



Women and financial literacy

OECD/INFE EVIDENCE,
SURVEY AND POLICY RESPONSES

**WOMEN AND FINANCIAL LITERACY:
OECD/INFE EVIDENCE, SURVEY AND POLICY RESPONSES**

FOREWORD

Governments' attention is increasing around the world on the critical need to empower consumers through financial education. As governments launch new initiatives and national strategies to improve their population's financial skills, demand has grown for research to identify population subgroups with specific financial education needs, and to develop initiatives and tools to improve their financial well-being.

To address these demands, the OECD launched its financial education project in 2002, developing policy analysis and recommendations on principles and good practices for financial education and awareness with a focus on specific sectors such as credit, insurance and private pensions.

Building on this experience, the OECD established in 2008 the International Network on Financial Education (INFE) which facilitates information sharing, research and the development of policy instruments and analytical tools. More than 240 public institutions from 107 countries are members of the INFE and collaborate in the development of data, comparative analysis and global policy instruments in a consistent and systematic way.

Under the support of the Russia/WB/OECD Trust Fund for Financial Literacy and Education, the OECD has led the development and worldwide dissemination of the following three main types of products and tools:

- Broad and detailed reviews and inventories of effective financial education activities and policies worldwide, thanks to the wide membership and involvement of the OECD/INFE.
- Policy, analytical and comparative reports and research highlighting good practices and detailed case studies on financial education and literacy across member countries.
- Criteria, standards, principles and guidelines as well as practical tools to facilitate and improve strategic financial education efforts.

This book addresses the financial education needs of women and girls by collecting evidence of gender differences in financial literacy and by discussing the factors related with such gender differences. The book also reviews policy responses and initiatives to tackle women's and girl's needs and draws suggestions from existing initiatives.

Based on this analysis, the OECD/INFE has developed Policy Guidance on Addressing Women's and Girls' Needs for Financial Awareness and Education, which is published separately as an OECD product under the Russia/WB/OECD Trust Fund for financial literacy and education. Both the analysis contained in this publication and the related policy guidance will feed into the Russia's G20 Presidency agenda.

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EXECUTIVE SUMMARY

Gender equality in terms of economic and financial opportunities is becoming increasingly relevant at both national and international level. The need to address the financial literacy of women and girls as a way to improve their financial empowerment, opportunities, and well-being has been acknowledged by the G20 Leader's Declaration in June 2012, as well as part of a wider horizontal OECD project on gender equality. Under the Trust Fund, the OECD/INFE established a dedicated workstream in 2010 to address the needs of women for financial education.

This book collects the work carried out within this workstream, including an initial review of available evidence and policy action in the area (Chapter 1), and a comprehensive analysis of the current status of knowledge on gender differences in financial literacy and policy responses in terms of financial education for women and girls (Chapter 2).

Chapter 1 reviews data and research on women and financial literacy and provides a starting point to collect further evidence and case studies, and to identify areas that deserve further research. The review also reports the evidence on which subgroups of women may be more vulnerable to the negative consequences of low levels of financial literacy, as well as initial evidence on the determinants of gender differences. The chapter then reports the results of a survey carried out among authorities in OECD/INFE member countries about gender differences in financial literacy and the level of policy awareness and action in their home countries.

Chapter 2 complements the previous work by conducting a more comprehensive gender analysis of the results OECD/INFE financial literacy survey and an extensive surveys of policy responses across OECD/INFE member countries. The chapter is aimed at identifying gender differences in financial literacy as well as barriers to women's financial empowerment, as a way to highlighting ways to successfully address women's and girls' financial education needs.

In many countries, women display lower financial knowledge than men and are also less confident in their financial knowledge and skills. Even though women appear to be better than men in some areas of short-term money management behaviour, they have a number of vulnerabilities in other aspects of financial behaviour. For instance, women are more likely to experience difficulties in making ends meet, in saving, and in choosing financial products appropriately.

A number of barriers appear to be related to gender differences in financial literacy. Gender differences in financial literacy are correlated with differences in socio-economic conditions of men and women. This suggests that limited access to education, employment and formal financial markets not only reduce women's financial well-being per se, but also limit the extent to which women can improve their knowledge, confidence and skills about economic and financial issues.

In light of these challenges, an increasing number of countries at different income levels have acknowledged the need to address the financial literacy of women and girls by developing and implementing dedicated financial education policies and programmes, including through their national

strategies for financial education. These initiatives typically address the needs of specific subgroups of women, including young women, elderly/widows, low-income and marginalised women, and female small/micro entrepreneurs. Moreover, these programmes aim at improving women's strategies with financial matters, including fostering the use of formal saving accounts, helping women plan their retirement, supporting women in choosing financial products, and preventing over-indebtedness. The available impact assessments show that well designed programmes were successful in improving women's and girls' financial knowledge and confidence in their financial skills. Some programmes have also increased women's financial inclusion through the use of formal transaction and savings products.

The analysis of these policy initiatives and of their evaluations also reveals a number of challenges and good practices, and highlights areas that deserve further research. Building on the evidence and experiences presented in this report, the OECD/INFE elaborated policy guidance to help identify the needs for financial education of women and girls in different settings, and to support the development of dedicated policy initiatives consistent with the overall national priorities for financial education and gender equality.

Both the policy analysis contained in Chapter 2 of this publication and the related policy guidance published separately are aimed at addressing the call of G20 Leaders to identify the barriers that women may face in accessing financial services and financial education, and constitute part of the deliverables under the Russia's G20 Presidency agenda.

Chapter 1

EMPOWERING WOMEN THROUGH FINANCIAL AWARENESS AND EDUCATION

by

Angela Hung, A., Joanne Yoong and Elizabeth Brown*

The potential implications of gender differences in financial literacy are far-reaching. This paper describes the findings of a review of the literature on gender differences in financial literacy with the aim to better understand their causes and consequences, as well as possible policy responses. It provides a starting point to collect further evidence, develop analytical work and case studies, and to identify areas that deserve further research, thus paving the way for future work to be developed by the OECD and the INFE.

A relatively broad range of empirical literature documents the existence of gender differences in financial literacy in various countries and along several dimensions. On average, women perform worse than men on tests of financial knowledge and have less confidence in their financial skills. However, so far policy awareness of the existence and relevance of these differences is quite low.

The literature (albeit so far limited) on what drives such gender differences points to several potentially complementary explanations including differences in skills, attitudes, and opportunities. In this context, the contribution of improved and targeted financial education programmes aimed at better addressing women's needs is promising and worth exploring further.

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Introduction

This chapter provides an initial overview of the literature and currently available data on women and financial literacy, building on preliminary data and resources from OECD member countries and members of the International Network on Financial Education (INFE). The paper focuses to a great extent on financial knowledge issues, since much of the available evidence so far is related to this particular aspect of financial literacy. However, gender differences in attitudes, skills and behaviour are also discussed, wherever possible.

The goal of this chapter is threefold: to offer an overview of main issues related to financial education and women, to highlight possible explanations and solutions, as well as programmes to address these and finally to identify priority areas for further relevant research. Given the limited evidence currently available and the difficulty in identifying single explanatory factors, the paper is also meant to be a starting point for collecting further evidence and case studies.

Background and Context

The OECD's financial education project¹ was launched in 2003 to address member governments' growing concerns over the adverse effects of low financial literacy levels. Following formal recognition of financial education's importance by the G8 finance ministers, the INFE was created in 2008 to expand this work and as a means to enable data collection, research collaboration, policy coordination, development of international guidance and analytical work and information-sharing. There are currently more than 200 public institutions from over 90 countries and territories who are regular members of the OECD International Network on Financial Education (INFE).

In its 2011/2012 programme of work, the INFE indicated its willingness to expand into specific target groups including women. Given that women are often over-represented in disadvantaged groups in the community and have lower levels of retirement savings than men, this is relevant to INFE's work on financial literacy measurement, the role of financial education for financial inclusion, and on savings, investments and pensions.

In response to some INFE countries further identifying women's financial education needs as an important area of additional research, an expert subgroup on financial education and women was created to address this issue in October 2010. This expert subgroup is jointly chaired by Delia Rickard of ASIC, Australia and Prashant Saran of SEBI India, with members including representatives from Egypt, New Zealand, the Philippines, Turkey, the British Virgin Islands and the United Kingdom, indicating the widespread international interest in this topic. The subgroup had its first meeting on 23 May 2011.

In order to launch this new work stream, RAND was commissioned to develop an initial scoping exercise and help the subgroup and INFE identify relevant areas of knowledge expansion and/or targeted policy recommendations.

Definitions and Conceptual Framework

To date, there remains little generally-accepted consensus on the definition and conceptual modelling of financial literacy². For the purposes of this report and to ensure consistency with other OECD and INFE research, we use the term "financial literacy" in line with the following OECD/INFE definition:

‘A combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing.’

Working with the definition, it appears that individual traits such as cognitive ability (particularly numeracy), personality type, and preferences may affect financial knowledge and skills acquisition, inherent motivation and confidence to make consequential financial decisions and thus impact on levels of financial literacy.

Learning-by-doing generates an internal feedback loop – individuals update their knowledge, skills, motivation and confidence with more financial experience. A lack of financial literacy, therefore, all else equal, can both lead to and arise from differences in opportunities to gain knowledge and exposure to financial matters.

Most saliently for policymakers, individuals may be exposed to financial education policies or programmes to increase their financial literacy and know-how. Financial education includes “*the process by which financial consumers/investors improve their understanding of financial products, concepts and risks and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being*” (OECD, 2005). Information provided to consumers includes facts, data and specific knowledge to make them aware of financial opportunities; instruction involves ensuring that individuals acquire the skills and ability to understand financial terms and concepts through training and guidance; and advice involves providing consumers with counsel about generic financial issues and products to help them make the best use of available financial information and instruction.

Finally, features of the external environment other than policies with an explicit financial literacy mandate may also affect the acquisition of financial literacy, such as the availability of basic education or cultural norms surrounding the acquisition of material wealth.

This simple conceptual framework describes the different factors that feed into financial literacy. Insofar as gender differences in these various factors exist (i.e. differences in personal traits, learning opportunities and exposure or access to enabling features of the external environment), these may then contribute to the existence of gender differences in financial literacy. In the next section we review the role of gender in more detail.

The importance of gender in the context of financial literacy and education

Empirical evidence suggests financial literacy’s positive impact on financial behaviour and financial status in a number of behavioural domains. Financially-literate individuals do better at budgeting, saving money, and controlling spending (Moore, 2003; Perry and Morris, 2005); handling mortgage and other debt (Campbell, 2006; Lusardi and Tufano, 2009); participating in financial markets (Van Rooij, Lusardi et al., 2011; Christelis, Jappelli et al., 2010; Yoong, 2010); planning for retirement (Lusardi and Mitchell, 2007a; Lusardi and Mitchell, 2008); and ultimately, successfully accumulating wealth (Stango and Zinman, 2009). Other work has further demonstrated the link between financial status and other important aspects of household well-being, notably low financial status correlates with poorer physical, mental and emotional health outcomes for all household members and lower educational attainment of children (see for instance Kessler and Neighbors, 1986; McLoyd, 1989; Seccombe, 2000; Lorant, Deliege et al., 2003; Hammack, Robinson et al., 2004; Marmot, 2005; Mackenbach, Stirbu et al., 2008; Shanks and Danziger, 2010). These effects operate through such mechanisms as job characteristics (Bosma et al., 1998); family

relationships (Conger, Elder Jr et al., 1990); and a higher likelihood of experiencing stressors more generally (Eaton and Muntaner, 1999). Finally, on a macro-level, households that accumulate formal financial experience generate greater demand for financial products; pressure for market transparency, competitiveness and efficiency; while increased wealth accumulation and increases in the private savings rate—in combination with well-functioning markets—builds economic stability, stimulates economic activity and leads to increased development.

We note that, despite its significance, recent international efforts to measure financial literacy (reviewed in more detail later) suggest that levels of financial literacy are low, on average, on a number of metrics across countries. The typical consumer has limited objective as well as perceived subjective understanding of financial issues, and many consumers express lack of ability/motivation to gain and understand financial information and knowledge (see Yoong, 2010 for a more expanded description). Individuals' ability to make appropriate financial decisions may be increasingly important to ensure positive outcomes as the external environment becomes more challenging. Such challenges include the decline of public welfare policies; a shift to defined contribution pension schemes in many countries; increased life expectancy and health care costs in old age; the development of more complex financial markets; and the recent effects of the global financial crisis and recession.

Surprisingly, while the need for financial literacy may be largely acknowledged, the importance of a gender dimension remains a subject for debate. While recognising that country-specific context varies widely, we argue that there are three key aspects of a general rationale for considering the needs of women.

Firstly, where gender differences in financial literacy do exist, there are both philosophical and pragmatic reasons for addressing them. While it is important to refrain from *ex-ante* assuming the direction of a gender gap, evidence discussed later in the text suggests that women tend to have lower levels of financial knowledge. Women are also shown to be relatively less financially skilled than men along several dimensions. Such gaps represent fundamental problems for social equity, with several important follow-on implications.

- There may be unrealised potential for gains in economic efficiency among one-half of the population, particularly in societies where a relatively large share of production takes place in informal home-based enterprises run by women. Low levels of female financial literacy and confidence may impede their more active participation in the economy.
- Financial literacy differences may affect relative economic power within the household. This has implications for well-being if men and women allocate household resources according to different preferences. Research in many countries suggests that households do not act as a single unitary decision maker. Instead, household resources in women's hands has been observed to be more likely spent on improving family well-being, particularly that of children (e.g. see Thomas, 1993; Haddad, Hoddinott et al., 1997; Rawlings and Rubio, 2005; Handa and Davis, 2006; Doepke and Tertilt, 2011 for an overall summary of the literature).
- In situations where women are primarily responsible for the care of children and more likely to be single parents, this may impede the intergenerational transmission of financial literacy, affecting the early learning, behaviours and attitudes of next generation consumers.

- Such differences are potentially compounded by the existence of the experiential feedback loop, as such differences can further reinforce and exacerbate other disparities between men and women.

Establishing and protecting economic empowerment on an equal basis for men and women has been recognised both as a basic human right, and as an issue for policymakers. Indeed, women’s empowerment is seen as a “prerequisite for sustainable development, pro-poor growth and the achievement of all the Millennium Development goals” (GENDERNET, 2011).

Secondly, women may be in greater need of long-term wealth management skills for a combination of reasons related to labour and demography. Women’s labour market tenure tends to be shorter and both tenure and occupational choice may be more constrained by social norms, access to labour markets and family issues such as childbearing. In some countries, women are also subject to lower pay relative to men, all else equal, setting the stage for lower accumulated savings. At the same time, demographic considerations place women in a position of economic need. As well as being primary caregivers for children in many instances, women are more likely to be lone parents. The financial consequences of divorce are also more severe for women (see later discussion). More generally, women’s life-expectancy is longer and, in some countries, women are disadvantaged in terms of legal and property rights which can be exacerbated by widowhood. On average—looking across 121 countries representing a wide mix of developing and developed nations—women live five years longer than men (Møller, Fincher et al., 2009). Past research has shown that the death of a spouse often precipitates women into poverty. Early US research using data from the Longitudinal Retirement History Survey (Hurd and Wise, 1989) showed that the death of a husband increased the household probability of poverty from less than 10 to more than 35 percent. Similarly, the loss of a spouse substantially decreases women’s economic well-being in a study of four developed countries (Weir and Willis, 2000; Burkhauser, Giles et al., 2005). More recent US and cross-national research in developed countries confirms that older, single women continue to be disproportionately poor as compared with older single men and older married couples (Gillen and Kim, 2009; Gornick, Munzi et al., 2009).

Finally, even in settings where no observed gender gap in financial literacy exists, understanding the gender-specific causes of financial literacy in a particular country setting is essential for effective policy design. To return to the conceptual framework, variation in individual preferences and other inherent characteristics among populations of women and men may affect their desire or ability to acquire financial literacy. Demographic differences, e.g. age or life expectancy; personality traits (such as patience and risk-aversion); and basic environmental constraints (such as rudimentary formal education and mathematics training) may all factor into differences in the learning patterns by gender. Women and men may also experience different environmental constraints—e.g. occupational and cultural norms—limiting where, when and how they best learn about personal finance.

Distinguishing between these differences is important as they may call for very different policy responses: effective financial education interventions may need to address different root causes and be designed with the learning styles of men and women in mind. It is especially important to avoid further gender marginalisation as an unintended consequence of bad policy design.

The remaining part of the report reviews the existing evidence on gender differences in financial literacy and factors which may underpin them. New data from a survey of women’s financial literacy, policy issues, and related programmes among a selected group of INFE members are reported. The conclusions highlight both general and INFE-specific areas for further research.

1. What is known about gender effects in financial literacy and education?

This section reviews evidence from a range of existing sources, including country surveys of financial literacy; the academic and grey research literature; and preliminary data from the 2011 OECD/INFE financial literacy measurement pilot.

In addition, we augment the review with results from a short survey of INFE member-countries conducted in April 2011 as part of the scoping exercise. This survey provides an important complementary perspective to the types of data above. The survey questionnaire was developed to investigate policymakers' perceptions of gender gaps in financial literacy in respondent countries; the level and type of policy concerns; and details of relevant programmes conducted within the last 5 years addressing these issues. To ensure consistency with past surveys, questions were developed with reference to previous INFE member surveys. As of July 20, 2011, a total of 28 agencies in 27 countries had responded: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, India, Japan, Lebanon (two responses from different agencies), Luxembourg, Malaysia, Netherlands, New Zealand, Palestine, Paraguay, Poland, Portugal, Serbia, Singapore, Slovenia, Spain, Switzerland, Turkey and the United Kingdom. Relevant results are reported here but the complete consolidated responses to the questionnaire are compiled in the Updated Compilation of Responses to the Questionnaire on Financial Education and Women/Girls [INFE(2011)12/REV1].

Are there Gender Differences in Financial Literacy across Countries?

Nationally-Representative Household Surveys

In the recent past, public and private entities have undertaken nationally-representative surveys to ascertain financial literacy levels among their populations. A review of these initial individual country-efforts reveals the diversity of metrics used—including self-reported behaviour, attitudes, questions on numeracy, and knowledge of financial products and services—reflecting the complexity involved in defining and measuring financial literacy in a country-specific context.

A number of these surveys measure the knowledge/skill aspect of financial literacy by directly incorporating the original or a modified version of a brief assessment first designed by Lusardi and Mitchell (2011a) for use in the US Health and Retirement Study. The basic assessment consists of three questions on interest, inflation and risk diversification; a more expanded version includes additional knowledge questions. Another complementary approach that has gained international traction relates to a more holistic concept of “financial capability”/literacy³, first pioneered by the UK Financial Services Authority baseline study (UK Financial Services Authority, 2006). This approach captures financial capability/literacy in five dimensions vital to financial well-being (namely, making ends meet, keeping track of finances, planning ahead, choosing products and staying informed about financial matters). Researchers administer a full battery of questions, and conduct *ex-post* factor analysis to derive scores specific to the five underlying components.

