

Impact of Financial Inclusion in Low- and Middle-Income Countries: A Systematic Review of Reviews

Abstract

Financial inclusion programmes seek to increase access to financial services such as credit, savings, insurance and money transfers. Despite a wealth of systematic review evidence, the impacts of financial inclusion are inconclusive. Hence, the first systematic review of systematic reviews was undertaken to synthesise the impacts of financial inclusion interventions on economic, social, gender and behavioural outcomes. 32 systematic reviews were identified. The headline finding is that impacts are more likely to be positive than negative, but the effects vary, and appear not to be transformative in scope or scale, as they largely occur in the early stages of the causal chain. The effects of financial services on core economic and social poverty indicators are small and inconsistent. There is no evidence for meaningful behaviour-change outcomes. The effects on women's empowerment appear generally positive, but they depend upon programme features that are often peripheral to the financial service, and cultural and geographical context. Accessing savings opportunities has small but more consistently positive effects for poor people, and bears fewer downside risks for clients than credit. The inconsistent quality of the primary evidence base that formed the basis of their syntheses raises concerns about the reliability of the overall findings.

Keywords

Financial inclusion; poverty alleviation, systematic review of reviews; impact.

1. Introduction

Financial inclusion is presently one of the most widely recognised areas of activity in international development. As of 2017, globally, about 1.7 billion adults were counted as “unbanked”, not having an account at a financial institution or through a mobile money provider, but 515 million adults worldwide had opened an account between 2014 and 2017 (Demirgüç-Kunt et al. 2018: 2-4). Adults may be “unbanked” for reasons including unaffordability and inaccessibility of financial services, low quality, or choice. Financial inclusion refers to efforts to deliver affordable financial services – transactions, payments, savings, credit and insurance – to these people in a responsible and sustainable way. The focus is financial service delivery: hence, to be part of this review, an intervention must have at least one financial service as an essential element.¹

Financial exclusion is often blamed for inequalities (including in access to economic opportunities), a lack of security, and an exacerbated exposure to risk (Carbo et al. 2005: 5-7). The expectation underlying financial inclusion is that greater access to financial services will create poverty-alleviating and empowering effects; or, according to the United Nations Secretary-General’s Special Advocate for Inclusive Finance for Development, work at “transforming lives” (UNSGA 2017). With financial inclusion, policymakers and donors hope that access to financial services (including credit, savings, insurance and money transfers) provided by a variety of financial service providers (including banks, microfinance institutions, community finance institutions, and fintech companies) will allow poor and low-income households in low- and middle-income countries to enhance their welfare, grasp opportunities, mitigate shocks, and ultimately escape poverty, as well as advance macroeconomic development (Beck et al. 2007; World Bank 2014). More recently, some donors have suggested behavioural changes (such as household spending decisions) to also be desired outcomes of access to financial services (Karlan et al. 2014; World Bank 2015).

Leading authors at the interface of research and policy argue “the benefits of financial inclusion are widely accepted” (Cull, Demirgüç-Kunt, and Morduch, 2014: 4).² However, the present state of evidence leaves it insufficiently clear to what extent and for whom what benefits occur or do not occur (Demirgüç-Kunt et al. 2017; Mader 2016).

Systematic reviews³ and meta-analyses⁴ (in short: meta-studies) have sought to clarify the impacts from financial inclusion on poor people in low- and middle-income countries, drawing on an array of different underlying studies which include quantitative and qualitative work built on long-term and short-term data. The preponderance of these meta-studies have been focused on microfinance, and many specifically on microcredit. The very different quality and approaches of these meta-studies, and of the studies underlying them, however, pose a major challenge for policymakers, programme managers and practitioners in assessing the benefits and drawbacks of finance-based approaches to poverty alleviation. Increasingly there is confusion about the impacts and a risk of “cherry picking” among different findings. Further, many meta-studies are not taking into account what is missing from their primary studies⁵, which would affect the understanding of the evidence, for example by not analysing or reporting gendered impacts. More recently, primary studies have also sought to understand the impacts of financial inclusion initiatives more broadly, especially regarding macro-structural changes (Cull, Ehrbeck and Holle 2014; Demirgüç-Kunt and Klapper 2013), but the systematic review evidence has not yet progressed as far.

Systematic reviews of reviews are undertaken in other sectors for which evidence is widely available, especially health (Becker and Oxman 2008) and recently education (Polanin et al. 2017), but they are non-existent in international development. The systematic review of reviews provides the opportunity to develop an evidence synthesis approach in a sector where there is a large body of evidence of variable quality, but a systematic appraisal and

synthesis of the body of systematic reviews is lacking. As Polanin et al (2017: 174-5) point out, there are several reasons⁶ why systematic reviews of reviews are important:

1. They can contribute to the knowledge base going beyond what systematic reviews and meta-analyses report by providing a broader summary of the evidence. For instance, through a broader research question, they grant a better overview of diverse intervention modalities, which in turn can shape variations in a broader range of outcomes, problems, populations, and or contexts than a single review may cover. This panoramic breadth can make systematic reviews of reviews particularly useful to policymakers, practitioners and researchers.
2. Where many systematic reviews on a given topic exist and report discordant views (which is true for financial inclusion meta-studies), systematic reviews of reviews can be particularly useful to clearly identify and make sense of these diverging conclusions. This is not to say that it is always possible to reach clear conclusions on a complex topic. However, systematic reviews of reviews at least can clarify any divergences.
3. If the state of the evidence allows it (the pre-requisite being a sufficiently homogenous evidence base), they have the potential to use quantitative data contained in meta-analyses to conduct a network meta-analysis (Ioannidis, 2009), allowing comparisons of multiple treatment and control groups.⁷

The primary aim of this paper is to gain better clarity about the impacts of financial inclusion on the poor by systematically reviewing the existing meta-studies. Unlike most previous systematic reviews, which focused on microfinance interventions (or sub-sets thereof), we explicitly adopt a broader scope to review any available systematic review and or meta-analysis evidence on financial inclusion as a whole field. In total, we identify 32 relevant

meta-studies, of which 11 are of sufficient methodological quality to be included in the final analysis. Duvendack and Mader (2019) provide further details in a longer technical report about the process on how this review was conducted. This paper delivers a refined and condensed synopsis of the review findings with emphasis on theory and policy implications and delivers an additional quantitative synthesis of the included meta-analyses (made available in a supplementary online appendix).⁸ Overall, we find that impacts are more likely to be positive than negative, but the effects vary, are often mixed, and appear not to be transformative in scope or scale, as they largely occur in the early stages of the causal chain of effects. This means that proximate effects, such as increased entrepreneurialism or changes in consumption patterns, mostly do not translate into further effects, such as higher household net worth or income, which would have more profound impacts in terms of poverty reduction. The effects further along the causal chain were generally very small and not consistent across study samples and programmatic contexts or types of interventions.

The remainder of the paper is organised as follows. Section 2 begins by discussing the nature of financial inclusion interventions and the theory of change underlying them. Section 3 then describes the inclusion criteria used to identify the studies included in our analysis, and the search process used. The methodological quality assessment is discussed in section 4. Section 5 presents the main findings, disaggregated by economic, social, gender, and behavioural outcomes. Section 6 concludes with an overall synthesis and implications for practice, policy and future research.

2. Theoretical background

The policy rationale behind financial inclusion activities is that the usage of financial services is expected to improve the lives of poor and low-income people in low- or middle-income countries (i.e. generate a positive impact). In international development policymaking and

the associated research literature, this impact is often presented as (or is expected to be) “transformative” or “transforming lives” (Demirgüç-Kunt et al. 2018: 310; Martin and Hill 2015: 405, 414; UNSGSA 2017). This means that many policymakers and promoters of financial inclusion clearly expect financial services to play a decisive or at least important role in poverty reduction and development promotion. To illustrate this, we note that the foundational document of the global Alliance for Financial Inclusion (AFI), the 2011 ‘Maya Declaration’, asserts that all its members (more than 80 governments) “[r]ecognize the *critical importance* of financial inclusion to *empowering and transforming* the lives of all our people, especially the poor, its role in improving national and global financial stability and integrity and its *essential contribution to strong and inclusive growth* in developing and emerging market countries”.⁹

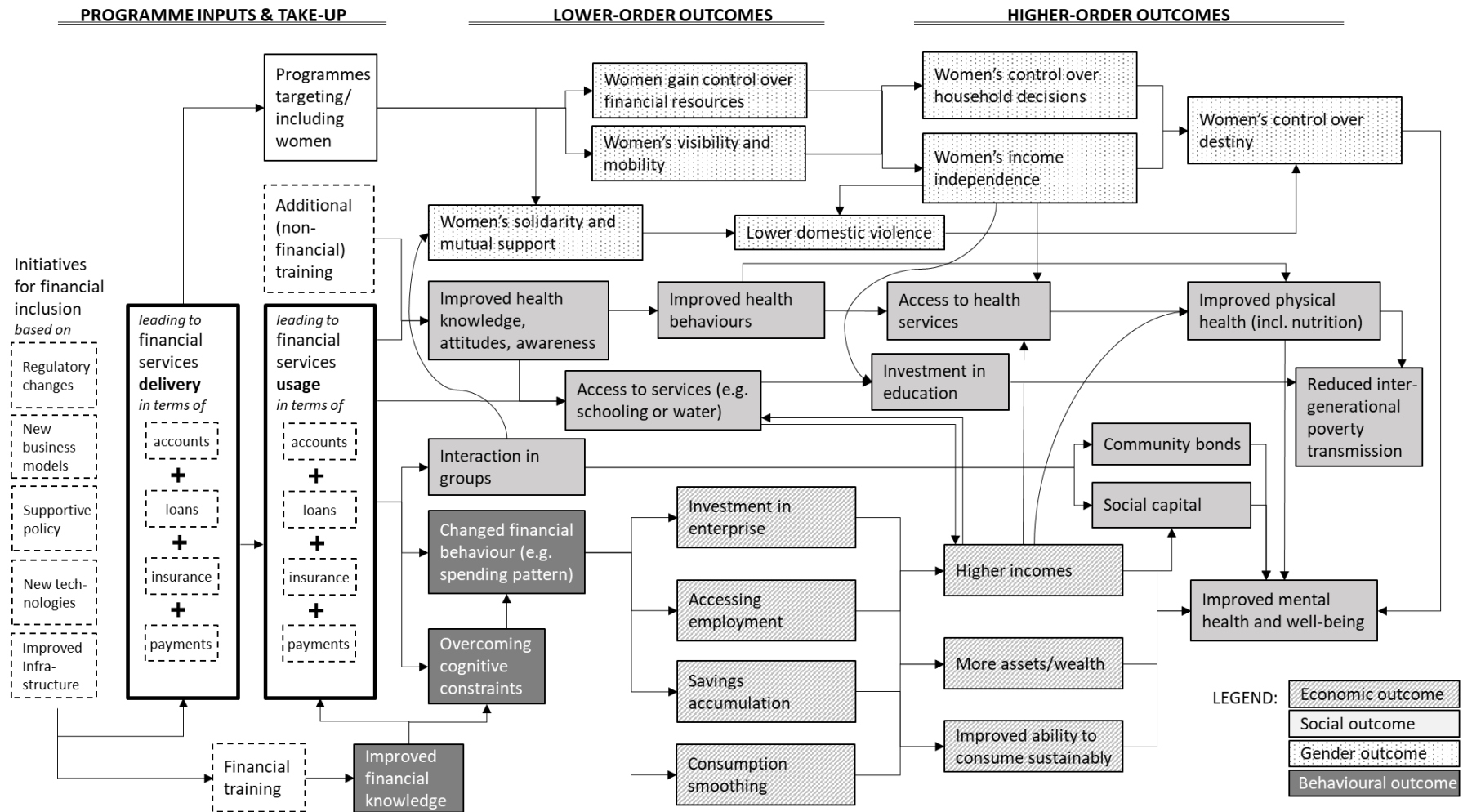
To assess these claims, we adopt a theory-based mixed methods synthesis approach. This means we examine and synthesise the evidence for and against the correctness of the theory of change underlying financial inclusion programming using a mixed quantitative and qualitative approach. A theory of change links “programme inputs and activities to a chain of intended or observed outcomes” (Rogers 2008: 30). It thereby serves to explain *how* financial inclusion activities are *expected* to produce intended changes. The schematic explanation of expected changes driven by financial inclusion will aid our interpretation of the evidence, by clarifying differences between financial services delivery, the uptake/usage of financial services, the immediate (lower-order) effects of financial services usage, and any more transformative (higher-order) impacts.

