Benefiting from Our Biases: Inducing Saving Increases among Thai Military Officers

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Abstract

Saving is the principal source of fund for most people after retirement. Saving too little today means lower quality of life after retirement. Most people know saving is important, but few succeed in saving enough. In this study, we conduct a field experiment using concepts from the well-known Save More Tomorrow™ program to enhance saving among military officers in the Royal Thai Army. Subjects in a treatment group are automatically enrolled to the program unless they opt out, and the source of saving increases only come from increases in their future salary. The initial findings from the implementation suggest a high chance of success in increasing saving. The majority of the subjects in the treatment group (98 percent) remain in the program after two pay raises, and their saving rate is going up. On the other hand, saving rate of subjects in control group is continuing to decline even their salary is also on average evenly increased. Our study serves as further evidence that insights from behavioral economics are vital as a policy tool, and that they are widely applicable even across cultural settings, as these primary results have shown.

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Introduction

Household saving rates in Thailand has been declining during the past decade. Currently about 83 percent of households do not save regularly[1], and when they do, their saving rates are very low, less than 10 percent (Soonthorndhada and Chindakum, 2014). This group of people is at risk of having inadequate funds to maintain their lifestyle after retirement. Inadequate saving has long been well-recognized as several methods have been proposed by many to solve the problem. A good example such as user-friendly financial literacy toolkits that have been developed to provide information and educate people on how to manage their wealth, including saving, has been in practice for decades. However, the problem still remains and seems to be growing. We are still in need of additional or different methods to increase household saving in the Thai households.

To start solving the problem one needs to understand the core of the issue. The traditional methods, at least in Thailand, to persuade people to save rely on mainstream economic theory, which generally assumes that people are rational agents. With enough information and knowledge they could solve the optimization problem to decide how much to consume and how much to save in each period to smooth their lifetime consumption. However, from behavioral economics studies, humans usually faces self-control problem, which would play a role in preventing households from saving enough because they may be reluctant to limit current consumption in favor of future consumption (saving today) (Thaler and Benartzi, 2004). In addition, present-biased preferences create procrastination in which people (mistakenly) think that current and near-term consumptions are more important than future consumption (O'Donoghue and Rabin, 2001). This implies that current consumption is heavily weighted in their utility function, and they will consume more today and save less for future consumption. This behavior would result in a saving rate that is too low leading to insufficient future consumption. To overcome low-saving problem, we need methods that consider real HUMANS who sometimes (or regularly) behave as irrational agents, and not ECONS who always behave rationally.

[1] There is about 26 percent of household that actually have no saving at all (Patmasiriwat and Hengpatana, 2014).

This study therefore applies the principles from behavioral economics to design a program to help people to save more. Our program targets people who want to save more than they are doing now (or do not realize they are saving less than they should), and for those who procrastinate in saving more. The idea of the program is to give the subjects the option to commit to save more from increases in each future salary raise, as in the well-known Save More Tomorrow™ program developed by Thaler and Benartzi (2004). Our program, however, is slightly different in three dimensions. First, unlike in the original program, every subject is automatically enrolled, though they can opt out from the program at any time. We apply opt-out mechanism due to limited resources in providing the subjects with one-on-one financial consultant. Furthermore, using only direct-mail campaign, as we did in this study, is unlikely to convince them to join the program.

Second, for our program increases in saving come from raised salary alone instead of from the entire future salary after the raise. We use this design because many workers in our study live paycheck-to-paycheck and many times can barely make ends meet. Cleary announcing that deductions toward saving come from only future raised salary would make them feel more positive toward the program as the current salary is untouched. Third, we can apply field experiment where treatment and control groups are established to clearly test the impact of program on saving rate.

We note here that traditional economic theory would predict that the saving rate between the subjects in treatment and control groups would not be different because if the subjects decided on the optimal life cycle saving rate, they would have no interest to stay in the saving program. However, behavioral economic principles applied in this study would predict that the majority of the subjects in the treatment group will find this program attractive and will stay in the program, resulting in significantly increase in saving rate compared to those in the control group.

