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Locating Financial Capability Within Capability Approach – Theoretical Survey

Konceptualizacja wyborów finansowych na kanwie teorii możliwości wyboru – analiza teoretyczna

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Abstract

The integration of financial capability with the capability approach remains an open and challenging issue. This paper offers a theoretical exploration of the financial capability framed within Sen's capability approach in an interdisciplinary way. It focuses on the fundamental conceptual aspects of the capability approach, and on how we may use that framework for the development of financial capability theory. Moreover, the presented theoretical study addresses the issue of the critical role of constrained choice using Simon's bounded rationality and ecological rationality approach. We used one type of research and it is conceptual analysis. It helped us to better understand and explain the concept of financial capability and address three important issues related to that concept. In this paper, we offer a more transparent and consistent approach that takes into account theoretical evidence on financial capability. We complemented the financial capability literature by highlighting the critical role of the classic works of A. Sen and more recently the influential work of I. Robeyns. Thus, our headline finding is that using A. Sen's approach as a general framework for the financial capability may offer a more transparent and consistent approach to define financial capability.

Słowa kluczowe:
Amartya Sen, możliwości wyboru finansowego, racjonalność ograniczona, teoria możliwości wyboru

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Streszczenie

Integracja teorii możliwości wyboru z koncepcją możliwości wyborów finansowych pozostaje otwartym problemem badawczym. Celem artykułu jest interdyscyplinarna analiza teoretyczna możliwości wyborów finansowych oparta na pierwotnej wersji teorii możliwości wyboru zaproponowanej przez A. Sena. W artykule podjęto próbę wykorzystania kluczowych komponentów teorii możliwości wyboru do stworzenia teoretycznych założeń koncepcji możliwości wyborów finansowych. Ponadto w artykule wykorzystano dorobek racjonalności ograniczonej H. Simona i dalszych jej rozszerzeń w ramach racjonalności adaptacyjnej. Do osiągnięcia celów wykorzystano analizę koncepcyjną. Pozwoliła ona na lepsze zrozumienie samego pojęcia możliwości wyborów finansowych i zaadresowanie trzech głównych wyzwań w jej zdefiniowaniu. W ten sposób zaproponowano bardziej transparentne i spójne podejście wykorzystujące dorobek teoretyczny w pracach nad możliwościami wyborów finansowych. Dodatkowo uzupełniono literaturę w tym zakresie o klasyczne prace A. Sena i ich dalsze rozwinięcia oferowane szczególnie w pracach I. Robeyns.

Z tego powodu najważniejszym wnioskiem niniejszego artykułu jest rekomendacja wykorzystania prac A. Sena nad teorią możliwości wyboru jako warunków ramowych do definiowania możliwości wyborów finansowych.

Introduction

In the past two decades, a large part of influential literature in economics has dealt with the question of how financial development influences the prosperity of economies [Greenwood, Scharfstein, 2013; Rajan 2006; Mian, Sufi, 2009; Stiglitz, 2010; Philippon, Reshef, 2013; Piketty, 2014; Philippon, 2015; Zingales, 2015]. Acemoglu and Robinson [2019: 482] claim that "excessive growth in the financial sector and inefficient risk-taking have probably been quite costly because they have created instability in the economy"[1]. This trend also brought an enormous instability on both sides of the personal-finance balance sheet and has attracted a lot of research attention in recent years [Betti et al., 2007; Alessie et al., 2013; Mian et al., 2013, 2017]. Not accidentally, the following tendency has triggered a dramatic surge in personal bankruptcy filings around the world [Livshits, 2015].

What people can achieve and end up achieving is increasingly influenced by financial opportunities or capabilities, which may be either fertile in the sense they help individuals realise or sustain their central capabilities (through access to low-interest rates in banks), or corrosive and dangerous to central capabilities (through access to high-interest rates in pawn shops) [Sen, 2017; Robeyns, 2017]. Financially capable individuals have access to financial choices and can evaluate them, are engaged in a neutral discussion about money and financial issues, plan for the future and respond competently to life events [Bird et al., 2014: 684].