Given the heterogeneous nature of financial inclusion in terms of intervention types, delivery modalities, and intended outcomes, there is no consensus in the literature as to a preferred theory of change/causal chain. Many prior studies of financial inclusion impact have also been weak in explaining their theoretical reasoning. Hence, we must develop our

own theory, which is illustrated in Figure 1. It reflects how financial inclusion not only encompasses a wider range of actors, services, and delivery mechanisms (cf. World Bank 2014: 57-67; Mader 2016: 4-6), but also how a wide range of intended outcomes have been suggested as either transformative impacts or intermediary steps leading to them. Given this complexity, any theory of change for financial inclusion will have to be simplified and non-exhaustive. We identify key pathways of impact while not covering all possible causal connections.¹⁰

Figure 1 highlights the main theorised pathways of influence of financial inclusion interventions, beginning with the possible drivers of enhanced financial service delivery (shown in the left part of Figure 1). Regulatory changes, the emergence of new business models, supportive policies, new technologies, and improvements to (financial) infrastructures are expected to lead to a more inclusive offering of financial services to poor and low-income people.¹¹ These services comprise, in the main, four types: accounts (including savings accounts), credit, insurance and payments services (Cull, Demirgüç-Kunt, and Morduch 2014: 2-4; World Bank 2014: 20-26).¹² Financial training may also be delivered; this is not a financial service *per se*, but a possible enabler of financial services usage. Increased service delivery and improved financial knowledge are expected to lead to greater financial services usage.

Figure 1: Financial inclusion impacts at the individual/household level: theory of change flow diagram



Note: A macro-structural outcome category is not shown, because its causal chain does not operate at an individual/household level.

In our theory of change, the services are bundled. This reflects the how financial inclusion is generally treated as a single overarching policy goal. It also reflects the fact that uptake varies within households and that financial services are fungible within the household, such that households use and combine services for different ends; for instance, some households may prefer to borrow rather than save, or some may use savings as a form of insurance, etc. (Collins et al. 2009). Moreover, one service is often bundled with another by financial service providers, and financial inclusion policy generally emphasises the development of *inclusive financial sectors*, which would provide all services, rather than deliver specific services.¹³ Thus, although the services are conceptually different, and in reporting our findings (below) we will distinguish as much as possible the outcomes from different service types, in an encompassing theory of change for financial inclusion, it would be erroneous to theorise any particular impacts as *only* following from one particular financial service.

Households' uptake (usage) of *any or several or all* of these services could lead to immediate changes (lower-order outcomes) and from there on to more transformative changes (higher-order outcomes).¹⁴ We distinguish four outcome categories: economic, social, gender, and behavioural (indicated in Figure 1 by different shadings).¹⁵

Economic: Financial inclusion could lead to benefits for poor people through changes in their financial behaviours (World Bank 2014: 51-101), such that they use financial services to gain access to new income sources or enhance existing ones, to save money that they would otherwise spend or lose, to invest in assets, to sustainably consume more goods, or to cope with shocks. Many studies have focused on these outcomes, including, in our sample of reviews, Chiova et al. (2015), Duvendack et al. (2011), Gopaldaswamy et al. (2016), Steinert et al. (2018) and Stewart et al. (2010, 2012). Lower-order outcomes would include changes such as opening up or expanding an enterprise, accessing employment, accruing more savings, and having smoother consumption patterns (for instance, averting periods of hunger by using borrowed or saved money). Higher-order outcomes, which these lower-order outcomes could lead to, would include sustainably higher

incomes (gained through enterprise or employment) and higher savings, assets or wealth (higher household net worth, net of debts) accumulated over time, which could lead to improved social standing in the community, improved health, and improved well-being (Martin and Hill 2015). The ability to consume more goods sustainably (i.e. without over-spending) would also be a higher-order outcome; however, as noted among others by Stewart et al. (2010: 40-44), whether consumption or more goods is *sustainable* is difficult to ascertain, because changes to consumption levels might stem from positive causes (such as having more available income) or negative causes (such as higher living costs or spending on credit).

Social: Under the heading “social outcomes” we collect all other beneficial outcomes that are not strictly behavioural, economic or gender-related. In discussing the findings, we will break these down further into three broad categories: health (physical health, nutrition, mental & psychological health), social-relational (strengthening of social ties, community bonds), and access to beneficial services (such as water or schooling¹⁶). In theory, financial inclusion might affect these in multiple different ways, again with lower-order outcomes leading to higher-order outcomes. Among our sample of reviews, Kennedy et al. (2014) and Orton et al. (2016) all examine health in depth; Brody et al. (2015), Peters et al. (2016) and Stewart et al. (2010) discuss social-relational outcomes; and Chliova et al. (2015), Duvendack et al. (2011), Gopaldaswamy et al. (2016), Steinert et al. (2018), and Stewart et al. (2010) examine education (but no other services) in depth.¹⁷ Improvements in health can result from increased incomes (enabling households to access more health services and have better nutrition), from using financial services to access health services, or from non-financial programme components that change health knowledge, attitudes, and awareness and lead to changed health behaviours.¹⁸ Social-relational improvements could result particularly from forms of (financial) service delivery that entail regular and positive interactions in groups, which build social capital and community bonds, or from reduced poverty improving individual clients’ social standing. Improvements in access to services might come from financial products being used to afford

particular services or amenities, from financial inclusion programme components that aim at sensitisation, awareness-raising or attitude-change, or from poverty reduction and higher incomes (as households can afford to buy the services). Services such as water can, in turn, impact on incomes (through lower disease incidence and increased income-earning capacity), and better health and education reduce intergenerational poverty transmission.

Gender: Financial services may have very different effects for women and men, particularly if they target women, or at least are accessible for women. Many financial inclusion programmes (particularly microfinance and SHGs) have a history of targeting women and aiming at women's empowerment; some modes of digital financial services have also been claimed to have positive effects particularly for women, despite not targeting women, by allowing them to save independently (Hendriks 2019). In theory, as highlighted by the two women's empowerment-focused reviews in our sample (Brody et al. 2015, Vaessen et al. 2014), and recognised by most of the other reviews, financial services could affect gender relations in a number of complex and interrelated ways, which would be difficult to categorise as lower-order or higher-order outcomes without making potentially problematic value judgments.¹⁹ Through financial inclusion, women could gain control over financial resources and this may improve their bargaining position within the household, including on matters such as family planning and spending on children's education. Financial services can enable women to gain an independent source of income. As women's independence improves, domestic violence could reduce. Leaving the home to access or engage in business purposes can also make women more visible and mobile, and bring a broader sense of empowerment and control over destiny. All these could help improve women's physical and mental health and well-being. Regular meetings of women, connected with financial services delivery, could moreover improve women's solidarity and mutual support; some programmes also incorporate specific components of solidarity-building or exposure to women's rights. However, there may also

be trade-offs and ambivalent effects, for instance where women might not want to be more visible, or when newfound independence leads to adverse reactions from men (e.g. domestic violence).

Behavioural: It has been suggested, particularly by behavioural economists and recently the World Bank²⁰, that financial services, especially ones that contain particular modalities to affect users' behaviours, can lead to desirable cognitive and behavioural changes (cf. Banerjee et al. 2015; Karlan et al. 2014). In theory, this could come from several factors. Changes in financial knowledge and abilities could result directly from being taught in financial literacy or education programming (which is sometimes attached to financial service delivery), or indirectly from experience gained over time in using money and financial services; in our review sample, Brody et al. (2015) and Steinert et al. (2018) assess this impact pathway. Particular financial products might also work to actively change users' money-usage patterns and preferences, as with specially designed financial products that aim to help poor people overcome behavioural or cognitive constraints or attitudes that the designers of these products believe perpetuate poverty (as dealt with by Steinert et al. 2018); or they may indirectly affect behaviours as users choose to re-allocate expenditures, choose greater investment in enterprise, or learn the value of saving (as Gopaldaswamy et al. 2016, Stewart et al. 2010/2012, and Steinert et al. 2018 consider these effects). We treat all behavioural outcomes as lower-order outcomes, because they indicate a *potential* for poverty-alleviating effects further along the causal chain.

Macro-structural: In recent years, it has additionally been suggested that inclusive financial sectors are conducive to macroeconomic development and growth, from which poor and low-income people in turn would benefit. The macro-structural outcome category is different, because the causal chain of impact operates at the macro, rather than household or enterprise, level; hence it does not appear in our theory of change, which conceptualises effects at the household and enterprise level. However, our review still aims to capture any evidence on these types of effects. Some economic literature suggests more inclusive financial sectors serve to mobilise savings and

investments in the productive sector, and reduce information, contracting and transaction costs across the economy, leading to growth, and that poverty alleviation results when poor people benefit from this growth (Cull, Demirgüç-Kunt and Morduch 2013; World Bank 2014). It has also been suggested that financial sector development may reduce economic inequality indirectly (through forms of growth that lower inequality) or through enabling lower-income individuals to invest in accumulating human capital (Jalilian and Kirkpatrick 2005; Beck et al. 2007).

