

Institution: Durham University		
Unit of Assessment: 17 Business and Management Studies		
Title of case study: Financial Literacy as a National Strategy of Cyprus		
Period when the underpinning research was undertaken: Between 2014 and 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s): Professor Dennis Philip Professor Panayiotis Andreou	Role(s) (e.g. job title): Professor in Finance Professor in Finance	Period(s) employed by submitting HEI: September 2009 onwards September 2008 – April 2010 (full-time) September 2010 onwards (part-time)
Period when the claimed impact occurred: Between 2016 and 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact		
<p>Durham University's (DU) research into financial literacy has enabled the introduction of several financial literacy programmes and sets the policy direction on financial education for the first time in the Republic of Cyprus (henceforth, Cyprus). Research conducted by DU documented primary scientific evidence on the extensive problem of financial illiteracy among Cypriots (made all the more important following a deep local banking crisis since 2013). The findings were discussed at three high-level policy gatherings at the Central Bank of Cyprus (CBC), and were extensively covered in the media, and this has led to widespread initiatives and grassroots-led development across the country. For the first time commercial banks are offering financial literacy training to clients; a local municipality is offering public courses; scientific associations and the Ombudsman have started financial awareness programmes; and the Cooperative Central Bank are sponsoring PhD studentships in financial literacy. Additionally, the research provided the much-needed evidence base to initiate a new policy agenda by the Cyprus government: CBC along with DU academics are designing the national strategy for financial literacy, which included conducting the first national benchmark survey and preparing a high-level White Paper outlining the steps to implementing a national strategy.</p>		
2. Underpinning research		
Wider body of related research outputs:		
<p>Durham University researchers, Professors Dennis Philip and Panayiotis Andreou, have been undertaking research to understand the important dimensions of financial literacy and financial behaviour. R1 studies the role of trust and sociability in understanding why households do not participate in the stock market. R2 documents that financially literate individuals are significantly better at detecting consumer fraud when it transpires. In 2016, DU signed a memorandum of agreement with the Indian Government's National Centre for Financial Education (NCFE) to undertake research in order to measure and map India's financial literacy levels. The project involved analysing India's nationally representative financial literacy survey and designing the next wave using OECD (Organisation for Economic Co-operation and Development) guidelines. This led to R3, which examines factors that explain individuals' lack of financial awareness about the existence of (basic to advanced level) financial products and examines the demographic profiles that explain limited ownership in financial products. Further, using the Indian financial literacy benchmark survey data, R4 studies the role of financial literacy in empowering women to take on financial decision-making responsibilities within households. The research showed that financially literate woman take on higher levels of responsibility in managing their household's finances, own more types of financial products and are less likely to engage in informal banking activities such as saving money at home and borrowing from moneylenders.</p> <p>This body of research surrounding financial literacy and the research expertise in designing, implementing and analysing a nationally representative financial literacy survey of India has led</p>		

to specific research in Cyprus (R5 and R6) and a substantial impact on the financial education initiatives in Cyprus – the impact case study in point.

Specific research outputs:

In 2016, Durham University researchers conducted a comprehensive fieldwork survey capturing financial knowledge, financial attitude and financial behaviour (25 items) among Cypriot university students for the first time, prompted by the anecdotal evidence of lack of financial knowledge, with the aim of starting a financial education policy debate in Cyprus. The study utilised previous research experience to undertake fieldwork and gather nationally representative student survey data of 881 Cypriot students aged between 18 and 24. Students from the 5 biggest Cypriot universities, representing 80% of all Cypriot students, participated in the survey. The findings of the research pointed out very low levels of financial literacy (lower than the OECD average) among the younger generation in Cyprus, resulting in a lack of understanding of credit card debt and fraudulent investments (Ponzi schemes). The research highlighted the lack of financial education and training in schools and universities and the research recommended a nationally representative survey for the whole population. The study, which acted as a pilot study, was published in the academic peer-reviewed journal *Cyprus Economic Policy Review* (R5). DU academics further produced a follow-up research paper documenting low financial literacy levels also in the adult population and found that financially literate Cypriots engaged significantly more in the usage of i-banking and digital financial services (R6). The research papers provided an important evidence base for the collaboration with the Central Bank of Cyprus (CBC) to develop the first national strategy for financial education in Cyprus and this has led to several interventions by grassroots organisations and government bodies.

