Evaluation of payment sequences

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Abstract

Economists are prone to have the assumption that economic agents' attitude can be described in a rational way. However, many times economists face to ambiguous phenomenon. According to some empirical studies agents' behavior may contradict to some essential economic rationality. As examples of these facts, very different discount rates were found from slightly negative to extreme positive (Loewenstein, Thaler, 1989). The motive of my study originated in a the well-known fact that people prefer an improving sequence of incomes over other types of income sequences, even if the latter sequences offer a larger present-discounted value. This observation is specifically true for wages. In this study a survey is presented to reveal whether economics master students' behavior is in consonance with net present value theory. The survey was also motivated to examine the distinction that students draw between labor based and capital based income profile. Finally the survey has been designed to give a possible motive for the existence of this behavior.

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1. Introduction

As a common assumption in neoclassical economics people try to maximize their discounted earnings. The main weakness with this theory is that there is an ample support for the claim that subjects prefer an improving sequence of incomes over a constant or decreasing sequence even though the former provides a smaller net present value. In pursuance of this people contradict the neoclassical theory in respect of basic discounting since the majority of people choose an improving wage profile over a decreasing. This thesis is motivated by examining the existence of preference for improving sequences. Intertemporal choice models are usually premised on the assumption that people are generally impatient and appreciate valuable outcomes sooner rather than later. The common assumption is generally accepted that having 100 forint today is better than having 100 forint in one year time. Researches appear to validate this view only for single choices. However completely different phenomena can be justified at evaluating sequences of things that differ in value. In this case there is a preference for improving sequence which means in other words valuable outcomes appreciated not sooner but later. To sum up, if people face with a single decision and as a consequence a single outcome they tend to apply positive time discounting whereas if people consider the decision as embedded in flow of outcomes they tend to apply negative time discounting. Before coming to the survey and the findings of this paper, a detailed review will be presented about empirical findings up to the present.

2. Evaluation of sequences

This chapter is dedicated to demonstrate the diversified sequences people could face in different domains. Several studies show that there is an obvious ambition for improving income sequence over decreasing income sequence. This observation is true however not only for monetary domains but also a strong preference for improvement has been experienced in many other aspects of life. As an example this can be illustrated briefly by observing which activities to choose in spare time. It was found that subjects prefer the most pleasurable spare time activity later and are willing to go for the less pleasurable first (Loewenstein, Prelec, 1993). The same phenomena can be observed if subjects have the right to choose the order of which restaurant to visit one after the other. Subjects prefer to visit first the worst evaluated restaurant and prefer to visit the fanciest in the end. (Loewenstein, Prelec,1991).

2.1 Happy ending

One interesting finding is that there is a consistency to overweight the last incident in evaluating the overall experience of a stream of incidents. When choosing between two cases both having a pleasant and an unpleasant incident, people are prone to prefer the case in which the pleasant incident occurred later. As another substantial study shows participants had to compare two situations. In the first situation they lose $15 at the first stage of a game and won $85 at the second stage. In the second situation the stages were reversed. The first situation was evaluated better by subjects. This finding has been called a preference for happy ending (Ross, Simonson, 1991). The preference for happy ending can also be explained by the loss aversion characteristic of majority of individuals (Kahneman, Tversky, 1979). Loss aversion is the finding that people prone to be more sensitive towards outcomes below a reference point (losses) compared to outcomes above the reference point (gains). It is often

presumed that the reference point is determined by the latest outcome, so having an improving sequence means a continuous gain experience without any loss experience. Besides many there could be another explanation why people prefer choosing improving sequences over other type of sequences. This explanation called hedonic adaptation effect (Brickman, Campbell, 1971). This effect describes people's behavior as they get into a significantly better state. Usually there is initially a euphoric stage, then neutral or in certain cases a declining stage. For example, someone wins the lottery, starts spending money, moves to much better place however over time goes back to neutral level of affect.