The Lusardi and Mitchell (2011a) assessment questions have the advantage of being simple, brief and objectively correct or wrong. The measures are extremely narrow, although well-validated in terms of their predictive relationship to a range of financial outcomes. Conversely, the financial capability approach is implicitly driven by a more comprehensive underlying conceptual model that accounts for the decision-making process as well as types of behaviour. Although important constructs such as attitudes and behaviours are captured in addition to knowledge, of necessity, the approach taken to data collection relies heavily on self-reported information. Notably also, the factor-analytic scores are driven by country-

specific weightings for individual questions. Therefore, it is not straightforward to quantitatively interpret a comparison of raw financial capability/literacy scores across countries, even though answers on similarly-worded individual questions can be compared qualitatively. More recent national surveys, such as the US Financial Capability Survey, have drawn productively on both approaches – using knowledge-based questions as well as broader measures of financial capability, assessment questions and self-reported attitudes and behaviours.

Notable larger-scale efforts have recently sought to realise the potential gains from cross-country comparisons. Lusardi and Mitchell (2011b) have gathered studies from national surveys conducted in Germany, Italy, the Netherlands, New Zealand, Russia, Sweden, Japan, and the United States under the Financial Literacy Around the World (FLatWorld) Initiative. The FLatWorld initiative substantially improved the availability of internationally comparative financial literacy data, however with some limitations. All measures are based on financial knowledge. Although survey questions were similarly worded in most countries, some differences remain. Therefore, cross country comparisons of the results from this initiative should be made with caution.

A more radical approach is to collectively harmonize measures going forward. With the goal of obtaining robust, comparable data on a representative population across each participating country, OECD/INFE has developed an internationally-comparable questionnaire measuring personal financial literacy reflecting best practice to date⁴. Thirteen countries from the OECD/INFE have recently pilot-tested the questionnaire. These countries vary in their development level, extent of financial inclusion, on their financial and economic systems and in terms of their geographic location.

For this report, we reviewed several nationally-representative surveys reporting on gender disparities in financial literacy. Table 1 shows a list of the surveys covered, including all country reports from the FLatWorld Initiative. We note that not all of these surveys reported evidence disaggregated by gender, and not all surveys that reported gender-disaggregated estimates reported tests of statistical significance. In addition, as of November 2011, we examined preliminary data focusing on financial knowledge available from the twelve countries included in the OECD/INFE pilot for which data is currently available: Albania, Armenia, Czech Republic, Estonia, Germany, Hungary, Ireland, Malaysia, Norway, Poland, UK, and South Africa⁵.

Table 1. Nationally Representative Household Surveys

Country	Survey Name	Most Recent Survey Publication Year	Approach (may include country-specific modification)		
			Knowledge (Lusardi and Mitchell,2011a)	Capability (FSA, 2006)	Other
Singapore	National Financial Literacy Survey	2005			X
United Kingdom	Financial Services Authority Baseline Survey On Financial Capability	2006		X	X
Indonesia	World Bank Access to Finance Survey	2007	X		X
Ireland	Irish Financial Capability Survey	2007		X	X
Australia	ANZ Survey of Adult Financial Literacy in Australia	2008			X
Italy	Bank of Italy Survey on Household Income and Wealth	2008	X		X
Russia	National Agency for Financial Studies -World Bank Financial Literacy Survey	2008	X		X
Azerbaijan	World Bank-Central Bank of the Republic of Azerbaijan-SECO Financial Literacy Survey	2009	X		X
Canada	Canadian Financial Capability Survey	2009		X	X
Germany	SAVE Household Survey	2009	X		X
New Zealand	ANZ/Retirement Commission Survey of Financial Literacy	2009	X		X
Japan	Survey of Living Preferences and Satisfaction	2010	X		X
The Netherlands	Dutch National Bank Household Survey (DHS)	2010	X		X
Romania	World Bank Financial Literacy Survey	2010	X	X	X
Sweden	Swedish Financial Supervisory Authority Survey	2010	X		X
United States	US National Financial Capability Survey	2009	X	X	X

Note: The table represents the most recent surveys. A number of countries have previous waves of similar surveys available, including Australia, Italy and New Zealand.

Bearing in mind that directly making quantitative comparisons across countries can be misleading, in Figures 1 and 2, we examine qualitative trends in performance on interest-related questions based on the latest available nationally-representative data separately for both the FlatWorld Initiative countries and the OECD / INFE pilots. We note that such comparisons across the full set of countries should be made with caution. While the underlying construct is common across the studies, specific details can be important. The typical question in the FlatWorld Initiative countries is based on Lusardi and Mitchell (2011a) and posed in multiple-choice format:

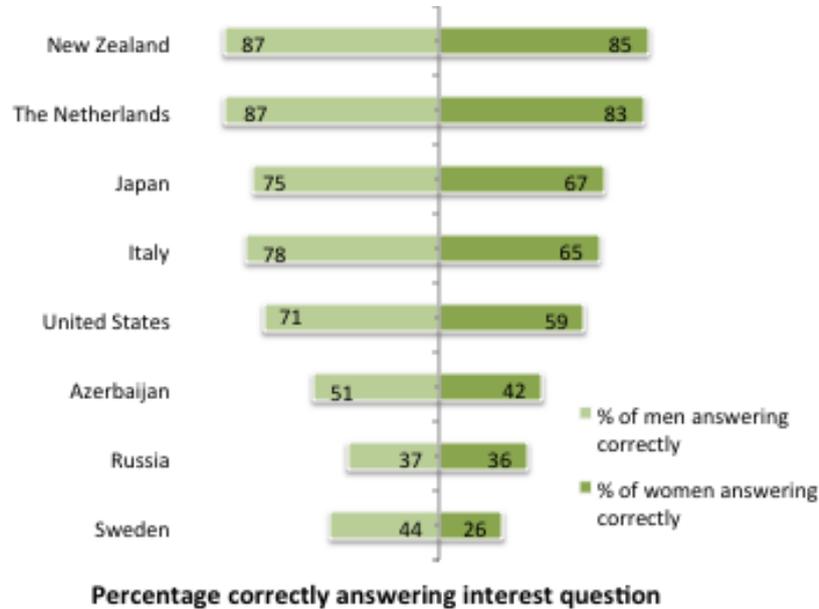
“Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow? - Exactly \$102 / Less than \$102 / More than \$102”.

In the OECD/INFE pilots, understanding of compounding is assessed using a measure that consolidates two questions, one on simple interest rate and one on compound interest rate. Furthermore, the specific interest rate, currency and the value of the sum varies across countries, which may introduce other effects related to differences in the nominal values.

With the firm caveats above in mind, three important general observations can be made about women’s understanding of interest rates:

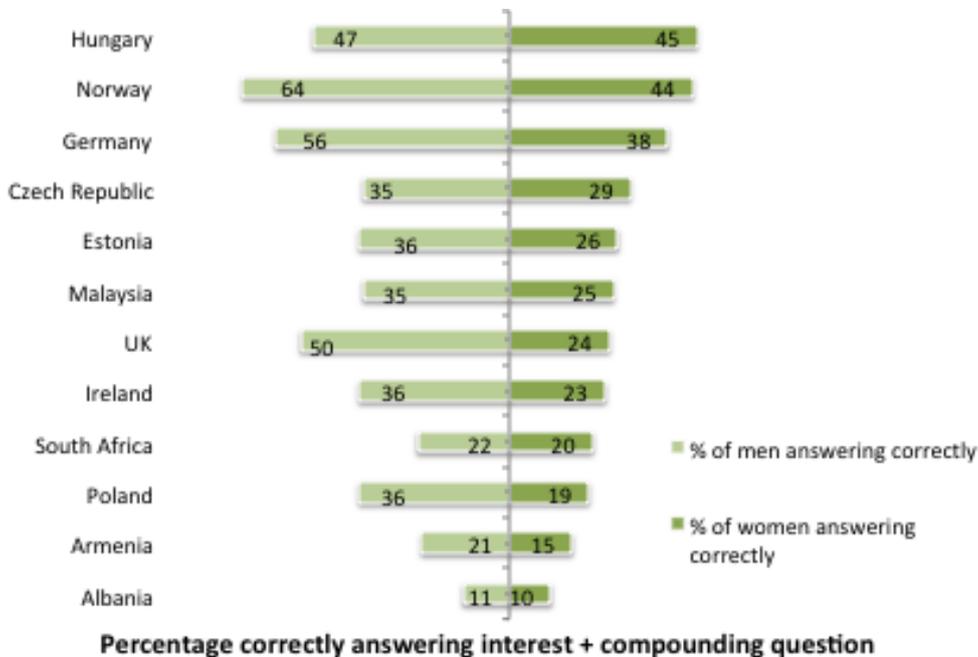
- Firstly, across the different countries and measures, women’s understanding of this basic concept is not universal.
- Secondly, again, across different countries and measures, the gender gap favours men: incremental differences in correct responses for men versus women are generally larger than or equal to zero.
- Finally, in spite of these consistent trends, there is considerable heterogeneity across countries in terms of the gender differences. Looking at Figure 1, in New Zealand, almost all men and women alike appear to have a relatively sound grasp of the interest concept. In other countries, the data suggest issues with either the absolute and relative level of women’s understanding, or both. It should be noted that examples of low female financial literacy and/or gender gaps are present in countries with very different per capita income and average education levels.

Figure 1. Gender Differences in Understanding of Interest, FLatWorld Initiative Studies 2006-2011



Note: Summary statistics from studies reporting results of nationally-representative surveys collected between 2006 and 2011 in the FLatWorld Initiative (<http://www.financialliteracyfocus.org/academics/FLatW.html>) and the World Bank Financial Literacy Surveys (only from the Azerbaijan Microfinance Association (2009)). For countries with multiple waves/surveys, the most recent is used. Countries with both FLatWorld and OECD/INFE data available are represented in Figure 2 with OECD/INFE data.

Figure 2. Gender Differences in Understanding of Interest, OECD/INFE Pilot



Note: Data reflect weighted summary statistics from 12 of the 13 OECD/INFE pilots as of August 2011.

We also note that in general, not only are women less likely to give the correct answer, they are also more likely to respond ‘don’t know’; this difference is both unconditional (of the entire population, more

women respond ‘don’t know’ than men) and conditional (of those who do not provide the right answer, more women respond ‘don’t know’ than men). This illustrates a difference not only in objective skill but also attitudes towards financial knowledge. While women may have a lower level of skill on average, their higher conditional level of don’t know responses suggests they may also be less confident in their abilities.

These trends are consistent with the findings derived from other types of knowledge/skills data collected in these surveys. Qualitatively similar results hold for the inflation and risk diversification questions across surveyed countries (although the wording varies somewhat more). In some surveys, additional questions are also asked. For instance, in the US Financial Capability Survey and the Dutch DNB survey, women’s relative performance on a subsequent set of more complex questions related to investing —e.g. questions on asset fluctuations, diversification, financial instrument risk and bond pricing— is worse than that of men (van Rooij, Lusardi et al., 2011). Finally, field knowledge questions used in the Canada Financial Capability Survey and the ANZ Bank Survey in Australia are not directly comparable, but confirm that women tend to perform either as well or less well than men.

We next examined gender effects reported across a small set of financial capability/literacy surveys conducted in a few countries. These studies include a broader set of financial literacy measures, such as perceptions and attitudes, in addition to reporting on financial behaviours and knowledge.

Table 2 reports results drawn from a review of studies focusing on financial literacy. The table summarises gender differences in the various dimensions of financial capability/literacy. Unlike the summary statistics in Figure 1, the results in Table 2 reflect estimates derived from regression analysis with controls for other socio-demographic characteristics.

Firstly, this comparison shows that gender effects do not uniformly favour one gender over the other – for instance, in the United Kingdom, women outperformed men at keeping track of finances. The results of the Canadian survey also indicated that women marginally outperformed men on making ends meet and keeping track of finances, although these differences were not statistically significant and hence are not reported in the table.

Table 2. Reported Gender Differences in Financial Capability/literacy Across Countries

	Making ends meet	Keeping track of finances	Long-term planning	Choosing Financial Products	Staying Informed
United Kingdom 2005	None	Women	Men	Men	Men
Ireland 2008	None	None	Men	None	Men
Canada 2008	None	None	Men	Men	Men

Note: Raw data from the United Kingdom are publicly available. Raw data from the United States Financial Capability Survey is available in SPSS form but a comparable computation of factor scores and disaggregation by gender was not undertaken as part of the scope of this paper. Only statistically significant effects reported.

Secondly, it should also be noted—albeit across an admittedly small and selected sample of relatively developed countries—that a striking similarity emerges: parity tends to occur only in the domains of household money management, while men perform better in the areas of long-term planning, choosing products and staying informed.

Finally, in the 2008 ANZ Banking Group survey of Australians, women's scores were significantly lower than men's on a composite financial score measuring numeracy, attitudes and behaviours (ANZ Banking Group, 2008). Whilst women's control of day-to-day financial matters is equal to that of men, this does not spill over to the full spectrum of knowledge, skills, attitudes and behaviours associated with wealth accumulation, i.e. understanding of compounding, planning and engaging with the financial marketplace. Worryingly, women appear to be less likely to stay abreast of new developments, making them more vulnerable to being left behind in the face of financial innovation.

Other Household Surveys

Since comparable data from nationally-representative datasets is presently somewhat limited, we also report below on evidence gathered from other relevant sources.

A relatively large body of evidence from the United States corroborates the findings above using various different instruments. Using the RAND American Life Panel, a probability sample of US households interviewed over the internet, Lusardi and Mitchell (2007a) find that women consistently score lower on the same questions from Lusardi and Mitchell (2011a). Using largely the same sample of individuals, the Cognitive Economics Survey, Delavande et al. (2008) show that women's mean scores are lower than men's on 25 financial knowledge questions, including more sophisticated financial concepts such as portfolio diversification, institutional knowledge, and aspects of how annuities work. The US National Council on Economic Education administered an online survey to a sample of American teens and adults drawn from the Harris Interactive online panel of double opted-in respondents. Knowledge was ascertained in five domains; economics and the consumer; factors pertaining to production; money, interest rates and inflation; government and trade in economics; and personal finance. Overall performance was higher for men, on average, than for women (Markow and Bagnaschi, 2005). Finally, in the US National Foundation for Credit Counseling's fifth annual financial literacy survey conducted in March, 2011, women (2%) are significantly less likely than men (8%) to give themselves a failing grade for their personal finance knowledge (National Foundation for Credit Counseling, 2011).

An international effort in 2010 by MasterCard Worldwide measured financial literacy in 24 markets. Survey topics included basic money management, financial planning and investments. The results of the survey are broadly consistent with other previous results, but provide some additional information on women in the Asia Pacific, Africa and Middle East regions. Although this is an interesting study conducted in several markets where knowledge gaps exist, the survey's sampling frame has important limitations, as it selects only urban adult residents with a bank account, and is therefore not representative of the country's population as a whole (Mastercard International, 2011).

INFE Member Survey

The INFE Member survey (INFE, 2011) and its findings provides a useful complement to the previous reports of consumers' measured and self-reported financial literacy, by asking whether, in turn, policymakers have considered financial literacy and gender issues in their countries. To reiterate, respondents to the survey are the agencies involved in financial education in INFE member countries. The first section of the questionnaire covers the extent to which respondents are aware of gender differences

in levels of basic literacy and numeracy, financial knowledge, financial skills, financial access, and confidence with financial matters in their countries.

Figure 3. Policymakers’ Perceptions Regarding Gender Differences

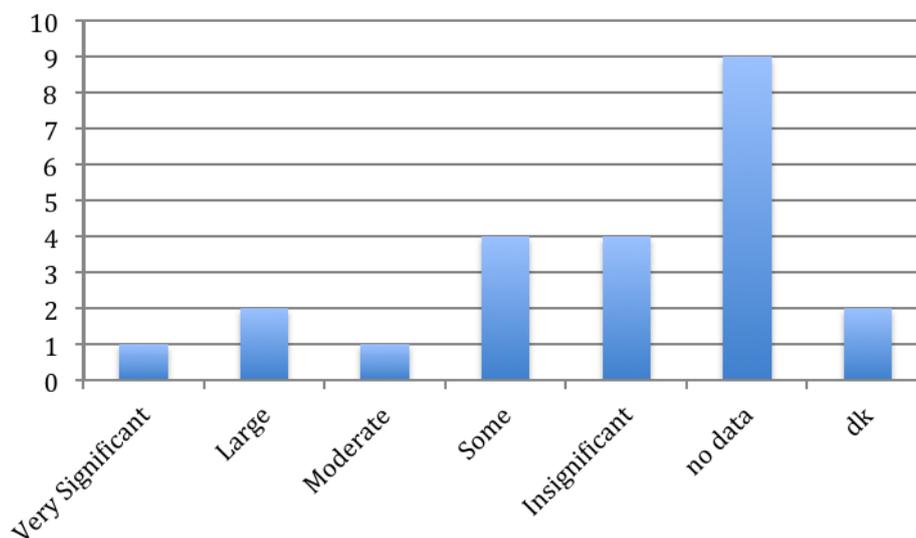
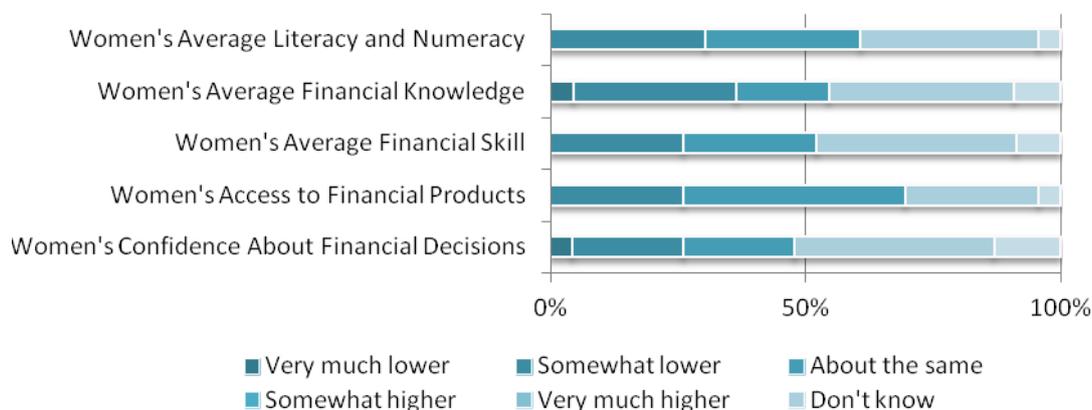


Figure 4. Policymakers’ perceptions of women’s status in their country (relative to men)



23 respondents (out of 28) answered the part of the questionnaire about gender differences in levels of financial literacy.⁶ The responses accord with the surprising dearth of information available on gender and financial literacy - in half the cases, respondents reported having insufficient information to make a determination (nine responses indicated that relevant data on the matter is not available, and two indicated that they did not know). Figure 3 shows the distribution of responses regarding the availability of evidence, while Figure 4 summarizes the respondents’ perceptions of gender differences in basic literacy and numeracy, financial knowledge, financial skills, financial access, and confidence with financial matters.⁷

The modal opinion among respondents is that compared to men, women score “somewhat lower” on financial knowledge, skill, and confidence. Data on access to financial products seems to be more prevalent (possibly because of the ability to obtain such data from other surveys or administrative data),

when compared to data on individual financial literacy. We note that no country reported women’s status was somewhat or very much higher than men’s, on even a single indicator.

