The European Social Survey, CRONOS-2
Online Panel Question Module Design Teams (QDT)
Stage 1 Application

Proposed title for the Module	Longitudinal financial well-being assessment in turbulent times
Single or repeat measurement within the panel	Repeat measurement on multiple wave
Principal Applicant	Leonore Riitsalu, PhD
Position	Guest lecturer and researcher
Institution	University of Tartu, Johan Skytte Institute of Political Studies
Address for correspondence	Lossi 36, Tartu 51003, Estonia
Telephone: +372 5299663	**E-mail:** leonore.riitsalu@ut.ee

Relevance and rationale

Financial well-being (FWB) - the perceived ability to keep the current living standard and to reach the desired lifestyle in the future (Brüggen et al., 2017) - has a significate effect on mental health and overall well-being (Muir et al., 2017; Netemeyer et al., 2018). One of the many changes the COVID-19 pandemic brings along is an economic downturn. These turbulent times require rapid policy responses for minimising the decline in financial well-being, prevention of mental health problems and protection of overall well-being.

We propose to measure perceived financial well-being **in waves 1 and 4** to assess its changes in this exceptional time, and to analyse how these relate to the changes in objective economic circumstances, individual´s financial situation, personality traits, values, and overall well-being. This is a unique opportunity to study in detail the determinants and outcomes of FWB, within and across countries, and to compare FWB levels in Europe. Most importantly, the analysis will provide timely insights for the policy-makers for indicating the more vulnerable groups. Lower FWB relates to the increased likelihood of taking credit-based risks, remaining in low-quality jobs, and either lowering or selling off investments. Assessing it twice in CRONOS-2 will give a stronger indication about what can be expected in the medium-term, and how the policy-makers might need to intervene, potentially before concerns manifest in negative outcomes.

Financial well-being should not be confused with wealth. Although income level has a significant role in it, there are many other factors influencing its assessment. Pressure to keep up with the Joneses may turn even high incomes into being insufficient for reaching a desired living standard, the OECD (2019) diagnoses of a "squeezed middle class". Inequality may make the size of assets seem unfairly small, even if these are sufficient for keeping the living standard. On the other hand, if one holds less materialistic values then counting the assets is not informative for assessing their FWB. Materialism has been found to have a negative effect on financial well-being (Garðarsdóttir and Dittmar, 2012).

We rely on the **conceptualisation** developed by Netemeyer et al. (2018) who show perceived financial well-being to be composed of two parts – *current money management stress* (CMMS) and *expected future financial security* (EFFS). They showed in data

collected in the USA that the determinants of the first component (CMMS) are: late payments, materialism and lack of self-control. The drivers of the second component (EFFS) are: perceived financial self-efficacy, positive financial behaviours, willingness to take investment risks, and planning for the long-term. Both of these components have an effect on overall financial well-being in, but the effect of CMMS on well-being is mediated by income. The uncertainty and fears of losing income can have a large effect on the perception of financial well-being, which in turn can affect overall well-being.

We will leverage the **financial well-being framework** developed Brüggen et al. (2017), in which financial well-being is organized by: contextual (economic, legal, political, socio-cultural, technological and market factors), personal (socio-demographics; skills, attitudes and motivations; personality traits; financial practices and life events), financial behaviours, financial well-being interventions, and the consequences of financial well-being (individual and collective, organizational and societal). Personal factors and their correlation with financial well-being can be assessed with data from the Europe's first large scale online panel, as indicated in the next section, and with rich data from the ESS interviews.

The CRONOS-1 was piloted in three countries: Estonia, Great Britain and Slovenia, we have already consulted with the leader of the **Estonian CRONOS-1** team, Mare Ainsaar (University of Tartu) to learn from the pilot experience for designing the new module.

Suitability for the CRONOS-2

In normal times, asking financial well-being questions twice in less than 12 months´ time might not reflect substantial changes. In the current turbulent times, it provides a unique opportunity to study the possible changes and analyse the effects of the elements of the theoretical framework explained above. We aim to measure the changes both at the individual and societal level, within and across countries.