The concept of financial capability has newfound prominence in the academic debate and it is primarily derived from consumer finance studies [Kempson et al., 2005; Taylor, 2011; Anand, Lea, 2011; Xiao et al., 2014, 2015; Xiao, O'Neill, 2016]. However, recently more attention has been given to the capability approach as the theoretical foundation for financial capability [Johnson, Sherraden, 2007; Sherraden, 2013; Sherraden, Grinstein-Weiss, 2015; Sun et al., 2022]. Unfortunately, it is scrutinized in a limited way because it mainly discusses Nussbaum's definition of capabilities [Sherraden, 2013]. Due to those limitations, the aim of this paper is threefold. First, we present three dominant ways of defining financial capability in the consumer finance literature and try to understand the role of the capability approach. Second, we focus on the core concepts of Sen's capability approach and how we can use that framework for the conceptualisation and visualisation of financial capability. Third, we discuss important issues related to conceptualisation.

The article is organised as follows: some issues linking financial insecurity with financial capability are discussed in Section 1. Section 2 is devoted to answering the following question: How can we use the capability approach to develop the conceptual framework of financial capability? Section 3 connects financial capability with the act of choice. The last section concludes and summarises the theoretical and conceptual findings.

Financial instability as opportunity failure

Income volatility, financial insecurity, and the lack of adequate financial tools have become the representation of opportunity failure of millions of individuals, especially poor ones [Wolff, De-Shalit, 2007; Collins et al., 2009; Morduch, Schneider, 2017]. Consistent with the arguments reported by Sen [1999: 88], the adversity in converting income into valuable functionings entails real poverty. Such things as being financially secured, avoiding financial stress, having related income-using abilities, being able to cope with unexpected financial shocks, and being financially literate, might become a good representation of an individual's financial capa-

[1] Some authors refer to the term financialization (see section 2 in Davis [2017] for an excellent review of definitions).

bility. In our opinion, the lack of security is of overwhelming significance for how individuals use and enjoy the full list of basic capabilities.

Notwithstanding, financial institutions and financial regulators insufficiently protect individuals from financial instability and do not help people develop and sustain their crucial financial functionings [**Collins, 2009**; **Collins (eds.), 2015**; **Shiller, 2012**]. According to **Banerjee et al.** [**2006**: XV], "the most pervasive 'market failures' are the ones that impede the ability of the poor to make private or collective 'investment' that they need to escape from poverty". The problem is particularly acute in the financial sector, where poor individuals are frequently excluded from financial markets (in particular from credit and the insurance market). Reinforcing previous studies by **Robeyns** [**2017**: 41], we may assume that, given financial institution arrangements, financial capability is severely limited, particularly for poor individuals, and most of the financial choices do not generate any positive freedom.

Financial services not tailored to the individual's needs, product complexity, and the lack of transparency create an even bigger financial insecurity gap and deepen the lack of control over financial institutions [**Morduch, Schneider, 2017**: 177]. This financial evolution and more recently the decentralised finance (Defi)[2] revolution, based on decentralised blockchains such as the Bitcoin and Ethereum, have not only promoted financial stability but brought an additional uncertainty, and consequently additional factors of instability in everyday financial decisions. **Prasad** [**2021**: 321] explained that precisely by saying: "Financial innovations will generate new yet unknown risks, especially if financial market participants and regulators put undue faith in technology and let down their ground. Decentralization and fragmentation cut both ways (…) Thus, fragmentation might yield efficiency in good times and rapid destabilization when economies struggle".