3. References to the research

R1 Balloch, A., Nicolae, A. & Philip, D. (2015). "Stock market literacy, trust, and participation". *Review of Finance* 19(5), 1925-1963. DOI: 10.1093/rof/rfu040 [rated 4-star by internal peer review; published in internationally recognised peer-reviewed journal]

R2 Engels, C., Kumar, K. & Philip, D. (2019). "Financial literacy and fraud detection". *European Journal of Finance* 26 (4-5), 420-442. DOI: 10.1080/1351847X.2019.1646666 [rated 3-star by internal peer review; published in internationally recognised peer-reviewed journal]

R3 Banerjee A., Kumar, K. & Philip, D. (2020). "Unaware of being unaware and financial non-participation". SSRN Working Paper 3201881. [rated 3-star by internal peer review]

R4 Banerjee A., Hasan I., Kumar, K. & Philip, D. (2020). "The power of a financially literate women". SSRN Working Paper 3246314. [Paper received 'Financial Literacy Research Award', Asia Pacific Financial Education Institute, Singapore, Sept 2019; the paper is selected to be part of the Working Paper of the National Stock Exchange of India (NSE) and NYU Stern School of Business Initiative for the Study of Indian Capital Markets 2021] [rated 3-star by internal peer review]

R5 Andreou, P. & Philip, D. (2018). "Financial knowledge among university students and implications for personal debt and fraudulent investments". *Cyprus Economic Policy Review* 12 (2), 3-23. [peer-reviewed academic journal covering economic issues affecting Cyprus. The journal has high visibility to public and policy makers.] [rated 2-star by internal peer review]

R6 Andreou, P. & Anyfantaki, S. (2020) Financial literacy and its influence on consumers' internet banking behaviour. *European Management Journal*, forthcoming [ranked 2-star by internal evaluation; accepted in internationally recognised peer-reviewed journal]

4. Details of the impact

The Republic of Cyprus has faced a deep banking crisis since 2013, with currently almost half of the bank loans in Cyprus non-performing (i.e. in default) and major banks being bailed out by the government by charging a one-time levy on citizens' bank deposits over a certain limit. Alongside this, the country faced unprecedented debt defaults and legal court cases from national and international investors who had been mis-sold mortgage agreements by property companies. These events were symptomatic of the widespread lack of financial literacy in the

country, which led to excessive risk taking and the crisis. However, the problem of financial illiteracy had never been openly recognised or discussed in the policy arena, prior to the research studies (R5 and R6) of Durham University academics. Durham's research provided the much-needed scientific evidence base to kick-start a policy agenda and to create a national strategy for financial literacy in the country, which as shown below, is now being implemented.

R5 provided the main focus of the high-level Policy Forum on 4 November 2016, R3 and R5 were presented and debated in the Policy Forum on 2 November 2018, both events were hosted at the Central Bank of Cyprus (CBC), and additionally R5 was the main focus of one public event on 13 February 2018. The events were widely covered by the national media (e.g., Sigma TV, Capital Media, RIKnews) and led to significant interest from various Ministries (Education, Culture, Commerce) and commercial banks (E1). Distinguished speakers included the Governor of Cyprus, the MEP (Member of European Parliament) for Cyprus, an OECD high-level representative, CEOs of the various commercial banks, and representatives from the various Ministries, along with the Durham University research team. R5 and R6 were discussed and heavily cited in the presentation at the European Commission and CBC joint policy conference on "Indebtedness and NPLs: Achievements and challenges" on 5 February 2020. DU researchers provided oral evidence to the European Parliament on 8 November 2019 on digital financial education provision and at the Parliament of Cyprus on 25 November 2020 discussing Cyprus' Financial Literacy National Strategy.

These events have resulted in specific impact, which is evidenced at two levels.

First, as a direct response to the evidence documented by the research study (R5), several grassroots public organisations, commercial banks, economic associations and educational institutions responded with new initiatives:

1. The Cyprus Economists Association started new financial awareness programmes: to date 3 training programmes have taken place, with approximately 400 people attending them. The Association President's letter quotes the research: "...we had taken the documented results seriously and in our governance meetings, we have discussed extensively the problems we face in the country. We believe that the first step to making the citizens of the country more financially literate is to raise awareness... during the years 2017 and 2018, we dedicated our efforts to offer financial awareness to our members and the public. Up until today, we have run three such financial awareness programmes inspired by your research...All above events were open to the public and have been attended by more than 400 people so far...Our aim is to carry forward an agenda which will includes similar programmes offered to our members and the public." (E2)
2. The Municipality of Larnaca (via its Open University) started providing, for the first time, financial literacy skills training to the public, as part of its plans for regional development. The Mayor's letter attributes their interventions directly to DU research by quoting R5. Mayor of Larnaca writes (translated from Greek): "Taking into consideration the problem of financial illiteracy highlighted above, the Open University of the municipality has already offered informative and educative lectures/courses about financial knowledge to the people", "in every course there are around 100 individuals. Until today, 2 educative seminars have been completed, the first in March of 2018 and the other one in November of the same year. In addition, we will provide a series of 3-week courses about financial literacy, one 90-minutes class every week. It is expected that the fundamental issues of financial literacy will be covered." (E3).
3. A new financial literacy programme was offered by the largest commercial bank in Cyprus, Hellenic Bank, with Ministry of Education. E4 is the media article which discussed the recent research findings conducted by DU academics and the bank's decision to offer training to the public as part of their Corporate Social Responsibility (CSR) actions. E4 explicitly states that the programme includes "the provision of high school students' training in topics of personal budget management, responsible consumer behavior, savings behaviors and the time value of money. The workshops will be held in cooperation with the Ministry of Education." Further, the article states "Hellenic plans, in cooperation with REACTION, to train people living in about 150 villages for e-services, such as completing an online income tax statement, web banking and more on e-payments" (E4).

4. The Cooperative Bank of Cyprus offered PhD studentship funding to Cyprus University of Technology to undertake research into financial literacy in Cyprus. An InBusiness news media article on the public event announcing this decision is evidenced in E5, quoting the DU researchers and the findings in R5 explicitly: *“According to today’s announcement, the study commented on the results of a survey among 880 Cypriot students who recorded their level of knowledge in basic financial concepts...Research shows that only 6% of respondents are able to answer these questions with complete success”* (E5). Note that R5 is the only research paper documenting financial illiteracy among students in Cyprus.
5. The ‘Cyprus Consumer Union and Quality of Life’ President’s letter cites the papers R5 and R6 as the scientific evidence on the basis of which they are developing their first guidebook in financial literacy on topics of budgeting, managing and eliminating debt, retirement planning and savings. It secured funding from the Ministry of Education for printing 5,000 copies and distributing them to all their members and consumers across the country. They are organising training seminars and educational workshops across the country to build awareness about the problem, teach and educate Cypriot consumers on financial literacy, aiming to reach more than 2,000 consumers in 2020 and 2021 (E6).
6. The Youth Board of Cyprus introduced personal finance courses aimed to reach 200 young people in their first year. The General Director quotes R5 *“the seriousness of the problem became apparent when we first read the scientific evidence in your research published in the Cyprus Economic Policy Review that 6 in 10 young people can be classed as financially illiterate”, “and feels challenged by the fact that the problem is heightened among young people”, “we are delivering a training course on the subject of “Personal Finance”, “the organization’s Board of Director has approved a budget amount of 10.000 euro for conducting a field survey...to examine various aspects that can explain the problem of financial illiteracy among 15-year old students”*. (E7)
7. The Centre for the Advancement of Research and Development in Educational Technology (CARDET), with EU partners, has developed the Euroinvestment game, funded by the European Commission Erasmus+ programme (www.euroinvestment-project.eu). In their Strategic Plan for financial education of low-skilled adults in Europe online, using the game, they explicitly quote detailed findings in R5 as their scientific evidence for low financial literacy levels in Cyprus.

Second, as a direct response to the DU research, the Cyprus government decided to embark on a national strategy for financial education (E8). This was a policy recommendation stemming from the research paper, R5, which acted as a pilot study for the government. As cited in two government press releases on 4 November 2017 and 2 November 2018 (E1), Durham’s research study (R5) results provided the vital evidence base for the Cyprus government to embark for the first time on the new policy agenda to develop a national strategy for financial literacy for Cyprus. As a direct consequence of the research paper (R5), the Central Bank of Cyprus was given the mandate by the Governor of Cyprus to carry out the first-ever national benchmark household survey on ‘Financial Literacy and Inclusion’ for Cyprus. To quote from E8, the Director of the Economics Analysis and Research Department of the Central Bank of Cyprus said, *“The financial literacy pilot study on college students in Cyprus [R5]...was a timely attempt to understand the growing concern of financial illiteracy in the country. The pilot study results highlighted the need for a nationally representative benchmark survey as an important step towards measuring financial literacy levels among the various population segments in the country. Hence, recently the CBC Board has approved the budget of approx. EUR50,000 [09/2017] for undertaking this benchmark survey”* (E8). The Durham research team partnered with CBC to design the national survey questionnaire, with the expertise bolstered from designing Indian benchmark surveys, and building on the Cyprus survey questionnaire used in the empirical design of R5 and the OECD guidelines. To quote from E8 *“(Durham University researchers were) instrumental in jointly developing the financial literacy survey questionnaire for Cyprus.”* The national survey was fielded between August and November 2018.