Our program has been implemented in the saving cooperative of eight infantry regiment consisted with three battalions[2]. To reduce spillover effect, randomization unit is at battalion level where subjects in one battalion are randomly assigned to receive the saving program. Subjects in another two battalions, on the other hand, serve as a control group. The subjects in the treatment group received letter provided

[2] Even though, these battalions are in the same regiment, their barracks are located in different areas where average distance from one barrack to another is about 80 kilometer.

them the details of the program in the first week of February 2017. After four pay raises occurred in April and October of 2017 and 2018, 156 out of 158 subjects in the treatment group are still in the program, and their saving rate is increasing, while the saving rate of subjects in the control group is declining even their salary is on average evenly increased.

The paper proceeds as follows. First, we introduce our subjects and discuss their current saving situation. We then explore the perception on saving for retirement and possible obstacles preventing subjects to save more. Then the details of the program and its implementation are presented. This is followed by reports of the results from the first fourth salary raises. Finally, implications of the findings are outlined in the discussion and conclusion.

The Saving Situation of Subjects

Our study took place at a saving cooperative of the eighth infantry regiment consisted with three battalions. Even though, these battalions are under the same regiment, their barracks are in different locations where average distance from one barrack to another is about 80 kilometer. To provide convenience for the cooperative's members, each battalion has cooperative office that provides the same services for the members[3].

The main purposes of the saving cooperative are to provide credit and saving services to the members. The cooperative has two types of members. The first one is temporary member who is drafted to serve in the army for two years. Due to relative short time in military service, this group of member is not eligible for getting credit from the cooperative. Only saving service is available for them, and it is voluntary. The second group of members is noncommissioned officers who serve in the military until retirement at age of 60[4]. They are eligible for both credit and saving services from the cooperative. At time of the study, all noncommissioned officers of all battalion are the members of the cooperative, and they are the targets of our saving program.

[3] Even each office reports to the regiment's cooperative, they can set up their management rules that are not conflict to those of the regiment.

[4] There is no requirement for this group of soldiers to be a member of the cooperative.

The cooperative offers three types of saving account for the members[5]. The first saving account is common saving account where the interest rate is 3 percent per year. The second saving account is special saving account where the members could get 4 percent interest rate annually, but it has lower liquidity than the common saving account because account owners can withdraw money from the account once a month[6]. The third option for saving is buying shares of the cooperative. This saving option is different from the first two options in two dimensions. First, while the first two saving accounts are voluntary, this saving account is required for members. The minimum requirements of saving per month for this account are different among battalions. Namely, the minimum requirements for the first battalion and third battalion are 500 Baht (about 15 US dollar) and 700 Baht (about 21 US dollar), respectively. The minimum requirement for second battalion is slightly different in which it depends on the rank of the officers. The monthly requirement for officers with sergeant and lower ranks is 500 Baht, while that of master sergeant is 700 Bath. The requirement saving is directly deducted every month from their monthly salary in every battalions. The second different is the principal could not be withdrawn until retirement or resignation from membership. The return of this saving account, however, is paid every year to the account owners. The annual return of this saving form in the past ten years ranges between 5 to 6.5 percent depending on the annual profit of the cooperatives[7].

The interest rates from these three saving forms are generally higher than those in the market as the annual interest rates from similar accounts provided by other financial institutes (at the time of study) range between 0.75 to 2 percent. However, the saving of the cooperative's members is quite low. Among 510 members in these battalions, there is only about 30 percent of the subject own more than one saving account, and most of their saving is actually in the forced saving account[8]. For

[5] Another source of saving is government pension fund. This saving is requirement, and 3 percent of their salary is automatically deducted to this fund with another 3 percent matching from the government.

[6] They actually can withdraw money more than one time a month but the interest rate will be dropped to 3 percent after that.

[7] The main profit of the cooperatives comes from interest earnings from loans provided to the members. The interest rate on a loan is fixed at 8 percent per year.

