

# Financial Inclusion Law and Over-Indebtedness

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## **2 Unveiling digital-financial exclusion among the elderly**

Gaps in knowledge and methodology<sup>1</sup>

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### Gaps in knowledge and methodology<sup>1</sup>

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and Helena Kordasiewicz*

#### 1. Introduction

In the past decades, the concept of financial inclusion has gained considerable traction across various policy and academic domains. More recently, discussions regarding the rationale behind adopting Central Bank Digital Currencies have underscored the high priority of financial inclusion on global, regional, and national policy agendas.<sup>2</sup> This growing emphasis is further solidified by an emerging consensus advocating for the recognition of a “right to financial inclusion” as a fundamental human right.<sup>3</sup> Aligned with the methodology of the largest dataset on financial inclusion provided by the World Bank, financial inclusion typically encompasses access to financial services, such as owning an account and utilising it for withdrawals and payments as well as access to savings accounts and credit.<sup>4</sup> Financial inclusion also refers to financial resilience, signifying the ability to access money in emergencies and “financial worrying” that reflects the stress experienced in relation to financial circumstances.<sup>5</sup> Additionally, financial literacy is widely regarded as a crucial indicator for financial inclusion.<sup>6</sup>

The discourse on financial inclusion is increasingly nuanced, recognising that the reasons, forms, and solutions for financial exclusion vary across different demographic groups.<sup>7</sup> Particularly, against the backdrop of the ageing population phenomenon,<sup>8</sup> there is a growing interest in addressing financial exclusion among the elderly, (i.e., people of at least 60 years of age).<sup>9</sup> This is partly due to the strain on social security systems and the systemic risks associated with the lack of financial resilience among seniors.

Although the drive towards financial inclusiveness is global in scope, further consideration should be focused mainly of the European Union and its current or former member states. In this respect, the issue of financial exclusion among the elderly intersects with another current EU policy focus, namely the digital transformation of modern economy.<sup>10</sup> As the digital landscape evolves, financial services are progressively provided electronically and online. This trend has been accelerated by the COVID-19 pandemic, which, for instance, hastened the closure of bank branches.<sup>11</sup> Hence, accessing basic financial services now often requires the use of digital tools or entails the burden of travelling to the nearest branch. Although an

expanding body of literature acknowledges digitalisation and, particularly, FinTech solutions as a potential catalyst for advancing financial inclusion,<sup>12</sup> there is a concurrent observation of associated risks and regulatory challenges.<sup>13</sup> Among these concerns, there is a growing awareness of potential exclusionary effects concerning elderly individuals.<sup>14</sup> The digitalisation of the economy may inherently marginalise elderly individuals, whose absence in the digital world leads to a particular (i.e., digital) social exclusion.<sup>15</sup> Although witnessed in various aspects, digital exclusion stands out as particularly severe within the financial services domain. The access to financial services is indispensable for conducting transactions for goods and services that fulfill essential needs across all facets of the elderly's societal engagements.<sup>16</sup> Financial inclusion is, therefore, currently regarded as a basic human right.<sup>17</sup> Thus, given the dynamically changing landscape for financial service provision, there is an increased urgency to scrutinise the extent to which elderly individuals are integrated into this digital financial paradigm. Empirical evidence of digital exclusion, particularly highlighting age as a significant demographic determinant, underscores the urgency of the matter.<sup>18</sup> This raises the question of whether the effects of rapid market-driven digitalisation in financial services on the elderly should be addressed through legislative interventions.

To address financial exclusion in an ageing society, the Organisation for Economic Cooperation and Development (OECD) and the Global Partnership on Financial Inclusion developed the G20 Fukuoka Policy Priorities on Aging and Financial Inclusion, which were endorsed by the G20 finance ministers and central bank governors in 2019.<sup>19</sup> The general well-being of older people is embedded in Goal 3 of the 17 Sustainable Development Goals in the UN Agenda 2030.<sup>20</sup> Strategic, yet non-binding, commitments also emerged at the national level in the form of national financial education strategies, targeting older people as a particularly vulnerable demographic group,<sup>21</sup> as well as guidance by financial market regulators directed to supervised market actors regarding specific actions that have exclusionary effects on the elderly.<sup>22</sup> However, while the issue of financial exclusion among the elderly is clearly recognised in public policy, it has only recently begun to be examined through the lens of legal scholarship. Consequently, the literature lacks an assessment of the need and potential modalities of legislation that could remedy the diagnosed problem.