Overall, most respondents agreed that financial literacy was an important policy issue in their country: eighteen responding agencies agreed, four disagreed and two did not know. Similarly, most also agreed that gender equality was an important policy issue in their country: seventeen respondents agreed, two disagreed and four did not know. However, only a minority reported policy interest in the intersection of these issues – eight respondents agreed that the need to address the financial literacy of women and girls was an important issue, while twelve disagreed and four did not know. Respondents noting the importance of women and girls’ financial literacy as a national policy issue were asked which aspects of financial concern were the most pressing.

Table 3. Key Areas of Policy Concern

Areas of Policy Concern	Country	Count
Knowledge of basic financial concepts	Chile, India, Lebanon (b), Turkey	4
Access to financial products and services	Australia, Palestine, Lebanon (a), Turkey	4
Awareness of financial products and services	Chile, Palestine, Turkey Australia, India, Lebanon	3
Managing credit	(b)	3
Long term planning for retirement	Australia	1
Confidence when dealing with financial products and services	Chile, Lebanon (a)	2
Saving and investing wisely	India, Lebanon (a)	2
Day-to-day financial management and budgeting	Lebanon (b)	1
Other: no relevant data available	Slovenia	1
Other: financial fraud on elderly, esp. elderly women	Japan	1
Other: Gender disparities in financial matters are not recognized as an issue	Czech Republic	1

Despite limited survey results due to the relatively small sample size, the responses received demonstrate the range of policymakers’ awareness regarding gender differences in financial literacy. Roughly half of the respondents reported that such gender differences are not an important policy concern. Note that this does not discount the importance of gender gaps themselves: a closer look reveals that of these eleven countries, only three reported insignificant gender differences.

In most instances, the issue is somewhat more nuanced. In some cases, countries where there is a measured gender difference report a variety of activities, such as Australia.⁸ Australia reported that financial literacy skills (particularly in relation to superannuation) are seen as an integral part of improving women’s economic security, one of three nationally-agreed priority areas for women’s policy. In Australia, even in instances where measured average gender gaps are not large, policy makers are proactively carrying out activities such as research on risk factors for negative impacts on women in retirement. In countries where financial systems are only beginning to develop or where overall financial literacy is extremely poor, gender differences may not yet be obvious. It may also be the case that the ability to conclusively establish disparities is too limited; three of the seven responding countries

reported that relevant data on gender differences is not available. However, a comparison of responses received from the INFE Member Survey to Figure 3 reveals two instances where respondents from countries with survey data reported 'not knowing' or 'having no relevant data' available. In another two instances, respondents indicated that the evidence suggested no significant gender differences, in spite of contradictory reported findings from their country surveys. This suggests a possible disconnect between efforts to collect and analyze data, and efforts to disseminate existing information and research findings. The dissemination of research results still needs to be a high priority within the policy community.

Furthermore, for the eight countries indicating that gender differences are an important policy issue, even the most basic financial knowledge is an area of particular concern. As discussed later, all countries responding the question about subpopulations indicated that "low-income" is an important group. In these countries, at least, there is a strong perceived need around women with little or no financial literacy coupled with lower socio-economic status (lower income, lower employment, lower educational access).

How do gender differences affect specific subgroups?

Evidence from the literature

It is important to consider not only disparities between women and men, but also disparities within the larger population of women in any one country. However, many national surveys do not have sufficient statistical power to permit subgroup analysis. In this section, we rely primarily on the general research literature and review studies that were found to cover specific subgroups of women (hence, groups that were not explicitly found in the literature were not included). Although few such studies quantitatively measure financial literacy, it may be possible to gain qualitative insights about either the level of financial literacy or its particular importance for the subgroup of interest.

Elderly Women. Using their battery of financial knowledge questions (Lusardi and Mitchell, 2008; Lusardi, Mitchell et al., 2009b) find that women over 50 in the 2004 and 2008 Health and Retirement Study have significantly lower financial literacy than men. Similarly, evidence from Australia shows that women aged 70 years or over have significantly lower mean financial literacy scores than men of the same group, as well as women on average (ANZ Banking Group, 2008). These insights are echoed by qualitative studies such as those undertaken by Into (2003), which indicates that older women value financial independence but worry about their ability to retain it as they age.

Young Women. In the United States, low levels of financial knowledge among women have been found in surveys covering younger groups of the population (Lusardi, Mitchell et al., 2009a; Lusardi and Tufano, 2009). Using a sample of 924 US college students, Chen and Volpe (2002) found that male college students outperformed female students on general knowledge, savings and borrowing, and insurance and investment questions. In Canada, a 2008 survey of youth showed that young Canadian women were less likely to save, stick to their budgets, and have sole responsibility for day-to-day finances as compared with men in the same group. While they were more likely to own mainstream financial products such as checking and savings accounts and student loans, they were also more likely to hold credit card debt and report they could not cover all their expenses in some months (Financial Consumer Agency of Canada, 2008).

We note however, that results from the Jump\$Start Coalition for Personal Financial Literacy, a biennial nationwide survey of the financial knowledge of US high school students, have shown that high

school students perform at a “failing” level, with scores getting worse over the years. Although males performed marginally better in 2008, this trend has since reversed, resulting in no statistically significant differences in mean scores by gender over the years. Furthermore, in 2008, when the survey was administered at the college level, women outperformed men (Mandell, 2008).

In addition to performance on knowledge tests, there are other important attitudinal factors that may be at play in this population. Young women express less interest in personal finance than young men (Chen and Volpe, 2002). Girls also appear to be less confident in learning mathematics – perhaps indicating a discomfort when working with numbers that could impact on their later financial behaviour: among school-aged children on average, across all 59 participating countries girls report feeling less confident than boys in learning mathematics even though eighth-grade girls outperformed boys on the TIMMS test of mathematical achievement (Mullis, Martin et al., 2008)⁹.

More data on youth is forthcoming in the first large-scale internationally comparable assessment of youth financial literacy in 2013—as part of the 2012 OECD Programme for International Student Assessment (PISA), an internationally standardised assessment for 15-year-old students. The next scheduled PISA test—focused on mathematical literacy—will be conducted among sixty-five participating countries or regions in 2012. Students in 19 countries: Australia, Belgium (Flemish Community), Brazil, Shanghai-China, Colombia, Croatia, Czech Republic, Estonia, France, Israel, Italy, Latvia, New Zealand, Poland, Russia, Slovak Republic, Slovenia, Spain and the United States will be asked financial literacy questions. Results, to be made available in 2013, will enable researchers to make gender comparisons among youth using internationally comparable data.

Women Affected By Family Status. Although few studies were found linking variations in economic well-being by family status to financial literacy, more generally it is important to recognise that financial literacy can be an important part of providing women with the skills to navigate the economic impact of life-events related to family status (for example, divorce may entail reduced household income, housing issues and becoming a lone parent). There is significant evidence, moreover, documenting that marriage, childbirth, divorce, or widowhood differentially affect the financial behaviour of women as compared to men. Using data from the British Household Panel Survey (BHPS), Westaway and McKay (2007) find that women’s savings and debt levels are more subject to life transitions and recover more slowly and less completely than men’s. Women are also more likely to be vulnerable to transmitted debt – that is taking on debt from a spouse or partner as guarantors of loans— this debt remains even if separation occurs. Separation and divorce are therefore more likely to impact older women’s economic well-being, resulting in increased vulnerability to poverty (Davies and Denton, 2002). Similar findings in the United States show that although marital disruption (through separation or death) reduces the wealth of both men and women, the effects are more profound for women (Gillen and Kim, 2009). The changing status of families in present societies may therefore lead to increased vulnerability for certain groups of women.

Female Entrepreneurs in High and Low Income Countries. One important feature of household economic life that is less frequently analysed in national surveys (due to small sample sizes) is self-employment, or entrepreneurship. In many instances, the line between household finance and business skills is not well-defined, particularly if the enterprise is very small. Financial literacy for women is particularly relevant to this domain, especially in societies where women’s economic participation outside the home is limited to the typical context of small-scale, informal household enterprise. A host of development organisations, for instance the microfinance and self-help group movement, has thus attempted to increase women’s empowerment by building women’s ability to successfully start and manage small-scale or micro-enterprises (Van Leeuwen, 2003; Lee, 2004)

Across a number of countries¹⁰, both qualitative and quantitative evidence shows that women are usually less, and never more likely to become entrepreneurs than men (Langowitz and Minniti, 2007; Startiene and Remeikiene, 2008; Minniti and Naude, 2010). Studies from a wide range of countries and contexts, including the United States, the Dominican Republic, Malaysia, Malawi, Ghana, Mexico and South Africa, suggest that when they do in fact start businesses, they are less successful (Robb and Wolken, 2002; Robb, 2002; Fairlie and Robb, 2009; Espinal and Grasmuck, 1997; Karupiah, 2010; Chirwa, 2008; Bhasin, 2009; Cohen, Everett et al, 2009 and Mahadea, 2001).

The literature has put forward many non-exclusive explanations: women may have fewer years of experience and less formal education (Chaganti and Parasuraman, 1996; Espinal and Grasmuck, 1997), different preferences over labour time (Fairlie and Robb, 2009; Verheul, Carree et al., 2009), may experience potentially discriminatory limitations on access to finance (Kevane and Wydick, 2001; Bushell, 2008; Muravyev, Talavera et al., 2009; Bellucci, Borisov et al., 2010) and may be restricted to less profitable industries (Espinal and Grasmuck, 1997; Hussein, 1997; S. de Mel, D. McKenzie et al., 2009).

The contribution of financial literacy to successful micro-entrepreneurship is also potentially a critical factor (and the implicit assumption behind many ongoing training programmes, discussed later). While few studies have included explicit measures of financial literacy in their analysis, recent work in the United States examining gender differences in measures of entrepreneurial ability (apart from formal education) finds that it can account for a significant portion of the gender gap in entrepreneurship (see Thebaud, 2010), controlling for other factors in a setting where discrimination in access to finance can be ruled out (Robb and Wolken, 2002; Blanchard, Zhao et al., 2008). In South Asia, new evidence from randomised trials on microfinance loans for women in India has found that microfinance leads to increased entrepreneurship but ultimately yields mixed results on actual household expenditures and no effects on health, education and other welfare outcomes (Banerjee et al., 2010). Other evidence suggests that microfinance clients may still have much to learn about how their loans work. Working with two large, women-only lenders in India, Tiwari, Khandelwal et al. (2008) find that microfinance borrowers know very little about the interest rate at which they have borrowed or about the total interest expense on the loan and instead think about loans in terms of what they owe from week to week.

The knowledge aspect of financial literacy alone however may not be enough: in developing countries, a seminal study of entrepreneurs receiving small grants in Sri Lanka by de Mel et al. (2009) finds greater investment returns among men as compared with women, even when controlling for industry. While they find no evidence that the performance gap was explained by differences in financial knowledge, women still puzzlingly either failed to invest in their enterprises or did not generate additional profits when making investments, suggesting failures in some other aspect of literacy. Key attitudinal factors that are part of financial literacy such as motivation and confidence may also be important, especially where institutional and social barriers are high, regardless of a country's level of development (Shabbir and diGregorio, 1996; Amine and Staub, 2009; Bowman, 2009; Bowman, Cutura et al., 2009; Rodriguez and Santos, 2009).

Immigrants, Indigenous groups and Other Marginalized Populations. While quantitative studies on these populations are limited, qualitative studies in a number of countries on women from indigenous groups, female immigrants and asylum seekers suggest the demands of being financially literate not only include learning how to navigate a financial system with different institutional features but also require overcoming additional social barriers. Language barriers may themselves be sufficient to prevent economic participation. For instance, even if a woman (or man) with a minority linguistic, ethnic or religious background speaks the local language, her accent and colloquialisms may prevent her from

gaining full acceptance, capping her economic participation through a discriminatory “accent ceiling” (Billore, Zainuddin et al., 2010; Collins and Low, 2010; Selvamalar, 2010).

INFE Member Survey

OECD/INFE member countries responding to the INFE Member survey (INFE Member Survey on Gender and Financial Literacy, 2011) were asked to provide information on subpopulations of women whose financial literacy is of particular concern. The twelve survey responses are summarized in Table 4. Nine responding agencies indicated that the financial knowledge of low-income women is an important issue. Other subpopulations commonly mentioned include both young and old women, and also those who lack access to mainstream financial services.

Table 4. INFE Members’ Perceptions of Women Vulnerable Subgroups

Groups	Country	Count
Low-income	Australia, Chile, India, Lebanon (a), New Zealand, Netherlands, Palestine, Spain, Turkey	9
Youth	Australia, Chile, India, Lebanon (a), Lebanon (b), Turkey	6
Elderly	Australia, Chile, Japan, New Zealand, Turkey	5
Unbanked/Underbanked	Chile, India, Palestine, Turkey	4
Recently-separated/widowed/divorced	Netherlands, New Zealand, Spain	3
Immigrants	Australia, Netherlands, Spain	3
Single mothers	Australia, Netherlands	3
Ethnic minorities	New Zealand, Spain	2
Employees	Lebanon (b), Turkey	2
Other: Women with disabilities	Australia, Lebanon (a)	2
Other: Women in remote areas	Australia	1
Other: All elderly people, not only women	Czech Republic	1

2. What factors may drive gender differences?

At this stage, potential causes of gender differences in financial literacy – where they exist – should be considered with caution as research in this area is still in its infancy. In addition to this, the factors affecting gender differences are not easily identified, and it is difficult to establish links of causality. One important component of the future work of the subgroup and INFE will be to further explore and qualify these causes where possible. Taking this into account, this section reviews some preliminary avenues for further research based on indications of what the existing literature and INFE survey suggest.

Evidence from the literature

Firstly, differences in underlying skills are likely to play a critical role. In developing countries, a first order concern in this respect is girls’ access to schooling (Alderman, Behrman et al., 1996). Research drawing on the OECD-PISA scores among students in 55 countries, shows a positive association between educational attainment, performance on the PISA test of knowledge and skills and economic literacy (Jappelli, 2010). There are three aspects of this problem: firstly, in many regions of the developing world

girls continue to receive less education than boys (Glick, 2011). Secondly, where girls nominally have access to schooling, educational choice may be constrained by economic or social norms; for instance, qualitative research in India notes that Punjabi women report discrimination in their access to colleges and government training programmes. Courses available to rural women provided skills that would assist them in the marriage market and not in the labour market (Simmons and Supri, 1999).

The argument that skill differences are caused (in part) by external constraints is relatively clear. However, even in developed countries where access to schooling is virtually universal, important and relevant differences persist and evidence on their nature and cause remains less than conclusive. Gaps in advanced mathematical skill may be particularly important if we believe that financial literacy depends on numeracy or arithmetic: In mathematics, tertiary graduation rates for females are still lower than the graduation rates for males (OECD, 2009). In mathematics in PISA 2003, males often outscored females, and in PISA 2006, males were better at explaining phenomena scientifically (OECD, 2009). However, in contrast, the results of the 2007 Trends in International Mathematics and Science Study (TIMSS) test conducted among 425,000 students in 59 countries worldwide finds no difference in average male and female mathematical achievement in the fourth grade. By the eighth grade-level, girl's scores are actually statistically significantly higher than that of boys (Mullis, Martin et al. 2008). Furthermore, Hyde and Linn (2006) review 46 meta-analyses addressing gender differences in mathematical, verbal, and spatial abilities; aggression; leadership effectiveness; self-esteem; and computer use, covering more than 5000 individual studies and 7 million subjects. There were no gender differences in deeper understanding of mathematical concepts at any age, but for complex problem solving, a small difference favouring boys emerges in high school related to mathematical performance and spatial perception. Given these mixed findings, this is an area that warrants further exploration.

Another possible explanation for gender differences in financial literacy relates to differences in opportunity for exposure to financial products and the opportunity to learn by doing. In the household context, a primary reason for this could be intra-household specialisation. Depending on cultural and societal norms, men may hold primary or exclusive responsibility for certain aspects of financial decision making. Other barriers to women's participation in household financial matters include explicit and implicit barriers to working outside the home, accessing credit or holding property. Even in a more developed country setting, such as the United States, within most married households, men are usually the financial managers (Hsu, 2011). Although work by Smith, McArdle et al. (2010) and Fonseca, Mullen et al. (2010) find that relative levels of numeracy and formal education are the underlying determinant of who makes financial decisions, Hsu (2011) finds that intra-household specialisation still plays a role. Hsu shows that some variation can be explained as a strategic response to incentives over the life cycle, since women's self-assessed and measured financial literacy increases in anticipation of widowhood, as does their seeking out of financial information. Other evidence shows that divorced women have less financial knowledge as compared to those who were never married (Zissimopoulos, Karney et al., 2008).

Outside the household context, in some countries, institutional and social barriers to financial access for women may reduce opportunities for experiential learning. Using the cross-country Business Environment and Enterprise Performance Survey (BEEPS), Muravyev, Talavera et al. (2009) find that women lack access to formal credit - female-managed firms are less likely to obtain a bank loan; and female entrepreneurs are charged a higher interest rate on loan approval¹¹. Using data from a Brazilian microfinance institution, Agier and Szafarz (2011) show discrimination in loan allocation to female entrepreneurs. It is reasonable to assume that these differences may attenuate in more financially developed countries. Consistent with this argument, Blanchard, Zhao et al. (2008) and Robb and Wolken (2002) find that United States lenders do not discriminate against women. Barriers to access, moreover,

may be more subtle: an analysis of detailed lending transactions made by Italian regional banks in 2004 and 2006 reveals no gender price discrimination but does find evidence of higher cost and tighter borrowing requirements for women, even controlling for borrower characteristics (Alesina, Lotti et al., 2008; Bellucci, Borisov et al., 2010). In the absence of access to formal financial services, women may thus turn to a range of coping strategies that involve social networks and mutual assistance. For instance, research in Ghana shows that female entrepreneurs tend to have more difficulties in accessing bank financing but they compensate by cultivating social relationships and using the social capital derived from them as a resource leveraging mechanism (Kuada, 2009). While such strategies may help women get by, the larger picture suggests that this may create a self-perpetuating cycle that inhibits women's learning about the formal financial marketplace.

A third possible explanation for gender differences in financial literacy can be found in differences in how men and women acquire financial literacy, given the same endowments and opportunities. Attitudes related to self-efficacy can significantly impact learning. As noted earlier, girls report feeling less confident in learning mathematics even when they outperform boys. The TIMMS report indicates a correlation between self-reported confidence in learning mathematics in the fourth grade and later mathematics achievement (Mullis, Martin et al., 2008). Hirschfeld, Moore et al. (1995) suggest that confidence and competitiveness explain gender differences in the scores of US male and female college students taking the Graduate Record Exam (GRE) Subject Test in Economics.

Women's learning is also potentially more responsive to the social environment. In a developing country context, this may mean that women's ability to learn is embedded within a social network. For instance, in rural Paraguay, a woman's social network is found to affect her demand for financial capital – female demand for finance rises with the proportion of social ties to other capital-seeking women (Fletschner and Carter, 2008). However, even in a developed country context, stereotypes that affect learning may persist: Spencer, Steele et al. (1999) provide experimental evidence from the United States that negative stereotypes inhibit women's mathematics performance: women are found to greatly underperform when explicitly told that the math test is gender biased – and to perform equally well when the test is purported not to yield gender differences, controlling for maths background/qualifications.