2.2 Unpleasant sequences

Not only for positive events like spare time activities and not only for financial domains like monetary benefits but also for negative events and for not financial related domains there is an obvious preference for improvement. In an experiment (Redelmeier, Kahneman, 1996) subjects experienced two treatments. One of the treatments was a period of intense pain while the other treatment was a longer period with the same intensity and exact duration of the previous treatment and an additional extra period of a less-intense pain in the end. Obviously the overall pain is more in the longer treatment. After both treatment subjects were asked which treatment they would repeat. The majority of the subjects opted for the longer treatment. In spite of the bigger aggregated pain they face in the longer treatment, subjects appreciated more the gradually ceasing pain (improving sequence). Other experiments has similar finding. The conclusion of one other experiment is that the retrospective evaluations of painful experiences are influenced primarily by a combination of the final pain intensity and the intensity pattern during the latter half of the experience. In addition, results indicated that duration has little impact on retrospective evaluations for stimuli of

relatively constant intensity. However, when the stimulus intensity changes over time, duration does play a role (Ariely, 1998). Similarly to suffering from pain experiments, in other experiments subjects valuate sequence of falling disturbing noise far more positively than they valuate the increasing intensity version of the same disturbing noise (Ariely, Zauberman, 2000). In case of the negative financial domains the preference for improvement sequences in certain cases violate very strongly the net present value assumption. For example, subjects choose the sequence that is longer but has smaller losses and –which is more relevant for improving sequences- sequence with smaller end losses even if the sequence resulted in a much higher overall loss. There is a clear tendency to weigh the peak and the end of a sequence too heavily (Langer, Sarin, Weber, 2005). Fredrickson and Kahneman (1993) identified the expression 'peak-and-end-rule' to describe their findings that people base their general evaluation of sequences mostly on extreme events and on latter happened events of a particular sequence. There was an additional interesting study on loan repayment preferences as well (Hoelzl, Kamleitner, Kirchler, 2011). Again, in compliance with the net present value calculation one would expect that people minimalize their repayments according to such calculations. However there is a definite preference again for improving repayment condition that in this case means decreasing repayment over time. So if the sum of the repayment is fixed in advance, people may tend to repay more in real term.

2.3 Further findings

Besides the preference for improving sequences the swiftness of the change in the sequence also matters when subjects evaluating different sequences. A more rapid rising in wage was more appreciated to a less rapid rising in wage though the less rapid rising wage profile offered higher amount of money overall (Hsee, Abelson,

1991). There is a large volume of studies describing the clear preference for improvement when evaluating sequences. However in certain domains there is an obvious preference for spreading. For example in loan repayment as mentioned earlier there is an express preference for a decreasing instalment compared to an increasing instalment over time nevertheless there is a very strong preference for spreading (Hoelzl, Kamleitner, Kirchler, 2011). Experiments confirmed that people rarely choose deteriorating profile instead of improving profile in any field of life. However in health condition people may prefer to be healthy now in their younger age and be less healthy as time passes (Chapman, 1996).

The findings described in this chapter suggest that in general people prefer to have an improving profile, but rarely in certain domains can different preferences be found such as spreading for loans or a deteriorating demand for health.

3. Explanation and evaluation of improving income profiles

Numerous studies have attempted to explain that generally employees prefer an improving sequence of incomes over a constant sequence, even if the constant sequence offers a larger present-discounted value. Generally this increasing income profile is common in everyday life and offered by the employer' side as well.

3.1. Wage patterns

Mincer (1974) revealed an unambiguously positive and concave correlation between years of experience (school + work experience) and income. According to this correlation workers with more experience produce more added values to the company.