In this chapter, we argue that the overlapping dynamics of digital and financial exclusion necessitate a targeted research effort in legal scholarship. We contend that there is a need to assess potential regulatory responses that would specifically address the vulnerabilities of the elderly. However, an interdisciplinary, evidence-driven analysis of regulatory pathways requires data obtained through rigorous study design. This, in turn, necessitates preconceiving adequate avenues for legislative intervention that would effectively channel empirical research efforts. The aim of this chapter is, therefore, to unveil gaps in knowledge and methodology regarding financial exclusion occurring at the intersection with the exclusionary effects of digitalisation. In elucidating the challenges faced by elderly individuals in navigating the digital financial landscape, our aim is not only to enrich academic discourse but also to inform policy interventions and practical initiatives geared towards fostering financial inclusion and equity for the elderly. While we

acknowledge the global scope of the analysed problem, we focus our attention on the European Union.

The chapter consists of five sections. Following this introduction, Section 2 delineates the current legal state of play regarding the protection of the elderly against digital-financial exclusion. Based on this assessment, we outline potential legislative avenues that, in our view, should inform and guide the design of empirical research. Section 3 presents a review of the literature and available data relevant to the digital-financial exclusion of the elderly. In light of the regulatory options (Section 2) and the reviewed literature and data (Section 3), Section 4 explains the gaps in knowledge and methodology that we identify. Finally, Section 5 summarises our findings.

## **2. Legal landscape**

The legal framework governing the rights of the elderly and the risks they face is shaped by two primary regulatory streams: anti-discrimination and consumer protection law. Despite their shared goal of safeguarding vulnerable social groups that are particularly prone to certain inequalities and abuses, each of these streams employs its own tactics in addressing vulnerability, regulatory methods, legal instruments, and justifications for protection.

Anti-discrimination law is grounded in primary EU law,<sup>23</sup> which prohibits unfair disparate treatment based on characteristics such as gender, religion or belief, disability, sexual orientation, and age (Article 21 EChFR). Age discrimination is considered to violate the fundamental rights of human dignity, equality of treatment, and respect.<sup>24</sup> Therefore, the adoption of regulations that prohibit unjustified age discrimination and offer effective remedies for its victims is considered a crucial element of an effective equality strategy and one of the EU's priorities.<sup>25</sup>

Despite the pervasive nature of the problem, in secondary EU law, age discrimination and its adverse social implications are mainly acknowledged and addressed by specific regulations in the context of employment.<sup>26</sup> Secondary legislation notably lacks detailed measures ensuring equal access to the financial market for various stakeholders, including those particularly vulnerable to inequalities stemming from the adverse effects of digitalisation and the dynamic evolution of new technologies. One may argue that the inequalities arising in this context should not fall under the purview of anti-discrimination law, as they do not stem from discriminatory practices but rather from the vulnerability of certain individuals to market phenomena. Conversely, one could speculate that certain forms of positive discrimination might effectively bolster the position of specific consumer groups, such as the elderly, who are at risk of financial exclusion in the increasingly digitised and complex financial services market. However, under the current legal framework (consisting in particular of consumer law legislation, including Unfair Commercial Practices Directive,<sup>27</sup> and sectoral financial market regulation, including Consumer Credit Directive<sup>28</sup> or Payment Services Directive),<sup>29</sup> the elderly are treated equally to other market participants. Consequently, the quest for identifying regulatory instruments aimed at addressing the issue of digital-financial exclusion of the elderly must shift towards EU consumer protection law.

While shaping the standards of conduct, EU consumer law is based on the model of the so-called average consumer, defined as one who is well-informed, reasonably observant, and circumspect. According to the UCPD, market practices may be considered abusive if they impair the ability of such a consumer to make an informed decision (Article 5.2(b) UCPD). However, as an exception to this concept, consumer legislation defines vulnerable consumers as those who require additional protection due to mental or physical infirmity, age, or credulity (Article 5 UCPD). Additional protections are granted to vulnerable consumers against commercial practices that are likely to materially distort their economic behaviour (Article 5.3 UCPD).

Despite some lack of clarity and emerging criticism,<sup>30</sup> the notion of vulnerability may be a valid concept for future developments and a useful legal tool for the protection of the elderly, albeit only if contextualised. Different markets possess distinct characteristics that influence who is perceived as a vulnerable consumer and why. For instance, elderly consumers may navigate freely in the largely unchanged food market yet encounter significant barriers in the financial market due to its high complexity and ubiquitous digitalisation.<sup>31</sup> Therefore, the protection of consumers vulnerable in a given context requires targeted rather than one-size-fits-all legal solutions. Despite the declaration of prioritising the protection of particularly vulnerable consumer groups in the new consumer agenda adopted in 2020,<sup>32</sup> no specific legal arrangements have been established regarding the elderly. As a result, current financial sector-specific legislation lacks dedicated measures for protecting seniors as particularly vulnerable consumers. On the other hand, recent legislation provides examples of specific legal instruments designed to protect selected consumer groups, distinguished due to their age and particular vulnerability (e.g., minors).<sup>33</sup>

The assessment of the current legal landscape leads to the conclusion that on EU level, the existing state of play does not adequately address the unique vulnerabilities of older individuals within the highly digitalised financial market. Further research on potential legislative interventions must build upon a thorough empirical diagnosis of the phenomenon that is supposed to be cured. However, the design of that research requires some preliminary reflections on the potential regulatory pathways.