[8] The 1st, 2nd, and 3rd battalions have 168, 184, and 158 members, respectively. The proportions of members owning more than one account in each battalion range between 27-31 percent.

the forced saving account, there are 446 from 510 subjects, which is about 87 percent, who save at the minimum requirements. We then calculate saving rate of the subjects from 2014 to 2016 before the saving program started. The saving rates of three battalions are presented in figure 1.

[Figure 1 about here]

Note that salary of the subjects is increased every year[9]. The average increase of salary in the past three years (2014-2016) was about 4.5 percent. Information from figure 1 therefore suggests that even their salary has increased; they do not save more resulting in continuously declining of their saving rate.

We also analyze pattern of saving rate from 2014 to 2016 by income. We analyze this data by categorizing individuals into three groups based on their salary, which results in high-salary group (H), middle-salary group (M), and low-salary group (L)[10]. Figure 2 clearly shows that the saving rates in every income groups are declining. There are two points worth noting here. First, individuals do not save more even though their income increases regularly. Second, because the amount of monthly saving does not increase, the saving rate declines as the income increases. This situation is clear from the saving rate of the high-salary group, which has the lowest saving rate.

[Figure 2 about here]

A Framework for Increasing the Saving Rate

Before developing a saving program to convince people to save more for retirement, we must understand the objectives and constraints that go into the decision to save for retirement. This would help us to design effective saving program. We start by conducting a short survey to first understand their perception on saving for retirement,

[9] Their salary is usually raised twice a year, the end of April and October. The main rise is usually on October accounted about 3 to 3.5 percent of 4 to 5 percent total annual rise.

[10] As the distribution of salary data is not normal, we use one standard deviation from median salary to creating groups. Namely, the cutting point for high salary group is (plus) one standard deviation from median salary, and the cutting point of low salary group is (minus) one standard deviation from median salary. This results in 129, 139, and 242 individuals in high salary group, middle salary group, and low salary group, respectively.

and second to explore possible obstacles that would prevent subjects from saving more.

The short questionnaire was given to the subjects in the second week of January, 2017 during the cooperative member meeting of all 3 battalions[11]. Overall, the majority of subjects, 98 percent, indicate that saving for retirement is important to them. Most of them also state that their current saving is too low, and they want to save more. However, about 65 percent of the subjects indicate that it is difficult for them to increase saving mostly due to current expenditure and lacking of willpower. These are the signs of self-control problem where most subject realize their current saving is too low and they want to save more but found it is difficult to do so.

We also check whether they behave as time-inconsistent agents. Time-inconsistent behavior occurs when an individual weighs current or near-term consumption significantly heavier than that in the far future (Thaler and Benartzi, 2004). This can be represented algebraically as the following. Let us assume there are two rewards. The first one is a small reward at time t (S_t), and the second one is a big one at time $t+1$ (B_{t+1}). When t is far off, agents prefer B_{t+1} because the difference between B_{t+1} and S_t is big enough to compensate waiting cost. However, when t approaches zero, the ratio of discount values increases and people to switch their preferences. We call this behavior as present-biased preferences. Such bias creates procrastination as agents (mistakenly) think that whatever they will be doing later will not be as important as what they are doing now (O'Donoghue and Rabin, 2001; Thaler and Benartzi, 2004)[12]. We check such bias using two questions in our questionnaire. The first questions asked the subject to choose between getting 200 Baht today or 220 Baht tomorrow. The subjects were then asked in the second question to choose between the same amounts of getting 200 Baht in the next 60 day or 220 Baht in the next 61 day. About half of the subjects in all battalions shown sign of time-inconsistency in which they prefer 200 Baht today in the first question but turns to prefer 220 Baht in the next 61 day in the second question. In addition, we suspect that some subjects who seem to behave as time-consistent agents when

[11] There were some members who cannot join the meeting because they were deployed to field operation. The questionnaire was directly mailed with return envelop to them using military mailing service.