We suggest including our module in the first wave for evaluating the FWB levels as early as possible, and the fourth wave as in CRONOS-1 that included the largest number of factors correlating with FWB. In the 4th round were questions on personality traits, income and perceived income inequality, life satisfaction and well-being (W4Q1-35, W4Q51-53, W4Q54-59). The COVID-19 related questions added to the ESS Round 10 will add relevant country context; the ESS core module will provide rich data on the individual´s socio-economic status, values, well-being and life satisfaction, individual and household financial situation. All these have been indicated as factors correlating with FWB in previous research but to date no international detailed analysis including the full set of factors is published.

We propose to use the perceived financial well-being statements developed and tested in online surveys representative of the US population by Netemeyer et al. (2018). These are suitable for using in CRONOS-2 as these close-ended questions ask the respondents to rate on a 5-point scale to which degree the 10 statements describe them. Two members of the QDT have recently reassessed these in representative online panel data from 16 countries (Riitsalu & van Raaij, forthcoming), and propose a shortened measure of it (7 statements instead of 10) based on their analysis.

In addition, we propose to add three questions to complement the individual background and personality information – one on **subjective financial knowledge**, two on **risk preferences**. These enable to interpret the self-assessment of financial well-being in times of high uncertainty, and possible changes in it.

Research team

In the QDT are represented three ESS countries: Estonia, Great Britain and The Netherlands. All members are social scientists (with doctoral degrees in psychology and management) conducting interdisciplinary research, and also working on the policy side. All members have substantive experience in designing, conducting and analysing international quantitative surveys (brief biographies are in Appendix 1).

Leonore Riitsalu, PhD, has recently analysed financial well-being data from 16 countries (collected by Ipsos for the ING bank) and submitted a report of the findings with prof. Fred van Raaij. She is involved in a number of projects for increasing financial well-being and applying behavioural insights in policy, has consulted the OECD, Estonian Foresight Centre and Saudi Arabian Monetary authority, and was a member of the OECD INFE working group creating and piloting their international financial literacy survey.

Professor Kai Ruggeri, Columbia University with a continued affiliation at the University of Cambridge, focuses on well-being and behavioural policy in his research. He has recently published a paper *Well-being is more than happiness and life satisfaction: a multidimensional analysis of 21 countries*, where he and his co-authors use data from the ESS (Ruggeri et al., 2020).

Professor W. Fred van Raaij is a senior expert in social and economic psychology. He has published a book on understanding consumer financial behaviour, among an extensive list of publications, is the founder of the Journal of Economic Psychology, and a board member of the Think Forward Initiative (TFI). Currently he is analysing the role of psychological factors (self-control and future time perspective) in financial well-being.

Kai and Leonore have worked on behavioural policy topics since 2017 when Leonore reviewed his book (Ruggeri, 2019) proposal for Routledge. Leonore and Fred have been working together on financial well-being research since 2018, they just finished a short term research project for the TFI. Kai and Fred have not previously collaborated.

The team will communicate mainly via e-mails to develop the module, Leonore will co-ordinate the work.

Feasibility of implementation

It is viable to operationalise financial well-being module in the available time as two team members have recently conducted an extensive review of the existing validated measures, reassessed and refined one of them, and the third QDT member has recent experiences with analysing well-being matters using ESS data. Therefore, our knowledge and experiences complement each other, and we will be able to deliver on time.

We cannot foresee any methodological difficulties as we propose to use questions already tested in international surveys. As the scales are all already validated, we do not anticipate any methodological problems: However, the translation of the questions into different languages may bring some complications. Ideally, the scales could be piloted in country languages, but if that is not possible, we hope the ERR ERIC National Coordinators can help to double check the original meaning and comprehensibility of the statements. When analysing the results, we will do the Principal Component Analysis (PSA) and calculate the Cronbach alphas for the entire sample and for the sample from each of the countries separately to test the reliability of the measure in each of them.