The legislative interventions that we envision can be divided into two categories. The first category encompasses legislation aimed at either initiating or directly imposing obligations on financial institutions providing (or expected to provide) essential financial services crucial for the financial inclusion of the elderly. The second category consists of regulatory measures that introduce institutional or procedural solutions primarily geared towards addressing the effects of digital-financial exclusion and providing ex-post remedies.

The first category of potential legislative avenues is grounded in the premise that achieving digital-financial inclusion for the elderly necessitates intervention in the legal relationship between financial institutions and elderly consumers. Such intervention could manifest as a form of admissible positive discrimination, as it would entail providing elderly consumers with “special treatment” by financial

institutions. The most comprehensive legislative option would involve adopting a definition of elderly consumers tailored to the specific market context of financial services. Such a definition could impact various aspects of financial institutions' operations and serve as the foundation for establishing a standard of conduct that addresses the challenges typically faced by the elderly when participating in financial markets. This may include obligations related to in-person service provision, such as operating stationary temporary service points or mobile service points or implementing specific communication channels.<sup>34</sup> Additionally, legislative measures within this category could include customised disclosure requirements applicable solely to interactions with the elderly. Such disclosures would entail, for example, information on the nearest contact point or additional instructions and assistance in converting to online banking services. Legal obligations of financial institutions towards the elderly could also encompass providing legal education, which is currently only carried out through voluntary and *ad hoc* initiatives.<sup>35</sup>

The institutional measures contained in the second category of potential legislative avenues could include the establishment of a public authority or a unit within an existing public authority tasked with overseeing the financial market participation of the elderly or vulnerable consumers in general. In addition to monitoring financial institutions' policies and practices, such an institution could be endowed with specialised enforcement powers (e.g., to request detailed information, issue binding recommendations, or sanction possible violations). Furthermore, this category may involve amendments to existing administrative or judicial consumer protection enforcement mechanisms to better accommodate the specific vulnerabilities and challenges faced by the elderly in safeguarding their rights related to financial services. These amendments could involve granting public authorities the right to participate in such proceedings as observers or even to initiate them *ex officio*.

### **3. Literature review**

In the context of EU law, the attempt at a comprehensive examination of the potential legislative interventions outlined previously involves several layers of legal analysis. Key doctrinal inquiries include assessing the legal basis in the Treaties for adopting secondary legislation and evaluating any proposal against the principles of subsidiarity and proportionality. Importantly, the pursuit of any of the available regulatory options must be informed by interdisciplinary empirical research unveiling the patterns of digital-financial exclusion.

The current body of literature on the digital-financial exclusion of the elderly is constantly evolving and results from both policy and academic research efforts. Since the topics of both digital and financial inclusion bear significance for policymaking, the different approaches to the topic deliver potentially relevant informational output. The multitude of sources on the subject stems from the recognition that the identified phenomenon is of concern to a diverse range of academic disciplines, including psychology, public health, law, computer science, and economics.<sup>36</sup> Consequently, the research output is variegated in its assumptions,

methodologies, and geographical scope. All these factors contribute to the multifaceted nature of the literature, posing a challenge for academic and policy-driven efforts to connect various outcomes into a coherent body of knowledge in which comparisons are performed and developments are observed based on methodologically corresponding research outcomes. While this review attempts to structure the literature according to themes, it is important to acknowledge the “patchwork rug” of evidence related to digital-financial exclusion and embrace its complexity.

Our review incorporates both quantitative and qualitative research alongside select articles offering comprehensive overviews of the topic by summarising findings from previous studies.<sup>37</sup> The analysed literature is not confined to recent publications; rather, a comparative analysis spanning older and newer studies enables a nuanced understanding of the evolving approaches to the subject matter over time. Older studies frequently address issues such as physical infrastructure inadequacies, perceived minimal necessity for Internet usage, and general attitudes;<sup>38</sup> in contrast, contemporary research increasingly emphasises deficiencies in necessary skills or a cautious reluctance towards adopting new technologies.<sup>39</sup>

An important focus of contemporary research lies in identifying the primary factors influencing the utilisation of digital technologies and the encountered barriers among elderly users. Studies have highlighted the paramount importance of user-friendliness and usefulness as well as the user’s attitude.<sup>40</sup> Notwithstanding its subjective nature, two elements have been identified as having the most universal influence on this attitude: the “perceived ease of use” and the “perceived usefulness”<sup>41</sup> – with an emphasis on the *perception* part. Hence, it is evident that feelings of inclusion and skill levels vary considerably when navigating in the digital environment.