[12] Present-biased preferences can be captured with models that employ hyperbolic discounting. For details, see Laibson (1997), O'Donoghue and Rabin (1999), and O'Donoghue and Rabin (2001).

answering these two questions are actually time-inconsistent agents because we randomly asked some of them whether they would change their answers if real money were in front of them, most of them said probably.

From the information described above, it seems that self-control and procrastination could be the obstacles causing low saving for our subjects. The famous method suggested by behavioral economics to overcome self-control and procrastination in saving is to use the "opt-out" mechanism. In such mechanism, when people are eligible for a saving plan, they are automatically enrolled to the program unless they opt out. As predicted by behavioral economics, automatic enrollment plans have shown remarkable success in increasing enrollment to saving programs (i.e. Madrian and Shea, 1999; Choi et al., 2004; Somville and Vandewalle, 2015; Blumenstock et al., 2016). However, there is a drawback of automatic enrollment because it could produce a strong tendency toward inertia or status quo bias (Samuelson and Zekhauser, 1998). If inertia exists even when participation rates in saving programs increase, it could also lower the saving rates of those who join the programs (Keller et al., 2011). This situation seems to also happen for our subjects as well because the majority starts saving with the minimum requirement for the forced saving account but made no changes to their saving amount at least over the past 3 year.

Other factors that were not directly investigated in our survey but should be considered in designing the saving program are reference point and changes in the gain and loss domains. These factors would help us to overcome inertia. Since the development of prospect theory by Kahneman and Tversky (1979), there are many studies suggesting that people seem to weight changes in loss domains significantly more than those occurring in gain domains, a phenomenon commonly known as loss aversion (i.e. Kahneman et al., 1990; Tversky and Kahneman, 1992; Pope and Schweizter, 2011; Viscusi and Huber, 2012). What determines whether the change occurs in gain or loss domains is the reference point. In the case of saving, people should see their current consumption as their reference point. Deducting some current income for saving more will probably be seen as a loss because they will need to reduce current consumption. It would therefore be difficult for people to increase saving from their current income as they would avoid this loss. On the other hand, an increase in future income, which is not in hand or pocket now, would be seen as gain for most people. Forgoing some such future gain seems to not be treated as a loss by

most people (Knetsch, 2010; Knetsch and Mahasuweerachai, 2015). The combination of reference point and loss aversion suggests that convincing people to save more from their increased future income would be attractive as they are less likely to weigh such forgone gain as heavily as they do with the loss of current income (Knetsch and Mahasuweerachai, 2015).

The above analysis of our subjects' retirement saving behavior suggests simple and obvious solutions to the current inadequate saving problem. Procrastination and time-inconsistency preferences, such that the present is more important than future, leads us to believe that saving more in the future would be more attractive than saving more in the present. Reference point and loss aversion suggest that people would not treat the forgoing of some of their future income as a loss, which implies that drawing more saving from future salary increases would be easier than from the current salary. Finally, procrastination and inertia shed light on using automatic enrollment that would guarantee that when our subjects join the program, they would remain in until they opt out, which would rarely happen.

The Program and Implementation

From a principle to increasing the saving rate, we design a program to help our subjects who would like to save more but find it difficult to do so. We propose a program that contains ingredients as follows. First, the source of saving comes from the paycheck increase in the future to avoid the impact of loss aversion. Second, the subjects are approached about increasing saving rate by contributing more from their future raised salary two months before their scheduled pay increase. This is to take advantage of present-biased preferences where the sign-up dates and start-up dates of the program should be far into the future (Thaler and Benartzi, 2004)[13]. Third, every subject is automatically enrolled to the program, and the increase in contribution rate is continued unless the subjects opt out of the program. In this way, procrastination and inertia would work toward keeping subjects in the program. Fourth, the subject can opt out from the program at any time. This is to make them feel comfortable because they know that they can always opt out if they want.

[13] Every one knows there are increases in salary twice a year. However, its increase is relatively low in each period compared to their current salary, which would make it less salient. We therefore believe there would be no change of reference point toward new salary before schedule pay increase.