Any public discussion considering ordinary individuals is therefore needed to influence financial institutions in supporting the development, protection and sustainment of financial capability. **Sen** [**2017**: 407] rightly indicates that "viewing the vast economics and social damage done by the policies of austerity, autocratically chosen by the leaders of Europe's financial institution (…), with extraordinarily little public discussion *before* the choices were made, it is not easy to escape the thought that more epistemic engagement with ordinary people (…) could have helped". This discussion should focus on both structural constraints and individual and social conversion factors. Confirming previous studies by **DellaVigna** [**2000**], **Bertrand et al.** [**2004**, **2006**], and **Mullainathan** [**2006**], the lack of financial capability, constrained choice and limited financial functionings have intrinsic constraints (as a result of personal conversion failure), for example in the form of cognitive predispositions such as the lack of self-control, short-term thinking, impulsive buying, underestimation of financial risk, risk and financial illiteracy or trusting the wrong advisor. Moreover, consistent with the results reported by **Banerjee et al.** [**2006**], **Mullainathan** [**2007**], **Shiller** [**2012**], **Sen** [**1999**], and **Robeyns** [**2005**; **2017**], it may also be the result of structural constraints (as a result of environmental and social conversion failure), mainly due to the dynamic financial development and financialization around the world. Paraphrasing **Nussbaum's** words [**2011**: 22], we may say that the current financial markets create contexts for financial choice, but this is done without developing an individual's innate skills and cognitive capacities to exercise these financial choices. In a similar vein, **Shiller** [**2012**: 235, XVI] stated that "the finance is supposed to *reduce* randomness in our lives, not increase it", further indicating that "finance, despite its flaws and excesses, is a force that potentially can help us create a better, more prosperous, and more equitable society".

Conceptual model of financial capability based on Sen's Capability Approach

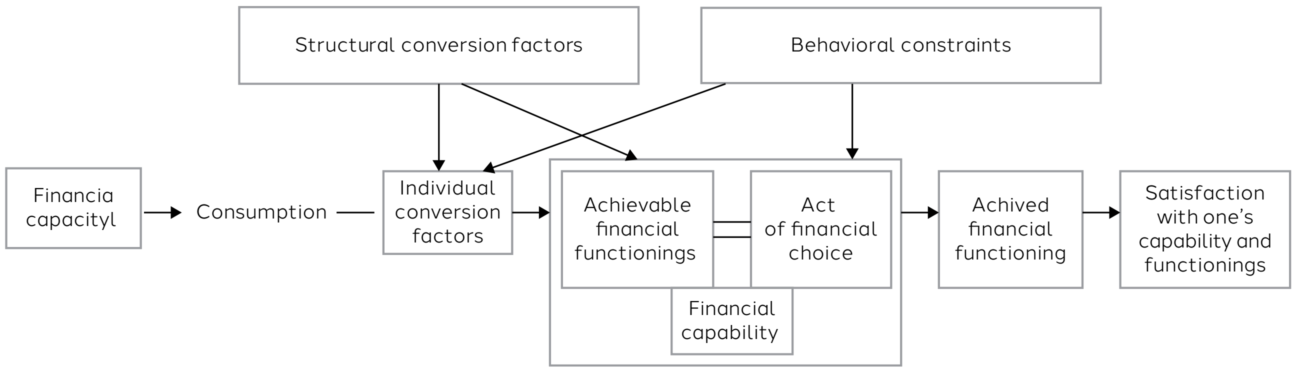
The current state of financial capability research shows that most research in customer finance scrutinises the determinants of financial capability (mainly individual background differences), achieved financial functionings (both financial behaviour and outcome), and constrained choice (financial decisions), but it does not define financial capability *per se* in the way proposed in Sen's capability approach. The first line

[2] see part II in **Prasad** [**2021**] for detailed history and current frontiers in the topic.

of research, proposed by Kempson et al. [2005: 14], emphasises the role of individual conversion factors used in the following definition: "Financial capability consists of three components. The first two referred mainly to abilities ((1) knowledge and understanding, (2) skills) and a third dimension which was represented by the financial attitude ((3) confidence and attitudes). The second one by Taylor [2011: 298] focuses more on the achieved financial functionings by saying that 'financial capability refers to people's ability to manage and take control of their finances'. The last one presents a much broader framework and it was offered by Johnson and Sherraden [2007: 122]: In their view, financial capability requires both the ability to act (knowledge, skills, confidence, and motivation) and the opportunity to act (through access to beneficial financial products and institutions). This framework has been further clarified and defined by Sherraden [2013]." Their idea of financial capability is based on Nussbaum's [2000; 2011] pioneering typology of capabilities and is the subject of deep scrutiny in our paper.

The very similar conclusions were reached by Xiao and Huang [2021: 26], who conducted the first comprehensive, systemic review examining 250 research papers in consumer research on financial capability and concluded that three propositions are essential in consumer finance literature: financial capability as an individual ability, desirable financial behaviours, financial opportunity as well as the interaction between them. However, their study does not offer any further discussion concerning the role of the capability approach in financial capability conceptualisation and does not explain any differences between Sen's and Nussbaum's capability approach.