Simultaneously, the literature presents a divergence of perspectives regarding the general self-perception of the elderly. On one hand, a study conducted among individuals over 65 years of age revealed that some senior respondents, who classified themselves as “non-users” of the Internet, devalued their competences due to comparisons with those of their children or grandchildren.<sup>42</sup> This study also documented the lived experience of exclusion, with interviewees expressing feelings of isolation and a sense of being “old” or even “like a dinosaur” in this digital context.<sup>43</sup> To move beyond the dichotomy between mere usage and non-usage of the Internet, the research categorised different approaches of the elderly interviewees towards technology into: (i) avoidance practices (the interviewees actively avoided using digital technologies through, for example, finding alternative sources of information to the Internet); (ii) usage practices (in which the interviewees used digital technologies for certain purposes, yet without recognising it as “real” technology use); (iii) appropriation practices (through which the senior respondents learned digital technologies from courses, manuals, or family members); and (iv) subjectivation practices (in which the interview partners integrated their alleged non-use of digital technologies into their self-perception of being an “older non-user”).<sup>44</sup>

On the other hand, other studies have demonstrated that even the elderly with low levels of IT skills and those who rarely use digital technologies do not *feel* excluded or have a problem with the state of the matter. A study of Polish elderly, who were chosen among those attending senior clubs and support groups,<sup>45</sup> has

shown that 70% of the responders did not consider themselves excluded.<sup>46</sup> This perception may stem from a lack of sufficient knowledge of what the use of digital technologies may offer them or purely a lack of perceived need to participate in this segment of the economy.

Given this backdrop, a strong argument emerges that the elderly should not be regarded as a homogeneous group. Drawing upon the stratification of Internet usage among senior citizens across different age brackets, a body of research underscores the necessity of categorising seniors into various subgroups to effectively ascertain the factors influencing their circumstances in the digital era. However, this division between those affected by the grey digital divide<sup>47</sup> remains understudied;<sup>48</sup> therefore, the concept of further categorisation of elderly consumers requires further research and, above all, precise definition of criteria for such subdivision. According to one of the hypotheses, the relevant circumstances can be divided into individual-level (“human capital such as education, motivation, technical interest, economic capital (income), health, age and sex”) and social-context (“marital status, social capital (support and encouragement by social network members) and Internet use within one’s social network”).<sup>49</sup> The results of this interview-based research have shown that the last of the social-context factors is not as important as previously thought, but the positive effect of encouragement by peer group has also been demonstrated. This understanding of the impact of networks is challenged by studies focused on the context of online banking,<sup>50</sup> which will be discussed further.

The importance of attitude has also been demonstrated by another UK-based study of the perception of digital technologies by the elderly,<sup>51</sup> conducted in focus groups of persons between 54 and 85 years of age. It has been demonstrated that even when the “initial fear of breaking the technology” is overcome or alleviated, some seniors have replaced it with a new anxiety related to security and “the vulnerability of both themselves and the technology.”<sup>52</sup> Conversely, researchers from the Centre of Aging at the University of Miami highlight that “older people are not ‘technophobic’ and are willing and able to use technology such as computers,” but their declining cognitive abilities can pose a barrier to effectively utilising technology.<sup>53</sup> This study has also highlighted that while the elderly are receptive to using modern technologies, they oftentimes have high levels of anxiety connected to their ability to use them efficiently. The key role of non-material aspects of digital exclusion has been further confirmed.<sup>54</sup>

Eventually, a UK-based study has characterised the elderly’s approach to digital technologies as “ambivalent.”<sup>55</sup> Some of the participants of this study have described keeping up to date with modern technologies as too difficult and not useful. In contrast, others belonging to the “younger” elderly have been using computers to “prepare for the old age,”<sup>56</sup> meaning that they have seen how online solutions may help them preserve bigger parts of their independence later in life (e.g., online shopping, e-health, online banking).

The correlation between maintaining independence and digital inclusion of the elderly has also been studied in China.<sup>57</sup> Although the scope of this literature review is generally limited to the EU area, this study appears relevant as far as it points out the differences between high- and medium-income countries. More importantly, it shows that the elderly, as a vulnerable part of modern populations,

may strongly benefit from access to the Internet, as it decreases their likelihood of functioning dependently.

Another significant stream of research pertains to the vulnerability of senior consumers amidst diverse market dynamics. While literature and policy widely acknowledge the particular vulnerability of the elderly due to their advanced age,<sup>58</sup> some studies examining consumer capabilities across various markets argue that older individuals are not inherently more exposed to consumer vulnerability than others.<sup>59</sup> Given such inconclusive findings, research focusing on specific markets while assessing the position and vulnerability of seniors active within them appears to be the most desirable approach.