Since, the 8th infantry regiment has three battalions, which each is located in different locations, the randomization unit is at battalion level to avoid spillover effect. We randomly selected one battalion to be a treatment group where the saving program has been implemented. Another two battalions serve as a control group[14]. From randomization process, the third battalion was selected to serve as a treatment group, while the first and second battalions serve as a control group. The structure of these battalions is almost the same. Namely, the proportions of soldiers with sergeant and lower ranks and master sergeant among these battalions are almost the same. The first and third battalions contain the same proportion of 43 percent of master sergeant and 57 percent of sergeant and lower rank, while the proportion of second battalion is slightly different with 47 percent master sergeant and 53 percent sergeant and lower rank. This would imply that the salary structure among these three battalions is on average indifferent.

We start implementing the program on the first week of February, 2017, two months before the first salary increase. A letter containing information about the program was sent to every subject in the treatment group[15]. There were three main parts in the letter. The first contains an explanation of the importance of saving for retirement. Then, we start to describe the details of the program including deduction rate (saving rate) from their future raises. Note that, to increase the robustness of testing whether increases in future salary are potential source for increasing saving, we randomly assign different saving rate from increasing in future salary to subjects. Namely, there are three different saving rates of 10, 15, and 20 percent, from raises in their future salary, and these rates were randomly assigned to each subject in the treatment group[16]. The letter also contains information that when the program starts, every raise will be automatically deducted according to their deduction rate, and will

[14] If the saving program succeeds it will be implemented in two battalions served as control group in 2019 and 2020.

[15] Some subjects have been deployed to field operations. We again sent the letter using military mailing service. To make sure they receive the letter, we asked the recipients to sign when they get it. All recipients acknowledged receiving the letter.

[16] There are 52, 51, and 55 subjects in 10, 15, and 20 percent saving rates, respectively. We expect that if the increase in future income is not the appropriate source for increasing saving, we would see a higher opt-out rate from the high saving rate, such as 20 percent, than that from the lower rate, such as 10 percent. However, if the opt out rate among those with different assigned saving rates is insignificantly different, it would be another supportive evidence that convincing people to save more from their increase in future income would be highly possible.

continue every month. Such deduction will be automatically transferred to their retirement (forced) saving account every month. In the final part of the letter, we provide information that this program is voluntary, and they can opt out at any time if they want by filling out a very short form, which is available in the cooperative office.

The Results

After the letter was sent to every subject, we asked the cooperative officers of the third battalion to record the number of subjects who come to ask for the details of the program and those who come to opt out from the program. Up until now, no subject has come to ask for the details. However, two subjects (1.2 percent) dropped out from the program. The first one dropped out from the program almost instantly after getting the letter[17]. The second subject dropped out from the program a week before the first pay raise, which was by the end of April 2017. The increase in the first pay raise was on average 1.5 percent. The second, third, and fourth pay raises were took place on October 2017, April 2018, and October 2018. The average increases in salary for second and fourth pay raises were about 3 percent, while that of the third pay raise was about 1.5 percent. Convincingly, the majority of the subject, 156, is still in the program after the fourth pay raises, and the deductions from their salary increases have been employed every month. As ones would expect, their saving rates is increasing compared to those in the control group where their salary were also on average evenly increased. The saving rates of the subjects in treatment and control groups are presented in table 1.

[Table 1 about here]

The immediate effect of the program on saving was similar what might be expected. The saving rate of those 156 who stay in the program is increasing compared to their saving rate before the program implemented and those in the control groups. The average saving rate before the program implemented for the treatment group ranges between 4.80 to 5.49 percent, while that in the control groups are between 3.32 to 3.87 percent. After the fourth pay raises occurred in 2017 and

[17] We did not ask them the reason for opting out from the program, but expect that one would not see any benefits from staying in the program because he will retire from the military in the next three year.