Finally, one alternative explanation of the gap in men and women's financial literacy that has been suggested is differential responses to test format, such as the use of multiple-choice questions versus essay-format, which is reported to reduce gender differentials (Hirschfeld, Moore et al., 1995). Although the impact of test design is relatively small compared to the overall size of the observed gaps (Walstad and Robson, 1997), it should be noted that recent research into this field suggests that attention to format can help. This point has been taken into consideration during the design of the OECD Financial Literacy Questionnaire, which involves a range of question formats in order to reduce bias.

INFE Member Survey

The 2011 INFE survey also asked respondents about possible causes of gender differences in financial literacy. We received responses from ten countries on these questions.

The following causes have been stressed:

- Almost all countries cite gender differences in *socioeconomic conditions* as a possible cause for gender differences.

- Seven responses specifically mention women’s typically *disadvantaged status in the labour market*—either lower employment or lower income.
- Traditional gender roles in household decision making (including finances) was cited in four responses
- Four responses cite *lower access and attainment in education for women and girls* as a possible cause of gender differences in financial literacy.
- One country’s response indicated that *key differences in the way that men and women process information* may explain important differences in women’s lower financial knowledge.

3. Financial education programmes aimed at addressing women’s needs

Review of literature and programmes

For policymakers, given that there is reasonable evidence of gender differences in financial literacy, and that these typically disadvantage women, financial education for women appears to be a straightforward solution. The key question given women’s differential environmental considerations and learning styles would appear to be which types of programmes are best suited for women. However, it is difficult to answer this question, as there is a surprising dearth of robust academic research on financial education programmes for women. This is partly a result of the lack of evaluation more generally (see, for example, INFE 2010; Lusardi 2011; Lyons, Palmer et al., 2006; Hathaway and Khatiwada, 2008; Lyons and Neelakantan, 2008; O’Connell, 2008 for a review of issues related to the evaluation of financial education programmes). Surprisingly, even when qualitative or quantitative evaluation was available, few studies explicitly examined the potential for financial education to close the gender gap (mostly examining results only for women rather than for women relative to men). Many social programmes with a financial training component do not evaluate that component independently. Below, we review highlights of the small existing literature.

Of the programmes that were reviewed, consistent with the previous findings related to gender differences in developed countries, most programmes focused on savings, retirement planning and long-term wealth accumulation. In general, evidence from developed countries suggests that a variety of financial education programmes in the workplace, school or through other means, can positively affect financial literacy related to retirement savings for both men and women (Duflo and Saez, 2003; Bernheim and Garrett, 2003; Lusardi, 2004; Lusardi and Mitchell, 2007b).

Some of these programmes, such as those for low-income populations may *de facto* be targeting women. In the United States, financial education for participants in matched-savings (Individual Development Accounts) programmes is not specifically for women, but 80% of IDA participants are women and 79% are unmarried. Similarly, in Australia, the Saver Plus programme funded by ANZ and the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs, provides matched savings for participants. The programme is not specifically targeted at women, but the independent evaluation of the programme over 2006-2009 indicated that the majority of participants were female (86.4%). Research from the US suggests within the IDA scheme, each additional hour of financial education up to a ceiling of 12 hours, has a large, positive effect on savings, . However, beyond 12 hours, there is no additional benefit from financial education (Clancy, Grinstein-Weiss et al., 2001).

However, even a generic financial education programme may affect women and men differentially. Given that women are less (over)confident, it is possible that women are more “teachable” than men. In a positive example, Lyons and Scherpf (2003) examined the impact of the FDIC’s Money Smart programme—a financial education campaign that encourages participants to open a bank account – and found that female participants were more likely to report intent to do so after the programme. Likewise, in the United States, Cole and Shastry (2010) find that increases in the number of mathematics courses required in high school affects the financial behaviour of women but not men. On the other hand, in the United Kingdom, Burke, FitzRoy et al. (2002) showed that generic post-compulsory education and professional training are related to the size and value of men’s businesses but have a negligible effect on female entrepreneur’s performance.

There is also the issue of differential programme take-up. For example, in the United States Bernheim and Garrett (2003) found that women were more likely to work for employers offering retirement education, but despite the greater availability to women of retirement education programmes in this study, their use of such programmes is not proportionally higher. Even if educational programmes have the potential to positively affect women’s financial literacy, education will not occur if women fail to respond.

If women do not respond well to generic financial education it may be necessary to specifically target them through programme marketing and design. Indeed following their critical review of financial education programme impact, Hathaway and Khatiwada (2008) conclude that highly targeted and timely programming directed at definite subpopulations and relevant to specific financial activities is needed for programmes to be effective. Some financial education programmes have achieved success by paying particular attention to a subpopulation of interest. For example, the Women’s Financial Information Program (WFIP), a large-scale 7-week programme in the United States aimed at midlife and older women is found to positively affect women’s self-reported financial behaviour and confidence (deVaney, Gorham et al., 1995). Other programmes have targeted groups in a timely way, for example the German scheme “Finanzmanagement in jungen Haushalten” or “Financial management in young households” (Habschick, Seidl et al., 2007) and similarly the United Kingdom’s “Parents Guide to Money” addressed the financial education of new mothers and parents.

In developing countries, many financial education schemes focus on remedying the barriers to credit and formal labour force participation that disproportionately affect women. A large number of economic development microcredit and micro-enterprise programmes are targeted largely or even exclusively at women. In practice, at present, many such programmes *de facto* if not *de jure* include a financial counseling and support component either through formal training or via peer education, regular meetings, and mentoring. For example, such support is a vital part of BRAC’s benchmark Ultra Poor programme, an asset-transfer programme which aims to help the very poorest women accumulate wealth (Halder and Mosley, 2004). In India, Creevey and Edgerton (Creevey and Edgerton, 1997) find that training in the context of microenterprise programmes can have independent, positive impacts on income-generating ability, as well as other effects on increasing socio-political participation for the enrolled women. This is also the case for low-income populations in high-income countries: Ehlers and Main (1998) argue that the training component of microenterprise programmes in the United States for low-income and welfare-dependent women is particularly important, as it can reinforce rather than eliminate gender differences by steering women into low-return ‘pink-collar’ businesses.

It is important to note however, that given the complexity of the environment in which they operate, such programmes face many challenges and may have unexpected results. Financial education

may end up benefiting some groups more than others, or may fail to help those most in need. For instance, work on female micro-entrepreneur clients of a bank in Peru finds that financial literacy training had no impact on business income or assets but resulted in higher repayment and client retention rates for the lender (Frisancho et al 2008, cited in Cole et al. 2009). In another example, Field, Jayachandran et al (2010) conducted a field experiment with basic financial literacy training for poor self-employed women in India. While the training helped women whose businesses had been held down by social restrictions, women subject to extreme restrictions had too little agency to easily change their aspirations or activities.

INFE Member survey

This section uses the results tabulated from eleven responding countries on their known past, ongoing, or planned financial education programmes addressing the needs of women and girls. Details gathered include target groups, participation, programme purpose, and programme implementation. Finally, the third section of the survey asked about financial education programme evaluation methods and findings. Twelve respondents reported on some kind of financial education programme. Portugal and Slovenia noted that national financial education programmes are planned, but they will not be specifically targeted to women and/or girls. In more than half the sample, consistent with the data on policy priorities, respondents said that there were no programmes reported that affected women’s financial literacy, even indirectly. Figure 5 summarises the responses received.

A small but active minority of five responses - Australia, India, Lebanon (the response from Al Majmoua - The Lebanese Association for Development), Singapore and Turkey - reported financial education programmes that are exclusively designed for women or girls. In Australia, the Financial Literacy Foundation conducted the Women Understanding Money campaign in 2008¹². Australia also noted that many community sector organisations and consumer groups (sometimes in partnership with state governments) provide financial literacy programmes and / or information products targeting disadvantaged groups, including women. India reported a range of women’s economic empowerment programmes across the country. Lebanon reported its program, Femmes Entrepreneuses en Mediterranee. Singapore’s Citi-Tsao Foundation Financial Education Programme for Mature Women targets low-income women aged 40 and over. In October 2010, the Capital Markets Board of Turkey launched their programme on capital markets-related financial education for women.

Figure 5. What Kinds of Financial Education Programmes For Women Currently Exist?

Exclusive to women/girls	Australia, India, Lebanon (a), Singapore, Turkey
Targeted to women/girls	Australia, Lebanon (b), New Zealand, Palestine, Poland, UK
Targeted to other groups, but most participants female	Australia, Spain
Not targeted to women and girls	Australia, Portugal, Slovenia
No programmes reported	Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, Japan, Luxembourg, Malaysia, Netherlands, Paraguay, Serbia, Switzerland

The Lebanese Council of Women, New Zealand, Palestine, Poland, and the UK reported programmes that are open to all, but targeted on women and girls. In New Zealand, Te Puni Kōkiri (Ministry of Māori Development) funds a financial education programme implemented by the Maori Women’s Welfare

League. In Palestine, the USAID Expanded and Sustained Access to Financial services (ESAF) programme funds a public awareness campaign that aims to enhance financial knowledge, increase access to financial products, and change attitudes and behaviour. The Polish Financial Supervision Authority is preparing an educational campaign targeting families, focusing on the role of women in Polish households. Poland also noted that two banks supervised by the Polish Financial Supervision Authority have launched campaigns targeting women. In the UK, the Social Responsibility Levy on financial services firms funds a Parents' Guide to Money implemented by the Money Advice Service. The guide, which is distributed to expectant mothers by midwives, aims to reinforce confidence in financial decisions, enhance financial knowledge, provide practical skills, and provide information on benefits and entitlements for families¹³. Lastly, Spain reports on a financial education programme that targets low-income families, but in practice, most participants are women.

Although the INFE Member Survey requested information on performance evaluation and results, the response was negligible; leading us to conclude that the extent of programme evaluation is presently very limited. Only three programmes—in Lebanon, Spain and the UK have completed evaluations, while Turkey and Palestine report that evaluation is forthcoming or underway. The Lebanese Association for Development reports conducting both process and impact evaluations, using both randomly-selected control groups and a before-and-after evaluation design. Process and impact evaluations of the Spanish programme, *Educacion Y Asesoramiento Financiero* were conducted using qualitative, quantitative and monitoring data. Similarly, a post- exposure outcome evaluation of the UK "A Parent's Guide to Money" was performed using quantitative methods. Both countries reported that results showed that participant's confidence in financial matters, self-assessed ability, financial knowledge and financial behaviour were all better after exposure.

Overall, the findings of the INFE member survey have highlighted that even within a fairly small group of countries, perceptions, needs and policies regarding gender disparities in financial literacy are quite diverse. Some countries have designed and implemented financial education programmes to meet women's needs, and a few are starting to report success in doing so. However, in general evaluation is an area that could be further encouraged in order to identify useful and replicable best practices.¹⁴

Conclusions and Next Steps

The existing research literature shows that while financial literacy is an important basis for effective financial decision-making (and ultimately financial well-being), there are significant differences by gender across a range of developed and developing countries.

Broadly speaking, women's financial knowledge and confidence are typically found to be the same as or lower than that of men. Although some studies of financial capability/literacy show that women tend to do better at day-to-day household money management, they still fare worse in other critical areas of planning, choosing products and staying informed. These domains are fundamental not only to long-term wealth-building but also for improving financial inclusion and entrepreneurial skills. However, apart from these broad trends, we also note that the extent of the problem is not uniform: levels of financial literacy for women, both absolute and relative, vary significantly across countries. Moreover, it is difficult to identify the factors affecting gender differences in financial literacy and to pin down causal links. Research on the likely determinants of these disparities highlights some barriers that require further investigation, including fewer opportunities for experiential learning through participation in household financial decision-making and working outside the home, accessing credit or holding property as well as gender-specific differences in the process of learning about financial literacy.

It should be noted that much of the previous literature relies on disparate datasets, only a few of which have common measures; when drawing global inferences, therefore, much caution has to be used. New research using internationally-comparable measures is needed not just to explore new research questions but also to revisit and extend existing analyses and conclusions with new data that also allow for international comparisons. Moreover, there is scope for further data collection and research efforts addressing financial skills and attitudes, rather than just financial knowledge, such as those carried out through the OECD/INFE financial literacy measurement pilot and the OECD PISA financial literacy assessment.

Finally, given the gender differences, the question of how women can individually and collectively gain economic empowerment is still very much an issue. Based on both secondary research as well as a survey of INFE members, we found that the policy response is relatively mixed. An important issue is that truly actionable evidence about the nature of the gender gap, and the appropriate design, implementation and measurement of suitable interventions is either non-existent, or as the results imply, may not be available. The findings also suggest that few existing programmes have put in place strong evaluations designed to yield results for future policymakers.

On the basis of the research review, and on the suggestions of the two co-chairs, a roadmap for the INFE subgroup work in 2012/2013 has been put forward based on 3 main interconnected work streams. The roadmap lays out the key steps needed to help countries around the world improve financial literacy and status of women: collection and analysis of systematic, internationally comparable data; identifying and analyzing effective financial education programmes; and development of high-level policy analysis. The outputs of the proposed roadmap will make significant strides toward the ultimate goal of economic empowerment for women.

APPENDIX: AUGMENTING LITERATURE SEARCH METHODOLOGY

Search Strategy

The purpose of this search was to augment the research papers already selected for inclusion in the literature review on the gender gap in financial literacy. The initial literature keyword searches has been conducted in the economics literature using econlit, JSTOR, google scholar, NBER, and using material provided by the OECD. Only very high quality academic studies with direct relevance to women and financial literacy had been selected and reviewed.

To augment the initial searches, we used a multi-step search strategy. First, a broadly relevant range of published and working papers was collected using a title keyword search in fifteen bibliographical databases. Titles were subsequently screened for topical relevance to the OECD literature review and for the quality of the research. The titles were then divided into several subtopics where our existing knowledge was thin. Papers in each subtopic area were screened for quality and then reviewed in detail. Papers passing the final quality screen were included in the paper.

The first stage of the augmenting literature search employed a comprehensive keyword title search using individual search terms at the intersection of two domains; finance or financially-related behaviour and women. Individual search terms were used in combination with the terms from the other construct domain, to ensure retrieval of the breadth of potentially relevant studies. As shown in Table A1 below, combinations of the search terms in formats applicable to each database and website were used. Truncation was used as appropriate (e.g. financ* AND economic*). Thesauri and indexes were consulted in those databases that have these features (for example, EconLit). Relevant subject headings were included as appropriate, along with keywords from titles and abstracts.

Table A1. Literature at the intersection of finance and gender were sought using broad search terms

Finance	Women
financ* OR economic* OR business* OR enterprise* OR entrepreneur* OR management OR pension* OR "financial planning" OR retir* OR saving* OR save OR invest OR investing OR invests OR investment* OR debt OR borrow* OR loan OR accounting OR money OR cash OR budget* OR microcredit* OR microfinanc* OR microloan* OR "micro finance" OR "micro credit" OR "micro loan" OR "micro-credit" OR "micro-finance" OR "micro-loan"	TITLE (wife OR wives OR women OR woman OR girl* OR female* OR gender OR mother* OR "intra-household" OR intrahousehold OR "within-household" OR "intra household" OR "within household" OR intrafamily OR "intra-family" OR "intra family")

Titles in fifteen bibliographical databases were searched using the search terms in Table A1; 3ie, Academic Search Elite, Business Source Premier, Contemporary Women's Issues, Econlit, JSTOR, National Bureau of Economic Research, PAIS (Public Affairs Information Service), Social Science Abstracts, Sociological Abstracts, United Nations, Web of Science, WorldCat, Worldwide Political Science Abstracts, World Bank.

The time period covered was from 1995 - 6/28/2011 and searches were conducted of English-titles only.

Results

A total of 5,345 documents were tagged and imported into an Endnote library using the broad title search strategy. A researcher subsequently screened each title for topic relevance, identifying a subset of 1,097 titles that addressed gender gaps in financial knowledge, attitudes, perceptions and behaviour and their underlying causes.

Based on a more in depth review of the title and abstract, the researcher then grouped the papers according to subtopics where the existing literature was thin. About 400 papers were sorted into the subgroups; including women’s entrepreneurship; minority and low-income women; financial education and training; and papers looking at mechanisms causing women’s lower levels of financial literacy.

The titles and abstracts in each subgroup were further reviewed for quality and kept if they were published in reliable, peer-reviewed journals or if they were working papers from known international institutions.

Table A2. Subtopics in women’s financial literacy and empowerment identified and papers reviewed

	Women’s Entrepreneurship	Minority and low-income women’s financial literacy	Financial education and training	Causal mechanisms determining the gender gap
Number of papers in the subgroup	187	140	61	10
Number passing the relevance and quality screen	70	29	22	5
Number of references cited	63	29	12	5

A copy of the paper was obtained, read and again reviewed for quality – topically-relevant papers meeting this final quality screen were included in the literature review.

Note

¹ www.financial-education.org

² Note that in practice, it should be recognized that the term “financial literacy” overlaps considerably in use with the term “financial capability”, although we refer exclusively to the former in this report.

³ Note that the term “financial literacy” used for this report and the INFE work in general encompasses this approach. Financial capability/literacy will therefore be used in the rest of the document whenever reference is made to countries that use “financial capability” rather than literacy (e.g. the UK and the US).

⁴ Financial Literacy: Results of the OECD INFE Pilot Study (INFE(2011)15); Financial Literacy: Methodological Report of the OECD INFE Pilot Study (INFE(2011)16); Core Questionnaire (for piloting) (INFE(2010)3/REV2).

⁵ Note that further research on gender differences in other aspects of financial literacy – such as attitudes and behaviour – will be conducted under the aegis of the INFE based on the results of the INFE pilot exercise.

⁶ The countries that answered this part of the questionnaire are: Australia, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, India, Japan, Lebanon (two responses from different agencies), Luxembourg, Netherlands, New Zealand, Palestine, Paraguay, Portugal, Serbia, Slovenia, Spain, Turkey and the United Kingdom

⁷ Australia’s response to the financial knowledge question is not included. They indicated that they thought the appropriate response was somewhere between “Somewhat lower” and “About the same.”

⁸ See <http://www.fahcsia.gov.au/sa/women/overview/ofw/Pages/default.aspx> for more information.

⁹ Fifty-nine countries participated in TIMSS 2007, see: http://timss.bc.edu/timss2007/PDF/TIMSS2007_InternationalMathematicsReport.pdf for a complete list.

¹⁰ Countries include Argentina, Canada, Denmark, Finland, Germany, Hungary, India, Israel, Japan, Korea, New Zealand, Poland, Portugal, Russia, Singapore, South Korea, Sweden, and the United States.

¹¹ 29 Countries are included in BEEPS; Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russian Federation, Serbia, Slovak Republic, Slovenia, Tajikistan, Turkey, Ukraine, Uzbekistan, Kosovo and Montenegro.

¹² The Financial Literacy Foundation ceased operation in June 2008 and its functions transferred to ASIC. ASIC has drawn on the findings of this campaign in developing content for its new MoneySmart website

¹³ While the “Parent’s Guide to Money” is not as extensive a programme as others reported under the definition in the survey, it has been kept in our sample as an example of an aspect of the UK national strategy designed specifically to target women (whilst not excluding men).