Durham researchers were also involved in preparing the White Paper that analyses the primary benchmark data and proposes recommendations to the government of Cyprus. E9, the Central Bank Official Presentation released to the public, mentions *“The first results of surveys on financial literacy in Cyprus were conducted among students (Andreou and Philip 2018) and*

raised awareness about the problems. It also highlighted the need to conduct a survey on the whole population... The preparation of the questionnaire and the analysis of the results were conducted in collaboration with expert academics from Durham University (Professor Dennis Philip) and Cyprus University of Technology (Dr. Panayiotis Andreou)” (E9). The White Paper feeds directly into the policy interventions on implementing financial literacy materials in the educational system of the country.

A noteworthy policy intervention happened at the European Parliament's Office in Nicosia on 8 November 2019, where Professor Andreou provided oral evidence, based on the two research papers R5 and R6, for the “*Motion for a European Parliament Resolution on the European Central Bank Annual Report for 2018*”. Mr Costas Mavrides, who is the MEP for Cyprus and the appointed rapporteur for the preparation of the motion, was to draft and present the motion in front of the European Parliament and its members to cast a vote so to become an official policy guidance to the ECB. The letter from Mr Costas Mavrides refers to the papers R5 and R6 explicitly and mentions that *they “contribute significantly to the enrichment of the proposal for a European Parliament’s motion for resolution on the [2018] Annual Report of the European Central Bank”*. (E10). The letter also mentions “*On the basis of the above-mentioned and your suggestions as shown in your studies, in my capacity as rapporteur for the preparation of the motion for resolution for the European Parliament, I intend to include in my work specific reference to the need of digital and financial education of citizens aiming to resolve the problem of digital financial illiteracy.*” (E10).

5. Sources to corroborate the impact

- E1. Evidence of wide news media attention: a sample of 20 different newspaper articles and 2 Central Bank of Cyprus Press Releases by the Governor of Cyprus, Mrs Chrystalas Giorkatzis, after the roundtable discussion on 4 November 2017 [follow-up event after the first one on 4 November 2016] published at the Cyprus News Agency; and at the 2nd Forum Economic and Social Policy forum themed “Problems of Financial Literacy and the policies needed for addressing it” on 2 November 2018. Durham University researchers also appeared on state news broadcast and TV interviews 4 times discussing the findings of the research findings in R5 and R6.
- E2. Letter from President of the Cyprus Association of Economists [dated 19/03/2019].
- E3. Letter from Mayor of Larnaca Municipality, Andreas Vyas. (In Greek) [dated 11/04/2019].
- E4. Public announcement by Hellenic Bank (2nd largest bank in Cyprus) to introduce a pilot-program of financial education in high-schools (to about 2,000 students) in collaboration with the Ministry of Education. (TRANSLATED from Greek to English) [dated 24/10/2018].
- E5. In Business News article on the event on 13 February 2018 to announce a fully-funded PhD studentship sponsored by the Cooperative Cyprus Bank on Financial Literacy (TRANSLATED from Greek to English).
- E6. Letter from President of Cyprus Consumers Union and Quality of Life [dated 23/02/2020].
- E7. Letter from General Director of Youth Board of Cyprus [dated 24/11/2020].
- E8. Letter from Central Bank of Cyprus Chief Economist addressed to the Dean of Durham University Business School on the ongoing research collaboration [dated 25/09/2017].
- E9. Central Bank of Cyprus Official Slides on ‘A Survey of Financial Literacy in Cyprus: The First Results’. [Under embargo until official press release].
- E10. Letter from Mr Costas Mavrides, Member of the European Parliament for Cyprus and Member of the EU Committee on Economic and Monetary Affairs [dated 22/11/2019].