Figure 1. Visualisation of core concepts in financial capability theory



Source: Own elaboration based on Robeyns [2005, 2017].

The role of individual conversion factors in the conceptual framework of financial capability

First of all, most of the financial capability definition is still dominated by the ability-oriented approach to financial capability. Finance has indeed become a central issue in an individual's life, therefore financial abilities might be seen as elementary social abilities enabling conversion of income and consumption into valuable financial functionings. This argumentation is reported by Arrowsmith and Signal [2010: 14], who emphasise that "in essence financial capability can be thought of as an amalgam of skills and knowledge that are necessary for functioning in modern society". Nevertheless, reinforcing the previous argumentation by Duflo [2006] and [Benerjee, Duflo, 2011], assigning the financial capability only within financial abilities may seem unfair, especially to poor individuals who are unprivileged in the context of such abilities. Duflo [2006: 372], rightly argued that "it seems that if people are being poor and have nothing to lose in financial terms, they cannot be made fully responsible for their actions". This paradox is also explained in empirical research by Collins et al. [2009: 33, 61], who concluded that lower-income and financial capacity require more than less active financial management and force poor individuals to work harder to manage their money. Thus, our argumentation confirms the previous research by Wolff and De-Shalit [2007: 13], who stated that "holding people responsible for all the costs of all their choices without first equalizing their circumstances, does not look much like an improvement from an egalitarian point of view", and the study by [Robeyns, 2017: 110– 111], who emphasises that individuals should be responsible for their own choices but only when structural constraints (financial institutions) favour equality. This is why in Figure 1 the individual conversion factors (financial abilities) are only one of the factors influencing financial capability.

Additionally, focusing only on the ability approach means that we neglect in the discussion on financial capability the social arrangements, including structural constraints imposed by social institutions, as well as environmental and social conversion factors, which, as stated by Sen [1999; 2017] and Robeyns [2005; 2017], may, to a great extent, "create" or "reduce" the financial capability *sensu stricto*.

According to the recommendation submitted by Arrowsmith and Pignal [2010: 13] for the Canadian Financial Capability Task Force, "the measurement of financial knowledge, financial abilities, and associated behavior is not straightforward and there is no 'correct' approach when talking about financial capability." Hence, the ability-oriented approach to financial capability needs to be supplemented by the influence of institutional constraints, which determine financial opportunities open to individuals, particularly to poor ones.

The role of structural conversion factors in the conceptual framework of financial capability

To locate the financial capability theory within Sen's capability approach we need to consider the role of social institutions, especially financial institutions, since, as reported by Sen [1997: 203], they have a great impact on an individual's financial capability (both opportunity and choice application using Sen's terminology). Thus, as in Figure 1, structural conversion factors influence both financial capability and individual conversion factors. This is consistent with Robeyns [2017: 40], who stated that "capabilities are contingent upon our social institutions", and that they are "context-dependent functionings". We believe that the same should apply to the conceptual framework of financial capability. Moreover, our argumentation reinforces previous research by Shiller [2012: 145], who points out that "innovative financial instruments often seem to be tied to the culture of one country". By the same token, Sen [1993: 44] states that "being free to live the way one would like may be enormously helped by the choice of others, and it would be a mistake to think of achievements only in terms of active choice by oneself".

Structural conversion factors (as presented in Figure 1) influence the financial capability and individual conversion factors, and to obtain the overall picture of the situation we need to analyse various factors and its dynamics. This is emphasised by Shiller [2012: 5], who states that "an illiterate farm boy from a remote area finds it difficult to walk into the offices of a bank in a big city to ask for capital to start a business (...) and there is substantial evidence of such a barrier in the extreme variations in interest rates paid". We may observe the evolution of this approach in studies by Kempson et al. [2005; 2013], who initially put an emphasis on individual conversion factors (individual abilities), but then took into account the impact of structural conversion factors (external opportunities). Dubois and Rousseau [2008: 424–425] present a similar standpoint when it comes to the lack of capability in the vulnerability theory: "Capability can be considered as a combination of the 'ability to do things with the 'potentiality of being' as one wishes". In the case of the "ability to do", they attach great importance to physical capacity, whereas in the case of the "potentiality of being" they highlight financial capacity and social opportunity. This line of argumentation is also reported by Dubois and Rousseau [2008], Sherraden [2013], and Kempson et al. [2013], who indicated that financial abilities may only be developed with the experience gained during interaction with financial institutions (see the arrows in Figure 1). Therefore, our line of reasoning partly reinforces the definition of financial capabilities presented by Sherraden [2013: 35] whereby an "individual should have financial knowledge and skills but also access to financial institutions that enable them to improve their financial well-being," which includes both financial abilities and financial inclusion.