Finally, it is important to note that, for all outcome categories, the possibility of adverse effects (on average, or for some parts of the population, i.e. mixed impacts) also exists. There is no reason to assume *a priori* that the impacts of financial inclusion will be positive. Some past evidence has suggested more inclusive financial service provision may also have negative effects such as worsened poverty (Mosley 2001), financial and emotional stress (Ashta et al. 2015), debt traps (Schicks 2010; Guérin et al. 2013), increased gender-based violence and women's disempowerment (Rahman 1999), and economic underdevelopment and greater social inequality (Bateman 2010; Sandberg 2012). Nor is there any reason to assume *a priori* that the impacts of financial inclusion will be substantial and or significant in either direction. Our review of impact evidence also captures and accounts for any findings of negative impacts, including mixed ones.

3. Search strategy and inclusion criteria

3.1 Inclusion criteria

Types of reviews: We sought to include all studies of sufficient quality that self-identified as systematic reviews and or meta-analyses of the impacts of financial inclusion interventions (including, but not limited to, microfinance). These, in turn, have focused on synthesising quantitative, qualitative and or mixed methods evidence.

Types of participants: The scopes of the meta-studies we include are diverse but there is considerable overlap in terms of their population of interest. Almost all focus on the impacts of

financial inclusion on poor households based in low- or middle-income countries (using the World Bank definition²¹). Hence, our population is the population of participants in inclusive finance activities that are conducted in low- and middle-income countries²².

Types of interventions: In this systematic review of reviews, we include all meta-studies that address at least one or more types of intervention for financial inclusion, as described above. In the majority, the interventions are one or more sub-categories of microfinance: credit, savings, insurance, leasing, and/or money transfers. However, our search strategy explicitly targets the broader range of inclusive finance activities, such as mobile monies, mobile payments systems, index insurance, or savings promotion. For our purposes, to warrant inclusion of the systematic review or meta-analysis, the reviewed intervention must have at least one financial service as an essential element of the intervention.

Types of outcome measures: Existing meta-studies of financial inclusion typically examine a wide range of poverty indicators (including income, assets, expenditure, personal networks, gender/empowerment, well-being, health, etc.). In this systematic review of reviews, we include all meta-studies that address at least one or more of these domains. We group the indicators in three categories of impacts: social, economic, or behavioural. We also assess the evidence for outcomes early along the causal chain; most importantly, rates of uptake, and then investment in productive activity, human capital accumulation, improved money management, savings accumulation, risk/shock management, health and nutrition spending, and women's economic activity. These might be enablers of improvements on poverty indicators further along the causal chain (over a longer term).

Other criteria: The first systematic reviews engaging with financial inclusion issues (Stewart et al. 2010, Duvendack et al. 2011) indicated that no systematic reviews existed prior to their reviews. Hence, our searches are limited to 2010 onwards. However, to ensure that we are not excluding any relevant studies on date, we adopted a snowballing approach (as outlined below). In other words,

any relevant meta-studies published before 2010 would have been picked up through the snowballing procedure. No restriction was placed on language of papers.

3.2 *Search strategy*

We adopted a multi-pronged search strategy informed by Kugley et al. (2016) that explores bibliographic databases to identify published literature, institutional websites for published and unpublished literature, and back-referencing from recent systematic reviews to ensure additional sources are identified.

We searched a number of bibliographic databases including Business Source Premier (EBSCO), Academic Search Complete (EBSCO), EconLit, RePEc, World Bank e-Library, Scopus, Web of Science as well as additional resources including financial inclusion-specific institutions and web portals²³, repositories of multilateral and bilateral and non-governmental donor organizations²⁴, and other research institutions and research networks²⁵. After completing the screening process, we ran citation searches on included meta-studies in Google Scholar, Scopus and Web of Science to identify more recent systematic reviews and or meta-analyses not retrieved in database searches. In addition, we adopted a snowballing (also called reference harvesting) approach to ensure we had not missed any key systematic reviews and or meta-analyses. We also consulted our advisory board²⁶ and approached leading authors²⁷ working on financial inclusion topics to double check that we did not miss out on any relevant ongoing studies.

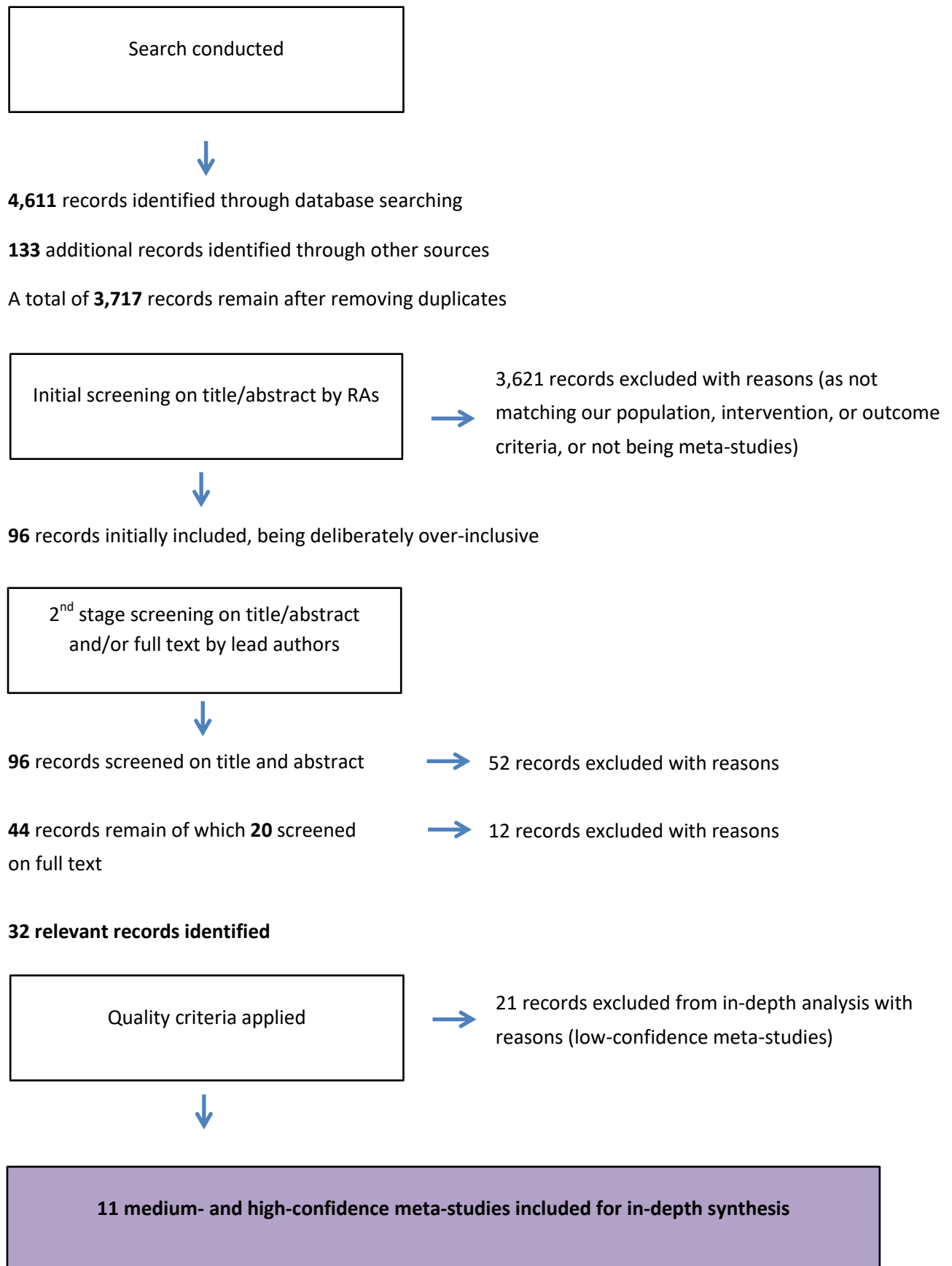
3.3 *Search results*

As shown in Figure 2, we identified 4,611 records from searching 7 bibliographic databases. An additional 133 records were identified by trawling through websites of financial inclusion-specific institutions and research networks. After removing duplicates, 3,717 records were screened by research assistants independently by title and abstract, which resulted in removing 3,621 records, leaving 96 records to be screened by the lead authors. Of these 96 records, 52 were excluded based

on title and abstract screening. 20 records required full text review, which led to exclusion of an additional 12 studies, i.e. a total of 64 studies were excluded, leaving a final sample of 32 studies for data extraction – see Figure 2 below (more details in the technical report especially on reasons for exclusion of studies, see Duvendack and Mader, 2019).

After the search and screening process, a quality appraisal was conducted (described in the next section), which disaggregated the sample of 32 included studies by levels of confidence.

Figure 2: PRISMA flow diagram



4. Assessment of methodological quality

The quality of the included meta-studies was assessed using the 3ie critical appraisal checklist²⁸ and the 'A Measurement Tool to Assess systematic Reviews' (AMSTAR 2). We identify 11 medium- and high-quality meta-studies and 21 low-quality meta-studies (Table A1 in the Appendix provides a brief summary of all 32 studies).

The 3ie checklist has four sections and the AMSTAR 2 tool has 16 criteria²⁹; in both tools, each section/criterion is given a rating: 'yes', 'partial yes' or 'no', allowing the user to make a broad assessment of the quality of the included meta-studies. Shea et al. (2017) note, however, that there is an element of subjectivity in using the AMSTAR 2 tool, which requires users to exercise their own judgement in making final decisions on the quality of systematic reviews. AMSTAR 2 emphasises formal elements of methods and analysis over other potentially important aspects such as content, thematic importance, or wider contribution to the literature, and thus could lead to exclusion of nonetheless important or useful reviews. The element of subjectivity was part of the reason for using another tool to corroborate and complement the findings of AMSTAR 2. There is a degree of overlap between AMSTAR 2 and the 3ie critical appraisal checklist (see Table A2 in the appendix for a side-by-side comparison of both tools), but also some difference, especially in relation to assessing whether reviews analysed the intervention's causal chain. Given the importance of unpacking causal mechanisms to understand how, why and for whom an intervention works, we adapted the 3ie checklist to include criteria that relate to the explicit use of theory in meta-studies and to what extent an analysis of the causal chain is undertaken.