The fact that data collection timeframes for the three CRONOS-2 groups differ does pose a challenge in analysing the societal and macro-economic level changes comparably, but not on individual level. For overcoming the difficulties of the cross-country comparison, we will use relevant background data from the ESS core module and other sources (such as EU-SILC, OECD and World Bank databases). To complement the rich background data from ESS 10 and the rest of the CRONOS-2 questions, we propose to add one question that measures subjective financial knowledge (based on the OECD methodology), and two on risk preferences. The latter items assess in short-form individual preferences for risk to utility, which are useful proxies for behaviours such as savings, debt management, and overall spending. Unlike similar risk choice measures, these are somewhat sensitive to change based on current financial circumstances (both individual and in the broader market), and therefore provide insight on likely financial behaviours and risk-taking in a population. They also may capture shifts in those behaviours, which are of extreme importance to fiscal and social policy (e.g., if there are shifts toward certainty with savings and spending, this may indicate lower likelihood of using credit for purchasing homes and cars, which will impact interest rates and labour productivity).

Below are our suggestions for the repeated 10 questions, we may change them if ESS ERIC experts find some of them not to fully match the requirements or style of CRONOS-2.

The proposed questions:

Perceived financial well-being (CMMS 1-4, EFFS 5-7; Netemeyer et al., 2018; Riitsalu and van Raaij, forthcoming)

To what degree the following statements describe you (5-point scales from "does not describe me at all" to "describes me completely."):

1. Because of my money situation, I feel I will never have the things I want in life.
2. I am behind with my finances.
3. My finances control my life.
4. I am unable to enjoy life because I obsess too much about money.
5. I am becoming financially secure.
6. I will achieve the financial goals that I have set for myself.
7. I will be financially secure until the end of my life.

Subjective financial knowledge (OECD, 2020; Riitsalu and Murakas, 2019)

8. Could you tell me how you would rate your overall knowledge about financial matters compared with other adults in /your country?
   / 1 Very high; 2 Quite high; 3 About average; 4 Quite low; 5 Very low /

Risk preferences (Charness et al., 2013; Eckel and Grossman, 2002)

9. Which option do you prefer?
   o A 100% chance to gain €280 (1)
   o A 50% chance to gain €240 and a 50% chance to gain €360 (2)
   o A 50% chance to gain €200 and a 50% chance to gain €440 (3)
   o A 50% chance to gain €160 and a 50% chance to gain €520 (4)
   o A 50% chance to gain €120 and a 50% chance to gain €600 (5)
   o A 50% chance to gain €20 and a 50% chance to gain €700 (6)

10. Which option do you prefer?
    o A 100% chance of losing €360 (1)
    o A 50% chance of losing €280 and a 50% chance of losing €400 (2)

o A 50% chance of losing €200 and a 50% chance of losing €440 (3)
o A 50% chance of losing €120 and a 50% chance of losing €480 (4)
o A 50% chance of losing €40 and a 50% chance of losing €620 (5)
o A 50% chance of losing €10 and a 50% chance of losing €650 (6)

Dissemination plans

We will share the findings and policy recommendations with policy-makers in our home countries, and the OECD experts in the Directorate for Financial and Enterprise Affairs. We will write blog posts in the social media channels of our affiliations, project partners (such as the Think Forward Initiative, EUFin project etc) and in the ESS ERIC channels. We are happy to discuss our findings on conferences addressed to the policy-makers, and hope the ESS ERIC network can help to reach them. We believe the findings will also interest the media channels as the timely assessment of the changes in FWB across Europe should be of general interests. The risk preference questions may reveal who can increase their financial well-being in these uncertain times, the broader set of background questions allows to describe the more vulnerable groups.

We will disseminate the findings to academic audiences in journal articles and presentations on conferences, for example, on the annual IAREP-SABE conference on economic psychology.

We intend to apply for additional funding to support analysis and dissemination, but have not yet chosen the fund for which to apply.

The initial timeline (assuming the data will be collected and published on the times listed in the call):

October 2020 – January 2021	Design and finalisation of the questionnaire, QDT & ESS ERIC; Searching / applying for funding.
February 2021 – September 2022	Background research, revision of latest relevant literature and monitoring empirical / contextual changes in Europe
September 2022 – May 2023	Data analysis, within and across countries.
March – August 2023	Writing and submitting the report for the ESS Topline Findings Series; Blogpost in the channels of ERR ERIC, our affiliations and partners
June 2023	Presentation of the inital results on IAREP-SABE annual conference
March – October 2023	Writing the first academic paper of the international comparison of FWB
August – December 2023	Presentation on at least one academic conference and possibly on a policy-makers conference by a QDT member
January – December 2024	Publication of the first academic paper and writing the second paper on the determinants and outcomes of FWB; At least one academic conference presentation; Agreeing on the path of further research within the QDT.