It seems, however, that Sherredan's definition of financial capability resembles too much the financial capacity described by Dubois and Rousseau [2008]. To develop this capacity, individuals must have appropriate access to and an understanding of financial products, services, and concepts. As in Sen's capability approach, we should perceive the role of financial institutions in a similar way, as a key component constraining or enabling access to valuable financial options, but not as an integral part of financial capability (see Figure 1 for detailed visualisation).

Nussbaum's versus Sen's terminology in the conceptualisation of financial capability

Most of the research on the financial capability theory, including Johnson and Sherraden [2007], Sherraden [2013], Sherraden and Grinstein-Weiss [2015], makes use of the terminology suggested by Nussbaum.

Nussbaum's classification of capabilities including basic, internal and combined capabilities differs considerably from Sen's idea of structural and individual conversion factors. Sen's [1997: 195–198] and Robeyn's [2005: 74–75; 2017: 45–46] approach assumes mainly capabilities resulting from access to achievable financial functionings and an act of choice, which are not internal skills (these are individual conversion factors in Figure 1). Nussbaum [Nussbaum, 2011: 21] explains her approach by saying: "They are to be distinguished from innate equipment: they are trained or developed traits and abilities, developed, in most cases, in interaction with the social, economic, familial, and political environment". Then, Nussbaum [2011: 23] indicates that her distinction between internal and combined capabilities is only a useful rule of thumb. Resuming, in our opinion, Sen's capability approach should be treated as a dominant element of conceptualisation of financial capability, which means, that financial abilities, literacy and knowledge need to be included within individual conversion factors (see Figure 1). Both Qizilbash [2007: 38] and Robeyns [2017: 9] argue that Nussbaum's capabilities approach is a specific application of Sen's original contribution[3].

Definition of financial capability and achieved functionings in the conceptualisation of financial capability

The distinction of determinants of capabilities and capability, as well as indicating differences in Nussbaum's and Sen's approach allow us to define financial capability. In general, financial capability captures what individuals are able to choose from various available combinations (particular combinations of achievable financial functionings), regardless of what individuals decide to choose (see "achievable financial functionings" as a part of financial capability in Figure 1). Therefore, the freedom of choice as indicated by Sen [1990] plays a substantial role in the capability approach (see "act of financial choice" as a part of financial capability in Figure 1). For instance, considering the case described by Wolff and De-Shalit [2007: 58], individuals "who claimed that the banker will not listen to a person who can't even open an account because his earning is not secure, or because he does not have an income", do not have any freedom of choice. Their choice is structurally constrained.

Hence, using Sen's argumentation [1987; 1997; 1999; 2004], financial capability is a notion of freedom open to individuals (expressed in their being and doing), which helps them to be able to choose from a range of "achievable financial functionings" as visualised in Figure 1)[4]. Thus, in our opinion, being financially secure is a central financial capability and specific financial functionings are valuable, achievable functionings. This argument supports the earlier work by Benerjee and Duflo [2011: 229], who stated that the sense of stability is the prerequisite condition for poor individuals to take a long view. The lack of financial capability is, thus, a problem of financial insecurity. Our argumentation reinforces previous studies on the capability approach

[3] For further explanation and differences between both taxonomies see chapter 3.2.2. in Robeyns [2017].

[4] This visualisation is static and does not take into account the whole dynamics and complexity of financial choices. For more explanations see 2.12 in Robeyns [2017].

by Sen [1987: 60], who points out that "a person's options and opportunities can be seen as counting in a normative evaluation, in addition to what the person ends up achieving or securing".