In terms of decision rules, we class as medium-low or medium-quality those meta-studies that were classed as at least "moderate quality" using the AMSTAR 2 tool *or* "medium quality" using the adapted 3ie checklist (8 studies). We class as medium-high or high-quality or those meta-studies that were classed as "high quality" by at least one of the tools (3 studies). Further details can be found in

the technical report (Duvendack and Mader, 2019). Table 1 presents the 11 included studies that were classified as high- and medium-confidence, while the remaining 21 studies achieved a low confidence rating. If a particular meta-study is categorised as low quality, or low confidence, according to AMSTAR 2 or the 3ie tool, this does not necessarily mean that it does not substantially contribute to the discussion of financial inclusion impacts. But it does mean that the evidence for it meeting certain 'critical domains' (Shea et al. 2017:5) that affect the validity of reviews and its conclusions was too limited for us to treat it with high confidence.

Table 1: Quality assessment of meta-studies included for in-depth review

No	Study	Synthesis approach	AMSTAR 2	3ie tool	Final decision	Journal or Publisher / Google Scholar citations ³⁰
1	Chliova et al. 2015	Meta-analysis	Critically low confidence	Medium confidence	in (med-low)	Journal of Business Venturing / 88
2	Gopalswamy et al. 2016	Meta-analysis	Moderate confidence review	Low confidence	in (med-low)	EPPI-Centre, Institute of Education, University of London / 11
3	Kennedy et al. 2014	Narrative synthesis	Critically low confidence	Medium confidence	in (med-low)	Aids Care / 63
4	Orton et al. 2016	Narrative synthesis	Moderate confidence review	Low confidence	in (med-low)	Bulletin of the World Health Organization / 26
5	Peters et al. 2016	Narrative synthesis	Low confidence	Medium confidence	in (med-low)	EPPI-Centre, Institute of Education, University of London / 5
6	Stewart et al. 2010	Narrative synthesis	Critically low confidence	Medium confidence	in (med-low)	EPPI-Centre, Institute of Education, University of London / 200
7	Duvendack et al. 2011	Narrative synthesis	Moderate confidence review	Medium confidence	in (med)	EPPI-Centre, Institute of Education, University of London / 479
8	Stewart et al. 2012	Narrative synthesis	Moderate confidence review	Medium confidence	in (med)	EPPI-Centre, Institute of Education, University of London / 121
9	Brody et al. 2015	Meta-analysis	Moderate confidence review	High confidence	in (med-high)	3ie Systematic Review / 79
10	Steinert et al. 2018	Meta-analysis	High confidence review	High confidence	in (high)	World Development / 23
11	Vaessen et al. 2014	Meta-analysis	High confidence review	High confidence	in (high)	Campbell Systematic Review / 73

As a final note on quality of the meta-studies, we should point out some discrepancies in the results of the ratings of the AMSTAR 2 and 3ie tools. For instance, the studies by Chliova et al. (2015) and Stewart et al. (2010) achieved a critically low rating in AMSTAR 2, but a medium-confidence rating on the 3ie checklist. Where this type of discrepancy was the case, we accept the decision of the tool with the higher, more positive, rating, and assign it – as in the cases of Chliova et al. (2015) and Stewart et al. (2010) – a final label of ‘medium-low’ confidence.

While the quality assessment at the systematic review level is important, we must also be aware of the quality of the primary evidence that underlies the 11 medium- and high confidence-reviews. 64 percent of the medium- and high-confidence reviews indicate that they were forced by limitations of the available evidence to include at least some low-quality primary evidence. For example, Brody et al. (2015) note that

“both the quantitative and the qualitative primary studies suffered from limitations related to their quality” (p. 36).

Duvendack et al. (2011) go so far as to say that

“almost all impact evaluations of microfinance suffer from weak methodologies and inadequate data [...] This can lead to misconceptions about the actual effects of a microfinance programme, ...” (p. 4).

Finally, Steinert et al. (2018) conclude that

"unreliable or biased results may lead to erroneous conclusions" (p. 242).

These quotes show that there are major concerns in relation to the quality of the primary evidence that informed the findings of the medium- and high-confidence meta-studies. To put it differently: Combining a wide range of low quality studies into systematic reviews to aggregate their findings is risky. When done without adequate consideration for the biases and weaknesses arising from the

base of studies, it becomes analogous to what some financial institutions did in the run-up to the 2008 financial crisis, when they pooled dubious individual assets (such as sub-prime mortgages and loans) into “triple-A” structured financial products with only seemingly better aggregate results. The result is greater confidence than was warranted by the underlying base and a shaky overall product. The uncertainty about the quality of the underlying evidence base – and the debatability of many papers’ methods – is worth keeping in mind when assessing the overall reliability of the findings presented by the 11 medium- and high-confidence reviews (discussed in the next section; further details on the differences between low-, medium- and high-confidence studies can be found in the technical report, Duvendack and Mader 2019).

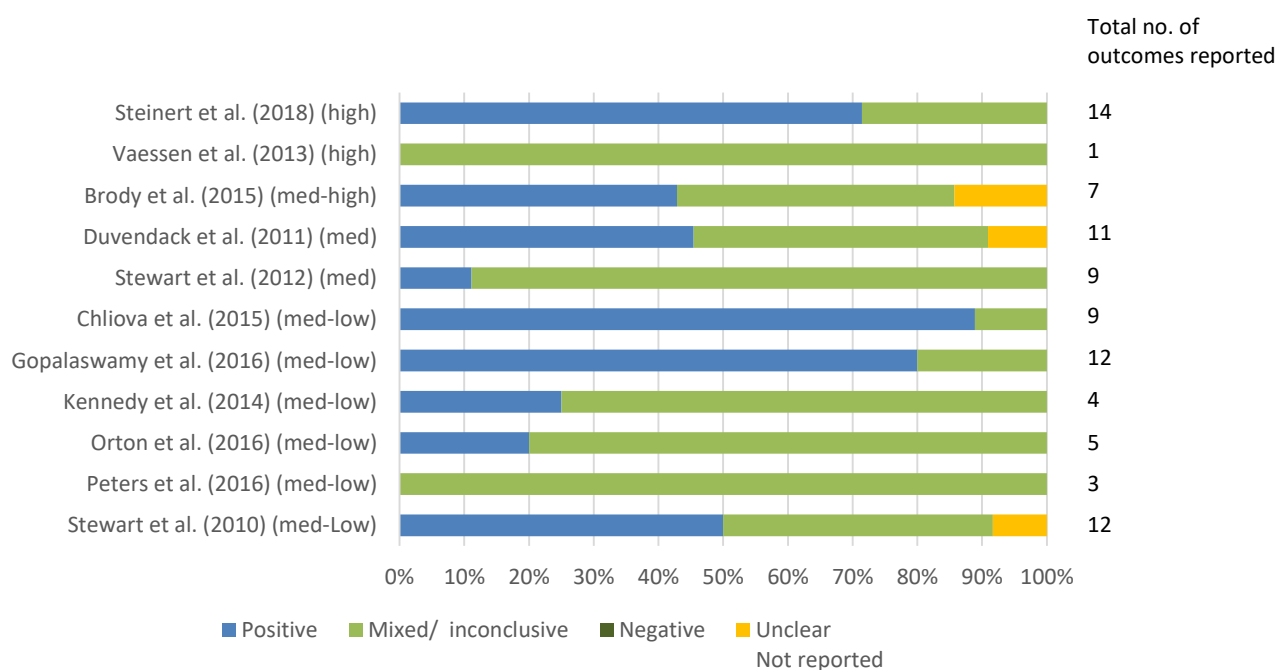
5. Results

Our synthesis focuses on the 11 medium- and high-confidence studies, of which 8 synthesised only quantitative research, two synthesised both qualitative and quantitative data (Brody et al. 2017, Stewart et al. 2010) and one synthesised purely qualitative data (Peters et al. 2016). Table A3 in the Appendix presents the summary headline findings for each of these 11 meta-studies. Figure 3 groups the reported outcomes by direction.

A simplistic reading of the results summaries in Table A3 and Figure 3 would suggest an overall positive, if mixed, set of findings. Nearly half (five of 11) included meta-studies come to generally positive conclusions about the relationship between financial services access and positive changes for poor people (Brody et al. 2015, Chliova et al. 2015, Gopaldaswamy et al. 2016, Orton et al. 2016, Steinert et al. 2018). The other six come to mixed, neutral, or no conclusions about impact, and none conclude that the evidence suggests an overall negative effect of financial inclusion interventions. At the same time, the information in Table A3 points to very high levels of heterogeneity between the results of different interventions in terms of different outcomes for different people and in different contexts. There are heterogeneous and inconsistent findings reported within the meta-studies (e.g.

Stewart et al. 2010, Steinert et al. 2018) as well as across different meta-studies (for instance Chliova et al. 2015 and Vaessen et al. 2014 reach divergent conclusions in terms of women’s empowerment). No results are found for macro-structural outcomes.

Figure 3: Distribution of reported types of outcomes by direction of the outcome, ordered by quality of reviews



Notes: Negative or positive effects are always statistically significant, while mixed/inconclusive effects can be positive or negative, but they are always statistically insignificant. Steinert et al (2018) and Vaessen et al (2013) are high quality, Brody et al (2015), Stewart et al (2012) and Duvendack et al (2011) are medium quality, and the remaining studies are medium/low quality.

The bulk of reported findings in the literature regarding impacts are positive, with few negative ones. In total 87 outcomes were reported across the studies, as outlined in Figure 3, of which 43 were positive, 0 negative, 39 mixed/inconclusive (positive or negative but none of them statistically significant) and 5 unclear/not reported as positive or negative.³¹ This preponderance of positive outcomes should be taken with caution, due to the low quality of some of the underlying primary evidence that informs the findings. To provide more detail, in what follows, we cluster the quantitative and qualitative findings of the studies by four outcome categories³² - economic, social, behavioural and gender outcomes, as set out in the theory of change (Figure 1) - and where possible,

in presenting our results, differentiate between lower-order and higher-order outcomes along the causal chain.

5.1. *Economic outcomes*

According to the theory of change, it is assumed that poor people use and combine different financial services for various ends. They can use them to gain access to new income sources or enhance existing ones, to save more money, to invest in assets, to sustainably consume more goods, or to cope with shocks.

Overall, we find that the effects of financial inclusion interventions on economic outcomes are positive but inconsistent and not particularly large. In terms of lower-order outcomes, there is some evidence of relatively small positive effects on family enterprise growth and profits from microcredit and savings (Chliova et al. 2015; Steinert et al. 2018), but this is mitigated by mixed findings in other studies (Stewart et al. 2010, 2012). Microcredit and microfinance had no clear effect on overall labour supply (Gopaldaswamy et al. 2016; Stewart et al. 2012). The evidence for lower costs for households and improved consumption-smoothing thanks to financial inclusion remained unclear (Peters et al. 2016; Stewart et al. 2010, 2012), although some evidence suggested that financial access helped gain additional sources of income that could dampen seasonal variations (Gopaldaswamy et al. 2016).