From the company point of the view the increasing income profile is considerably straightforward even if there are some jobs (like cashier or bus driver) where the added values after a while do not differ with more experience however the same increasing income profile has been found (Frank, Hutches, 1988). According to other opinions companies underpay their employees initially but promise them gradually overpayment (compensation) as years pass (Lazear, 1981). By the help of increasing income profile companies can keep their employees because employees are less willing to leave since they would give up their postponed compensation. Other studies explain the increasing income profile can be explained by the risk attitude difference between employees and companies. Companies are less risk averse than individuals so can make more risky investment with higher expected return that transfer to employees later. (Harris, Holmstrom, 1982)

3.2 Income preferences

Based on previous examples it is worth for the company to offer increasing profile however it is less obvious why employees would opt for these increasing profiles. The majority of people identify their wage goes after their productivity so they perceive their increasing wage as sign of being gradually more productive. Their personal development gives them pleasure and they derive utility from this fact. This phenomenon might explain why employees choose increasing wage profile. A study tried to capture this fact by comparing labor income and capital income profile preferences. Since capital income does not depend on individual productivity this comparison reveals the additional value that comes from the pleasure of being more productive. In both cases people opt for the improving profile however the preference

for improving profile is much stronger for labor income than for capital income (Loewenstein, Sicherman, 1991). Other reasons that employees choose the increasing wage profile can be due to the lack of information they have or due to the fact that they are not aware how they could maximize their consumption. A study (Matsumoto, Peecher, Rich, 2000) showed that those who are more informed about financial issues are less tends to prefer improving wage profile.

3.3 Increasing income profile versus discounting

Examining the preference for sequences of income obviously includes a discount rate problem. For example, in the US teachers can decide how to obtain their wage. One of the options is to get their wage in 9 portions from September until June, the other option is to get it in 12 portions (monthly) wage from September until August. The majority of the teachers opted for the latter option that might lead to believe that teachers have negative discount rate (Loewenstein, Thaler, 1989) A recent study (Duffy, Smith, 2013) examined whether choosing improving income profile is somehow a matter of negative discount rate or not. Subjects could choose from a wide range of income profile and working hour profile. If choosing improving income profile were the consequences of negative discount rate it would be reasonable to suppose that subjects also pick the improving working hour profile (decreasing hours). However there was no correlation between the exhibition of a preference for increasing payment profile and a preference for decreasing hour profile. The study also shows that people usually think that the tendency of their income flow will continue after the fix period so that could be the reason for choosing improving over decreasing but negative discounting.

4. Study

The motive of the study originated in the well-known fact that subjects prefer an improving sequence of incomes over other sequences even if the latter sequences offer a larger present-discounted value. I ran a survey to reveal master students' preference about different income profiles.

4. 1. Participants

The survey (see in Appendix) has been assessed in order to gain insights into the subjects' preferences for sequences of income. Primary inclusion criteria related to the participants was that they are familiar with financial issues and they have the necessary knowledge and tools to handle financial related question confidently. Therefore, 77 master (or lately graduated) students were recruited to fill out the survey who are studying currently economics or business related studies at Central European University (CEU) or at Corvinus University of Budapest (CUB). In order to increase the reliability of measures the participants were top students moreover the majority of the respondents are also members of different extra-curricular technical collages. The survey was written in Hungarian and in English as well. Students from CEU have been provided by the English whereas CUB students by the Hungarian version of the questionnaire. Both surveys are completely similar to each other including the order of the questions. The survey was done by online and was allocated via private mailing. The order of the questions was the same. The table below illustrates the repartition of the participated master students.

	Economics	Finance	Management, Accounting	total
English	23	0	0	23
Hungarian	0	~40	~14	54
total	23	40	14	77

1. Table

4.2. Features of the survey

The literatures and studies mentioned previously assign several main reasons for choosing improving income profile over a decreasing income profile. These are the followings:

Usually people think that the trajectory of income will continue after the fix period, so that could be the reason for choosing improving over decreasing. In the survey I am trying to filter out this fact by emphasizing that after the fix period the sequences of income independent from what has been chosen before.