¹⁴ The OECD has a range of resources to support countries wishing to evaluate financial education programmes, including High-level Principles for the Evaluation of Financial Education Programmes (INFE(2010)12/REV2), Guide to Evaluating Financial Education Programmes (2010), and Detailed Guide to Evaluating Financial Education Programmes (2010), both available from www.financial-education.org.

REFERENCES

- Agier, Isabelle and Ariane Szafarz, "Credit to Women Entrepreneurs: The Curse of the Trustworthier Sex," ULB -- Universite Libre de Bruxelles, Working Papers CEB: 11-005, 2011.
- Alderman, Harold, Jere R. Behrman, David R. Ross, and Richard Sabot, "Decomposing the Gender Gap in Cognitive Skills in a Poor Rural Economy," *The Journal of Human Resources*, Vol. 31, No. 1, 1996, pp. 229-254.
- Alesina, A.F., F. Lotti, and P.E. Mistrulli, "Do Women Pay More for Credit? Evidence from Italy," NBER Working Paper Cambridge, Mass., USA, National Bureau of Economic Research 2008.
- Amine, Lyn S., and Karin M. Staub, "Women Entrepreneurs in Sub-Saharan Africa: An Institutional Theory Analysis from a Social Marketing Point of View," *Entrepreneurship and Regional Development*, Vol. 21, No. 2, 2009, pp. 183-211.
- ANZ Banking Group, *ANZ Survey of Adult Financial Literacy in Australia*, October 2008. As of September 27, 2011:
www.anz.com/Documents/AU/Aboutanz/AN_5654_Adult_Fin_Lit_Report_08_Web_Report_full.pdf
- Atkinson, Adele and Flore-Anne Messy, "Assessing Financial Literacy in 12 Countries: An OECD Pilot Exercise," *Journal of Pension Economics and Finance*, Vol. 10 No. 4, October, 2011 pp.657–665
- Azerbaijan Micro-finance Association, Results of the Financial Literacy Survey, Baku, Azerbaijan: Azerbaijan Micro-finance Association, December 30, 2009. As of September 27, 2011:
http://siteresources.worldbank.org/INTECAREGTOPPRVSECDEV/Resources/Financial_Literacy_Survey_Report_EN.pdf
- Banerjee, A., Duflo, E., Glennerster, R. and C.Kinnan (2010), "The Miracle of Microfinance ? Evidence from a randomized Evaluation", Working paper, MIT Department of Economics :
<http://econ-www.mit.edu/files/5993>
- Bellucci, Andrea, Alexander Borisov, and Alberto Zazzaro, "Does Gender Matter in Bank-Firm Relationships? Evidence from Small Business Lending," *Journal of Banking and Finance*, Vol. 34, No. 12, 2010, pp. 2968-2984.
- Bernheim, B.D., and D.M. Garrett, "The Effects of Financial Education in the Workplace: Evidence From a Survey of Households," *Journal of Public Economics*, Vol. 87, No. 7-8, 2003, pp. 1487-1519.
- Bhasin, Vijay, "Determinants of Technical Efficiency of Women Entrepreneurs in the Food Processing Enterprises in Cape Coast," *Ghana Policy Journal*, Vol. 3, 2009, pp. 24-47.

- Billore, Soniya, Ahmad Hj Zainuddin, Norashfah Hanim Yaakop Yahaya Al-Haj, and Daphne Halkias, "Female Immigrant Entrepreneurship: A Developing Sector in Japan's Entrepreneurial Economy," *Journal of Developmental Entrepreneurship*, Vol. 15, No. 2, 2010, pp. 165-186.
- Blanchard, Lloyd, Bo Zhao, and John Yinger, "Do Lenders Discriminate against Minority and Woman Entrepreneurs?," *Journal of Urban Economics*, Vol. 63, No. 2, 2008, pp. 467-497.
- Bosma, H., S. A. Stansfeld, and M. G. Marmot. "Job Control, Personal Characteristics, and Heart Disease." *Journal of Occupational Health Psychology* 1998. 3:402-409.
- Bowman, D. D., "The Deal: Wives, Entrepreneurial Business and Family Life," *Journal of Family Studies*, Vol. 15, No. 2, Aug, 2009, pp. 167-176.
- Bowman, Chakriya, Jozefina Cutura, Amanda Ellis, and Clare Manuel, *Women in Vanuatu: Analyzing Challenges to Economic Participation*: Washington, D.C.:World Bank, 2009. As of September, 2011:<http://search.ebscohost.com/login.aspx?direct=true&db=ecn&AN=1074548&site=ehostlive>
- Burke, Andrew E., Felix R. FitzRoy, and Michael A. Nolan, "Self-employment Wealth and Job Creation: The Role of Gender, Non-pecuniary Motivation and Entrepreneurial Ability," *Small Business Economics*, Vol. 19, No. 3, 2002, p. 255.
- Burkhauser, R.V., P. Giles, D.R. Lillard, and J. Schwarze, "Until Death Do Us Part: An Analysis of the Economic Well-being of Widows in Four Countries," *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, Vol. 60, No. 5, 2005, p. S238.
- Bushell, Brenda, "Women Entrepreneurs in Nepal: What Prevents Them From Leading the Sector?," *Gender and Development*, Vol. 16, No. 3, Nov., 2008, pp. 549-564.
- Campbell, John Y. , "Household Finance," *Journal of Finance*, Vol. 61, No. 4, 2006, pp. 1553-1604.
- Chaganti, Radha, and Saroj Parasuraman, "A Study of Impacts of Gender on Business Performance and Management Patterns in Small Business," *Entrepreneurship: Theory & Practice*, Vol. 21, No. 2, Winter 96, 1996, pp. 73-75.
- Chen, H., and R.P. Volpe, "Gender Differences in Personal Financial Literacy Among College Students," *Financial Services Review*, Vol. 11, No. 3, 2002, pp. 289-307.
- Chirwa, Ephraim W., "Effects of Gender on the Performance of Micro and Small Enterprises in Malawi," *Development Southern Africa*, Vol. 25, No. 3, 2008, pp. 347-362.
- Christelis, D., T. Jappelli, and M. Padula, "Cognitive Abilities and Portfolio Choice," *European Economic Review*, Vol. 54, No. 1, 2010, pp. 18-38.
- Clancy, M., M. Grinstein-Weiss, and M. Schreiner, "Financial Education and Savings Outcomes in Individual Development Accounts," St. Louis, MO, Center for Social Development, Washington University, 2001.
- Cohen, Jeffrey H., Brooke Everett, Analise Polsky, and Francisco Montiel-Ishino, "Gender, Work, and Opportunity in Oaxaca: Some Thoughts on the Importance of Women in the Economic Life of the Rural Village," *Research in Economic Anthropology*, Vol. 29, 2009, pp. 147-161.

- Cole, S., and G.K. Shastry, "Is High School the Right Time to Teach Savings Behavior? The Effect of Financial Education and Mathematics Courses on Savings," Harvard Business School/Wellesley College December 2010.
- Collins, Jock, and Angeline Low, "Asian Female Immigrant Entrepreneurs in Small and Medium-Sized Businesses in Australia," *Entrepreneurship and Regional Development*, Vol. 22, No. 1, 2010, pp. 97-111.
- Conger, Rand D., Glen H. Elder Jr, Frederick O. Lorenz, Katherine J. Conger, Ronald L. Simons, Les B. Whitbeck, Shirley Huck, and Janet N. Melby, "Linking Economic Hardship to Marital Quality and Instability," *Journal of Marriage & Family*, Vol. 52, No. 3, 1990, pp. 643-656.
- Creevey, L., and J. Edgerton, "Evaluation of the Impacts of Grassroots Management Training on Women in India," *Canadian Journal of Development Studies*, Vol. 18, No. 3, 1997, pp. 645 – 672.
- de Mel, S., D. McKenzie, and C. Woodruff, "Are Women More Credit Constrained? Experimental Evidence on Gender and Microenterprise Returns," *American Economic Journal: Applied Economics*, Vol. 1, No. 3, 2009 pp. 1-32.
- Davies, Sharon, and Margaret Denton, "The Economic Well-being of Older Women Who Become Divorced or Separated in Mid- or Later Life," *Canadian Journal on Aging*, Vol. 21, No. 4, 2002, pp. 477-493.
- Delavande, A., S. Rohwedder, and R. Willis, "Preparation for Retirement, Financial Literacy and Cognitive Resources," Working Paper Series, Michigan Retirement Research Center, September 1, 2008.
- deVaney, S., E. Gorham, J. Bechman, and V. Haldeman, "Saving and Investing for Retirement: The Effect of a Financial Education Program," *Journal of the Family Economics and Resource Management Division of AAFCS*, 1995.
- Doepke, M., and M. Tertilt, "Does Female Empowerment Promote Economic Development?," Policy Research Working Paper, The World Bank, June 2011.
- Duflo, E., and E. Saez, "The Role of Information and Social Interactions In Retirement Plan Decisions: Evidence From a Randomized Experiment," *Quarterly Journal of Economics*, Vol. 118, No. 8885, August 3, 2003, pp. 815-842.
- Eaton W, and Muntaner C., "Socioeconomic Stratification and Mental Disorder," in Horwitz AV and Scheid TL, eds., *A Handbook for the Study of Mental Health: Social Contexts, Theories and Systems*, New York: Cambridge University Press, 1999, pp. 259-283.
- Ehlers, T.B., and K. Main, "Women and the False Promise of Microenterprise," *Gender and Society*, Vol. 12, No. 4, 1998, pp. 424-440.
- Espinal, R., and S. Grasmuck, "Gender, Households and Informal Entrepreneurship in the Dominican Republic," *Journal of Comparative Family Studies*, Vol. 28, No. 1, 1997.
- Fairlie, Robert W., and Alicia M. Robb, "Gender Differences in Business Performance: Evidence from the Characteristics of Business Owners Survey," *Small Business Economics*, Vol. 33, No. 4, 2009, pp. 375-395.

Field, Erica, Seema Jayachandran, and Rohini Pande, "Do Traditional Institutions Constrain Female Entrepreneurship? A Field Experiment on Business Training in India," *American Economic Review*, Vol. 100, No. 2, 2010, pp. 125-129.

Financial Consumer Agency of Canada, *Youth Financial Literacy Study*, Ottawa: Financial Consumer Agency of Canada, August, 2008. As of September, 2011:

www.fcac-acfc.gc.ca/eng/resources/PDFs/YouthFinLit2008-eng.pdf

Fletschner, Diana, and Michael R. Carter, "Constructing and Reconstructing Gender: Reference Group Effects and Women's Demand for Entrepreneurial Capital," *Journal of Socio-Economics*, Vol. 37, No. 2, 2008, pp. 672-693.

Fonseca, R., K. Mullen, G. Zamarro, and J. Zissimopoulos, "What Explains the Gender Gap in Financial Literacy? The Role of Household Decision-Making," RAND Labor and Population Working Paper Series, Santa Monica, RAND Corporation, June 2010.

GENDERNET, "Women's Economic Empowerment: Issues Paper," Paris, OECD, April, 2011.

Gillen, M., and H. Kim, "Older Women and Poverty Transition," *Journal of Applied Gerontology*, Vol. 28, No. 3, 2009, p. 320.

Glick, P., "Policy Impacts on Schooling Gender Gaps in Developing Countries: The Evidence and a Framework for Interpretation." forthcoming in *World Development*, 2011.

Gornick, J.C., T. Munzi, E. Sierminska, and T.M. Smeeding, "Income, Assets, and Poverty: Older Women in Comparative Perspective," *Journal of Women, Politics & Policy*, Vol. 30, No. 2, 2009, pp. 272-300.

Habschick, Marco, Britta Seidl, and Dr. Jan Evers, *Survey of Financial Literacy Schemes in the EU27*, Hamburg: EVERS & JUNG, 2007. As of September, 2011:

http://ec.europa.eu/internal_market/finances-retail/docs/capability/report_survey_en.pdf

Haddad, L., J. Hoddinott, and H. Alderman, *Intrahousehold Resource Allocation in Developing Countries: Models, Methods, and Policy*: Johns Hopkins University Press, 1997.

Halder, S.R., and P. Mosley, "Working With the Ultra Poor: Learning from BRAC Experiences," *Journal of International Development*, Vol. 16, No. 3, 2004, pp. 387-406.

Hammack, P.L., W.L.V. Robinson, I. Crawford, and S.T. Li, "Poverty and Depressed Mood Among Urban African-American Adolescents: A Family Stress Perspective," *Journal of Child and Family Studies*, Vol. 13, No. 3, 2004, pp. 309-323.

Handa, S., and B. Davis, "The Experience of Conditional Cash Transfers in Latin America and the Caribbean," *Development Policy Review*, Vol. 24, No. 5, 2006, pp. 513-536.

Hathaway, I., and S. Khatiwada, "Do Financial Education Programs Work?," Working Paper, Cleveland, OH, Federal Reserve Bank of Cleveland 2008.

Hirschfeld, Mary, Robert L. Moore, and Eleanor Brown, "Exploring the Gender Gap on the GRE Subject Test in Economics," *Journal of Economic Education*, Vol. 26, No. 1, Winter, 1995, pp. 3-15.

- Hsu, J., *Aging and Strategic Learning: The Impact of Spousal Incentives on Financial Literacy*, Ann Arbor: University of Michigan 2011.
- Hurd, M.D., and D.A. Wise, "The Wealth and Poverty of Widows: Assets Before and After the Husband's Death," in Wise, David A., ed., *The Economics of Aging*, Chicago: University of Chicago Press, 1989.
- Husseini, Randa, "Promoting Women Entrepreneurs in Lebanon: The Experience of UNIFEM," *Gender and Development*, Vol. 5, No. 1, 1997, pp. 49-53.
- Hyde, J.S., and M.C. Linn, "Gender Similarities in Mathematics and Science," *Science*, Vol. 314, No. 5799, 2006, p. 599.
- Into, F. H., "Older Women and Financial Management: Strategies for maintaining independence," *Educational Gerontology*, Vol. 29, No. 10, Nov-Dec, 2003, pp. 825-839.
- INFE, Analytical Report on Evaluation of Financial Education Programmes [INFE(2010)5/REV1]
- INFE/OECD, "INFE Member Survey on Gender and Financial Literacy," 2011.
- Jappelli, Tullio, "Economic Literacy: An International Comparison*," *The Economic Journal*, Vol. 120, No. 548, 2010, pp. F429-F451.
- Karupiah, P., "Gender, Aspiration and Choice to Become an Entrepreneur Among Malaysian Graduates," *2010 International Conference on Humanities, Historical and Social Sciences*, Singapore, 2010, pp. 98-102.
- Kessler, R.C., and H.W. Neighbors, "A New Perspective on the Relationships Among Race, Social Class, and Psychological Distress," *Journal of Health and Social Behavior*, 1986, pp. 107-115.
- Kevane, Michael, and Bruce Wydick, "Microenterprise Lending to Female Entrepreneurs: Sacrificing Economic Growth for Poverty Alleviation?," *World Development*, Vol. 29, No. 7, 2001, pp. 1225-1236.
- Kuada, John, "Gender, Social Networks, and Entrepreneurship in Ghana," *Journal of African Business*, Vol. 10, No. 1, 2009, pp. 85-103
- Langowitz, N., and M. Minniti, "The Entrepreneurial Propensity of Women," *Entrepreneurship Theory and Practice*, Vol. 31, No. 3, May, 2007, pp. 341-364.
- Lee, Jamie Cistoldi, "Access, Self-Image, and Empowerment: Computer Training for Women Entrepreneurs in Costa Rica," *Gender, Technology and Development*, Vol. 8, No. 2, May-Aug, 2004, pp. 209-229.
- Lorant, V., D. Deliege, W. Eaton, A. Robert, P. Philippot, and M. Ansseau, "Socioeconomic Inequalities in Depression: A Meta-analysis," *American journal of epidemiology*, Vol. 157, No. 2, 2003, p. 98.
- Lusardi, Annamaria, "Saving and the Effectiveness of Financial Education," in Olivia S. Mitchell and Stephen P. Utkus, eds., *Pension Design and Structure: New Lessons from Behavioral Finance*: Oxford University Press, 2004, pp. 157-184.

- Lusardi, Annamaria, "A Framework for Evaluating Financial Education Programmes" in OECD, *Improving Financial Education Efficiency: OECD-Bank of Italy Symposium on Financial Literacy*, OECD Publishing, 2011.
- Lusardi, Annamaria, and Olivia S. Mitchell, "Financial literacy and planning: Implications for retirement Wellbeing". In Lusardi, Annamaria and Mitchell, Olivia S. (eds), *Financial Literacy: Implications for Retirement Security and the Financial Marketplace*. Oxford: Oxford University Press, October 2011a
- Lusardi, Annamaria, and Olivia S. Mitchell, "Financial Literacy around the World: An Overview," *Journal of Pension Economics and Finance*, Vol. 10 No.4, October, 2011b, pp 497–508.
- Lusardi, Annamaria, and Olivia S. Mitchell, "Financial Literacy and Retirement Planning: New Evidence from the RAND American Life Panel," Dartmouth College/University of Pennsylvania, October, 2007a.
- Lusardi, Annamaria, and Olivia S. Mitchell, "Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education," *Business Economics*, Vol. 42, No. 1, 2007b, pp. 35-44.
- Lusardi, Annamaria, and Olivia S. Mitchell, "Planning and Financial Literacy: How Do Women Fare?," *American Economic Review*, Vol. 98, No. 2, 2008, pp. 413-417.
- Lusardi, A., O.S. Mitchell, and V. Curto, "Financial Literacy among the Young: Evidence and Implications for Consumer Policy," National Bureau of Economic Research Working Paper Series, National Bureau of Economic Research Cambridge, Mass., USA, September, 2009a.
- Lusardi, A., O.S. Mitchell, and V. Curto, "Financial Literacy and Financial Sophistication Among Older Americans," NBER Working Paper Cambridge, Mass., USA, National Bureau of Economic Research 2009b.
- Lusardi, A., and P. Tufano, "Debt Literacy, Financial Experiences, and Overindebtedness," NBER Working Paper Cambridge, Mass., USA, National Bureau of Economic Research March 2009.
- Lyons, A.C., and U. Neelakantan, "Potential and Pitfalls of Applying Theory to the Practice of Financial Education," *Journal of Consumer Affairs*, Vol. 42, No. 1, 2008, pp. 106-112.
- Lyons, A.C., L. Palmer, K.S.U. Jayaratne, and E. Scherpf, "Are We Making the Grade? A National Overview of Financial Education and Program Evaluation," *Journal of Consumer Affairs*, Vol. 40, 2006, pp. 208-223.
- Lyons, A.C., and E. Scherpf, "An Evaluation of the FDIC's Financial Literacy Program Money Smart," Official Report to the Women's Bureau at the US Department of Labor, 41 pp, Urbana-Champaign, IL, University of Illinois, May 2003.
- Mackenbach, J.P., I. Stirbu, A.J.R. Roskam, M.M. Schaap, G. Menvielle, M. Leinsalu, and A.E. Kunst, "Socioeconomic Inequalities in Health in 22 European Countries," *New England Journal of Medicine*, Vol. 358, No. 23, 2008, pp. 2468-2481.
- Mahadea, Darma, "Similarities and Differences between Male and Female Entrepreneurial Attributes in Manufacturing Firms in the Informal Sector in the Transkei," *Development Southern Africa*, Vol. 18, No. 2, 2001, pp. 189-199.