References

Brüggen, E.C., Hogreve, J., Holmlund, M., Kabadayi, S., Löfgren, M., 2017. Financial well-being: A conceptualization and research agenda. Journal of Business Research 79, 228–237. https://doi.org/10.1016/j.jbusres.2017.03.013

Charness, G., Gneezy, U., Imas, A., 2013. Experimental methods: Eliciting risk preferences. Journal of Economic Behavior & Organization 87, 43–51. https://doi.org/10.1016/j.jebo.2012.12.023

Eckel, C.C., Grossman, P.J., 2002. Sex differences and statistical stereotyping in attitudes toward financial risk. Evolution and Human Behavior 23, 281–295. https://doi.org/10.1016/S1090-5138(02)00097-1

Garðarsdóttir, R.B., Dittmar, H., 2012. The relationship of materialism to debt and financial well-being: The case of Iceland's perceived prosperity. Journal of Economic Psychology 33, 471–481. https://doi.org/10.1016/j.joep.2011.12.008

Muir, K., Hamilton, M., Noone, J.H., Marjolin, A., Salignac, F., Saunders, P., 2017. Exploring financial wellbeing in the Australian context. Financial Literacy Australia.

Netemeyer, R.G., Warmath, D., Fernandes, D., Lynch, J.G., Fischer, E., Toubia, O., 2018. How Am I Doing? Perceived Financial Well-Being, Its Potential Antecedents, and Its Relation to Overall Well-Being. J Consum Res 45, 68–89. https://doi.org/10.1093/jcr/ucx109

OECD, 2020. OECD/INFE 2020 International Survey of Adult Financial Literacy. OECD Publishing, Paris.

OECD, 2019. Under Pressure: The Squeezed Middle Class. Paris.

Riitsalu, L., Murakas, R., 2019. Subjective financial knowledge, prudent behaviour and income: The predictors of financial well-being in Estonia. International Journal of Bank Marketing 37, 934–950. https://doi.org/10.1108/IJBM-03-2018-0071

Riitsalu, L., van Raaij, W.F., forthcoming. Reassessment of Current Money Management and Expected Future Financial Security Scales.

Ruggeri, K. (Ed.), 2019. Behavioral Insights for Public Policy: Concepts and Cases. Routledge, New York.

Ruggeri, K., Garcia-Garzon, E., Maguire, Á., Matz, S., Huppert, F.A., 2020. Well-being is more than happiness and life satisfaction: a multidimensional analysis of 21 countries. Health and Quality of Life Outcomes 18, 192. https://doi.org/10.1186/s12955-020-01423-y

Appendix 1. Brief biographies of the research team members
Leonore Riitsalu

Leonore Riitsalu (born in 1978), PhD, has been studying and promoting financial well-being topics since 2008. As a policymaker, she worked for the Financial Supervision Authority, led the creation and implementation of the Estonian National Strategy for Financial Education, represented Estonia in the OECD International Network on Financial Education, initiated and analysed several large scale financial literacy surveys. She has consulted the OECD, Central Bank of Azerbaijan, Estonian Foresight Centre and Ministry of Finance on financial well-being topics. Since 2019 she is a member of the Advisory Board of the Saudi Arabian Monetary Authority for creating a behaviourally informed national strategy for financial literacy and increasing financial well-being via an interactive learning centre.

As a researcher, she is studying financial literacy, behavioural insights and financial well-being in several international research teams. Currently, together with prof. Fred van Raaij, she is finalising two manuscripts for high-tier journals analysing financial well-being issues in data from 16 countries. Her doctoral dissertation was on a related topic - *Books and Biases – the Explanation for Bounded Rationality in Managing Personal Finances.*

Since 2014, she has been lecturing in the University of Tartu in *Financial Education and Behavioural Finance* in the Institute of Social Studies, and in *Behavioural Insights in Policymaking* in the Johan Skytte Institute of Political Studies. In Estonian Business School she is lecturing *in Consumer Behaviour* and *Behavioural Economics & Finance.* Leonore has been involved in the work of the Think Forward Initiative, an initiative for increasing financial well-being, since its start in February 2016. As a practitioner, she is the co-founder of Rahatarkus, a non-profit specializing in financial education, surveys and consultation.