Such demand for contextualisation is met by studies within the third herein distinguished area of research, which is specifically narrowed to the financial market and concentrates on the barriers restricting the accessibility of financial services for senior customers. By drawing on accessible data, two main groups of factors contributing to the exclusion (both financial and digital in nature) of the elderly can be identified. The first one consists of barriers emerging on the part of seniors, such as (i) lack of sufficient financial skills (so-called financial illiteracy); (ii) lack of IT skills, and reluctance to use digital tools (as in the case of general research outlined before); and (iii) poverty and low income.<sup>60</sup> The second one unveils the barriers created by the market itself, including (iv) a lack of products and services dedicated to senior customers or (v) a lack of customer education programs. However, despite their apparent relevance, the following literature review demonstrates that the research addressing these factors remains broadly inconclusive.

The current literature offers inconsistent descriptions of the impact of age on financial literacy. On one hand, certain studies demonstrate that financial capabilities tend to increase with age.<sup>61</sup> Financial capabilities are defined here as a “combination of financial literacy and desirable financial behaviours.”<sup>62</sup> The researchers have looked at both the subjective and objective literacy, both of which turned out to be positively correlated with age and peaking in the age group 65–69, but it may decrease after the age of 80. Conversely, other studies have suggested literacy will start to diminish around the age of 65.<sup>63</sup>

Regarding the barriers posed by the digitalisation of commercial banking services, some research indicates that elderly individuals who do not utilise online banking abstain from it due to fear and their perception of difficulty.<sup>64</sup> Other studies demonstrate that it *is* primarily the lack of skills that prohibits the elderly from using online banking.<sup>65</sup> Eventually, some research questions the existence of a problem of the inaccessibility of modern commercial banking to the elderly. In a Polish study, almost 60% of the seniors declared no problems whatsoever in the context of banking, and 80% of them confirmed they use online banking.<sup>66</sup> However, it is important to stress that this study was performed online, meaning that already only those of the elderly who have sufficient IT skills to fill out an online questionnaire could have participated, which has an obvious bearing on the implications of this study for the issue of digital exclusion.

In the “When I’m 84”<sup>67</sup> study, not only the elderly have been interviewed but also their informal carers. Considering the previously described discrepancies between the perception of seniors of their Internet usage and skills and the actual

extent to which they rely on online technologies, it provides an important insight from those who support the senior citizens in their daily lives and help in managing their finances.

As regards the demand side of the financial market, the demand of the elderly for various types of financial services is thought of as being primarily determined by their level of income; other important factors include age, education, and the declared financial situation.<sup>68</sup> In the same study, it has been stressed that a unified treatment of the elderly can lead to a deeper financial exclusion, which poses an obvious detriment to both the consumers and financial institutions.

On the one hand, it is being highlighted that there is a lack of products dedicated to senior consumers,<sup>69</sup> which may be one of the leading causes of financial exclusion<sup>70</sup> and an insufficient focus on this segment of the market.<sup>71</sup> However, in a study prepared by the Polish Banks' Association (*Związek Banków Polskich*), merely 16% of the respondents expressed that the offer is unsatisfactory.<sup>72</sup>

Another study focused on the issue of access to loans and found that the age of loan applicants influences lending practices, especially as bank branch closures hinder access to advice for older borrowers.<sup>73</sup> Decreased income in retirement and increased mortality risk contribute to lower repayment probabilities with age.<sup>74</sup> Mandatory residual debt insurance and age limits exacerbate age-related disadvantages.<sup>75</sup> Furthermore, standardisation in credit lending, driven by digitalisation, may lead to older individuals being rejected without individual assessment.<sup>76</sup>

While assessing the banks' approach towards senior customers, apart from the product range, the elderly respondents point out the lack of dedicated education programs, which they believe should be provided by the financial institutions.<sup>77</sup> In their view, such training should cover both digital skills and financial literacy. This study was conducted online, with the study group of persons over 60 years of age. In this case, the online nature of the survey appears to be of little relevance since the study offers important and quite universal insight into how the elderly who do use online banking find the encounter and what could be done to elevate their experience.

In the *discussion* section of numerous papers, conclusions for the market have been formulated. The most vivid example is a Polish study that claims that even if the aspect of social responsibility is not convincing for financial institutions to broaden their offer dedicated to the elderly, the "pragmatic (economical)"<sup>78</sup> reasons ought to push them in this direction. Others have focused on fostering a "strong corporate culture that emphasises developing the network scale and network density of senior customers",<sup>79</sup> which could include establishing cultural organisations for senior consumers and maintaining a proper business culture. This ought to be done in order to obtain more elderly consumers, as the study has shown the network effect in the process of selection of banks by seniors.<sup>80</sup> It has also been emphasised that financial inclusion can be increased by financial institutions through the use of modern technologies in a way that is also accessible and readable for seniors.<sup>81</sup> Adjusting the digital infrastructure to meet the needs of senior consumers seems particularly appealing in view of the continuous closure of bank branches. An example of a proposed solution for the problem of the high technical entry barrier, which may be unattainable for the elderly, is the utilisation of biometric identification instead of

a set of passwords. This approach can alleviate concerns related to forgotten passwords or difficulty in typing for individuals with limited manual skills.

#### **4. Gaps in knowledge and methodology**

Our extensive examination of the literature and data substantiates the increasing acknowledgment of digital-financial exclusion among the elderly within academic circles and policymaking spheres. However, notwithstanding this recognition, the current state of research lacks the foundation for conducting an informed analysis of potential regulatory interventions aimed at mitigating this issue. Our assessment elucidates several critical knowledge gaps and methodological shortcomings present within the existing body of research.

The prevailing policy paradigm regarding digital exclusion, which advocates for inclusivity in the digital revolution, notably influences the discourse on addressing digital-financial exclusion among the elderly. The underlying objective epitomised by the slogan of “leaving no one behind,” explains a narrow focus on promoting digital skills and literacy among the elderly as the primary solution to digital-financial exclusion. This exclusive focus on augmenting digital capabilities often assigns blame solely to the elderly for their exclusion, thereby disregarding broader societal forces underpinning the phenomenon.

Our proposed regulatory pathways offer an alternative perspective, shifting away from this technology-centric approach. By detaching from the sole objective of integrating the elderly into digital technologies, these pathways prompt a reconsideration of how to ensure financial inclusion in the face of persistent digital exclusion. Indeed, by reassessing the foundational assumptions, we broaden the scope of discourse to consider alternative avenues for achieving financial inclusion despite ongoing digital exclusion. Consequently, within the context of investigating legislative responses to digital-financial exclusion among the elderly, a critical reassessment of these deeply ingrained assumptions becomes imperative.

To facilitate the future analysis of potential legislative avenues, a fundamental shift in research design is warranted. This “second-generation research” on digital-financial exclusion should not only aim to elucidate the causes of the phenomenon but also adopt a solution-driven approach. Central to this approach is the overarching question: “What interventions could effectively address digital-financial exclusion?” This entails formulating research hypotheses grounded in specific regulatory proposals, as outlined in this chapter, while also considering additional strategies that may emerge from ongoing scholarly and policy discussions.

The prevailing assumption that digital-financial exclusion should primarily be addressed by bridging the digital divide has led to a strong emphasis on enhancing digital skills among the elderly to align with established market practices. A revised assumption, however, suggests that elderly individuals deserve financial inclusion even in the absence of digital inclusion, prompting inquiries into how market practices might be adapted to ensure their financial inclusion. Consequently, research on digital-financial exclusion should draw from longstanding themes in the consumer protection law discourse, which explore adjustments

in service provision to safeguard consumer rights (e.g., information obligations towards elderly consumers could be valuable). Currently, practitioners and academics in consumer law debate the efficacy of information provided to consumers across various markets, including the financial sector. Therefore, to propose substantive solutions aimed at mitigating financial exclusion among the elderly, it is essential to ascertain whether senior citizens engage with the information provided by entrepreneurs and whether the manner and format of such information (oral, written) are relevant to them, including considerations such as font size and language used.

Another significant category of identified weaknesses in the current body of research pertains to methodological issues. It is evident that studies relying solely on online tools to measure the digital engagement of respondents offer limited informational value. Such studies often only provide insights into the specific services used by individuals who are already digitally included. The same shortcoming applies to the financial education programs, the vast majority of which are available online, thereby significantly limiting their target group.<sup>82</sup>

Another notable methodological flaw is the measurement of attitudes and perceived skills rather than the actual testing of digital competencies. While such studies might be relevant in the fields of sociology or psychology, they cannot precisely inform legal research on regulatory options.

Further, the examined studies have revealed large inconsistencies as to the definition of the elderly and old age that determine the group of respondents. While some studies include participants as young as 50,<sup>83</sup> others focus on individuals above the age of 80.<sup>84</sup> Apart from the researcher's perspective, the lack of common understanding of the term "elderly" also negatively impacts both business and regulatory practices.<sup>85</sup> Therefore, for the purpose of evaluating regulatory options, narrowing down the age brackets would be appropriate to exclude respondents whose occupations require regular use of digital technologies, as they may distort the research outcome. Moreover, a stronger focus on "the older elderly" would likely provide a more precise account of the correlation between age and cognitive abilities. This refined approach would offer valuable insights into the specific challenges faced by the oldest segments of the elderly population in navigating digital-financial services, contributing to a more nuanced understanding of the issue and informing targeted regulatory interventions.