When people work they like being appreciated, and an improving wage profile could mean to them they are better from year to year and they derive utility from being better at work. This argumentation is considered to be valid for labor income. In my questionnaire besides labor income profile I also distribute questions about capital income profile.

Usually people are not informed well or they are not aware of basic discounting calculations etc. Since the participants are master students in economics these are not relevant issues in the presented survey.

My survey also indicates an idea that might explain why certain people choose increasing profile after all. I suppose certain people may tend to spend more if their disposable income is higher at the moment (but if the aggregate sum is the same as in the questionnaire, higher disposable income should not lead to higher consumption today). Maybe those people are aware of this fact and they choose improving income as a subconscious step because they know they would spend more if the disposable income were higher today. One of the hypothesis of my thesis is that choosing improving profile may be an outside restriction by individual not to spend so much today. Besides the income profiles questions I asked the subjects to answer some questions that captures whether they are willing to overspend or not. They got an impulsiveness score (proxy for willingness to overspend) based on their answers.

5. Findings

I was curious about students' relation to different income sequences. First I asked them to choose between different wage profiles that a company offers them for the next five years. I emphasized the fact, that their wage from the sixth year on is independent of which profile has been chosen before. The profiles differed in yearly payment but were similar in the overall undiscounted sum and are presented in Table 2.

	year 1	year 2	year 3	year 4	year 5
profile 1	250	300	350	400	450
profile 2	350	350	350	350	350
profile 3	450	400	350	300	250

2. Table

Subjects were also asked to evaluate each profile if only that profile was available. They had to indicate in a range from one to five how satisfied they would be with that profile. As mentioned formerly people might evaluate same payments differently based on the source of the payments. Besides wage payment I also aimed to estimate how subjects would evaluate the payment from other source. I proposed another question that aimed to capture the preference for capital income. Subjects had to choose between different contracts. The available options were exactly the same as in the wage payment case but instead of working for a company subjects were given a flat on that they could make money. So in exchange for letting someone to live in the flat subjects got paid. Similarly to the wage payment case renewing the contract was not possible and the desired contract is completely enforceable. Likewise in the wage payment case subjects were asked again to evaluate a certain contract.

5.1. Wage

Out of 77 students **38 students** (50%) opted for the **improving wage** profile. These students were exactly two times more than those who opted for the **decreasing wage** profile (**19 students,** 24%). **20 students** (26%) preferred the **constant profile**. There is a clear preference for improving sequences compared to decreasing one. Students seem to violate net present value maximization. These findings are completely in line with previous studies in this field, however the preference for improving sequences not so dominant. In in a study (Loewenstein, Sicherman, 1991) only 7% of the subjects based their option on present value maximization namely marked the decreasing wage sequence. At the same time in my survey 24% of participants marked the decreasing

wage sequence. However the huge difference (7% versus 24%) can be explained with the following:

In the study of Loewenstein and Sicherman the survey has been repeated but that time subjects have been given exposure with conflicting arguments why they should prefer increasing or decreasing sequences. Even if the subjects were not aware of the economic argumentation for decreasing profile beforehand they got an insight before making their decision. At this time for wage payments 22% of the participant chose the decreasing wage profile. Due to the argumentation the popularity of decreasing profile increased from 7% to 22%. One can draw the conclusion that subjects have been highly affected by the arguments. This new ratio (22%) of those who have chosen the decreasing profile in Loewenstein and Sicherman' study is already in compliance with the 24% I got in my survey. It was unnecessary in my survey to give any argumentation for students because everyone had already at least basic knowledge of finance unlike Loewenstein and Sicherman' participants who were ordinary people not specialized in economics. The table below illustrates the percentages of those who chose the decreasing profiles in different surveys.

	Loew and Sich: without argumentation	Loew and Sich: with argumentation	my survey (without argumentation)
decreasing profile (%)	7	22	24

3. Table

My survey indicates that two times more people have chosen the improving wage sequence over decreasing sequence. In order to justify again the preference for improving sequences it is useful to compare the evaluation score that the different profiles have been given as well. The analysis was developed for the purpose of capturing the evaluation for every possible profile.