Recent publications:

- Riitsalu, L. & van Raaij, F. (forthcoming). Self-control, future time perspective and savings – the keys to perceived financial well-being. Amsterdam: Think Forward Initiative
- Põder, K., Riitsalu, L. & Kroos, K. (2020) Financial education in Estonia. In Ed. De Witte et al. *Financial education. Current practices and future challenges*. Münster: Waxmann Verlag, 87-110.
- Riitsalu, L. (2020). Eesti õpilaste tulemused PISA 2018 finantskirjaoskuse uuringus. Tallinn: SA Innove. (Analysis of PISA 2018 financial literacy test results of Estonian students).
- Riitsalu, L. (2019). Tuleviku-minu rahaline heaolu. Kuidas nügida inimesi suurema rahalise heaolu suunas? Tallinn: Foresight Centre. (Analysis of financial well-being and behavioural insights).
- Riitsalu, L., Murakas, R. & Veeret, D. (2019). Disentangling financial literacy: three-dimensional approach to analysing management of personal finances. *Journal of Social Research and Policy 9(1)*
- Riitsalu, L. & Murakas, R. (2019). Subjective Financial Knowledge, Prudent Behaviour and Income – the Predictors of Financial Well-being in Estonia. *International Journal of Bank Marketing.* doi.org/10.1108/IJBM-03-2018-0071
- Riitsalu, L. (2018). Goals, commitment and peer effects as tools for improving the behavioural outcomes of financial education. *Citizenship, Social and Economics Education* 17(3), 188-209. doi.org/10.1177/2047173418812045.

Current projects:

- *The role of self-control and future orientation in financial well-being across Europe, Australia and USA,* in partnership with Professor Fred van Raaij (Think Forward Initiative, 2019-2020), project leader and principal applicant.
- *EUFin: Innovative integrated tools for financial literacy education across Europe* (Key Action 2 - European Commission - Strategic Partnerships for Higher Education, 2018-2021), project partner.

Kai Ruggeri

Dr Kai Ruggeri is an Assistant Professor in the Department of Health Policy & Management. Kai joined Columbia from the Department of Psychology at the University of Cambridge, where he directed the Policy Research Group that he founded in 2013. He studies how policy influences population behaviour, and how integrating behavioural evidence into policies can improve economic outcomes and population well-being. His teaching is primarily in analytics, decision-making, behavioural policy, and managerial economics.

His recent projects involve behavioural policy studies focusing on large-scale data related to economic choices and related outcomes, which have been covered in media around the world. Partners include local and national governments, non-profit organizations, industry, and other academic institutions, in New York, various parts of the US, and abroad. He is always happy to meet with students that are interested in getting involved in these topics, whether on the research side, for policy, or in industry.

Kai also directs the Junior Researcher Programme, a global initiative for early career behavioural scientists, which is now partnered with the Global Behavioral Science (GLOBES) program he directs at Columbia. He is a Senior Fellow at the Centre for Business Research at the Judge Business School and Fellow of Corpus Christi College, Cambridge, as well as a Fellow of the Royal Society of Arts and Sciences.