- Mandell, Lewis, "The Financial Literacy of Young American Adults: Results of the 2008 National JumpStart Coalition Survey of High School Seniors and College Students," Washington, DC, JumpStart Coalition for Personal Financial Literacy, 2008.
- Markow, and Bagnaschi, "What American Teens & Adults Know About Economics: Executive Summary," National Council on Economic Education, April 26, 2005.
- Marmot, M., "Social Determinants of Health Inequalities," *The Lancet*, Vol. 365, No. 9464, 2005, pp. 1099-1104.
- Mastercard International, *How Well Do Women Know Their Money: Financial Literacy Across Asia/Pacific, Middle East and Africa*, MasterCard Worldwide Insights, 1Q 2011. As of September, 2011: www.masterintelligence.com/upload/265/191/WomensFinancialLiteracyAPMEA_S.PDF
- McLoyd, V.C., "Socialization and Development in a Changing Economy: The effects of paternal job and income loss on children," *American Psychologist*, Vol. 44, No. 2, 1989, pp. 293-302.
- Minniti, Maria, and Wim Naude, "Introduction: What Do We Know about the Patterns and Determinants of Female Entrepreneurship across Countries?," *European Journal of Development Research*, Vol. 22, No. 3, 2010, pp. 277-293.
- Møller, A. P., C. L. Fincher, and R. Thornhill, "Why Men Have Shorter Lives Than Women: Effects of resource availability, infectious disease, and senescence," *American Journal of Human Biology*, Vol. 21, No. 3, 2009, pp. 357-364.
- Moore, Danna, "Survey of Financial Literacy in Washington State: Knowledge, Behavior, Attitudes, and Experiences," Technical Report 03-39., Washington State University, 2003.
- Mullis, Ina V.S., Michael O. Martin, and Pierre Foy, *TIMSS 2007 International Mathematics Report: Findings from IEA's Trends in International Mathematics and Science Study at the Fourth and Eighth Grades*, Chestnut Hill, MA: TIMSS & PIRLS International Study Center, Boston College, 2008. As of September, 2011: http://timss.bc.edu/timss2007/intl_reports.html
- Muravyev, Alexander, Oleksandr Talavera, and Dorothea Schafer, "Entrepreneurs' Gender and Financial Constraints: Evidence from International Data," *Journal of Comparative Economics*, Vol. 37, No. 2, 2009, pp. 270-286.
- National Foundation for Credit Counseling, *The 2011 Consumer Financial Literacy Survey Final Report*, National Foundation for Credit Counseling, 2011. As of September, 2011: www.nfcc.org/newsroom/FinancialLiteracy/files2011/NFCC_2011Financial%20LiteracySurvey_FINALREPORT_033011.pdf
- OECD, *Equally prepared for life? How 15-Year-Old Boys and Girls Perform in School Programme*, Paris OECD, 2009. As of September, 2011: www.oecd.org/dataoecd/59/50/42843625.pdf
- OECD/ INFE, "Financial Literacy Measurement Pilot Survey ", Paris, OECD, 2011.
- OECD, *Improving Financial Literacy: Analysis of Issues and Policies*, Paris, OECD, 2005. As of October, 2011: www.oecd.org/document/2/0,3746,en_2649_15251491_35802524_1_1_1_1,00.html

- O'Connell, Alison, "Evaluating the Effectiveness of Financial Education Programmes," paper presented at Second Meeting of the International Network on Financial Education Bali, Indonesia, OECD/ INFE, 2008.
- Perry, V.G., and M.D. Morris, "Who Is in Control? The Role of Self Perception, Knowledge, and Income in Explaining Consumer Financial Behavior," *Journal of Consumer Affairs*, Vol. 39, No. 2, 2005, pp. 299-313.
- Rawlings, L.B., and G.M. Rubio, "Evaluating the Impact of Conditional Cash Transfer Programs," *The World Bank Research Observer*, Vol. 20, No. 1, 2005, pp. 29-55.
- Robb, Alicia, and John Wolken, "Firm, Owner, and Financing Characteristics: Differences Between Female- and Male-Owned Small Businesses," *Thirteenth Annual International Entrepreneurial Finance and Business Ventures Research Conference*, Edwardsville, IL, 2002, pp. 1-18.
- Robb, Alicia M., "Entrepreneurial Performance by Women and Minorities: The Case of New Firms," *Journal of Developmental Entrepreneurship*, Vol. 7, No. 4, 2002, p. 383.
- Rodriguez, Maria Jose, and Francisco Javier Santos, "Women Nascent Entrepreneurs and Social Capital in the Process of Firm Creation," *International Entrepreneurship and Management Journal*, Vol. 5, No. 1, 2009, pp. 45-64.
- Seccombe, K., "Families in Poverty in the 1990s: Trends, Causes, Consequences, and Lessons Learned," *Journal of Marriage and Family*, Vol. 62, No. 4, 2000, pp. 1094-1113.
- Selvamalar, A., "Challenges Faced by Women Refugees in Initiating Entrepreneurial Ventures in a Host Country: Case Study of UNHCR Women Refugees in Malaysia," in Kakouris, A., ed., *Proceedings of the 5th European Conference on Innovation and Entrepreneurship*, September 2010, pp. 514-522.
- Shabbir, A., and S. diGregorio, "An Examination of the Relationship Between Women's Personal Goals and Structural Factors Influencing their Decision to Start a Business: The Case of Pakistan," *Journal of Business Venturing*, Vol. 11, No. 6, Nov, 1996, pp. 507-529.
- Shanks, T.R.W., and S.K. Danziger, "Anti-Poverty Programs and Policies for Families and Children," in Jeffrey M. Jenson and Mark W. Fraser, eds., *Social Policy for Children and Families: A Risk and Resilience Perspective*: Sage Publications, Inc, 2010, p. 25.
- Simmons, C., and S. Supri, "Failing Financial and Training Institutions: The Marginalization of Rural Household Enterprises in the Indian Punjab," *Journal of Economic Issues*, Vol. 33, No. 4, Dec, 1999, pp. 951-972.
- Smith, J.P., J.J. McArdle, and R. Willis, "Financial Decision Making and Cognition in a Family Context," *The Economic Journal*, Vol. 120, No. 548, 2010, pp. F363-F380.
- Spencer, S.J., C.M. Steele, and D.M. Quinn, "Stereotype Threat and Women's Math Performance," *Journal of Experimental Social Psychology*, Vol. 35, 1999, pp. 4-28.
- Stango, V., and J. Zinman, "Exponential Growth Bias and Household Finance," *Journal of Finance*, Vol. 64, No. 6, Dec, 2009, pp. 2807-2849.
- Startiene, G., and R. Remeikiene, "Gender Gap in Entrepreneurship," *Inzinerine Ekonomika-Engineering Economics*, No. 5, 2008, pp. 95-103.

- Thebaud, S., "Gender and Entrepreneurship as a Career Choice: Do Self-assessments of Ability Matter?," *Social Psychology Quarterly*, Vol. 73, No. 3, Sep, 2010, pp. 288-304.
- Thomas, Duncan, "The Distribution of Income and Expenditure within the Household," *Annals of Economics and Statistics / Annales d'Économie et de Statistique*, No. 29, 1993, pp. 109-135.
- Tiwari, A., A Khandelwal, and M. Ramji, "How Do Microfinance Clients Understand their Loans?," IFMR working paper, IFMR, 2008.
- UK Financial Services Authority, *Financial Capability in the UK: Establishing a Baseline*, London: Financial Services Authority, 2006. As of September, 2011: www.fsa.gov.uk/financial_capability
- Van Leeuwen, Richenda, "Helping Women Become Economically Independent," *UN Chronicle*, Vol. 40, No. 3, 2003, p. 77.
- Van Rooij, M., A. Lusardi, and R. Alessie, "Financial Literacy and Stock Market Participation," *Journal of Financial Economics*, Vol. 101, No. 2, August, 2011, pp. 449-472.
- Verheul, Ingrid, Martin Carree, and Roy Thurik, "Allocation and Productivity of Time in New Ventures of Female and Male Entrepreneurs," *Small Business Economics*, Vol. 33, No. 3, 2009, pp. 273-291.
- Walstad, William B., and Denise Robson, "Differential Item Functioning and Male-Female Differences on Multiple-Choice Tests in Economics," *Journal of Economic Education*, Vol. 28, No. 2, Spring, 1997, pp. 155-171.
- Weir, D.R., and R.J. Willis, "Prospects for Widow Poverty," Pension Research Council Working Papers, Wharton School Pension Research Council, University of Pennsylvania, 2000.
- Westaway, Jenny, and Stephen McKay, *Women's Financial Assets and Debts* London: Fawcett, 2007. As of September, 2011: www.fawcettsociety.org.uk
- Yoong, J., "Financial Illiteracy and Stock Market Participation: Evidence from the RAND American Life Panel," Pension Research Council Working Paper: The Wharton School of the University of Pennsylvania, Philadelphia, PA, 2010.
- Zissimopoulos, J., B. Karney, and A. Rauer, "Marital Histories and Economic Well-Being," Working Papers, Ann Arbor, MI, University of Michigan, September 2008.

Chapter 2

GENDER DIFFERENCES IN FINANCIAL LITERACY: IDENTIFYING BARRIERS AND ADDRESSING WOMEN'S AND GIRLS' NEEDS THROUGH FINANCIAL EDUCATION

by

Flore-Anne Messy and Chiara Monticone*

This chapter focuses on the identification of gender differences in financial literacy as well as barriers to women's financial empowerment, and highlights ways to successfully address women's and girls' financial education needs.

In many countries, women display lower financial knowledge than men and are also less confident in their financial knowledge and skills. Even though women appear to be better than men in some areas of short-term money management behaviour, they have a number of vulnerabilities in other aspects of financial behaviour. Gender differences in financial literacy are correlated with differences in socio-economic conditions of men and women.

In light of these challenges, an increasing number of countries at different income levels have acknowledged the need to address the financial literacy of women and girls by developing and implementing dedicated financial education policies and programmes, including through their national strategies for financial education.

The analysis of these policy initiatives and of their evaluations also reveals a number of challenges and good practices, and highlights areas that deserve further research. Building on the evidence and experiences presented in this report, policy guidance has been elaborated to help identify the needs for financial education of women and girls in different settings, and to support the development of dedicated policy initiatives.

* OECD, Paris.

Introduction

Background

Both women and men need to be sufficiently financially literate to effectively participate in economic activities and to take appropriate financial decisions for themselves and their families. However, women need to improve their financial literacy even more than men because they typically tend to live longer and earn less than men, therefore being more likely to face financial hardship in old age. In addition, their level of financial knowledge tends to be lower than men's, suggesting that they may not be up to the challenges they face in achieving their financial well-being.

The need to address the financial literacy of women and girls as a way to improve their financial empowerment is gaining global relevance and is reflected in various initiatives at a national and international level. Financial education can be an important tool, albeit not the only one, to improve women's economic empowerment and financial independence.

With the aim to improve policies and to promote gender equality in the economy in both member and non-member countries, the OECD launched in 2010 a Gender Initiative to examine existing barriers to gender equality in education, employment and entrepreneurship. The OECD Horizontal Project in Gender Equality presented its Final Report on Gender Equality in Education, Employment and Entrepreneurship to the Ministerial Council Meeting in May 2012 to inform, share policy experiences and good practices, and help governments promote gender equality (OECD, 2012b). The "Closing the Gender Gap: Act Now" report was published in December 2012. The report also addresses gender differences in financial literacy and how financial education can contribute to women's financial empowerment (OECD, 2012a, Chapter 10). The need to develop and implement initiatives aimed at improving women's financial literacy is also recognised by the Recommendation of the Council on Gender Equality in Education, Employment and Entrepreneurship.

Moreover, in June 2012 the G20 Leaders meeting in Mexico recognised the need for women to gain access to financial services and financial education. G20 Leaders also asked the OECD International Network on Financial Education (INFE) – together with the Global Partnership for Financial Inclusion (GPII) and the World Bank – to identify the barriers they may face, and called for a progress report to be delivered by the next Summit (G20, 2012).

This report addresses the financial education component of the G20 call and furthers the work of the OECD INFE in helping policy makers and relevant stakeholders to address gender differences in financial literacy and to financially empower women/girls.

Process

In October 2010, the OECD INFE created the Empowering Women through Financial Education and Awareness Expert Subgroup, recognising that women are often over-represented in disadvantaged groups in developed and developing countries and identifying women's financial education needs as an area deserving further research, policy analysis and guidance.¹

In order to collect information about gender differences in financial literacy and policy responses at the national level, the Expert Subgroup conducted two surveys among OECD INFE members (in 2011 and 2012), which identified several case studies on financial education programmes for women and girls.² Moreover, the OECD Working Paper "Empowering Women through Financial Awareness and Education"

(Hung et al., 2012) provides a preliminary review of the literature on gender differences in financial literacy and of policy responses. On the basis of this work, the Subgroup carried out additional research to collect further evidence and case studies. This work is aimed at helping interested countries in the development and implementation of financial education programmes targeted to women and girls to support their efforts in closing existing gender gaps.

Scope of the report

Based on the two stock-taking exercises, as well as on additional evidence from academic and policy research, this chapter:

- presents evidence of gender differences in financial literacy, drawing on the OECD INFE financial literacy measurement survey as well as on other academic research and national evidence, and recommends several areas where more research should be conducted (Section I);
- presents the existing evidence on factors related to gender differences in financial literacy and on the barriers women may face in improving their financial literacy (Section II);
- identifies and discusses case studies showing how countries have engaged in financial education to address women's needs in financial issues, and presents the results of available programme evaluations (Section III);
- identifies key lessons learnt starting from the challenges and good practices highlighted by the policy initiatives and their evaluations (Section IV).

Building on the evidence and experiences presented in this report, the OECD/INFE elaborated Policy Guidance on Addressing Women's and Girls' Needs for Financial Awareness and Education to help identify the needs for financial education of women and girls in different settings, and to support the development of dedicated policy initiatives consistent with the national priorities for financial education and gender equality (INFE, 2013).

1. Gender differences in financial literacy

This section reports the main findings on gender differences in financial literacy, drawing from various sources, including available evidence from national financial literacy surveys and international research. In addition, the first results of the OECD INFE financial literacy measurement survey are reported to provide relevant insights on the different financial knowledge, attitudes, and behaviour of women and men.³

Women have lower levels of financial knowledge

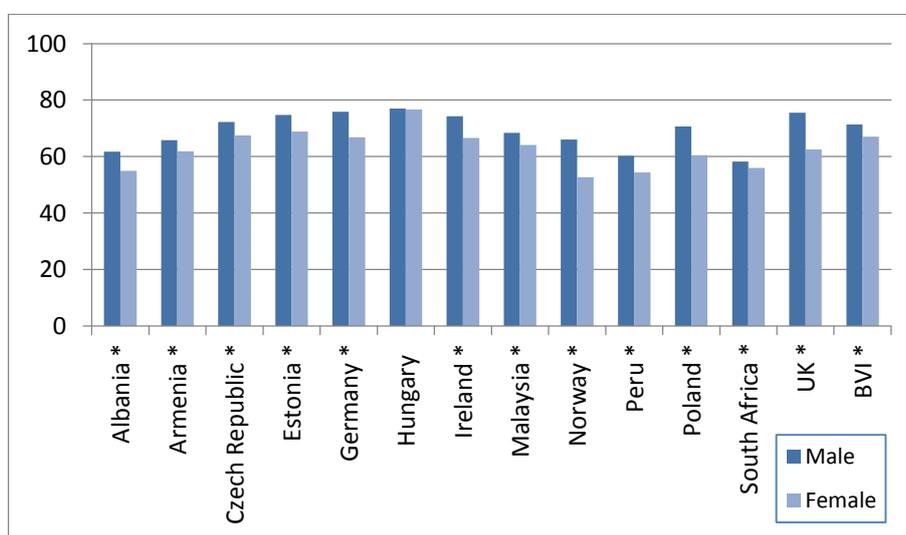
In a large number of countries, women have lower financial knowledge than men. This is a robust piece of evidence, as it holds across developed and developing countries, in all regions of the world, and using different survey instruments. Only in a very small number of cases gender differences are not significant, and in no country women were found to be more knowledgeable than men.

The analysis of the OECD INFE financial literacy measurement survey shows that women have lower financial knowledge than men in all countries considered, with the exception of Hungary (Figure 1).⁴

This result is consistent with other international evidence on gender differences in financial knowledge and understanding (Hung et al., 2012). Gender differences in financial knowledge are reported in **Germany, Italy, Japan, the Netherlands, New Zealand, Sweden** and the **United States** using cross-country comparable data and methodology (Alessie et al, 2011; Almenberg and Säve-Söderbergh, 2011; Bucher-Koenen and Lusardi, 2011; Bucher-Koenen et al. 2012; Crossan et al. 2011; Fornero and Monticone, 2011; Lusardi and Mitchell, 2011a, 2011b; Sekita, 2011). The overall evidence from these studies shows that in most countries women have lower levels of financial knowledge than men based on short tests of financial knowledge. However, in **Russia** and **East Germany** financial knowledge is very low for both men and women, and gender differences are not significant (Bucher-Koenen and Lusardi, 2011, and Klapper and Panos, 2011).

Other national financial literacy surveys have documented gender differences using partially different methodologies and survey instruments. In **Azerbaijan** and **Bulgaria**, women achieved a lower share of correct answers than men to six numeracy and financial knowledge questions (Alpha Research, 2010; Azerbaijan Micro-finance Association, 2009). The ANZ Survey of Adult Financial Literacy in **Australia** provides evidence that females had lower scores than males on a financial knowledge and numeracy index (ANZ, 2011). Results from the 2009 Canadian Financial Capability Survey show that also in **Canada** women have slightly lower financial knowledge than men (Hui et al., 2011). In **New Zealand**, women make up a higher proportion of the low knowledge group, and a lower proportion of the high knowledge group, even though they improved over time (ANZ–Retirement Commission, 2009). Similarly, the 2012 Survey on the Financial Literacy in **Portugal** shows that men obtained higher scores on average than women in the knowledge of basic financial concepts (Banco de Portugal, 2011). Also women in the **United Kingdom** scored lower on a financial knowledge test compared to men (Atkinson et al., 2006).

Figure 6. Average financial knowledge score by gender



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Note: In countries indicated with an asterisk * the gender difference is statically significant at 5 % level. The financial knowledge score is based on 8 questions and has been rescaled on a 0-100 scale.

Box 1. Different financial literacy gaps across students, employees and retirees in India

The Indian Institute of Management Ahmedabad, with the support of the Citi Foundation, carried out a survey of financial literacy among students, young employees and the retired in India using the OECD INFE questionnaire. They found that men have higher financial knowledge than women among both employees and the retired, while there is no significant gender difference among students. The authors suggest that the relatively greater exposure of adult men to personal and household finance may make them more knowledgeable compared to women, while this is not the case among students (Agarwalla et al., 2012).