2018 in all battalions, at the end of October 2018 the saving rate of the subjects in treatment group increases between 0.39 and 1.28 percent depending on deduction rate. The saving rate, on the other hand, of subjects in control group on average decreases by 0.21 percent. This results would confirm that future raised income could be the prominent source to persuade people to save more as the majority of the subjects in the treatment group is still in the program even after the deductions to save more occurred every month.

If the experience of this fourth pay raise is repeated with very few or no subjects dropping out of the program, the saving rate will continue to increase with every salary increase. To make it easy to follow and to see the effect of the program more clearly, we make a calculation using data from subjects in the treatment group who have at least 20 year left before retirement with 4.5 percent annual income increase. We calculate savings for those subjects with 10, 15, and 20 percent saving rates from every raise for 20 years. Columns 4 to 7 in table 1 present patterns of saving rates of these subjects. The projections clearly show that if subjects stay in the program their saving rates will continuously increase, while the saving rate of the subjects in control groups would continuously decrease[18].

Some may want to know whether subjects in the treatment group reduce other savings as they know that their saving is increasing due to joining our program. If subjects reduce other saving it means that our program does not increase total savings. It is just the case where subjects switch source of savings. To answer to this concern, we compare subjects' monthly savings from saving account and special saving account between before the program implemented and after the program implemented (end of October 2018). From the limited data we have, there are no statistical significant differences of monthly savings in both account between before and after the program implemented ($p>0.05$). In particular, our program does not reduce subjects' savings in other sources, at least in these two saving accounts. Up until now, we therefore could conclude that our program would help to increase total savings of our subjects.

[18] The saving rates would actually be higher than those presented in columns 4 to 7 in table 1 if we account for return from the interest rate, which is about 5.5 to 6 percent per year.

Potential of the Program to Increase Saving

In this section we discuss the potential of the program to increase saving. We do not attempt to ask whether this kind of program could be transitioned to policy. We instead ask whether we can increase saving rate if this kind of program was widely adopted.

To determine the potential impact of the program if it were widely adopted, we create a simulation that predicts impact of the program on saving. The simulation starts with the current average salary of employees in formal sector with college degree in Thailand. This group is the main target of our program as they are eligible for provident fund. The National Statistical Office reports the average monthly salary of this group is 16,423 Baht (about 470 USD). We also assume that the average salary increase is 5.5 percent per year. We use this baseline salary to calculate changes in saving rate over a 20-year period where the increasing in savings rate comes from the 10, 15, 20 and 25 percent deducted from each pay raise[19]. The results of our simulations are displayed in table 2.

[Table 2 about here]

Assuming that there is no saving when they start joining the program. Over the course of five year, the saving rates will increase from nothing to 2.90-7.25 percent depending on the deduction rates. The saving rate will continuously increase and will reach 10 percent in year 10 if the deduction rate is just slightly above 20 percent for every pay raise.

In terms of how large these numbers mean in dollars, we make calculations of the impact of the program on change of total saving. We use the number of employees who already enroll in the provident fund, which is about three million, as the baseline

[19] For simplicity, our calculations exclude the effects of employer contribution and employee turnover. In addition, the calculations do not include the return from fund investment. These omissions create biases, both downward and upward. Excluding the effect of employer contribution and return from fund investment would result in downward bias because increasing in employee contribution would trigger higher employer matching. In addition, provident fund is usually invested in financial assets such as bond and stock, and the returns from the investments are incorporated to the employee's provident fund. On the other hand, turnover of employee could decrease the effect of our program unless the employee moves to another company with the program in effect.

for calculations[20]. We use the same implementation strategy of the program as we did in this study where eligible employees will be automatically enrolled to the program. We also assume that in each year 5 percent of employees drop out of the program. The total additional savings over a 20-year period from various saving rates are presented in table 3.

[Table 3 about here]

Assuming that national income will increase 4 percent per year, the additional amounts of saving reported in table 3 will reach 1 percent of national income in year five for the 20 and 25 percent deduction rates. Further, as mentioned earlier that current saving rate is declining and about a quarter of households report no saving, this increase in saving is substantial. In addition to that, even in our sample there are strong indications that if this kind of program were widely implemented, the majority of eligible employees who are currently saving little (as our subjects) or not at all would join or stay in the program. This means that the increase in saving projected in this study is probably not too far from what would actually happen.

Conclusion

The initial results reported in this paper show signs of success for the program to encourage more saving that applies psychological factors in its design. The majority of subjects automatically enrolled to the program stayed with it. This indicates that as predicted, inertia works well to keep them in the program as very few opted out. We use this behavioral tendency to postpose saving to conversely help them to save. Further, the rate that would be deducted from their future income to increase saving does not seem to matter, as the rates of op-outs are vey small and similar across deduction rates. These results also hint at the power of loss-aversion and reference point in determining how much to save. Present-biased preferences and loss aversion

[20] Total saving from this calculation would downward bias because we do not account for the new graduations who enter to job market every year. In addition, the number of employee who would be able to access provident fund will increase as the government have plan to pass the law in 2018 that requires every firm with at least 100 employees to provide provident fund to their employees.

together could therefore turn the wheel from preventing people from saving to help them to save more if we know how to use them.

Even though the program seems to work for encouraging more saving, there are issues one needs to consider to help the program work better. The first relates to the impacts of automatic enrollment and loss aversion on saving. Our design could not clearly separate the effects of these factors on the rate of joining (staying in) the program. Specifically, we do not know whether the rate of taking up the program will be significantly different if the program were offered as an opt-in option. It would be more appropriate to answer this question with a controlled experiment.

In addition, in our program the rates of saving more from future salary increases were assigned randomly among subjects in the treatment group, meaning that the subjects could not choose such saving rate. If we want to apply this program more broadly, randomly assigned saving rates from raised salary would not be a good or ethical way to do so. We might consider at least two options. The first is offering a single saving rate. The second is providing them choices of saving rate and allow them to pick one. One question that arises is which one the better option is.

There are pros and cons of offering them choices, as opposed to just giving one single rate. The advantage of offering choices is that participants can pick the saving rate they like most. In addition, letting them make decision would bring greater commitment, as it is the choice they make (Keller et. al, 2011). The disadvantage of offering choices is that it forces them to make a hard decision, which would add more complexity to their lives, and discouraging some of them from joining the program. In addition, most of them may end up choosing the lowest rate offered. Deciding on the better option is an important question to answer before expanding this program. Again, only controlled experimental study would be more suitable in providing us the answer[21].

In sum, this study sheds light on the fact that there is a practical way, suggested by the Save-More-Tomorrow$^{(TM)}$ program and the results from this study, to make progress on helping people to increase their saving. The success of the program mainly comes from an insight that make an adjustment in the way we view people and thereby make predictions about their behavior. Viewing HUMANS as ECONS as we

[21] Another issue related to this issue that should also be considered is how to decide choice architecture that could persuade potential enrollees to select better choice.

have done for several decades prevented our progress considerably. Being more realistic about human nature in our subjects (and the economists') hold promises to help them and us to overcome what we have struggled for decades.

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Table 1. Projected Average Saving Rate

Deduction from pay raise (%)	Saving rate before program (Dec. 2016)	Current saving rate (Oct. 2018)	Projected saving rates in year (%)			
			5	10	15	20
			Treatment group			
10	5.28	5.67	6.03	6.81	7.44	7.95
15	5.49	6.28	7.01	8.59	9.86	10.87
20	4.80	6.08	8.00	10.37	12.28	13.80
			Control group (1st Battalion)			
0	3.32	3.08	2.84	2.28	1.83	1.47
			Control group (2nd Battalion)			
0	4.07	3.89	3.33	2.67	2.14	1.72

Table 2. Projected Saving Rates

Deduction from pay raise (%)	Projected saving rates in year (%)				
	0	5	10	15	20
10	0	2.90	4.70	6.07	7.12
15	0	4.35	7.04	9.11	10.68
20	0	5.79	9.39	12.14	14.25
25	0	7.25	11.74	15.18	17.81