<u>Recent publications:</u>

- Ruggeri, K., Ali, S., Berge, M. L., Bertoldo, G., Bjorndal, L. D., Cortijos-Bernabeu, A., ... & Folke, T. (2020). Replicating patterns of prospect theory for decision under risk. Nature Human Behaviour, 4, 622–633.
- Ruggeri, K., Garcia-Garzon, E., Maguire, Á., Matz, S., & Huppert, F. A. (2020). Well-being is more than happiness and life satisfaction: a multidimensional analysis of 21 countries. Health and quality of life outcomes, 18(1), 1-16.
- Ruggeri, K., Benzerga, A., Verra, S., & Folke, T. A behavioral approach to personalizing public health. Behavioural Public Policy, 1-13.
- Ruggeri, K., van der Linden, S., Wang, Y. C., Papa, F., Riesch, J., Green, J. (2020). Standards for evidence in policy decision-making. Nature Research Social and Behavioural Sciences, 399005. go.nature.com/2zdTQIs
- Ruggeri, K., Folke, T., Benzerga, A., Verra, S., Buttner, C., Steinbeck, V., ... & Chaiyachati, K. (2020). Nudging New York: adaptive models and the limits of behavioral interventions to reduce no-shows and health inequalities. BMC Health Services Research, 20, 1-11.
- Ruggeri, K. (2019). Behavioral insights for public policy: Cases and concepts. Routledge.
- Huppert, F., & Ruggeri, K. (2018). 15. Policy challenges: Well-being as a priority in public mental health. In D. Bhugra, K. Bhui, S. Wong, & S. Gilman (Eds.), Oxford Textbook of Public Mental Health. Oxford University Press.
- Ruggeri, K., Yoon, H., Kacha, O., van der Linden, S., & Muennig, P. (2017). Policy and population behavior in the age of Big Data. Current Opinion in Behavioral Science, 18, 1-6.

Willem Frederik van Raaij

Fred van Raaij (born in 1944) is a professor of Economic Psychology at Tilburg University. In May 2006, he received an honorary doctor degree of Helsinki School of Economics (Finland). His doctoral dissertation was entitled *Consumer Choice Behavior: An Information Processing Approach*. He has been interested in the relationship between psychology and economics. There is more psychology in 'economic behavior' than we often realize. Not only maximalization of personal utility, but also emotions, heuristics, self-expression, and comparisons with others determine our behavior. Economic psychology is on the interface of economics and psychology and linked to behavioral economics.

Fred van Raaij was member of the board and chairman of the Consumentenbond (Consumer Union) (1985-1991), VEA-professor of Marketing Communication (1988-1992), chairman of GVR, Center for Marketing Communication (1998-2004) and board member of the Foundation of Scientific Research on Commercial Communication (SWOCC, 2005-2014) at the University of Amsterdam. He is member of the program committee of Wijzer in Geldzaken, a platform initiated by the Department of Finance for research on knowledge and motivation of consumers about financial products and services. He is board member of the Think Forward Initiative of ING Bank, Deloitte, and other financial institutions on research on financial behaviour and innovation. His current research interests are: financial well-being and its antecedents, financial behaviour of consumers and entrepreneurs, trust in financial institutions, marketing communication, consumer decision making, environmental issues and consumption, and the use of heuristics (behavioural economics).

He has published in the *Journal of Consumer Research*, *Journal of Economic Psychology*, *Psychology & Marketing*, *International Journal for Research in Marketing*, *European Journal of Marketing*, *Advances in Consumer Research*, and Dutch journals. He has published several books, for example:

- J.M.G. Floor, W.F. van Raaij & M.Y. Bouwman, Marketing-Communicatie Strategie (Marketing Communication Strategy). Groningen: Noordhoff, 2015, eight editions.
- W.F. van Raaij & G. Antonides, Consumentengedrag. Een Sociaal-Wetenschappelijke Benadering (Consumer Behavior. A Social-Science Approach). Utrecht: Lemma, 2005, three editions.
- M.J. Evans, L. Moutinho & W.F. van Raaij, Applied Consumer Behaviour. Harlow, U.K.: Addison-Wesley, 1998, two editions.
- M. Lambkin, G.R. Foxall, W.F. van Raaij & B. Heilbrunn (Eds.), European Perspectives on Consumer Behaviour. London: Prentice Hall, 1998.
- G. Antonides & W.F. van Raaij, Consumer Behaviour. A European Perspective. Chichester, U.K.: John Wiley & Sons, 1998.
- Th.B.C. Poiesz & W. Fred van Raaij, Strategic Marketing and the Future of Consumer Behaviour; Introducing the Virtual Guardian Angel. Cheltenham, Glos. U.K.: Edward Elgar Publishing, 2007, ISBN 978-1-84376-772-5.
- W.F. van Raaij, Understanding Consumer Financial Behavior. Money Management in an Age of Financial Illiteracy. New York: Palgrave Macmillan, 2016. ISBN: 978-1-137-54424-7.