Gender differences in financial knowledge at young ages

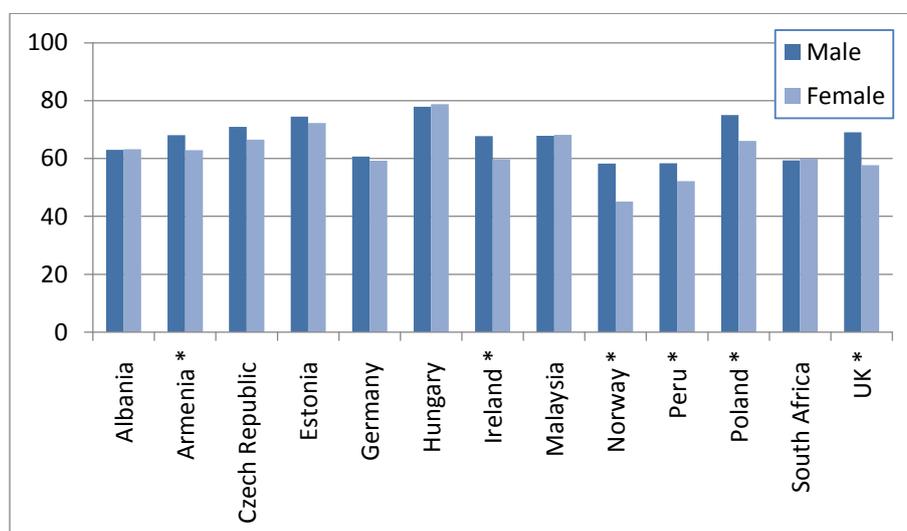
Gender differences in financial knowledge may to some extent be the result of gender inequalities in other domains. If this is the case, it is possible that gender differences in financial knowledge are smaller among younger generations, as long as they have been exposed to a more egalitarian environment in terms of gender with respect to their elder peers.

However, analysing the OECD INFE survey data for the subsample of respondents aged 18 to 29 it appears that gender differences are also present among young generations, even though differences are significant for fewer countries (**Armenia, Ireland, Norway, Peru, Poland** and the **UK** – Figure 2).

Bucher-Koenen et al. (2012) show that in **Germany**, the Netherlands and the US gender differences in financial knowledge exist within all age brackets, including among respondents younger than 35. A survey of financial understanding of 8 to 18-year-olds in the **Netherlands** also finds that more boys than girls can answer knowledge questions correctly (CentiQ, 2008). In a study among college students in the **United States**, Chen and Volpe (2002) find that young women have less knowledge about personal finance topics than men. Also Lusardi et al. (2010) find gender differences in financial knowledge among US young adults.

This evidence suggests that more research is necessary to understand whether there are factors inducing gender differences in financial knowledge from a very young age, and to what extent these gender differences are transmitted across generations. The results of the 2012 PISA financial literacy assessment are expected to provide robust evidence (See Box 1).

Figure 7. Average financial knowledge score by gender (young people)



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Subsample of respondents aged 18-29. The data for the BVI have been excluded due to a very low number of observations in the relevant age range. Note: In countries indicated with an asterisk * the gender difference is statically significant at 5 % level. The financial knowledge score is based on 8 questions and has been rescaled on a 0-100 scale.

Box 2. Gender differences in financial literacy among 15 year-olds

The 2012 OECD Programme for International Student Assessment (PISA) will measure for the first time the financial literacy of 15 year-olds in 18 countries. Results of PISA financial literacy option to be released in June 2014 will allow policy makers and researchers to understand if gender differences in financial knowledge and competencies exist among young people, and will potentially call for further research to understand why such differences emerge already at a young age and how they are transmitted across generations.

Smaller but still significant gender differences after controlling for socio-demographic factors

Gender difference may, to some extent, be related to the different opportunities that women and men have to experience with financial issues along their life, and may therefore be related to observable demographic, social and economic factors.

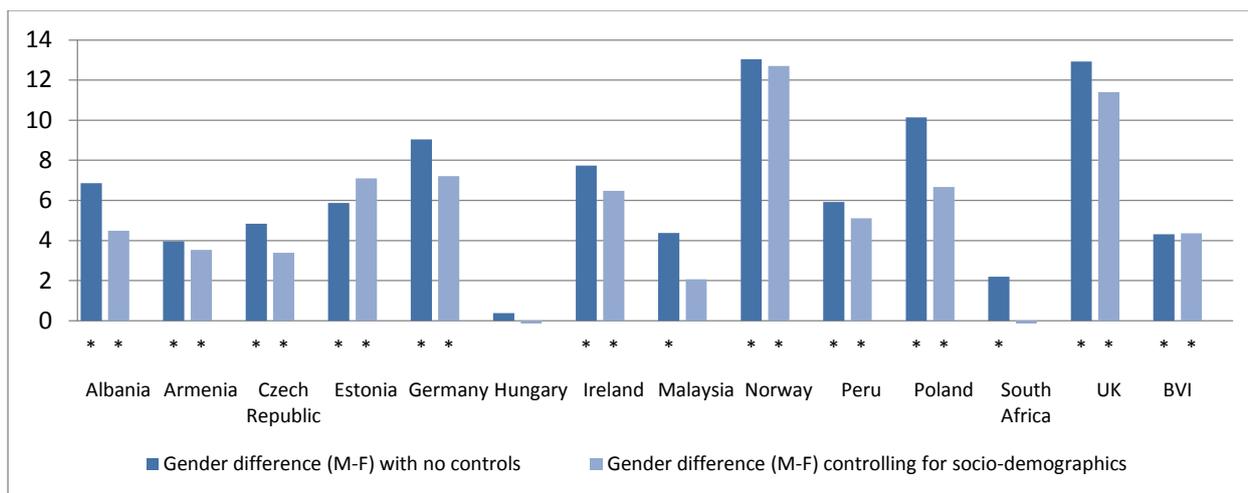
Indeed, empirical evidence shows that gender differences in financial knowledge are correlated with differences in socio-economic conditions of men and women, but that the gender gap is not explained solely by differences in socio-demographic across genders.

Accounting for differences in age, marital status, income and education reduces but does not eliminate the gender difference in financial knowledge in the **Netherlands** (Bucher-Koenen et al., 2012). Analogously, a study on the **US** population shows that accounting for education, income, and current and past marital status reduces by about 25% the observed gap in financial knowledge (Fonseca et al., 2010).

Also the analysis of the OECD INFE survey data supports the evidence that gender differences in financial knowledge remain even after taking into account the different socio-economic conditions of

men and women.⁵ Figure 3 shows that in **Albania, Armenia, Czech Republic, Germany, Ireland, Norway, Peru, Poland** and the **UK** the difference between the financial knowledge score of men and women is lower – but still significant – after controlling for demographic, social and economic factors with respect to the case when no explanatory variables are considered (with the exceptions of Hungary, where there is no gender difference, and Estonia and the BVI, where the difference does not become smaller). **Malaysia** and **South Africa** stand out as exception, as gender differences disappear once socio-demographic factors are accounted for.

Figure 8. Gender differences in financial knowledge controlling for socio-demographic factors



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: the graph is based on the coefficients from an ordinary least squares estimation for each country separately. The results on the left column are based on a model including only a female dummy as explanatory variable; the results on the right column are based on a model including as explanatory variables gender, age, marital status, income, education, and working status. The gender difference is the difference between the average financial knowledge score for men and women. In columns indicated with an asterisk * the gender difference is statically significant at 5 % level. The financial knowledge score is based on 8 questions and has been rescaled on a 0-100 scale

Less well-educated and poor women have the lowest financial knowledge

In addition to looking at the differences in financial knowledge between women and men, it is also interesting to focus on women only by investigating which subgroups of women exhibit the lowest financial knowledge. This is relevant as it can help policy makers to identify the subgroups of women who may be most in need of improving their financial literacy.

The results of the OECD INFE survey show that there are marked differences across women according to their education, their occupational status and their household income, while there is hardly any difference by marital status or age (detailed results are available in Table 2 in the Appendix).⁶

In most countries there is little difference in women’s financial knowledge by marital status according to the INFE survey. Women who are married are hardly different from single, cohabiting and divorced women. This suggests that married/partnered women are not learning from their partners and single women are not ‘learning by doing’. In spite of the limited difference across marital statuses, in some countries (including **Albania, the Czech Republic, Malaysia, and South Africa**) widows show lower financial knowledge than married women, even after controlling for age and income.

Even though the age pattern is not significant in many countries, in some of them (such as **Ireland, Norway, Peru** and the **United Kingdom**) young women in the age group 18-29 have lower knowledge than women in the 30-59 age bracket. Some evidence of a hump-shaped pattern of financial knowledge by age comes also from other studies. In the **US**, women under the age of 35 are found to have lower financial knowledge than women in the age group 36-65 (Bucher-Koenen et al., 2012). In **Germany**, women over the age of 65 gave fewer correct answers than younger women, and widows gave fewer correct answers than married/single women (Bucher-Koenen et al., 2012). Overall, these results suggest that young and elderly women/widows have lower financial knowledge than middle aged ones (as is the case for the population in general).

Finally, there appears to be a marked association of financial knowledge with women's occupational status, their education and their household income. In **Albania, Ireland, Poland, South Africa** and the **UK** women who are not working (including the unemployed, the retired, students, as well as homemakers) have lower financial knowledge than women who are employed. Similarly, women who live in households with below median income, and who have not completed secondary school have the lowest financial knowledge.

Different financial attitudes across genders

Evidence from academic and policy research highlights different attitudes and preferences among men and women in relation to financial issues. Even though this evidence is often limited to OECD countries or specific age groups, it helps to shed more light on the different approaches women and men take to financial matters, and it offers some insights about possible strategies to address women's vulnerabilities in the financial domain.

Based on the currently available evidence, it appears that women are less confident than men in their financial knowledge and ability with complex financial issues; women are less over-confident than men in financial matters; women are less interested than men in financial matters; and women are more risk-averse than men in financial investments.

Women appear to be aware of their lack of financial knowledge

Some of the studies analysing gender differences in financial knowledge also report gender differences in respondents' self-assessed financial knowledge. This suggests that women tend to be aware of their lack of knowledge.

For instance, Bucher-Koenen et al. (2012) show that women's self-reported levels of financial knowledge are lower than men's in **Germany, the Netherlands** and the **US**. Women also gave themselves lower ratings than men when assessing their personal financial knowledge in a US study about understanding debt concepts (Lusardi and Tufano, 2009).

Similarly, studying US college students, Chen and Volpe (2002) find that young women rate themselves as less knowledgeable than young men do. Further evidence about high school seniors in the **United States** indicates that young male students are more likely than female ones to rate themselves as highly knowledgeable about personal finance (Capital One, 2009).

Women have lower confidence than men in their financial knowledge and skills

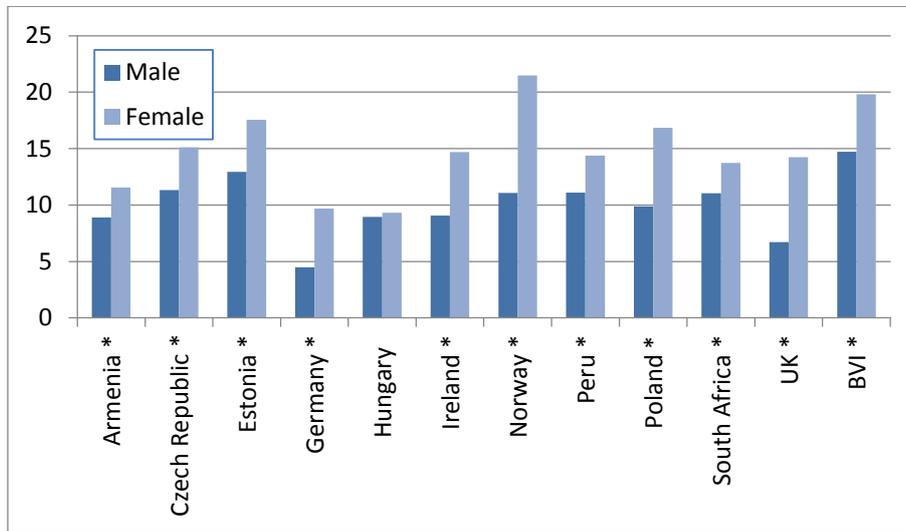
Results from several sources suggest that women are less confident than men about their financial knowledge.

This evidence is largely based on the fact that they are more likely than men to answer “do not know” to financial knowledge questions. The OECD INFE survey data show that in most countries women are significantly more likely than men to say they do not know the answer to a financial knowledge question rather than attempt to answer it (with the exception of Hungary) (Figure 4).⁷ Moreover, women have been found to be more likely to answer ‘do not know’ to financial knowledge tests in a variety of other countries, including **Azerbaijan, Bulgaria, Germany, Italy, Japan, the Netherlands, New Zealand, the Russian Federation, Sweden** and the **United States** (Alessie et al, 2011; Almenberg and Säve-Söderbergh, 2011; Alpha Research, 2010; Azerbaijan Micro-finance Association, 2009; Bucher-Koenen and Lusardi, 2011; Bucher-Koenen et al. 2012; Crossan et al. 2011; Fornero and Monticone, 2011; Klapper and Panos, 2011; Lusardi and Mitchell, 2011a, 2011b; Sekita, 2011).

In addition, women tend to have lower confidence than men also in their ability with financial issues. The ‘Women Understanding Money’ research campaign conducted in **Australia** in 2008 highlighted that women are generally confident in their ability with money, especially when it comes to everyday money management issues like budgeting, saving, dealing with credit and managing debt. However, they are less confident when it comes to more complex issues like investing, understanding financial language and ensuring enough money for retirement. With these issues they’re also less confident than men (Australian Government and Financial Literacy Foundation, 2008).

Overall, the evidence on self-assessed knowledge and confidence provides interesting insights. Women’s lower confidence with respect to men is consistent with the awareness of their lower knowledge. If women can correctly recognise their limited knowledge, they may be more prudent in their financial behaviour. However, the combination of lower levels of knowledge and a lack of confidence also means that women are less likely to be willing to deal with financial issues, services and their providers, and that they may not necessarily grasp potential opportunities for investment or for income generation.

Figure 9. Average number of "do not know" replies by gender



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: The above score is computed as the count of "do not know" answers to seven questions. The figure does not report result for Albania and Malaysia because "do not know" was not available as an answer in three financial knowledge questions. In countries indicated with an asterisk * the gender difference is statically significant at 5 % level. This score is based on the answers to 7 questions and has been rescaled on a 0-100 scale.

Men are more likely to be over-confident in their financial skills

In addition to being more confident than women in their financial ability there is evidence that men tend to be also more over-confident than women, both in general and in the financial domain.

An earlier analysis conducted by Lewellen, Lease, and Schlarbaum (1977) on survey answers and brokerage records in the **United States** revealed that men behave more like overconfident investors than women. Men spend more time and money on security analysis, rely less on their brokers, make more transactions, believe that returns are highly predictable, and anticipate higher possible returns than do women.

In a more recent study of US investors, Barber and Odean (2001) find that men are more over-confident than women in that they trade more excessively than women. They document that men trade 45 percent more than women, and as a result they reduce their net returns more compared to women.

While it is important that people have the confidence to take financial actions, over-confidence in one's own knowledge or ability concerning money matters can lead to mistakes. In particular, over-confidence may impact upon the degree to which people seek financial information and advice, as well as on their propensity to demand financial education.

Gender differences in interest for financial matters

Lower knowledge and confidence may, to some extent, be related to a lack of interest for financial matters. If women are less interested in finance than men it is natural that they may be less motivated to

learn. However, it may also be that women show limited interest in money matters because they feel they have too little knowledge to engage in these issues.

In a survey of college students in the **United States**, young women expressed less interest in personal finance than young men. Although both girls and boys thought that personal finance literacy and planning would help them improve their quality of life, male students were more likely than young females to feel that personal finance was important (Chen and Volpe, 2002).

In the **Netherlands** boys expressed a little more interest in finance-related issues than girls, although inquisitiveness about money and financial issues – and therefore financial motivation – is generally very limited among young people. Research found that, on average, no more than a quarter of youths aged from 12 to 18 expressed a desire to learn more about financially-related issues such as savings accounts, taxes, insurance and borrowing money (CentiQ, 2008). Similarly, a study about the effectiveness of a financial literacy training addressed to teenagers 14-16 years old in **Germany** found that girls declared to be less interested in finance than boys (Lührmann et al., 2012).

In **Australia**, interest to learn about financial issues was stronger in the areas where confidence in one's own ability was lower. The 'Women Understanding Money' study found that women were not very willing to learn more about everyday money management issues, where they felt more confident. However, the study found that women thought it was important to learn about more complex money management issues, such as planning for the financial future, understanding rights and responsibilities when dealing with money and ensuring enough money for retirement. Despite acknowledging the importance to learn, significant numbers of Australian women held attitudes and beliefs that could limit improvements in money management knowledge and skills. Women were more likely than men to find money stressful, uncomfortable or boring and less likely to feel in control of their financial situation (Australian Government and Financial Literacy Foundation, 2008).

Women are more risk-averse than men

There is both experimental and survey evidence that women are less likely to invest in risky assets than men, and that that women are more risk-averse compared to men. These results are found in a variety of countries and settings, and are robust to controlling for women's lower income, wealth, and financial knowledge.

Using **US** sample data, Jianakoplos and Bernasek (1998) examine household holdings of risky assets to determine whether there are gender differences in financial risk-taking. As wealth increases, the proportion of wealth held as risky assets is estimated to increase by a smaller amount for single women than for single men, leading to the conclusion that single women exhibit relatively more risk aversion in financial decision making than single men. In another study about the US, Sundén and Surette (1998) examine whether workers differ systematically by gender in the allocation of assets in DC plans. They conclude that gender and marital status significantly affect how individuals choose to allocate assets in defined-contribution plans, after controlling for a wide range of demographic, financial, and attitudinal characteristics. Similarly to previous studies, Halko et al. (2011) study the relation between gender and stock holdings in **Finland**. They find that men hold riskier portfolios than women even after all appropriate controls (including financial knowledge and financial resources).

Other studies review experimental evidence on risk aversion. Charness and Gneezy (2011) conduct a meta-analysis of nine different studies on risk-taking in investment. The experiments used the same mechanism for eliciting risk preferences but were conducted by different researchers in different

countries (**China, Germany, India, the Netherlands, Sweden, Tanzania, Turkey, and the US**), with different instructions, durations, payments, and subject pools. They find a very consistent result that women invest less, and thus appear to be more financially risk averse than men. Eckel and Grossman (2008) review the results from experimental measures of risk aversion for evidence of systematic differences in the behaviour of men and women. In most studies, women are found to be more averse to investment risk than men.

Implications for women's financial behaviour

Women's financial attitudes can have important implications for their financial behaviour. On the one hand, women's financial risk aversion and low confidence about their financial skills may reduce their propensity to profit from opportunities in the financial marketplace by limiting their willingness to take financial risks. On the other hand, women's higher risk aversion, together with their awareness of their low financial knowledge and their lower over-confidence with respect to men, underlie a more prudent financial behaviour which may protect them from large investment losses or from being victims of financial scams.

For instance, a study of the NASD Investor Education Foundation (now FINRA Investor Education Foundation) reveals that investment fraud victims are more likely to be males and to have higher income, higher education, and higher financial literacy than the general population (NASD Investor Education Foundation, 2006). Similarly, the majority of the victims of a cold calling scam in Australia in the late 1990s (who reported their case to the Australian Securities and Investment Commission -ASIC) were males (ASIC, 2002). Clearly, women may be less likely to fall victims of scams because they participate less in financial markets. However, this also points to the fact that men's higher financial knowledge perhaps is not enough or not sufficiently targeted to protect them from fraud, and that some of women's attitudes may actually help them avoiding overly risky financial behaviours.