Linking financial capability with financial security is also closely related to the disadvantage theory and might result in a more dynamic visualisation of the core concepts in Figure 1. Wolff and De-Shalit [2007: 9, 37] promoted the idea of (secure) functionings, which means that not only access to genuine opportunities is important, but also its protection to count on them in the future. However, in their disadvantage theory, Wolff and De-Shalit [2007: 70] focused on functionings rather than on capability because, as they put it, "capabilities are less observable, functionings are more observable". All in all, we believe that in the case of financial capability and functionings we might find a clear match between capability and functionings. In a negative sense, people with very risky financial functionings (lack of savings, high risk exposure, income volatility or unpaid debts) generate additional insecurity for themselves. On the other hand, sometimes trying hard to secure their central capability (such as education and health), individuals choose not to pay mortgage or debts.

Financial capability and the act of choice

Financial capability means the opportunity to select financial products and services (options application in Sen's [1997: 203] own words). We visualised this concept as an "act of choice" in the financial capability element in Figure 1. But, as stated by Qizilbash [2008: 60–61], if financial opportunities are available to individuals, people are still unable to transform them into valuable financial functionings, due to structural, individual and behavioural constraints, as presented in Figure 1. Attention should be also given to the choice application aspect of Sen's approach (the act of financial choice in Figure 1). In the modern financial world, most of the financial choices are very complex (options are difficult or not possible to rank) and sometimes losing the capability to choose is a form of capability failure [Comim, 2008: 61].

Consequently, moving from "achievable financial functionings" to "achieved financial functionings" requires an act of choice. If we want to be financially secure, we should build contingency savings or manage financial budgets. As a result, the conceptualisation of financial capability may make considerable use of insights on bounded rationality theories of choice. Thus, we should use a broader perspective of the capability approach to conceptualise financial capability. As stated by Comim [2008: 5], "both opportunity freedom and process freedom should be used in broad interpretation view of capability theory". Especially for financial capability, the broad view might be important because the identification and prioritisation of capabilities entail the act of choice (judgment, partial ordering *inter alia*) [Comim, 2008: 29]. Our reasoning is in line with Robeyns [2017: 212, 213], who emphasises the necessity to "integrate functionings and capabilities as a general category of behavior and decision making".

Reinforcing previous argumentation by Alkire [2002: 91] and Sen [2009: 176], it seems that the role of choice application in financial capability visual conceptualisation (see Figure 1) may be comparable to the role of option application, because the actual behaviour of individuals may depart from complete maximisation of their goals and objectives (as a result of behavioural and structural constrains as visualised in Figure 1). We should also remember that, as stated once by Nozick [1993: 65], "rationality refers to process or procedure by which the action is generated". Thus, the theory of rationality, became a theory of choice process [Nozick, 1993: 76–77]. Especially, as indicated by Sen [2002: 193], when the process of choice can make a substantial difference to what is chosen. Additionally, it is worth emphasising that an option means freedom, but only when it is rightly executed. The issue can be related directly to Sen's discussion, in which he stated that the "process of decisions making cannot be seen as being the means to development but to be understood as constitutive parts of the end of development" [Sen, 1999: 291]. It is also close to Qizilbash's words [2008: 61] that "choosing, can, of course, itself be a valuable functionings".

Considering the abovementioned facts, the more adequate choice theories to scrutinise financial capability are probably those of bounded rationality, though not the ones based on behavioural economics, but mainly those deriving from Simon's bounded rationality and its further development as ecological rationality [Simon, 1955; 1956; 1979; Todd, Gigerenzer, 2012; Gigerenzer et al., 1999; 2011]. This is emphasized by its authors, Todd and Gigerenzer [2012: 495], who stated that "ecological rationality is an extension of the study of bounded rationality as Herbert Simon proposed". In theories based on Simon's approach, the act of choice is mainly influenced by individual conversion factors, behavioural constrains as well as structural conversion factors including environmental and social determinants (see the visualisation in Figure 1). Simon himself describes it with the following words: "Human behavior is shaped by scissors whose two blades are the structure of the task environments and the computational capabilities of the actor" [Simon, 1990: 7]. This assumption is supported by [Robeyns, 2017: 82], who stated that "choice is always constrained in some sense especially from the societal and behavioral perspective". By the same token, Nozick [1993: 176] sees rationality as "an evolutionary adaptation with a delimited purpose and function", while Sen [2002: 164] emphasises that the "evolutionary process may not only influence the rules of conduct that may consciously follow but also our psychological preferences about the actions involved". As a result, an individual who uses heuristics to make a choice, according to Sen's words [2009: 181, 242], "may not be acting irrationality, despite not undertaking a reasoned scrutiny on each occasion", especially when the choice "involves evaluation of alternatives with non-commensurable aspects".

All of the above is in sharp contrast with behavioral economics, as stated by Elster [1983: 12], Shelling [1978: 14, 78] and Gigerenzer et al. [2012: 83], which puts a major emphasis on behavioural constraints and limits the influence of both individual conversion factors and acts of financial choice (as presented in Figure 1). In this vein, the behavioral approach is in a sense limited because it is not trying to rethink the institutional norms that may shape financial choice [Gigerenzer, 2008: 7]. Boyd and Richardson [2005: 393] used the same line of reasoning by saying: "Rational theory is salient about initial source of belief about the world. The nature of prior belief is essential and encoded in traditional norms which are a starting informational basis for choices". Bearing that in mind, both neoclassical views of rationality and the behavioural perspective are incomplete in the conceptualisation of financial capability because they do not provide an answer to the question about the source of individuals' primary choices. This approach to financial choices alters the reference point for defining financial capability, which drifts from the decision's axioms to ecological heuristics adapted to institutional arrangements [Smith, 2009: 25]. This approach to choice rationality, which should, after all, be culture-dependent [Sen, 1982: 368], is in line with the capability approach and our line of reasoning.

An additional set of views presented by Simon and adopted by Gigerenzer is the close link to satisfying heuristics and Sen's maximisation. Satisfying means finding a good-enough solution (by using a specific heuristic, setting aspiration level) [Gigerenzer et al., 2011: 3]. This was emphasized by Sen [2002: 188–189], who stated that "satisfying versus maximizing has been somewhat deflected by the tendency to identify maximization with optimization. Satisfying corresponds entirely with maximizing behaviour. And yet it does not correspond to optimization".

Conclusions

In this paper, we reviewed the literature and tried to sort out conceptual differences utilising Sen's capability approach. We then presented the core concepts of financial capability and visualised it in Figure 1. We also addressed the issue of the critical role of behavioural constrains using Simon's bounded rationality and its further extensions in the ecological rationality research programme. That helped us address three important issues related to the conceptualisation of financial capability using Sen's capability approach.

First, the existing literature on financial capability is highly interdisciplinary, which poses a challenge for researchers. In our opinion, current developments in consumer studies can still be highly complementary when considering the best ways to define financial capability. In detail, financial abilities and knowledge may serve as a part of the core concept of individual conversion factors. Both achievable and achieved financial functionings can be treated as financial behaviour and outcome in our framework.

Second, we should also remember that capability (as the opportunity aspect of freedom) can hardly serve as the sole informational basis for an act of choice, including process aspects [**Sen, 2004**: 337; **Sudgen, 2018**: 25]. Thus, we need to seek an approach in which we may not only concentrate on financial capability (opportunity freedom), but also capture the process of choice. Here, as presented in Figure 1, we understand the process of choice as the transformation of achievable financial functionings into achieved financial functionings taking into account the behavioural constraints. Thus, including both the opportunity and process aspects of financial capability is necessary to develop a broad perspective of financial capability and consequently financial choices made by individuals.

Third, we also need to answer the following question rephrasing that stated by **Duflo** [**2006**: 377]. How do structural constraints influence financial capability and financial choice not only by affecting these constraints, but also by changing the choice process itself? In our Figure 1, structural constrains influence or change financial opportunity and the process of choice. In our opinion, the ecological rationality research programme might be highly relevant because in the case of this approach the circumstances influence the choice that individuals make from the financial capability set. Moreover, in this approach, supporting **Robeyn**'s [**2005**: 102] and **Sen**'s view [**2002**: 133], financial capability is scrutinised from the perspective of economic and social interactions.

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