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
improving profile	77	**3,87**	1,104	0,126	3,62	4,12	1	5
constant profile	77	**3,64**	0,887	0,101	3,43	3,84	1	5
decreasing profile	77	**2,64**	1,486	0,169	2,30	2,97	1	5

4. Table

The mean evaluation score for certain profiles can be seen in Table 4. The highest average score has been given to the improving profile whereas the lowest average has gone to the decreasing one. A comparison of the two results reveals that on average students evaluate more highly an improving profile. In addition it is important to note that there is no overlapping range of evaluation score at any confidence intervals. As has been pointed out in previous studies this survey also verifies that majority of people are lover of improving wage profiles.

5.2. Income

The survey distinguishes two different types of income, labor and capital income. Based on the responses there is a clear preference for improving wage (labor income) sequences. In the next section the preference for capital income is to be revealed. To begin with, I compare first the relation between the two types of income. There is a very high correlation (Pearson correlation: 0,769) between labor based income profile and capital based income profile. The correlation is significant at the 0, 01 level (2-tailed). The finding indicates that subjects pick not randomly. For example if a subject prefers a certain type of profile for wage payments one can conclude that most probably she will choose the same profile for capital payment. Indeed the survey found that out of 77 subjects only 25 chose a different profile for capital income compared to what have been chosen for labor income beforehand. A very important pattern emerges from the result by getting a deeper insight. All the 25 deviations point to the same direction. For capital income these students picked a less increasing profile compared to the profile they have chosen for wage. There is no case where the reverse has been found. In detail 22 students switched to the constant profile from increasing profile whereas 3 students switched to the decreasing profile of those 2 students deviated from constant profile 1 from increasing profile.

In absolute term students showed preference for spreading in capital payment. Over half of the 77 participants 41 students chose the constant profile. The preference for improving profile disappeared completely. Furthermore more students opted for the decreasing profile than for increasing profile. The results are summarized in Table 5.

	increasing profile	constant profile	decreasing profile	total
wage payment	38	20	19	77
capital payment	14	41	22	77

5. Table

As previously mentioned studies pointed out there is something special about wages compare to other types of payments, that induces a very obvious preference for increasing wages. To a lesser extent but the preference for improving payments has been shown in studies for capital income as well. However the preference for improving payment disappears completely in this survey. Another way to analyze the preference of capital profiles is the comparison of the evaluation score likewise in the wage payment case.

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
improving profile	77	**3,44**	1,186	0,135	3,17	3,71	1	5
constant profile	77	**3,90**	0,926	0,106	3,69	4,11	1	5
decreasing profile	77	**3,21**	1,380	0,157	2,89	3,52	1	5

6. Table

The mean score is the highest for the constant profile that is in line with the finding that over half of the students opted for that profile. There is a significant preference for spreading in capital based income sequences. Despite the fact that by more than 50% more students chose the decreasing profile over increasing profile (22 vs 14) higher average score has been given to the increasing profile even if the differences are not so significant. This can be explained by the fact that among those who chose the constant profile the increasing profile is more preferable than the decreasing. Indeed, factoring the evaluation score mean by capital income one can conclude that students with constant income profile evaluate the increasing sequence significantly better.

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
improving profile	41	**3,54**	0,840	0,131	3,27	3,80	1	5
decreasing profile	41	**2,66**	1,063	0,166	2,32	2,99	1	5

7. Table

The observation that participants prefer the constant profile in capital income sequences are not completely in line with other studies' findings. Generally, studies

show an obvious fall in preference for improving sequences as turning to capital income from wage income similarly to this survey. However the preference for increasing sequence usually remains and the majority of subjects continue to favor improving payment.