Gender differences in financial behaviour and strategies

In addition to gender differences in financial knowledge and attitudes, men and women also display a set of different financial behaviours. However, in contrast with the evidence on financial knowledge presented above, gender patterns in financial behaviour are more complex and their interpretation should keep into account the overall context. Women are not always outperformed by men in all domains: for instance they are more likely than men to have a budget and to keep track of their finances. Nevertheless, in several countries there are areas where women show vulnerabilities, including in making ends meet and saving, as well as in choosing and holding financial products.

The existing evidence, albeit limited to a small number of countries, suggests that gender differences in the ability to make ends meet and in saving are partially related to differences in socio-economic differences across men and women. This suggests that to some extent women's financial weaknesses may be due to higher constraints that women face with respect to men in accessing economic and financial opportunities, and not only to lower financial literacy. More research would help refining the understanding of these behaviours and barriers.

Women are more likely to have a budget and to keep track of their finances

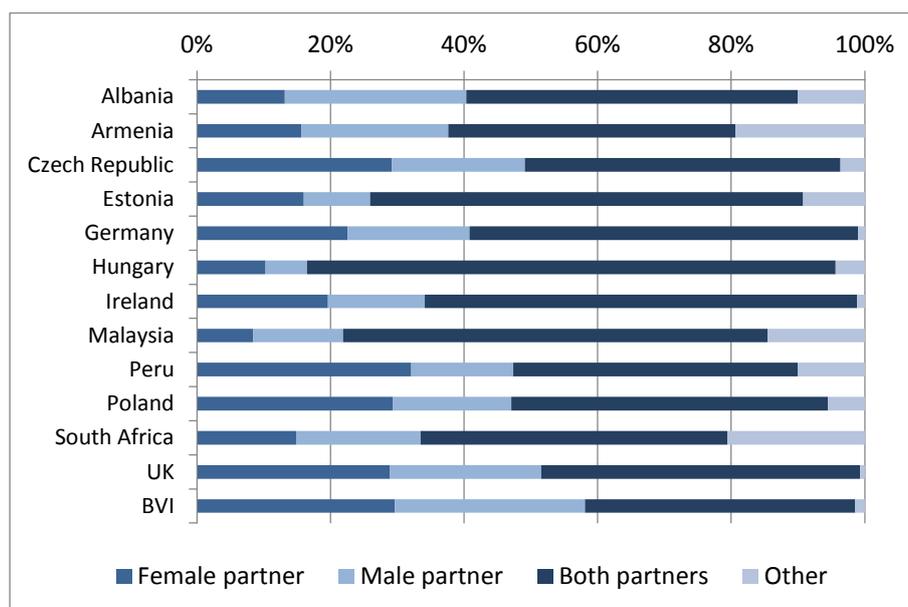
A crucial aspect of financially savvy behaviour has to do with short-term money management. Keeping a close watch on every-day financial expenses is a first step in building long-term financial security and avoiding unsustainable levels of debt.

Analysis of the OECD INFE survey gives some insights on individual responsibilities for household finances and budgeting behaviour. In many countries, women have an important role in household money management in a large share of couples. For instance, in the **Czech Republic, Peru, Poland, the UK** and the British Virgin Islands (**BVI**) almost one third of married/cohabiting respondents indicated that the wife/female partner had main day-to-day financial responsibility (Figure 5).

A way to gain insights on individuals' ability to keep track of their finances is to look whether they have personal or joint responsibility for day to day money management decisions in their household and have a budget. The results of the OECD INFE survey show that in several countries women are more likely to have a budget than men (i.e., **Czech Republic, Estonia, Hungary, Ireland, Norway, Peru, Poland, and the UK** - Figure 6).⁸ As it might be expected, this result is stronger among non-married respondents than among married/cohabiting ones: only in Peru and Poland married women are more likely than married men to have a budget.

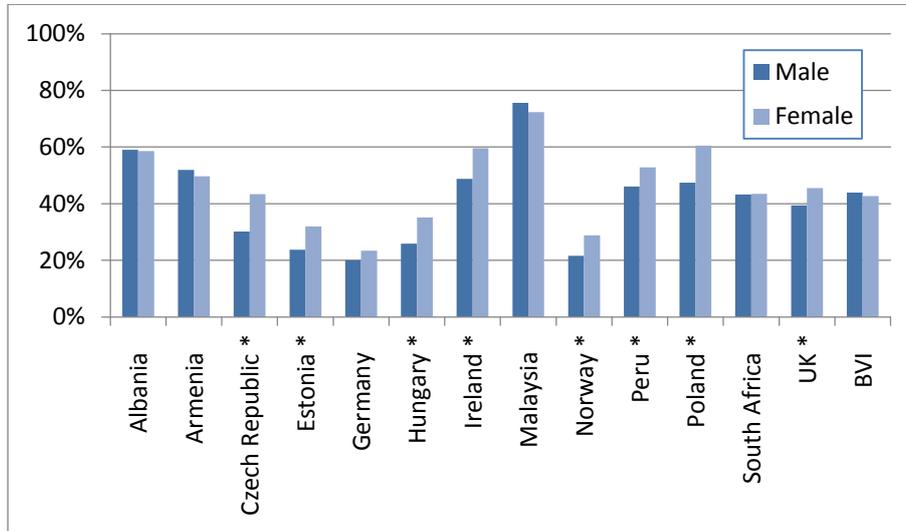
The finding that women are more likely to have a budget is also in line with the fact that they are significantly more likely than men to report that they keep a close watch on their financial affairs in **Estonia, Norway, Poland** and the **UK** (Figure 6), even though gender differences are not very large.

Figure 10. Responsibility for day-to-day money management decisions in the household



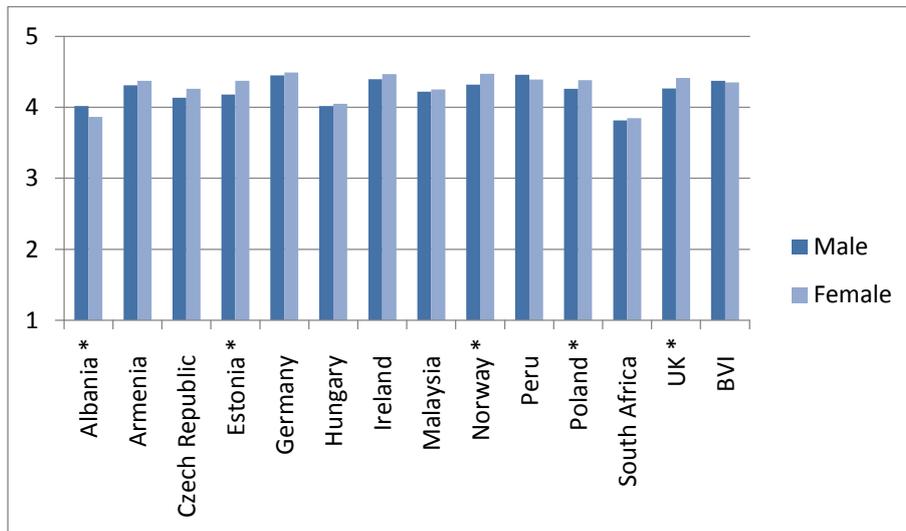
Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: Base: married and living with partner. 'Other' includes responses indicating that the person responsible for money management is: the respondent and another family member; another family member; someone else; nobody. The question about marital status was not asked in Norway.

Figure 11. Responsible for money management decision and has a household budget



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: Base: all respondents. In countries indicated with an asterisk * the gender difference is statically significant at 5 % level.

Figure 12. I keep a close personal watch on my financial affairs



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: Base: all respondents. The graph indicates to what extent the respondents agree with the statement "I keep a close personal watch on my financial affairs" on a scale from 1 to 5, where 1 is something they never do and 5 is something they always do. In countries indicated with an asterisk * the gender difference is statically significant at 5 % level.

This result is consistent with evidence from other national studies showing that women appear to be better than men at short-term money management behaviour. For instance, women in **Australia** are much more likely than men to regularly keep a budget for their day-to-day finances and more likely to think about ways to reduce their spending (Australian Government and Financial Literacy Foundation, 2008). In **Canada** women marginally outperform men on keeping track of their financial affairs (McKay,

2011). Research conducted by the non-for-profit organisation Nibud in the **Netherlands** showed that women are more likely than men to know what their balance is, to give estimates of household expenses, and to plan their spending on costly items (Nibud, 2012). Results of both the 2006 and 2009 Financial Knowledge Survey in **New Zealand** suggest that men were less likely than women to control their expenses: women were more likely than men to report that they kept a fairly close eye on their expenses, or that they used written/electronic records. However, gender differences in the 2006 survey were smaller than in the 2009 one (ANZ–Retirement Commission, 2009). In **Portugal**, women gained higher scores than men in a composite index measuring short-term money management capability and saving propensity (Banco de Portugal, 2011). In the **United Kingdom**, women outperformed men at keeping track of finances (Atkinson et al., 2006).

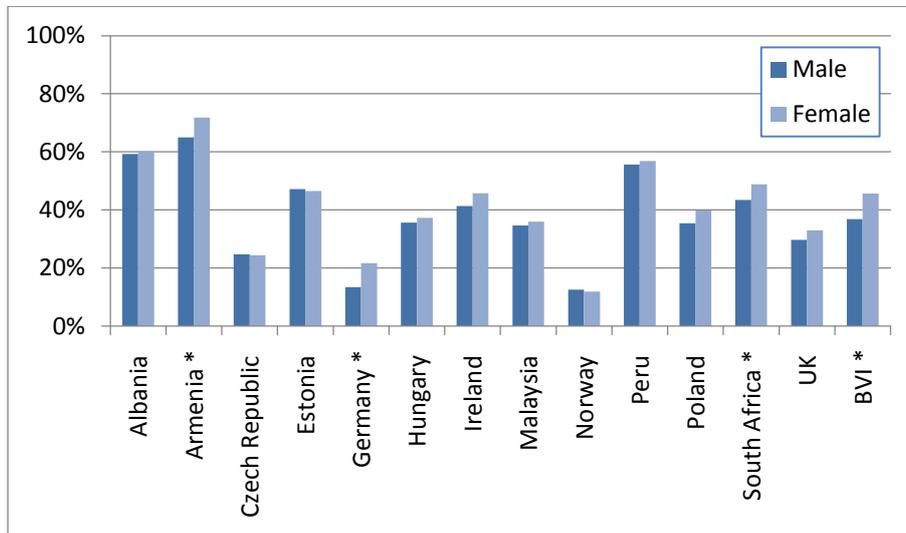
Making ends meet: women tend to cut down on spending while men try to earn extra money

Further analysis suggests that men and women are not equally able to make ends meet, in spite of women being better at keeping track of their finances. Moreover, men and women appear to engage in different strategies when their income does not cover their living costs.

The OECD INFE survey results presented in Figure 8 show that there are significant differences between men and women in their ability to cover living expenses (differences across countries are even larger). In a range of countries, including **Armenia, Germany, South Africa** and the **BVI** women are more likely than men to have experienced problems in covering living costs in the previous year.⁹ Women's inability to make ends meet can be a sign of a lower ability to save for unexpected expenses and of low financial literacy, but at the same time it is certainly related to women's lower income levels on average. This hypothesis is supported by the fact that the gender differences reported in Figure 8 tend to reduce when controlling for socio-demographic factors (including income, education, and work status).

Also in **Australia** women appear to be better than men at budgeting but at the same time they feel less comfortable about their financial position than men, with fewer women reporting that they could get by for some time in case of a financial emergency (Australian Government and Financial Literacy Foundation, 2008).

Figure 13. Inability to cover living expenses

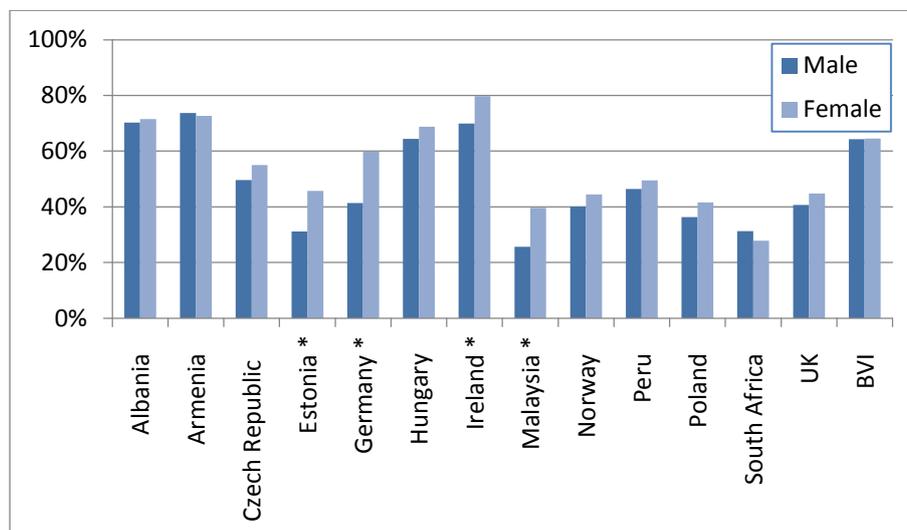


Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: Base: all respondents. The graph indicates the share of respondents who answered affirmatively to the question “Sometimes people find that their income does not quite cover their living costs. In the last 12 months, has this happened to you?” In countries indicated with an asterisk * the gender difference is statically significant at 5 % level.

Even more interestingly, the OECD INFE survey shows that male and female respondents appear to have different coping strategies to face problems in making ends meet. In particular, in some countries women are more likely than men to answer that they spent less (i.e., **Estonia, Germany, Ireland, and Malaysia** – Figure 9). Cutting expenses may make women who already have problems in covering their living costs even more financially vulnerable. Depending on the local and national context, reducing current consumption may expose them, for instance, to malnutrition and/or sickness. As women are typically responsible for child-related expenses, this may reduce the well-being of their children. In addition, cutting on insurance and pension payments would undermine their financial security later in life.

On the contrary, men are more likely than women to answer that they worked overtime, earned extra money, or took a second job (i.e., **Albania, Armenia, Malaysia, Peru, Poland, and South Africa** – Figure 10). Respondents did not display differences across genders with respect to other coping strategies, such as running down existing savings, borrowing, or falling behind with payments.¹⁰

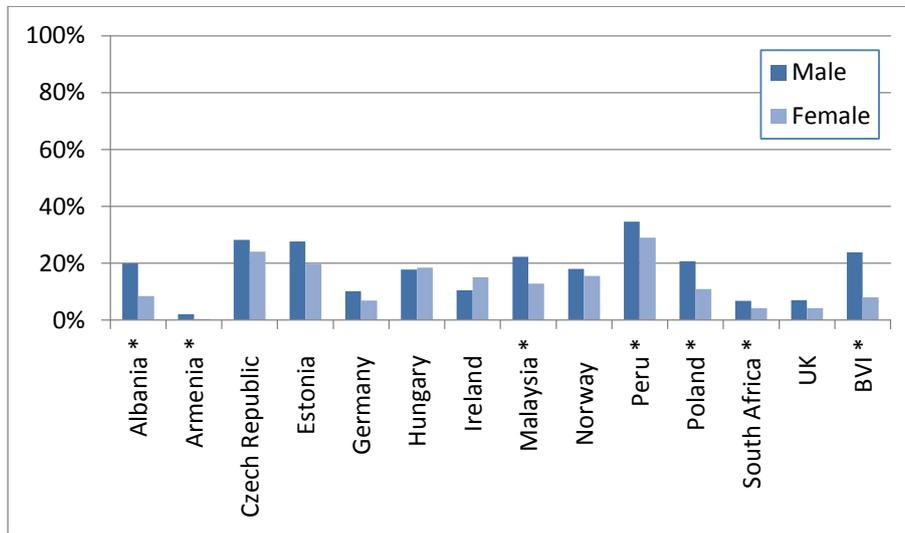
Figure 14. Strategies for making ends meet: cutting back on spending



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: Base: respondents who said that in the 12 months before interview experienced situations where their income did not cover living costs; all marital statuses. In countries indicated with an asterisk * the gender difference is statically significant at 5 % level.

The fact women are less likely than men to engage in working activities to increase their income points to their vulnerability in the labour market, and to potential constraints in the availability and access to policies seeking to reconcile work and family life (e.g. childcare, part-time employment opportunities, etc.). To the extent that women's difficulty in accessing economic opportunities is also related to a lack of financial knowledge and confidence, many of them could benefit from financial education combined with entrepreneurial education and/or access to saving and credit. These measures could improve the extent to which women can increase their income in a flexible way rather than having to cut expenditure when they fail to make ends meet.

Figure 15. Strategies for making ends meet: earning extra money



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Base: respondents who said that in the 12 months before interview experienced situations where their income did not cover living costs; all marital statuses. In countries indicated with an asterisk * the gender difference is statically significant at 5 % level.

Gender differences in product holding

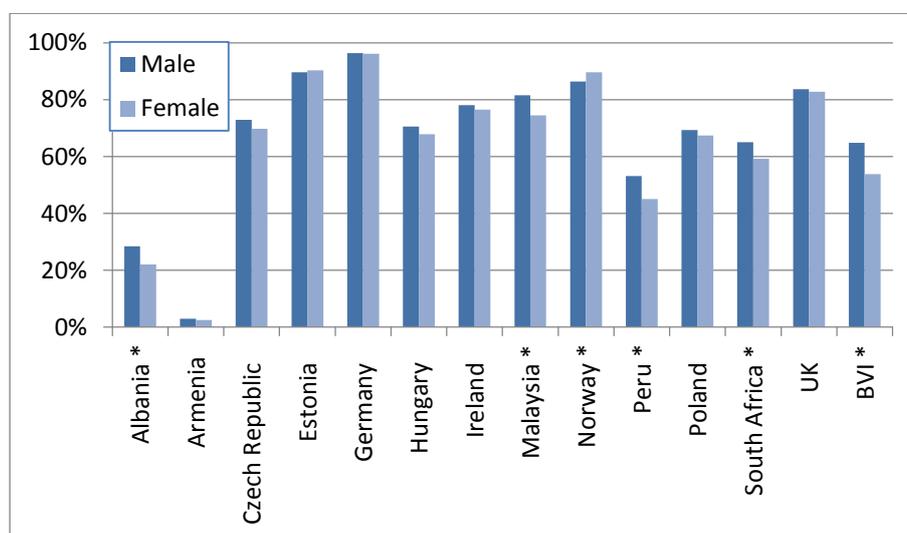
Whenever access to safe and regulated financial products is possible, their appropriate use and choice can be considered as indicators of savvy financial behaviour. It is interesting to look at gender differences in product holding before considering how they are used and how they are chosen in the following paragraphs.

The analysis of the INFE survey data reveals different gender patterns in the holding and use of transactional, investment, and insurance products, in addition to sizeable differences between countries (Table 3 in the Appendix collects detailed information on gender differences in product holding). Holding of saving products and saving behaviour is discussed more extensively in the following sub-section.

Men are significantly more likely to hold transaction products (i.e., current account, ATM card, etc.) especially in developing and emerging economies (e.g., **Albania, Malaysia, