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FACULTY OF ECONOMICS

"ISTVÁN SZÉCHENYI"

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PRACTICE OF ECONOMIC PROCESSES

SUB-PROGRAMME ON FINANCE

The Financial Household savings in Hungary

Theses of Ph.D. thesis

by

Dr. Tibor Tatay

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Doctoral School:	"István Széchenyi" Theory and Practice of Economic Processes
	Head of School: Dr. Habil. Csaba Székely DSC
Programme:	Sub-programme on finance
	Head of sub-programme: Dr. Habil. Gusztáv Báger CSC
Science:	Economics

I. Objectives

The Hungarian economy has been getting indebted to the foreign economies for several decades. In market economies usually households' savings finance development of undertakings and state finance. However, the net financing capacity of households in Hungary has been decreasing for many years. I propose the operation of the system should be reconsidered through studying the relevant processes, system of institutions, and instruments. The ultimate question is if prevailing theories are sufficient to change households' savings in today's Hungarian economy or there are other factors to be explored.

The purposes of my thesis are the followings:

1. To study theses on the changes in the degree and structure of savings in today's prevailing economic theories

2. To study macro economical tools of accounting for savings.

3. To study the system of financial institutions operating in Hungary.

4. To study the financial instruments available for and applied in households in Hungary.

5. To analyse changes in the degree and structure of financial assets of households in Hungary from the early 90s.

6. To evaluate whether the boundary conditions derived from leading economic theories existed in the Hungarian economy or not, and to identify differences, if any. T the same time to analyse to what extent factors derived from such theories may influence savings of Hungarian households.

7. To point that in a small-scale open economy it is possible to amend certain elements in the financial system to serve both economic as well as social purposes in a way that wealth, in terms broader than its close economic definition, could increase.

II. Summary of contents

In this thesis factors influencing household savings as well as changes in the degree and structure of savings are reviewed. The statements and assessments have been compiled by comparing facts with hypotheses of prevailing theories

Prevailing theories on savings by Keynes, Friedman, Modigliani provide for theoretical background.

Keynes put consumption in the focus of his conception and also developed ideas on the degree and structure of savings. Income was taken as an objective factor in determining rate of consume. The second factor is that the value of an individual's assets may change. The third is the change in terms of trade of present and future goods, which is change in discounted value of goods. The next objective factor is the change in the state's tax policy, which not only includes income taxes, but also others such as property taxes or legacy duty. Finally, we can consider distribution of income. Keynes worked out a list of 8 subjective motives, but left his ideas open for further possible factors.

The next economist in order whose concepts have summarized was Friedman. In the course of his work he rooted back to classic conventions. His theory on consumption and savings, however, did not cover classic theses and introduced entirely new concepts in economics. Friedman believed the former concepts of income and consume were misused. In his view the factors influencing choices on consumption as well as on savings were examined not in the appropriate period. Some of the factors on income last shorter, some last longer. Factors that prevail in a certain period of time are temporary and long-term factors are permanent one.

Life cycle theory on savings by Modigliani is one of the favourites of the modern economics. Although the savings life cycle theory has a microeconomic approach, yet several macroeconomic conclusions may be drawn as well. It is based upon the concept that consumers can make intelligent choices and optimise consumption over their lives in line with utility maximizing. Predictions of utility maximizing and perfect market help us to conclude that the current consumption level of consumers do not depend on their current income, but rather on their lifetime income. Lifetime income is the present value of the sum of income of the lifetime and amount of assets inherited. Lifetime income is not identical with the permanent income applied by Friedman, since the latter one is implied over an infinite period whereas a finite period is presumed for

calculating an individual's lifetime income. In the course of investigating consumption units (households) behaviour life cycle theory also takes their age, composition, etc., into account. Life cycle theory gives an opportunity to evaluate savings based on bequest motive raised by Keynes.

In order to track and monitor Hungarian household savings quantified information from statistics are required. The System of National Accounts (SNA) applies an integrated system of accounts to account for production, income, and saving processes and changes in assets in each and every sector as well as in the entirety of the economy. The accounts show changes and economic events in the period under review and balance sheets report on assets and liabilities of a particular point of time.

The statistical categories required in the thesis have been identified under the framework of the National Accounts.

As of the early 90's there was a need to build a financial system in Hungary. Since due to the era of planned economy of almost 50 years there was no experience on how to regulate and control such system on the theory side, the pressure from the practice side in 15 years forced certain rules to be reconsidered. In addition, in that period the world's financial markets also witnessed plenty of changes and over 100 years old conventions turned upside down. It was also the period for Hungary to get prepared for the accession to the European Union. Legal and market harmonization brought plenty of changes in regulations. Financial organizations function as channels for the flows of financial savings. Certain financial instruments do require and cannot exist without certain financial institutions. Complexity and efficient operation ensures savings have proper liquidity and stability of value. In my view knowledge of system of financial institutions is essential to understand the structure of savings.

To understand the content behind statistical categories an awareness of practical forms of financial instruments as well as the related regulations is required.

At the National Bank of Hungary timelines corresponding with the system of financial accounts were developed based on statistics available at that time. It helped to monitor changes in household financial instruments from the early 90's. At the beginning of 1990 households disposed over a total of HUF 826.5 milliard (thousand million); by the end of Q1 2008 it increased to HUF 23942.5 milliard. It means a nominal growth by a factor of thirty. Household financial

instruments showed a constant growing tendency from the early 90's. The same tendency applies to change of financial instruments versus GDP.

Basically by the middle 90s changes in financial instruments had arisen from transactions. Later it changed, and the effects of revaluation had a significant impact on the value of financial instruments in certain periods. Fundamentally, that shift derived from a structural change in household financial instruments. In households the share of financial instruments that may get revaluated (even by a significant degree) due to impacts from the market impacts increased. This shift in the structure and rate of shares is linked to the appearance of instruments and financial institutes.

In the period under review the share of cash and ban deposits decreased gradually. On the other hand, reserves in insurance instruments grew significantly. The revaluation mentioned above did not affect every instrument, which makes it more difficult to study the structural change.

Although the facility of household financial instruments rose, households' net financing capacity vs. GDP showed a downgrading tendency in the concerning period owing to the increasing rate of taking up credit started at the end of the 90s.

Although from different perspectives the theories outlined above identified the effect of some factors on savings similarly. The factors are: income, assets, and interest rates. In addition, Keynes identified motives on savings, whereas the creators of savings life cycle theory identified savings objectives. In this light the question is in what ways those factors evolved recently in Hungary and whether economic policy has influenced or could have influenced those factors. It is to be examined whether the key factors took an effect or not and what other components prevented the theoretically underlined relations from prevailing.

Statistical data on income show that the value of income per capita peaks at younger ages. It is a consequence of the number of dependants in a household, which means in households with children the income per capita may be lower despite the income of the head of the family may earn more. On the other hand, income does not necessarily grow as the individual advances in years, because experience depreciated in the labour market.

Expected interest rates and returns on financial instruments are important from several aspects. First to price instruments and valuate items in the asset facility, and second

to establish present value of future incomes. However, theories on the assessment and valuation of financial instruments do not give clear answers how to calculate returns and price instruments. Researchers studying investment choices showed investors do not behave in a rational way. It means choices on investments or financial instruments are not based on rational decisions, either. Moreover it must be noted that owing to a financial innovation in the past decades in the market there are financial instruments involving risks absolutely impossible to assess and estimate.

From the available Hungarian statistical data it is concluded that Hungarian investment choices are not based on any expected rational basis, either. Households do not know financial instruments exactly, have no appropriate information, and are unable to assess the risks related to a particular financial instrument.

The reduced net financing ability of households emerges as an economic problem. It has become impossible to continue financing the entrepreneurial and state administration sectors from internal sources deriving from the Hungarian economy. At the same time, this phenomenon might as well lead to social problems in the long run. Demographical

processes and reduced ability of the low-income classes anticipate social tensions. I believe the system of savings needs reconsideration from these viewpoints as well. These issues project beyond the prevailing economic approaches, even beyond placing wealth above all. In my view the financial system can be subordinated to other considerations bearing more complex approach to life quality. A possible way to develop health funds has been presented in my thesis as an example of potential solutions. Besides introducing self-care, health funds focus on health to serve life quality.

III. Methodology

In the course of writing the thesis the relevant literature was reviewed and statements of theories were synthesized. From statistical data the relevant pieces of information were selected, categorized, and processed. Statements of theories were made to conflict one another as well as the conclusions drawn from statistical data. By using critical work up new relations were explored.

IV. Statements of the thesis: new results

1. Prevailing theories in economics do not explain the changes in savings of Hungarian households.

1/a The run of income over lifetime differs from what is presumed, especially if spouses are considered. Income per capita peaks maximum at an age earlier than presumed and according to statistical assessment it does not fall suddenly after the active age, either.

1/b Bank loans caused liquidity constraints to ease. As credit terms and conditions became less difficult to comply with, targeted savings dissolved for there was no need to save for consumption any more.

1/c Returns and interest rates became intransparent and impossible to follow. Consequently, expected returns cannot or can just vaguely control financial savings. Due to intransparent structure of returns and risks the structure of savings does not follow the distribution set forth by prevailing economic theories, either.

1/d Due to intransparency in returns and risks households find it difficult to price assets and the effects of assets on savings is hard to measure.

2. Individual's income per capita reaches maximum at an earlier age and wish to sustain consumption at that rate, which encourages them to take up credit.

3. The development of households' financial assets suggests that savings leak from and get outside the Hungarian economy.

4. Owing to the households' financial investments outside the country as well as credits taken up from abroad the conventional tools of economic policy (e.g. refinancing prime rate) have limited capacities to regulate net financing capacity. The link has become much looser and harder to predict.

5. Re-establish the control of financial system to increase savings.

5/a In the course of re-evaluating the operation of financial system priority should be given to types and forms that facilitate savings.

5/b As an incentive element tax allowance should be introduced for targeted savings.

5/c Investments of financial institutions collecting targeted savings should be channelled to Hungary.

6. Systems of savings may be linked with implementation of social goals that serve social wealth in broader terms, such as improve health status and social security.

V. Publications relevant to the subject of the thesis:

Published in Hungarian:

1. Józsa L.-Tatay T. (1992): A banki szolgáltatásokról egy vizsgálat tükrében (Veszprém, II. Nemzetközi Marketing Konferencia)

2. . Tatay T. (1993): A tőkeáramlás rendszere (Veszprém, VEAB Tudományos Konferencia kiadványa)

3. Józsa L.-Tatay T. (1996): Bank és piac egy empirikus vizsgálat tükrében (Magyar Marketing Műhelyek második Kerekasztal Konferenciája. Konferencia kiadvány)

4. Józsa L.-Tatay T. (1997): Szervezeti azonosságtudat (corporate identity) a hazai bankéletben (Magyar Marketing Műhelyek harmadik Kerekasztal Konferenciája. Konferencia kiadvány)

5. Tatay T. (1997): A bankhálózatok fejlődésének áttekintése Magyarországon (Magyar Marketing Műhelyek harmadik Kerekasztal Konferenciája. Konferencia kiadvány)

6. Tatay T. (1997): Kamatozó percek (Gazdaság és Jog 11/1997)

7..Tatay T. (1998): Mindennapi pénzügyek (Feladatgyűjtemény. Veszprémi Egyetemi Kiadó)

8. Józsa L.-Tatay T. (1998): A jövőt biztosítva (Magyar Marketing Műhelyek negyedik Kerekasztal Konferenciája. Konferencia kiadvány)

9. Fekete O. - Tatay: (2000) Tőketartozás, törlesztés, kamatfizetés (Gazdaság és Jog 2000. május)

10. Lendvai Z.-Nagy Cs.-TatayT. (2001): A kötelező választhatósága (Magyar Marketing Műhelyek negyedik Kerekasztal Konferenciája. Konferencia kiadvány))

11.Baros Gy. et al. (202 A pénzügyi intézményrendszer Magyarországon (Budapest, Nebuló 2001 Kiadó)

12. Tatay T. (2002): Bankszabályozás – könyvismertető (Hírlevél - Gazdasági és Tudományos Társaságok Szövetsége 2002. október)

13. . Hajdu E.- Tatay T. (2005): Hitelfelvétel – deviza vagy forint (Győr,2005. december 2-3., „Átalakulási folyamatok Közép-Európában", Széchenyi István Egyetem Multidiszciplináris Társadalomtudományi Doktori Iskola és Európa-tanulmányi Központ)

14. Farmasi A.- Hajdu E.- Tatay T. (2007): A pénz nem boldogít (Az üzlettárs 2007. március)

15. Hajdu E.- Tatay T. (2007): Az önsegélyező pénztári szektor szabályozásának változásai (Magyar Tudomány Napja –

Versenyképesség-Fejlődés-Reform Konferencia, Sopron 2007. november)

16. Kóti T.-Tatay T. (2009): Az egészségpénztári rendszer, mint célorientált megtakarítási rendszer (Veszprém, MTA VEAB Közgazdaságtudományi Munkabizottsága és a Pannon Egyetem Számvitel és Controlling Tanszéke által 2008. december 17-én szervezett tudományos ülésének kiadványa)

17. Busa K.-Kóti T.-Tatay T. (2009): Javaslat az Önkéntes Egészségpénztári rendszer fejlesztésére (Pénzügyi Szemle 2009./1)

18. Kóti T.-Tatay T. (2009): Az egészségpénztári rendszer, mint célorientált megtakarítási rendszer (Budapest, Stabilitás Pénztárszövetség Évkönyve)

Published in foreign language:

1. Eged-Kanyár-Kiss-Tatay (2001): Assessment of the monetary values of person-sievert and the aversion coefficient in Hungary (Veszprém, Optimization in radiation protection, Veszprém University Press,)

2. Eged K. et al. (2001): Determination and Use of the Monetary Values of the Averted Person-Sievert for Use in Radiation Protection Decisions in Hungary (Health Physics 2001, 80, 2.)

3. Farmasi A.- Hajdu E.- Tatay T. (2004): Private equity sector in Hungary (2004. nov. 12-13., „Lumea Financiara Prezent Si Perspective" International Conference, Babes-Bolyai Egyetem, Kolozsvár)

4. Busa K.-Kóti T.- Tatay T. (2009): Proposed ont he development of voluntary health insurance fund system (Public Finance Quarterly 2009/1)