The analysis of the collected literature also indicates a tendency to treat seniors as a homogenous group despite various differentiating features. For the purposes of designing adequate legislative responses to the problem, one should thus explore whether financial literacy and vulnerability to financial exclusion are correlated with the factors such as: (i) education (higher, secondary, primary); (ii) place of residence (big city, small city, village); (iii) family situation (single v. living with spouse/children/grandchildren); (iv) assets condition/financial capability (sources of income, savings); (v) type of bank used (commercial, cooperative); and (vi) extra-occupational activity (voluntary work, senior citizens' clubs). In order to strengthen the credibility of the research and the tangibility of its results, future empirical studies should thus include respondents belonging to various subgroups distinguished due to these listed features.

Furthermore, in terms of methodology, research designs targeting elderly individuals could enhance their efficacy by including their caregivers and families as additional respondents. This approach would offer an external perspective, enriching the comprehension of digital-financial exclusion among the elderly and providing insights into the broader socio-economic context within which these individuals interact with financial services.

## 5. Conclusions

With an ageing population and the accelerating trend of digitalisation in financial services, the exclusion of elderly individuals from the digital-financial realm poses a pressing concern. While academia and policymaking have visibly recognised this issue, the discourse on regulatory solutions in the field of legal scholarship has been relatively subdued.

The existing literature and data on digital-financial exclusion among the elderly exhibit several weaknesses that impede their utility for informing legislative interventions. In addition to various methodological flaws, our review has revealed that the most significant knowledge gaps are largely attributable to a prevailing policy-driven perception. This policy paradigm asserts that addressing digital-financial exclusion primarily entails bridging the digital divide by providing the elderly with access and skills to participate in the digital revolution, influencing research design accordingly. However, re-evaluating the notion of “leaving no one behind” reveals that not all segments of society necessarily require participation in digital-financial services. This realisation underscores the need for legal tools to safeguard the right to financial inclusion among the elderly. Consequently, a range of regulatory options to address digital-financial exclusion among the elderly should be explored in solution-focused studies to ascertain whether specific legal interventions could effectively remedy the problem.

We argue that addressing the identified knowledge gaps and implementing suggested methodological improvements are essential steps in structuring future empirical research. Such research is critical for informing the subsequent legal analysis of potential legislative avenues aimed at effectively addressing digital-financial exclusion.

## Notes

- 1 The text presents the results of research project no. UMO-2023/51/D/HS5/1563, “Combating financial exclusion of the elderly in the digital era – a regulatory roadmap,” funded by the National Science Center, Poland.
- 2 Shivani, “Empowering”; Lannquist and Tan, *Central*; Riganti and Weber, “Digital.”
- 3 Queral, “A Human.”
- 4 Demirgüç-Kunt et al., *The Global*.
- 5 Demirgüç-Kunt et al., *The Global*.
- 6 OECD, *OECD/INFE Toolkit*.
- 7 Demirgüç-Kunt et al., *The Global*; Damar-Blanken et al., *Altersdiskriminierung*.
- 8 See data included in: United Nations, *Worlds*.
- 9 OECD, *Financial Consumer*; Financial Conduct Authority, *Ageing*.

