrichment Evaluations) methods which use a pairwise comparison of alternatives and a preference function attached to each criterion, as well as weights describing their relative importance. The PROMETHEE II method is able to create a complete ranking of alternatives. A detailed description can be found in Fiala 2006; Figueira, Greco and Ehrgott 2005. The decision-maker must specify the type of preference function for each criterion. Usually 6 types of generalised criteria are used

(Brans, Vinkce and Mareschal 1986) depending on the differences between the values of two compared alternatives and on the preference function. Based on the given data for this analysis only usual preference function (where any positive difference of alternatives is considered) was applied on all criteria. Difference d between two alternatives a and b , and for the usual criterion function $H(d)$, was related to preference P as follows:

$$H(d) = \begin{cases} P(a, b) = 0 & \text{if } d = 0 \\ P(a, b) = 1 & \text{if } d \neq 0 \end{cases} \quad (9)$$

The formula (9) describes these situations: aPb = alternative a is better than alternative b ; bPa = alternative b is better than alternative a . After the creation of the 0/1 preference matrices for each criterion j , each matrix is multiplied by the weight of the criterion, and then all the matrices are summarised. The final score for each alternative is given by the sum of the values in the alternative's row minus the sum of the values in the alternative's column. The higher the score, the better the position the alternative commands.

Results and Discussion

The analysis and comparison based on the 12 pre-selected criteria was based on 21 savings accounts from 2013 and 23 savings accounts from 2018. First of all, non-dominance testing was applied, whereby the dominated alternative is the alternative for which another alternative with better values for at least one criterion and no worse values in all other criteria exists. The dominated alternative cannot therefore be taken as the best alternative and cannot be the winner for any weight vector. From this point of view, this analysis is very important in situations where only one winner is being sought. In 2013, 10 alternatives out of 21 were dominated, whereas in 2018, up to 19 of the 23 alternatives were dominated. From this point of view, we may conclude that the situation on the market would seem to have changed, i.e. that in 2018, compared to 2013, it should be easier for customers to find the best savings account based on the 12 criteria. The problem usually lies in the fact that customers do not possess all the data they need, whereby the more alternatives they have, the more complicated the dominance testing becomes. As a result of which, the non-dominated alternatives are not so visible in the data matrix. This lack of information may therefore result in investors inadvertently choosing the dominated (worse) alternative over the better one.

The next part of the analysis focused on applying the conjunctive method, for which the requirements (or so-called aspiration levels) should be set for each criterion. In this case, it was assumed that customers prefer zero fees (as concluded in other analyses Prina 2013; Shoven and Sialm 1999), a zero minimum deposit requirement, a zero minimum balance and a preference for the creation of the account online. Other criteria can be of any value. For this analysis, criteria weights are still not required. The results are presented in Table 3. For the year 2013, only 3 alternatives fulfilled all the requirements, whereas for 2018 there is the only one non-dominated alternative (No. 1 – Air Bank) suitable for the set aspiration levels, whereby the other alternative (No. 10 – ING Bank) is dominated by this alternative. All alternatives in 2013 come from the set of non-

dominated alternatives. The results reveal the main trend, i.e. interest rates (criterion C1) are falling. The maximum interest rate on offer in 2013 was 2.1% by Zuno Bank (Zuno Bank withdrew from the market in 2016 - high rates and a low proportion of sold loans resulted in losses over five years). In 2018, the maximum interest rate on offer was (in January 2018) 1.1% on the Moneta Money Bank Gold savings account – but this non-dominated account has a current account fee of CZK 149. The mBank eMax account was not selected in 2018 because the bank set a transaction fee of CZK 29. In addition, the interest rate went down to 0.01%. The average interest rate in 2013 for all 21 accounts was 1.125%, and in 2018 only 0.386%. The other visible trend is the settings of the interest bands (higher amount of money saved results in lower interest rate for the amount up to the band) and fixed rate bonuses. For 2018, other non-dominated accounts (No. 9-Fio Banka, No. 17-Moneta Money Bank, No. 20-Sberbank) were not selected because of positive fees, positive minimum deposit and/or balance requirement.

The last part of the analysis focused on the selection of the best savings account according to the 12 criteria and with respect to the weights allocated according to the two selected client types using the WSA, TOPSIS and PROMETHEE II methods. The results are presented in Table 4.

Table 3: Results of the conjunctive method

Account No., bank (year) / Criterion	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
type	max	min	min	min	max	max	max	max	max	min	min	max
1. Air Bank (2013)	1.8	0	0	0	0	1	12	0	0	0	0	0
12. ING Bank (2013)	1.5	0	0	0	1	1	4	0	0	0	0	0
15. mBank eMax (2013)	0.4	0	0	0	0	1	12	0	0	0	0	1
1. Air Bank (2018)	1	0	0	0	0	1	12	1	1	0	0	1
10. ING Bank (2018)	0.5	0	0	0	0	1	12	1	0	0	0	0

Source: Authors

Table 4: Results of the three methods for Client Type 1 and 2 (the first three places and the number of the alternative are shown)

Year	2013						2018					
Results	Client Type 1			Client Type 2			Client Type 1			Client Type 2		
Rank	1	2	3	1	2	3	1	2	3	1	2	3
TOPSIS	19	2	7	21	1	7	20	1	10	1	17	20
WSA	19	2	7	21	1	7	20	1	9	1	20	17
PROMETHEE II	1	19	7	21	1	7	1	20	10	1	20	17

Source: Authors

Table 5: Best savings accounts according to the results of the selected MCEA methods

Account No./Bank (Year)/Criterion	C1	C2	C3	C4	C5	C6	C7	C8	C9	C1 0	C1 1	C12
type	max	min	min	min	max	max	max	max	max	min	min	max
1. Air Bank (2013)	1.8	0	0	0	0	1	12	0	0	0	0	0
2. Axa Bank (2013)	1.5	19	0	0	1	1	12	1	0	0	0	1
7. Equa Bank (2013)	1.8	9	0	0	0	1	12	0	0	0	0	1
19. UniCredit Bank (2013)	1.73	18	0	0	1	1	4	1	0	0	0	1
21. Zuno Bank S+ (2013)	2.1	0	1	0	0	1	12	1	1	0	0	0
1. Air Bank (2018)	1	0	0	0	0	1	12	1	1	0	0	1
9. Fio Banka (2018)	0.15	0	0	0	1	1	12	0	0	100	100	1
10. ING Bank (2018)	0.5	0	0	0	0	1	12	1	0	0	0	0
17. Moneta Money Bank (2018)	1.1	0	1	149	0	0	12	1	1	0	0	1
20. Sberbank (2018)	0.83	5	0	0	1	1	12	1	1	0	0	1

Source: Authors

It can be concluded that the results of all methods are similar, in particular for Client Type 2 where in 2013 the top three accounts had the highest interest rates (No. 21 Zuno bank - interest rate 2.1%; No. 1 Air Bank - interest rate 1.8%; No. 7 Equa Bank – interest rate 1.8%). Under Client Type 1, a lower weight was allocated to the C1 (interest rate) criterion, which is why the results are different – the winner is No. 19 (UniCredit Bank) or No. 1 (Air Bank). There are differences in the results from the PROMETHEE and other two methods which are caused by the large number of dominated accounts, as well as by the differences in the methods applied.

As is evident in Table 5, No. 1 is better than No. 19 for the C1, C2 and C7 criteria, which means that it is better by 28%, while No. 19 is better for the C5, C8 and C9 criteria, which is better by only 13%. According to the positive preferences under PROMETHEE II, the winner should be No. 19, followed by No. 7. However, with regards to the negative preferences, No. 1 has better results and that is why it wins overall. All the alternatives in the top were non-dominated for the year 2013. The results for 2018 are also similar for all the methods. The PROMETHEE II results for Client Type 1 changes the final order a little, but for Client Type 2 the winner is the same. Here, the best solution for Client Type 2 does not have the highest interest rate (C1) as is the case for 2013, but the second highest. No. 17 has the highest interest rate, but a high current account fee (C4). No. 20 (Sberbank) has the third highest interest rate, similar to No. 1, but is better with regards to standing orders (C5). As Client Type 1 is not so sensitive to interest rates, No. 20 could be better than No. 1 (subject to how much money is in the account because the interest rate difference of 0.17% could be important for higher amounts).

Conclusions

The current situation in the savings accounts market is worse than in the year 2013. Although the number and range of accounts on offer is a little higher, the interest rates are lower and many of the accounts are dominated. The analysis showed that clients who choose a savings account mainly based on the interest rate, in particular where it concerns low-cost banks, can expect changes in the parameters after a few years or possibly the failure of the bank. Zuno Bank disappeared after just five years, and LBBW Bank was transformed into Expobank. At the same time, Bank Creditas, which grew out of the credit union, entered the sector. Deposits are legally insured up to EUR 100,000, but any change is uncomfortable for a client who expects stability from their bank. That is why it is necessary to consider other parameters when choosing a savings accounts. With interest rates as low as they currently are, the rate of appreciation is not the most important criterion, it is rather the total value of the service that the relationship with the service provider brings that is. According to KPMG, customer experience depends on six pillars: specifically, personalisation, integrity, expectation, problem solving, time and effort and empathy. Clients are sensitively to these parameters and take them into account when choosing savings accounts.

Money interventions by the CNB against the Czech Crown resulted in a noticeable fall in interest rates on savings accounts. Prior to the commencement of the exchange rate interventions rates were typically above 1% p.a., now only a few banks offer up to 0.5%, but subject to conditions. As other criteria are becoming more important, it might be useful to use mathematical methods for multi-criteria comparisons to find the best offer for a given client. According to our results, it is evident that a lot of products offered by banks are dominated, which means they are worse in all criteria than some of the other products. As clients usually do not see all data together, they are not able to identify this fact and that is why they potentially risk choosing a worse product. This implies that non-dominance testing can decrease the number of products that should be compared and shows only the good ones. The application of other multi-criteria evaluation of alternatives methods afterwards may be very helpful in making the final decision because the clients can express their needs through criteria weights. However, the main problem does not lie in ignorance of information or the frequent changes to it, but in the lack of clarity with regards to the products (for a particular client) banks create and which do not match the officially published data (part of the parameters is usually better, but this fact is not easy to verify). Based on the above analysis, it is recommended that clients should primarily seek out available data and apply some multi-criteria comparison methods before they seek contact with a bank (or before the selection of a savings account online). In this way, the client can compare the offers on the market so that they are not solely dependent on a choice of bank that may not always be the best for them.

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