In terms of higher-order outcomes: overall evidence for positive or negative effects from most types of financial service on incomes was generally weak, with some meta-studies indicating positive but not significant effects of microcredit (Gopaldaswamy et al. 2016) and others finding mixed and varied effects (Stewart et al. 2010, 2012). Only savings were found to lead to small but significant increases in incomes (Steinert et al. 2018). Evidence on asset accumulation tended to be positive, with positive effects found from microcredit on land and livestock ownership, but based on relatively weak evidence (Gopaldaswamy et al. 2016), and the effects of microcredit and microsavings on non-

financial asset accumulation tended to be positive, but were highly heterogeneous and sometimes also negative, across people and places (Peters et al. 2016; Stewart et al. 2010, 2012). In terms of “financial well-being”, the effects of microcredit were found to be positive (Chliova et al. 2015) and the effects of microfinance overall were found to be inconclusive (Duvendack et al. 2011), in both instances based on less-reliable evidence. Effects of microfinance and microcredit on consumption expenditure were mostly positive and significant (Chliova et al. 2015; Gopaldaswamy et al. 2016; Stewart et al. 2010), though in some cases also negative (Stewart et al. 2012). With the exception of the positive effects attributable to savings accumulation (Steinert et al. 2018), however, as already noted in discussing the theory of change, it remained unclear whether rises in expenditure are necessarily indicators of positive or negative change (Stewart et al. 2010, 2012).

Credit and other financial services delivered through microfinance programming thus appear to have overall positive but decidedly mixed impacts, in terms of both lower- and higher-order outcomes. The picture for microsavings looks more hopeful, suggesting small but more consistently positive effects, especially on savings accumulation and incomes (but not on non-financial asset accumulation), with fewer downsides for clients compared to microcredit. Having said that, Stewart et al. (2012) indicate that microsavings do not enable the poor to engage in economic opportunities, but they also support the view that in some cases an increase in income, savings, expenditures and the accumulation of non-financial assets is observable.

5.2. *Social outcomes*

We have collected under the heading of social outcomes the gamut of beneficial outcomes that are not strictly economic or gender-related. In the meta-studies that we reviewed, these fell into three broad categories: social-relational (strengthening of social ties, community bonds), access to beneficial services (such as water or schooling), and health (physical health, nutrition, mental & psychological health).

Overall, in comparison to the effects for economic outcomes, it appears that the effects for social outcomes are even smaller and more mixed. The included meta-studies had few findings on social-relational outcomes, and an absence of studies on social cohesion was noted (Stewart et al. 2010). Two meta-studies found the evidence base on social outcomes too unreliable and contradictory to draw conclusions from (Gopaldaswamy et al. 2016; Duvendack et al. 2011). However, others found that networking experiences gained through participation in SHGs represented a significant positive change for women (Brody et al. 2015) and that participation in microfinance programmes with explicit solidarity-building components may help women build social support networks (Peters et al. 2016). Effects on education access were inconclusive; there were no effects from savings promotion (Steinert et al. 2018), but small positive effects from microfinance and microcredit as well as harmful negative effects that could offset these (Chliova et al. 2015; Gopaldaswamy et al. 2016; Stewart et al. 2010). No meta-studies assessed access to other services, such as water, sanitation, or electricity.

Physical health outcomes from accessing savings or microfinance programmes tended to be positive but small and unreliable within and across meta-studies, and effects more likely to be on health-related behaviours (lower-order outcomes) rather than health outcomes (Chliova et al. 2015; Steinert et al. 2018; Stewart et al. 2010). Participation in group-based microfinance targeting women may improve maternal health and infant health, but not women's general health or nutrition (Orton et al. 2016). Effects on nutrition were mixed, with positive but very small effects on nutrition and food security from microcredit (Chliova et al. 2015; Stewart et al. 2010) and from savings promotion (Steinert et al. 2018), but also no effects from microsavings (Gopaldaswamy et al. 2016) and mixed positive and negative effects from microfinance overall (Stewart et al. 2012). Positive effects on HIV-related outcomes from participation in microfinance programmes were limited to health knowledge and some health behaviours, but none were found on HIV outcomes (Kennedy et al. 2014). In terms of mental health and psychological well-being (which we would class as higher-order outcomes), the

evidence was mixed and inconclusive (Brody et al. 2015; Orton et al. 2016; Gopaldaswamy et al. 2016; Peters et al. 2016).

5.3. *Gender outcomes*

Microfinance programmes, particularly in South Asia, have a history of targeting women and aiming for women's empowerment, but in theory all financial services could affect gender relations in a number of complex and interrelated ways. In discussing gender results, we make no distinction between lower- and higher-order gender outcomes, as explained in Section 3, because any such distinction would entail highly subjective value judgments.

All 11 meta-studies took an interest in gender and women's empowerment in one way or another, and two explicitly were focused on women's empowerment (Brody et al. 2015, Vaessen et al. 2013), overall showing positive albeit quite small effects. The gendered effects of specifically gender-targeted programme elements generally were found to be larger than those of the actual financial service (Chliova et al. 2015; Peters et al. 2016): the main enablers of empowerment effects appeared to be gendered group interactions, opportunities to leave the house, and exposure to additional rights-related training. The effects also strongly depended on contextual circumstances, such as existing gender norms.

A number of studies evaluated women's empowerment in an aggregated way. Of the two meta-studies that focused explicitly on women's empowerment, one reviewed the effects of microcredit overall and the other the effects specifically of participating in SHGs. No clear evidence was found for effects from microcredit on women's control over household resources or on empowerment processes in a broader sense (Vaessen et al. 2013). Women's participation in SHGs, however, was found to increase their decision-making, mobility, self-confidence, and respect among community members (Brody et al. 2015). Other studies found significant positive effects of microcredit access on women's decision-making and broader empowerment (Chliova et al. 2015; Orton et al. 2016), but

yet others found no clear or robust evidence for this (Duvendack et al. 2011; Gopaldaswamy et al. 2016) or only inconsistent evidence (Stewart et al. 2010). In general, the meta-studies suffered from sometimes unclear definitions, noting problems with divergent conceptualisations and methodologies regarding women's empowerment in the underlying primary research (Stewart et al. 2010; Vaessen et al. 2013).

The effects, more specifically, on women's economic status from microfinance (Gopaldaswamy et al. 2016), from microcredit (Vaessen et al. 2013), and from savings promotion (Steinert et al. 2018) were mixed or inconclusive; only one meta-analysis found heterogeneous but overall positive and significant effects from women's participation in SHGs (Brody et al. 2015). In terms of women's family planning, sexual decision-making and contraceptives usage, the evidence for effects from participating in different types of microfinance programming was mixed and inconclusive (Brody et al. 2015; Gopaldaswamy et al. 2016; Kennedy et al. 2014; Orton et al. 2016). Likewise, for domestic violence there was no clear evidence of effects in either direction from accessing different forms of microfinance and microcredit (Brody et al. 2015; Kennedy et al. 2014; Peters et al. 2016; Vaessen et al. 2013). Some evidence suggested that effects may be sequential, with initially higher levels of violence being followed by lower violence (Brody et al. 2015; Kennedy et al. 2014; Orton et al. 2016).

5.4. *Behavioural outcomes*

In terms of behavioural outcomes, which may be driven by enhanced financial knowledge and capabilities, changes in preferences and habits over time, or particular service designs to help users overcome behavioural or cognitive constraints, we were surprised to find a general lack of findings and even relatively little attention paid in the meta-studies we reviewed. While a number of intricate and complex findings regarding behaviours emerged, none suggested consistently significant positive or negative changes or effects further along the causal chain (i.e. higher-order impacts from behavioural changes).

Notwithstanding the relatively weak and unclear evidence on changes in overall consumption levels and the ambiguity of such changes (noted above), changes to spending composition might be taken to represent important effects at an early stage of the causal chain. However, the evidence for such effects was mixed and inconclusive, with many different effects occurring in different places for different populations, with varying magnitudes and directions of effect. Microfinance in South Asia led to inconsistent and unclear patterns of changes in spending composition (Gopaldaswamy et al. 2016), and microsavings significantly increased spending on food and personal items in some countries and for some clients, but reduced it for others in other countries (Stewart et al. 2012). Some changes to spending patterns suggested microcredit could lead to clients becoming poorer through consuming more and investing less (Stewart et al. 2010). No support was found for the hypothesis that “tying one’s hands” with behavioural constraints such as purpose-labelled accounts or peer pressure led to more positive effects from savings programmes (Steinert et al. 2018). There were no strong or clear findings regarding increased entrepreneurship propensity from microsavings or microcredit (Stewart et al. 2012), despite some evidence (noted above) that microcredit led to enterprise growth (Chliova et al. 2015). No evidence suggested significant results from financial literacy and capability programming in terms of changing behaviours or increasing knowledge and confidence, or delivering positive effects further along the causal chain (Brody et al. 2015; Steinert et al. 2018).

5.5. *Summary of findings*

Table 2 below summarises the findings of the 11 medium- and high-quality meta-studies, while highlighting the quantitative meta-analysis findings on the right side of the table (we also present a quantitative synthesis of the included meta-analyses in a supplementary online appendix). The table is structured by four outcome categories as highlighted in this section. The meta-analysis findings for economic outcomes such as incomes and assets or spending show small and inconsistent effects, while the findings for access to savings opportunities also indicate small but much more consistently

positive effects. The meta-analysis findings for women's empowerment appear to be generally positive, but these are confounded by difficulties in relation to conceptualising and measuring empowerment. The meta-analysis results for social outcomes such as health status and education are small or non-existent, and there is no evidence for meaningful behaviour-change outcomes across any of the studies we reviewed. Overall, findings across the reviews were heterogeneous and often inconsistent, both within and across reviews, and many reviews did not find evidence of expected or presumed impacts.