- 10 See e.g., European Commission, *New Consumer Agenda*.
- 11 Weber et al., “Digitalizing.”
- 12 Buckley et al., “FinTech”; Buckley et al., “FinTech for”; Lee, “Financial.”
- 13 Kern and Karametaxas, “Digital”; Machiavello, *Microfinance*; Chiu, “FinTech.”
- 14 Weber et al., “Digitalizing.”
- 15 Mubarak and Suomi, “Elderly”; Weber et al., “Digitalizing.”
- 16 Riganti and Weber, “Digital.”
- 17 Queral, “A Human.”
- 18 European Commission, *Digital*, 24; Mubarak and Suomi, “Elderly”; Cooper, *When*.
- 19 GPF and OECD, *G20 Fukuoka*.
- 20 The UN, *The 17*.
- 21 OECD, *National Strategy*.
- 22 Financial Conduct Authority, *Finalised*.
- 23 The term “primary law” refers to the treaties concluded by the EU Member States, including i.a. the Treaty on the Functioning of the European Union and the Charter of Fundamental Rights of the European Union, hereinafter referred as “EChFR.” The term “secondary law,” on the other hand, encompasses the body of law in the form of regulations, directives, decisions, recommendations, and opinions. See also Syrpi, “The Relationship.”
- 24 Fredman, “The Age.”
- 25 European Commission, *Age Discrimination*, 5.
- 26 See also European Commission, *Age Discrimination*; European Commission, *Age and AGE Platform Europe, The Right*; Freeland and Vickers, “Age”; Numhauser-Henning, “Ageism”; Numhauser-Henning and Rönmmar, *Age*.
- 27 Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No 2006/2004 of the European Parliament and of the Council (‘Unfair Commercial Practices Directive’), hereinafter referred as “UCPD.”
- 28 Directive 2008/48/EC of the European Parliament and of the Council of 23 April 2008 on credit agreements for consumers and repealing Council Directive 87/102/EEC.
- 29 Directive 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC.
- 30 See e.g., Waddington, “Vulnerable”; Kaprou, “The Current.”
- 31 European Parliamentary Research Service, *Vulnerable*, 5.
- 32 European Commission, *New Consumer Agenda*.
- 33 See, e.g., recitals 40, 46, 71, Articles 14(3) and 28 of the Regulation (EU) 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC (Digital Services Act).
- 34 Weber et al., “Digitalizing,” 104.
- 35 See e.g., The OECD International Network on Financial Education. Accessed August 13, 2024. <https://www.oecd.org/en/networks/infe.html>.
- 36 To grasp the variety of approaches, see e.g., Hill, Betts, and Gardner, “Older”; Lu, Yao, and Jin, “Digital”; Fredman, “The Age.”
- 37 Lu, Yao, and Jin, “Digital.”
- 38 See e.g., Asmi and Ishaya, “Understanding”; Selwyn, “The Information.”
- 39 See e.g., Msweli and Tendani, “Enablers”; Solarz and Adamek, “Determinants.”
- 40 See: Msweli and Tendani, “Enablers.”
- 41 Asmi and Ishaya, “Understanding.”
- 42 Gallistl et al., “Doing.”
- 43 Gallistl et al., “Doing.”

- 44 Gallistl et al., “Doing.”
- 45 Such a selection may not prove extendable to different subgroups – other research has shown the influence of the support of a peer group in the situation of the elderly when using digital technologies. Due to the selection of a specific (and thus on a larger scale unrepresentative) research group, the result of this study thus appears as hardly universal.
- 46 Potyrańska and Hajduk-Stelmachowicz, “Wykluczenie.”
- 47 Mubarak and Suomi, “Elderly.”
- 48 Friemel, “The Digital.”
- 49 Friemel, “The Digital.”
- 50 See: Cui and Xu, “Understanding.”
- 51 Hill, Betts, and Gardner, “Older.”
- 52 Hill, Betts, and Gardner, “Older.”
- 53 Czaja and Lee, “The Impact.”
- 54 Berry, *Older*.
- 55 Selwyn, “The Information.”
- 56 Selwyn, “The Information.”
- 57 Lu, Yao, and Jin, “Digital.”
- 58 E.g., European Parliamentary Research Service, *Vulnerable*; United Nations, *Older*.
- 59 Berg, “Consumer Vulnerability,” 9.
- 60 Financial Watch, *A Wrinkle*.
- 61 Xiao, Chen, and Sun, “Age.”
- 62 Xiao, Chen, and Sun, “Age.”
- 63 Lusardi, Mitchell, and Curto, “Financial.”
- 64 Lusardi, Mitchell, and Curto, “Financial.”
- 65 Solarz and Adamek, “Determinants.”
- 66 Związek Banków Polskich, “Infosenior.”
- 67 Cooper, *When*.
- 68 Czerwiński, “Zachowania.”
- 69 See: Matejczuk and Łakoma, “Dostęp.”
- 70 Marcinkowska, Ziemba, and Świeszczak, “Wykluczenie.”
- 71 Guido, Amatulli, and Sestino, “Elderly.”
- 72 Związek Banków Polskich, “Infosenior.”
- 73 Damar-Blanken et al., *Altersdiskriminierung*.
- 74 Damar-Blanken et al., *Altersdiskriminierung*.
- 75 Damar-Blanken et al., *Altersdiskriminierung*.
- 76 Damar-Blanken et al., *Altersdiskriminierung*.
- 77 Senior.Hub, *Cyfrowe*.
- 78 Marcinkowska, Ziemba, and Świeszczak, “Wykluczenie.”
- 79 Cui and Xu, “Understanding.”
- 80 Cui and Xu, “Understanding.”
- 81 Cichowicz, “The Use.”
- 82 OECD, *Financial Literacy*, 45.
- 83 E.g., Marcinkowska, Ziemba, and Świeszczak, “Wykluczenie”; Barnes et al., *The Social*.
- 84 E.g., Cooper, *When*.
- 85 See: Matejczuk and Łakoma, “Dostęp.”

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