Table 3. Projected Additional Total Savings

Deduction from pay raise (%)	Projected increases in total savings in year (Billion Baht)				
	0	5	10	15	20
10	0	56.14	150.37	265.21	387.27
15	0	84.21	255.55	397.82	580.90
20	0	112.28	300.74	530.43	774.53
25	0	140.34	375.92	663.03	968.16

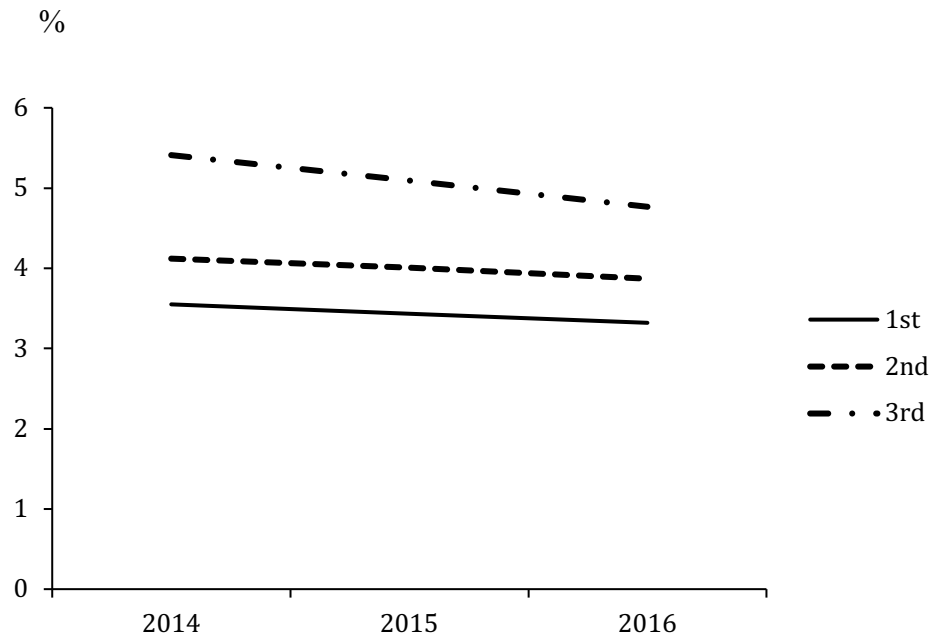

Figure 1. Average Saving Rate

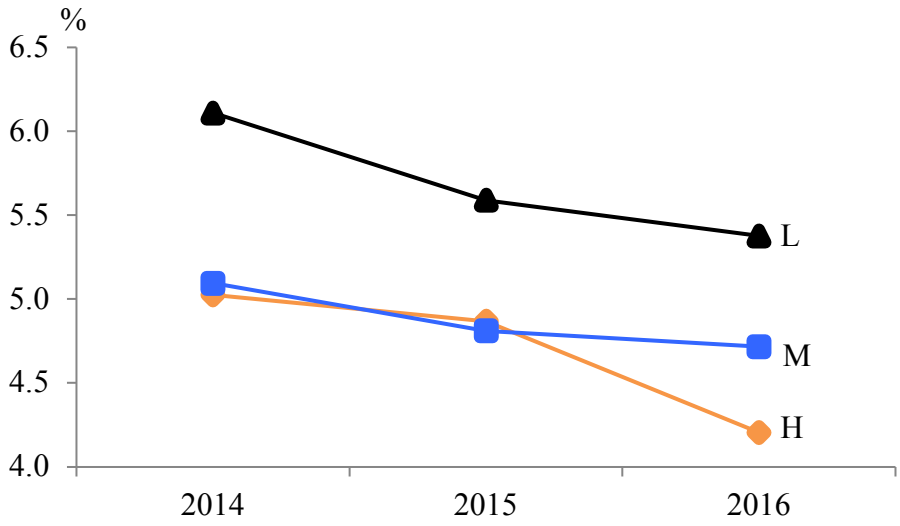

Figure 2. Average Monthly Saving Rate Categorized by Salary