Table 2: Summary of findings

Outcome	Reviews	Quality of the review	Financial inclusion category	Direction	Meta-analysis	Specific outcome	Sample size (No. of studies)	Effect size	Confidence Interval (CI 95%)		Type of effect size
Economic											
<i>Lower-order/intermediate outcomes</i>											
Savings amount	Stewart et al. (2012)	Medium	Microfinance in general	Inconclusive	No						
	Stewart et al. (2010)	Med-low	Microcredit & microsavings	Positive	No						
	Steinert et al. (2018)	High	Microsavings	Positive	Yes	Savings balance	18	0.077	0.03	0.12	SMD
				Insignificant		Propensity to save	4	0.061	-0.02	0.09	SMD
<i>Higher-order/final outcomes</i>											
Assets/wealth	Gopaldaswamy et al. (2016)	Med-low	Microfinance in general	Positive	Yes	Financial assets	6	0.258	0.093	0.425	SMD
	Stewart et al. (2012)	Medium	Microfinance in general	Inconclusive	No		3				
	Stewart et al. (2010)	Med-low	Microcredit & microsavings	Positive	No		17				
	Steinert et al.	High	Microsavings	Insignificant	Yes	Housing assets	9	0.038	-0.01	0.09	SMD

	(2018)				Insignificant		Lumpy' investment	9	0.045	0.00	0.09	SMD
Income	Gopaldaswamy et al. (2016)	et al.	Med-low	Microfinance in general	Insignificant	Yes		11	0.067	-0.093	0.226	SMD
	Chliova (2015)	et al.	Med-low	Microcredit	Positive but small	Yes		6	0.11	0.02	0.19	PCC
	Stewart (2010)	et al.	Med-low	Microcredit & microsavings	Inconclusive	No		5				
	Steinert (2018)	et al.	High	Microsavings	Positive	Yes	Microenterprise profits	7	0.044	0.02	0.07	SMD
					Positive		Wage work income	11	0.066	0.02	0.12	SMD
Social												
Services: education	Gopaldaswamy et al. (2016)	et al.	Med-low	Microfinance in general	Positive	Yes		5	0.044	0.015	0.072	SMD
	Stewart (2010)	et al.	Med-low	Microcredit & microsavings	Inconclusive	No						
	Steinert (2018)	et al.	High	Microsavings	Insignificant	Yes	School enrolment	3	0.059	-0.18	0.3	OR
	Chliova (2015)	et al.	Med-low	Microcredit	Positive but small	Yes		24	0.05	0.02	0.08	PCC
Health: nutrition	Stewart (2010)	et al.	Med-low	Microcredit & microsavings	Positive	No						
	Chliova (2015)	et al.	Med-low	Microcredit	Positive but small	Yes	Health & nutrition	42	0.08	0.04	0.11	PCC

	Orton et al. (2016)		Med-low	Microcredit	Inconclusive	No							
Health: physical	Stewart et al. (2010)		Med-low	Microcredit & microsavings	Positive	No							
	Orton et al. (2016)		Med-low	Microcredit	Positive	No							
Gender													
Women's social status	Brody et al. (2015)		Med-high	Self-help groups	Insignificant	Yes	Women's size making	6	0.25	-0.03	0.54	SMD	
					Positive	Yes	Women's mobility	3	0.18	0.06	0.31	SMD	
	Vaessen et al. (2013)		High	Microcredit	Positive	Yes	Women's control over HH spending in Bangladesh	6	0.124	0.021	0.226	SMD	
					Insignificant	Yes	Women's control over HH spending elsewhere	8	0.013	-0.057	0.082	SMD	
Women's empowerment	Gopaldaswamy et al. (2016)		Med-low	Microfinance in general	Positive	Yes		6	0.028	0.005	0.052	SMD	
	Stewart et al. (2010)		Med-low	Microcredit & microsavings	Inconclusive	No							
	Chliova et al. (2015)		Med-low	Microcredit	Positive	Yes		26	0.21	0.14	0.27	PCC	
	Kennedy et al.		Med-low	Microcredit	Inconclusive	No							

(2014)

Brody et al. (2015)	Med-high	Self-help groups	Insignificant	Yes	Women's psychological empowerment	2	0.02	-0.21	0.26	SMD
			Positive	Yes	Women's political empowerment	2	0.19	0.01	0.36	SMD
			Positive	Yes	Women's economic empowerment	7	0.18	0.05	0.31	SMD
			Insignificant	Yes	Domestic violence	2	0.07	-0.06	0.2	SMD

Behavioural

Health behaviour	Kennedy et al. (2014)	Med-low	Microcredit	Inconclusive	No						
	Orton et al. (2016)	Med-low	Microcredit	Positive	No						
Spending patterns	Steinert et al. (2018)	High	Microsavings	Insignificant	Yes	Education investment	6	0.009	-0.03	0.05	SMD
				Insignificant	Yes	Health investment	5	0.01	-0.01	0.03	SMD

Notes: Brody et al (2015): Effect sizes correspond to randomised controlled trial and medium risk of selection bias quasi-experimental studies. This table has been adapted from Waddington et al (2014) and is inspired by GRADE. SMD = Standardised mean difference, PCC = Partial correlation coefficient, OR = Odds ratio.

5.6. *Evidence gaps*

During the in-depth synthesis of the 11 medium- and high-quality meta-studies, a number of evidence gaps became apparent:

(1) None of the meta-studies we reviewed assessed debt levels or indebtedness patterns. While some, in their discussion of results, noted that expanded access to credit could lead to vicious cycles of debt (Stewart et al. 2010; Stewart et al. 2012) or reviewed clients' negative perceptions of debt (Peters et al. 2016), none of the reviews actually assessed debt levels or trajectories as an outcome of financial inclusion. Debt remains a key driver of risks from financial inclusion interventions, yet is one of its least systematically studied facets.

(2) We found no evidence on the service/amenities-related impacts of financial inclusion beyond education; such as water credit, sanitation loans, or loans for micro solar systems, areas which have grown rapidly in recent years. Especially the notion of 'Green Microfinance', where microfinance is used to promote environmental sustainability, has not been explored in meta-studies.

(3) We also found no evidence for the claim that financial inclusion interventions lead to macroeconomic development that in turn improves the lives of the poor in low- and middle-income countries (macro-structural impact channel). None of the studies in our sample examined the causal link between the development of an inclusive financial sector and economic growth.

(4) Given that financial inclusion impacts are more likely to be found at the early stages of the causal chain, there is a need for studies to better capture long-term effects and demonstrate more meaningful impacts, especially at the final stages of the causal chain. The design of most studies underlying the meta-studies that we reviewed was not conducive to establishing whether short-term or immediate outcomes (such as financial knowledge or entrepreneurial propensity) translated into intermediate outcomes (such as savings accumulation or microenterprise income) and especially more distal, transformative outcomes (higher net worth or higher incomes). The vast

majority of these studies had a duration of 1 to 3 years, making them likelier to find changes in behaviours or attitudes rather than structural changes to people's poverty status. It is not safe to assume that the latter will result from the former.

(5) We also need more studies that understand impact heterogeneity. In other words, the meta-studies often found heterogeneous effects but few were able to successfully unpack the drivers of heterogeneity. For instance, impacts were not sufficiently disaggregated by ethnicity, poverty status, etc. Heterogeneous effects can mean that, although some households experience positive changes from accessing financial services, others may be falling deeper into poverty.

(6) We found no systematic reviews or meta-analyses of (micro)insurance products to review, despite an underlying rigorous study base existing. Stewart et al (2012) attempted to include micro-insurance in their review, but found insurance services to be too recent developments for an adequate evidence base to exist. We had to exclude one meta-study on the effectiveness of index-based weather insurance as low quality during the assessment of methodological quality (Cole et al. 2012). The evidence regarding the impacts of the different types of insurance offered to poor people in financial inclusion programming would be an opportunity for a high-quality, up-to-date systematic review or meta-analysis.

(7) No meta-studies were found that explicitly focus on digital inclusive financial services, including payments services, or fintech. This is likely due to the relative newness of this mode of service delivery. Here, too, lies an opportunity for a high-quality meta-study that might take a comparative approach against other (brick and mortar) modes of financial service delivery.

6. Conclusion

This systematic review of reviews has taken the evolution of the financial inclusion impact literature toward a natural conclusion, with a higher level of evidence systematisation, to provide an overview of what has become an increasingly perplexing array of meta-studies that each offer partial

overviews. By reviewing these reviews, we have drawn on what is likely the largest-ever evidence base on the impacts of financial inclusion interventions, and have uncovered strengths, gaps and weaknesses of the existing high-level evidence.

6.1. Synthesis

The picture that emerged about financial inclusion is that its impacts are, contrary to many policymakers' expectations – not least in and around the World Bank (cf. World Bank 2014) – not “transformative” (cf. Demirgüç-Kunt et al. 2018; Martin and Hill 2015; UNSGSA 2017). On average, financial services may not even have a meaningful net positive effect on poor or low-income users, although some services have some positive effects for some people; particularly savings services, we found, have more consistently positive effects.

A rigorous assessment of the meta-study evidence on financial inclusion impacts led us to find effects that often varied, that were more likely to be positive than negative, but that also largely occurred in the early stages of the causal chain. This casts doubts on claims that the impacts of financial inclusion may be transformative or wide-ranging. The effects we found further along the causal chain (on indicators such as incomes or assets) were very small and not consistent across study samples and programmatic contexts or types of interventions. The lack of consistent findings regarding enterprise growth and entrepreneurship propensity lends some credence to the turn away from microenterprise promotion in initiatives for financial inclusion; here, the effects are mixed, even at the early stages of the causal chain. The effects of financial services on women's empowerment seem to be an exception from the mixed picture, with generally positive outcomes recorded by most meta-studies, but again, these effects being small, and most often attributable to non-financial programme features (such as exposure to women's rights education and training). Moreover, they were highly dependent on how empowerment was conceptualised and measured, which was not consistent across studies.

One promising aspect we discovered, however, relates to accessing savings opportunities. The effects may be small, but they are more consistently positive than the other effects we found. Saving money is conceptually very different from other financial services, in particular loans, as it brings far fewer downside risks for the users. It is easy for users to understand and manage and, ideally, should even pay the user money (interest), or at least cost users nothing. An opportunity to save money thus may be the most important aspect of financial inclusion for poor and low-income people, even if for the service provider it is often the least-profitable aspect (cf. Mader 2016: 18-19).

Quality concerns at the meta-study as well as the primary study levels lead us to caution against reading too much into the effects reported in some meta-studies, as doubts remain about the confidence that one can place in the findings. This discouraging picture reflects what Petticrew (2003) calls the “‘stainless steel’ law of systematic reviews”, where higher levels of rigour in the review process generally lead to finding less evidence in favour of the intervention under investigation.

6.2. *Policy implications*

Considering that, for most people, financial services (which ones they can access, and how they use them) will be only one among many possible determinants of their life chances and their socio-economic well-being, findings of limited and not transformative impacts ought not to be unexpected. We anticipate that they will be even confirmed by future research. The large heterogeneity of effects of different services on different people in different places cautions against policies that simplistically emphasise “universal” financial inclusion. Parts of the policy community have accepted that different financial services have different effects and now largely embrace saving and payments, while being more cautious regarding credit.³³ But new digital payment platforms also often serve as delivery devices for problematic forms of credit. For policy and practice, therefore, we suggest the heavy emphasis still placed by many donors and international organisations on financial inclusion as a whole needs to be reduced. To the extent that financial inclusion programming

continues, efforts should be focused on improving access to savings opportunities, which have few downside risks and the clearest positive impacts.

Our findings chime in with an emerging realism around microfinance – the intervention that gave birth to the more recent financial inclusion phenomenon in developing countries –, not least in the donor and policy community. We welcome this newfound realism. But we also see a new hype and strong claims emerging around the more encompassing notion of financial inclusion as a policy goal, with its claim of marrying macro-structural economic improvements with micro-level poverty relief. Microfinance is now just one among an increasing variety of interventions for greater financial inclusion, including ever more digital channels of service delivery, yet we found no evidence corresponding to the wider claims made for the beneficence of financial inclusion, as offering poor people better services, or as having more transformative individual or broader macro-structural effects, than microfinance services do. This is in part due to a lack of review-level evidence on the impacts of payments services. We would strongly caution against repeating the hype cycle that unfolded for microfinance in the 1990s and 2000s, this time around a more encompassing idea of financial inclusion. The same applies to current enthusiasm around fintech for development (cf. Gabor and Brooks 2017). None of our findings bear out claims, such as those made by the AFI, that financial inclusion has a “critical importance [to] empowering and transforming” lives, “improving national and global financial stability” and generating “strong and inclusive growth”.³⁴ Such rhetoric needs to be scaled back.

The policy and research space – and ultimately poor and low-income people themselves – will benefit from a more open and clear-sighted discussion of financial inclusion and the many valid alternatives to it. Among the closest alternatives are graduation and livelihoods-enhancement programmes, which also focus on livelihood security and income generation, while delivering more comprehensive and context-specific forms of assistance. Complemented by, or incorporating, financial inclusion efforts, especially savings-led ones, these may have the greatest effects. Among

the wider alternatives are cash transfer programmes, which many governments have implemented at low cost in recent years. We need stronger, comparative evidence on these strategies and their impacts, too.

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Appendix

Appendix 1:

Table A1: Summary of included studies

11 medium- and high-quality studies

Authors	Year	Source	Type of review	Geographic focus	Broad outcome categories	Quality	Participants	<u>Financial inclusion category</u>					
								Micro-credit	Micro-insurance	Micro-savings	CBSGs	Micro-finance	no or primary studies
Steinert et al.	2018	Peer-reviewed journal	Systematic review & Meta-analysis	Sub-Saharan Africa	Economic, social and behavioural	High	Household, individual, microenterprise			X			27
Vaessen et al.	2013	Final report	Systematic review & Meta-analysis	Global	Gender	High	Individual	X					25
Brody et al.	2015	Final report	Systematic review & Meta-analysis	Global	Gender	Med-high	Individual, group				X		34
Stewart et al.	2012	Working paper	Systematic review	Global	Economic	Med	Household, individual	X		X		X	17
Duvendack et al.	2011	Technical report	Systematic review	Global	Economic, social, gender and mixed	Med	Household, individual, microenterprise	X				X	58

Orton et al.	2016	Peer-reviewed journal	Systematic review	Global	Social, gender and behavioural	Med-low	Household, individual	X			X	X	31
Gopaldaswamy et al.	2016	Working paper	Systematic review & Meta-analysis	South Asia	Economic, social and gender	Med-low	Household, individual, microenterprise	X	X	X	X	X	69
Peters et al.	2016	Technical report	Systematic review	South Asia	Economic, social and gender	Med-low	Household, individual, Communities	X	X	X	X		20
Stewart et al.	2010	Technical report	Systematic review	Sub-Saharan Africa	Economic, social and gender	Med-low	Household, individual, microenterprise	X		X			15
Chliova et al.	2015	Peer-reviewed journal	Systematic review & Meta-analysis	Global	Economic, social and gender	Med-low	Household, individual, microenterprise	X					90
Kennedy et al.	2014	Peer-reviewed journal	Systematic review	Global	Gender and behavioural	Med-low	Individual	X			X	X	12

21 low-quality studies

Authors	Year	Source	Type of review	Geographic	Broad outcome	Quality	Participants	<u>Financial inclusion category</u>				
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				focus	categories			Micro-credit	Micro-insurance	Micro-savings	CBSS	Micro-finance	No of primary studies
Habib et al.	2016	Peer-reviewed journal	Systematic review	Global	Economic, social and behavioural	Low	Household individual		X				23
Lorenzetti et al.	2017	Peer-reviewed journal	Systematic review	Global	Social and behavioural	Low	Household individual	X	X		X	X	35
Cole et al.	2012	Technical report	Systematic review	Global	Behavioural	Low	Household individual		X				13
Maïtrot & Niño-Zarazúa	2017	Working paper	Systematic review	Unclear	Economic	Low	Household individual microenterprise village					X	54
Pande et al.	2012	Working paper	Systematic review	Global	Economic	Low	Household individual microenterprise			X			12
Apostolakis et al.	2015	Peer-reviewed journal	Systematic review	Global	Economic and social	Low	Household individual program/institution		X				64
Arrivillaga & Salcedo	2014	Peer-reviewed journal	Systematic review	Global	Social	Low	Household individual	X		X		X	14

Reshmi et al.	2017	Peer-reviewed journal	Systematic review	South Asia	Behavioural	Low	Household individual		X		20
Awaworyi Churchill et al.	2016	Peer-reviewed journal	Systematic review & Meta-analysis	South Asia	Economic	Low	Household individual	X			8
Awaworyi Churchill	2015	Book chapter	Systematic review & Meta-analysis	Global	Gender	Low	Individual	X	X	X	7
Madhani et al.	2015	Peer-reviewed journal	Systematic review	South Asia	Gender and social	Low	Individual			X	12
Marr et al.	2016	Peer-reviewed journal	Systematic review	Global	Behavioural	Low	Individual		X		45
O'Malley & Burke	2017	Peer-reviewed journal	Systematic review	Unclear	Social, gender and behavioural	Low	Household individual	X		X	41
Awaworyi Churchill	2014	Working paper	Systematic review & Meta-analysis	Global	Economic	Low	Household individual microenterprise	X			25
Gammage et al.	2017	Working paper	Systematic review	Global	Economic, gender and behavioural	Low	Household individual community group			X	594
Gash	2017	Learning brief	Systematic review	Global	Economic, social and gender	Low	Household individual			X	53
Hidalgo	2009	Master's thesis	Systematic review & Meta-analysis	Global	Economic	Low	Household individual microenterprise	X			30

Isangula	2012	Peer-reviewed journal	Systematic review	Unclear	Social, gender and behavioural	Low	Individual	X		X	X	49
O'Grady	2016	Coursework	Systematic review	Global	Economic	Low	Individual	X	X			38
Palmkvist & Lin	2015	Bachelor's Thesis	Systematic review	Global	Gender	Low	Individual			X		12
Yang & Stanley	2013	Working paper	Systematic review & Meta-analysis	Global	Economic	Low	Household individual	X				13

Note: Community-based Savings Groups (CBSGs).

Appendix 2:

Table A2: Overview of the critical appraisal tools' main quality assessment criteria

3ie critical appraisal checklist	A Measurement Tool to Assess systematic Reviews (AMSTAR 2)
<ul style="list-style-type: none"> • Inclusion criteria reported • Reasonably comprehensive search strategy • Appropriate review time period • Bias in selection of articles avoided • Characteristics and results of included studies reliably reported • Clear methods of analysis, including for calculating effect sizes • Extent of heterogeneity discussed • Findings of relevant studies appropriately combined relative to the question and available data • Evidence appropriately reported • Assessment of factors explaining differences in results • Consideration of aspects that may lead to questionable results • Consideration of mitigating factors for reliability • Use of programme theory of change* • Qualitative evidence incorporated in theory design* • Outcomes analysed along causal chain* • Qualitative evidence incorporated in analysis* • Qualitative evidence incorporated in other aspects* • Findings from quantitative and qualitative evidence integrated* • Quantitative and qualitative evidence integrated in conclusions and implications* 	<ul style="list-style-type: none"> • Research questions and inclusion criteria reported with PICO (Population, Intervention, Comparator, Outcome) • Review methods established prior to review; deviations from protocol reported • Selection of included study designs explained • Comprehensive literature search strategy used • Study selection performed in duplicate • Excluded studies listed and justified • Included studies described in adequate detail • Satisfactory technique used for assessing risk of bias • Sources of funding of the included studies reported • If meta-analysis: appropriate methods used for statistical combination of results • If meta-analysis: impact of risk of bias considered • Risk of bias considered in interpretation and discussion of results • Heterogeneity discussed and explained • If quantitative synthesis: publication bias considered • Conflicts of interest and funding for the review reported
<p>Possible result classes:</p> <ul style="list-style-type: none"> • Low quality • Medium quality • High quality 	<p>Possible result classes:</p> <ul style="list-style-type: none"> • Critically low quality • Low quality • Moderate quality • High quality

*Note: * indicates criteria to capture use of theory and causal chain analysis, added after discussions with 3ie.*

Appendix 3:

Table A3: Summary results from 11 meta-studies

Study	Focus	Short description of findings	Meta-analysis?
Brody et al. (2015) (medium-high quality)	Effect of SHGs on women's empowerment in South Asia	Women's self-help groups have a positive effect on women's political empowerment, women's mobility, and women's control over family planning, but there is no rigorous evidence for SHGs reducing domestic violence or having positive effects on psychological empowerment (self-confidence and self-esteem).	Yes
Chliova et al. (2015) (medium-low quality)	Effect of microcredit on business ventures	Microcredit has significant positive effects on venture size and profitability, but not on the survival of ventures. There are large positive effects on women's empowerment and small beneficial effects on health and nutritional outcomes and on educational outcomes for clients' children, but these are potentially offset by negative factors. Effects of microcredit are heterogeneous and context-dependent.	Yes
Duvendack et al. (2011) (medium quality)	Effects of microfinance (mainly microcredit) on economic, social and empowerment outcomes	Studies on microfinance report many positive effects, but offer no convincing evidence of impacts on overall well-being, due to the evidence base being too weak to draw robust conclusions. There is no clear evidence for positive economic outcomes or empowerment, and some evidence of negative effects. Most effects (positive or negative) are early in the causal chain.	No
Gopaldaswamy et al. (2016) (medium-low quality)	Effects of various types of microfinance on economic and social well-being in South Asia	Microfinance has positive but small effects on income, women's empowerment, employment, asset creation, and consumption expenditure. The poorest of the poor are more likely to experience larger positive effects on household consumption. The effects on education are mixed, as only some small effects are found for girls' education.	Yes
Kennedy et al. (2014) (medium-low quality)	Effects of microfinance on HIV prevention	Microfinance alone had no effect on HIV prevention, and had mixed outcomes when combined with health education. No evidence was found for effects on HIV prevalence.	No
Orton et al. (2016) (medium-low quality)	Health effects of group-based microfinance	The overall findings were inconclusive for empowerment and health outcomes. Membership in larger, well-established schemes was associated with improvements in some health outcomes, especially	No

maternal and child health, and use of contraceptives.

Peters et al. (2016) (medium-low quality)	Participants' views of microfinance in South Asia	Participants reported a variety of positive and negative experiences, which were heterogeneous and different for women and men. Microsavings and microcredit each had positive sides and downsides. Positive experiences included effects on clients' health, children's health, asset-building and empowerment; negative ones included debt-induced stress and disempowerment. There were no conclusive findings on impact.	No
Steinert et al. (2018) (high quality)	Effects of savings promotion on savings, consumption and investment in Sub-Saharan Africa	Savings promotion has relatively small but significant positive effects on intermediate outcomes (savings amount and enterprise propensity) and on wider poverty measures (household expenditure, income, and food security). There are no effects on health or housing, and programmes' effectiveness is lower for women. Programmes for improving access to savings services are effective, while demand-enhancement (financial education) is not.	Yes
Stewart et al. (2010) (medium quality)	Effects of microfinance on incomes, wealth and non-financial outcomes in Sub-Saharan Africa	Microcredit has mixed effects, and microsavings has no effect on income, but both have a generally positive effect on health, food security and nutrition. Evidence on education and women's empowerment remains unclear. There is some evidence that microcredit makes some people poorer.	No
Stewart et al. (2012) (medium-low quality)	Effects of microfinance on economic opportunities	Microsavings has no significant effect on engagement in economic opportunities, and there is only relatively weak and inconsistent evidence that microcredit has a positive influence on incomes. Microcredit may reduce savings, and has potential to inflict financial harm. Microcredit and microsavings do not impact on income diversification. There is no evidence for effects of micro-leasing.	No
Vaessen et al. (2013) (high quality)	Effects of microcredit on women's control over household spending	There is no reliable evidence for effects of microcredit on women's control over household resources, making it unlikely that microcredit has a substantial impact on women's empowerment in a broader sense.	Yes

Notes

¹ Some definitions also consider financial literacy programmes part of financial inclusion. While financial literacy programming does not directly provide financial services, it addresses potential access barriers, namely poor financial knowledge and potential mistrust in formal services. However, we aim to assess the effects of accessing and using financial services, rather than the factors shaping uptake and usage. Hence, we exclude financial literacy programming from the remit of this review.

² As the attentive reader will note, in this as well as many other statements about financial inclusion (quoted in this paper), no differentiation is made between the effects of different services; it is “financial inclusion” whose benefits are “widely accepted”. We find this to be problematic, particularly in light of how our disaggregated findings indicate very different impacts for savings services. However, in line with the convention established by the key authors we cite, our headline findings consider financial inclusion as a whole (i.e. as an aggregate of financial services delivered to poor and low-income people).

³ We follow the definition of systematic reviews outlined in the Cochrane Handbook: “A systematic review attempts to collate all empirical evidence that fits pre-specified eligibility criteria in order to answer a specific research question. It uses explicit, systematic methods that are selected with a view to minimizing bias, thus providing more reliable findings from which conclusions can be drawn and decisions made” (Section 1.2 in Higgins and Green 2011).

⁴ Our definition of meta-analysis also follows the Cochrane Handbook which states that: “Meta-analysis [is] the statistical combination of results from two or more separate studies” to produce an overall statistic with the aim to provide a precise estimate of the effects of an intervention (Section 9.1.2 in Higgins and Green 2011). Not every systematic review automatically contains a meta-analysis, e.g. if primary studies are too heterogeneous in terms of study designs, conceptual framings and or outcomes, then a meta-analysis may not be appropriate. There are also cases where meta-analyses are published separately without drawing on the broader systematic review evidence they may have originated from.

⁵ We use the term primary studies to denote individual studies that make up the reviewed material of a systematic review and meta-analysis.

⁶ Polanin et al. (2017) in fact mention a fourth advantage of overviews: identifying reviews that need updating. However, given the rapid developments in the financial inclusion sector, we find updating old reviews may not

be sufficient to capture changes and trends in the sector. Commissioning new reviews on the evidence gaps we outline would be more appropriate

⁷ Due to the high levels of heterogeneity within our evidence base and the small sample of studies, we were not able to perform a network meta-analysis. However, in a supplementary online appendix we provide a quantitative synthesis of the evidence base as an alternative to a network meta-analysis.

⁸ This paper benefited from two additional rounds of double-blind reviewing by three peer reviewers, whose comments led us especially to strengthen theory, clarify policy implications and conduct additional quantitative analysis.

⁹ <https://www.afi-global.org/publications/879/Maya-Declaration-The-AFI-network-commitment-to-financial-inclusion>, accessed 30 October 2019. Emphasis added. The AFI is composed of central banks and other financial regulatory institutions from more than 80 countries of the global South. It was founded on the initiative of two major Northern donors.

¹⁰ Inevitably, there will also be reverse effects and circular, self-reinforcing effects, but to discuss all possible directions of change would lead to an over-complex theory (for the purpose of clustering impacts to evaluate them).

¹¹ This explanation is our own; however, it draws on the representation of the enablers of financial inclusion given by the World Bank's Universal Financial Access By 2020 Brief (<http://www.worldbank.org/en/topic/financialinclusion/brief/achieving-universal-financial-access-by-2020>, accessed 11 November 2019).

¹² One service may grant access to another; for instance, a bank account often enables payments via money transfer or access to insurance products. Beyond these four main services, other financial services exist, for instance pension schemes or investment portfolio management; but these are of limited or no relevance to poor and low-income households in low- and middle income countries.

¹³ In this, financial inclusion refers to a very different set of policy prescriptions from microcredit promotion in the 1980s and 1990s, which was narrowly focused on delivering loans.

¹⁴ This differentiation between lower- and higher-order outcomes is our own, and is logical in terms of a means-ends distinction (the higher-order outcomes are more plausibly ends in themselves). This type of differentiation between immediate versus further-reaching outcomes is common in theory of change

methodologies. Mayne's (2015) generic model differentiates five levels: (1) reach of the programme, (2) capacity changes among the population, (3) behavioural changes, (4) direct benefits and (5) well-being changes. In our distinction, (1) corresponds to uptake, (2), (3) and (4) to lower-order outcomes, and (5) to higher/order outcomes.

¹⁵ In explaining the causal pathways, we do not provide a comprehensive literature review to lend empirical support to all linkages, in part because the evidence on the causal linkages in the impact literature itself is mixed and sometimes weak, and in part because the theoretical reasoning behind many presumed impacts is not well spelled out in much of the literature. It may be seen as a takeaway in itself from our review, that in addition to problems of evidence there is also a lack of strong theory for the impacts of financial inclusion.

¹⁶ These services, as is particularly clear with education, constitute more than access to certain infrastructures, but rather the fulfilment of some basic human needs and rights.

¹⁷ On the prevalence of microfinance for the provision of other public services such as water, sanitation, and electricity, as well as the lack of attention paid by the research literature, see Mader (2011).

¹⁸ Kennedy et al.'s (2016) review in particular focuses on HIV-related training and messaging, delivered together with financial services, as a driver of health impacts.

¹⁹ The ordering of outcomes in the gender pathway in Figure 1 is merely exemplary, or one possible way of categorising, rather than intended to be a categorisation of particular gender-related outcomes as higher- or lower-order.

²⁰ Most prominently in the *World Development Report 2015: Mind, Society, and Behavior*.

²¹ The World Bank definition of lower/middle income countries is used: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>

²² Our study focuses on low- and middle-income countries because the evidence base examining financial inclusion in high-income countries is very thin, at best unsystematic literature reviews exist. As to our knowledge, there is currently no systematic review or meta-analysis evidence that examines the impact of financial inclusion in the context of high-income countries, hence none of the existing high-income evidence would have warranted inclusion.

²³ CGAP, Microfinance Gateway, Microbanking Bulletin, Microfinance Gateway, Microfinance Network, SEEP, Grameen Foundation, BRAC Research and Evaluation Division, Alliance for Financial Inclusion, Accion Center for Financial Inclusion.

²⁴ World Bank, African Development Bank, Asian Development Bank, Inter-American Development Bank, DFID – R4D website, USAID.

²⁵ Center for Global Development, J-PAL, 3ie databases on systematic reviews, ELDIS, SSRN, ResearchGate, Academia.edu.

²⁶ Our advisory board contained the following individuals: Anindita Bhattacharjee, Senior Research Associate, Research and Evaluation Division, BRAC; Beryl Leach, Director and Head of Policy, Advocacy and Communication, 3ie; Hugh Waddington, Senior Evaluation Specialist, 3ie; James Copestake, Professor, University of Bath; Linda Mayoux, Consultant, GAMEExchange Network; P. Satish, Executive Director, Sa-Dhan; Solene Morvant-Roux, Professor, University of Geneva; Sophie Romana, Director of Community Finance, Oxfam America; Vijayendra Rao, Lead Economist, Development Research Group, World Bank.

²⁷ We approached a handful of leading authors but the response rate was low unless a personal link to the author existed.

²⁸ http://www.3ieimpact.org/media/filer_public/2012/05/07/quality_appraisal_checklist_srdatabase.pdf

²⁹ See online checklist for details: https://amstar.ca/Amstar_Checklist.php

³⁰ Citation count as of 4 March 2020.

³¹ Given that none of the outcomes in the mixed group are statistically significant, we follow the common interpretation that an insignificant effect is no effect, i.e. not statistically worth reporting as either positive or negative.

³² No meta-study evidence relating to macro-structural effects of financial inclusion was found.

³³ See <http://ufa.worldbank.org/>, accessed 4 March 2020. The World Bank remains a strong advocate of ‘Universal Financial Inclusion’ but increasingly stresses the importance of payments and accounts, with the objective that “by 2020, adults globally will be able to have access to a transaction account or electronic instrument to store money, send and receive payments” (<https://www.worldbank.org/en/topic/financialinclusion/brief/achieving-universal-financial-access-by-2020>, accessed 4 March 2020).

³⁴ As asserted by the AFI in its 2011 'Maya Declaration'; see note no. 8.