Taken together the results of the survey suggest that in labor related domain there is a strong preference for improving sequences whereas in capital related domain subjects behave more consistently according to net present value maximization by choosing constant profile over increasing profile. The overall preference between increasing and decreasing capital profile is ambiguous however those who picked the constant profile are significantly in favor of the increasing profile instead of decreasing.

5.3. Impulsiveness score

The survey also addresses whether there is a relationship between being impulsive and choosing a certain type of profile. The last part of the survey is trying to capture subjects' behavior towards overspending.The hypothesis is that choosing improving profile may be an outside restriction by individual not to spend too much today. As mentioned earlier, all of the participants are well-trained master students who know that according to net present value theory decreasing profile would be the best to choose. However they also know if they cannot resist the temptation of not spending the disposable income today later they would suffer from spending less than the habitual. Avoiding such cases they might choose the increasing wage profile. Those who are less willing to purchase impulse can choose other profile more likely.

After choosing and evaluating income profiles subjects have been asked to answer some questions, for example: *How often do you end up buying something that was not planned before?* (See the whole survey in Appendix.) Based on their answers each subjects got a score that aims to identify how impulsive towards overspending a certain student is. The impulsiveness score based on three questions that best incorporate individual impulsiveness of overspending. These are the followings:

How often do you make a list before the weekly shopping? (or devote some time to think about what is necessary)

How often do you end up buying something that was not planned before?

How often did you regret buying something?

Based on these 3 questions students have been put into two categories *not impulsive (0)* and *impulsive (1).* The chosen income profiles also have been marked: *increasing (1)*, *constant (2)* and *decreasing (3).*

It can be seen from the data in Table 8 that there is a significant but not strong correlation between income profiles and impulsiveness score. The direction of the correlation is in line with the hypothesis. (The correlation is negative, the increasing profile goes together with higher impulsiveness score)

	impulsiveness score		
	Pearson correlation	std error	significance
wage profile	-0,201	0,110	0,080
income profile	-0,271	0,106	0,017

8. Table

Beside the correlation by the help of the crosstabs analysis I also try to justify that impulsiveness score and the chosen capital profiles are not independent. Indeed, the Chi-square is significant at 10%. The null hypothesis that score and profiles are independent can be rejected. (The crosstabs analysis is significant for capital profile but not for labor profile.)

		not impulsive	impulsive	total
increasing	count	4	10	14
	expected	6,9	7,1	
constant	count	19	22	41
	expected	20,2	20,8	
decreasing	count	15	7	22
	expected	10,9	11,1	
	total	38	39	77

9. Table

	Value	df	sig (2-sided)
Pearson Chi-square	5,688	2	**0,058**

10. Table

Conclusion

The findings about labor based income profiles correspond to previous studies. There is an obvious preference for improving wage sequences. The increasing profile has been chosen by the majority of students and have got the highest evaluating score overall. More students chose the decreasing wage profile than previously expected. This finding is however not surprising after taking into consideration the features of the subjects. The more informed financially the subject is the more likely for her to choose the decreasing profile.

The survey identifies an obvious fall in preference for improving sequences in capital based income profile compared to labor based income profile. This phenomenon is totally in line with other empirical findings. However in other studies the preference for increasing sequence usually remains for capital based profile as well. At the same time this survey presents a considerable preference for spreading in capital based profile.

Finally, the survey found a significant but not strong correlation between income profiles and impulsiveness score. Those who choose increasing profile are more likely to tend to overspend generally.

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Appendix

(the transcription of the original survey)

Survey for thesis

Please, fill this survey out only if you are a student (or lately graduated) who studies economics or business studies. It takes no more than 5 minutes!

*Required

Currently you are working for a company. The company offers you several wage profile for the next five years. Your wage from the sixth year on is independent of which profile has been chosen. Please, mark your profile! *

- profile 1: Monthly 250 thousand forint net for the first year (850 euro), 300 thousand for the second (1000 euro), 350 (thousand for the third (1150 euro), 400 thousand for the fourth (1300 euro) and 450 thousand for the fifth (1450 euro).
- profile 2: Monthly 350 thousand forint net for the five year (1150 euro).
- profile 3: Monthly 450 thousand forint net for the first year (1450 euro), 400 thousand for the second (1300 euro), 350 thousand for the third (1150 euro), 300 thousand for the fourth (1000 euro) and 250 thousand for the fifth (850 euro).

Currently you are working for a company. The company offers you several wage profile for the next five years. Your wage from the sixth year on is independent of which profile has been chosen. Please, mark your profile! *

- profile 1: Monthly 250 thousand forint net for the first year (850 euro), 300 thousand for the second (1000 euro), 350 (thousand for the third (1150 euro), 400 thousand for the fourth (1300 euro) and 450 thousand for the fifth (1450 euro).
- profile 2: Monthly 350 thousand forint net for the five year (1150 euro).
- profile 3: Monthly 450 thousand forint net for the first year (1450 euro), 400 thousand for the second (1300 euro), 350 thousand for the third (1150 euro), 300 thousand for the fourth (1000 euro) and 250 thousand for the fifth (850 euro).

Let's suppose you cannot choose between profiles. You need to accept profile 1. How satisfied are you with profile 1? *

Higher number indicates more satisfaction!

Not at all 1 2 3 4 5 Completely

Let's suppose you cannot choose between profiles. You need to accept profile 2. How satisfied are you with profile 2? *

Higher number indicates more satisfaction!

Not at all 1 2 3 4 5 Completely

Let's suppose you cannot choose between profiles. You need to accept profile 3. How satisfied are you with profile 3? *

Higher number indicates more satisfaction!

Not at all 1 2 3 4 5 Completely

You own a huge flat in Budapest in the downtown. You do not need the flat for the next five years. Someone is willing to pay you rental fee in exchange for living in your flat for the next five years. You write a contract of rental fees for the next five years. Renewing the contract after 5 years is not possible. The contract is completely enforceable, so you get your promised money for sure. You can decide which contract you want to sign. Please, mark your contract! *

- contract 1: Monthly 250 thousand forint net for the first year (850 euro), 300 thousand for the second (1000 euro), 350 (thousand for the third (1150 euro), 400 thousand for the fourth (1300 euro) and 450 thousand for the fifth (1450 euro).
- contract 2: Monthly 350 thousand forint net for the five year (1150 euro).
- contract 3: Monthly 450 thousand forint net for the first year (1450 euro), 400 thousand for the second (1300 euro), 350 thousand for the third (1150 euro), 300 thousand for the fourth (1000 euro) and 250 thousand for the fifth (850 euro).

Let's suppose you cannot choose between contracts. You need to accept contract 1. How satisfied are you with contract 1? *

Higher number indicates more satisfaction!

Not at all 1 2 3 4 5 Completely

Let's suppose you cannot choose between contracts. You need to accept contract 2. How satisfied are you with contract 2? *

Higher number indicates more satisfaction!

Not at all 1 2 3 4 5 Completely

Let's suppose you cannot choose between contracts. You need to accept contract 3. How satisfied are you with contract 3? *

Higher number indicates more satisfaction!

Not at all 1 2 3 4 5 Completely

How often do you make a list before the weekly shopping? (or devote some time to think about what is necessary) *

Never 1 2 3 4 5 Always

How often do you smoke cigarettes? *

Never 1 2 3 4 5 Always

How often do you use nutrition labels to select the foods you buy? *

Never 1 2 3 4 5 Always

How often do you cross the road on the red? *

Never 1 2 3 4 5 Always

How often do you end up buying something that was not planned before? *

Never 1 2 3 4 5 Always

How often did you regret buying something? *

Never 1 2 3 4 5 Always

How often do you consume alcohol? *

Never 1 2 3 4 5 Always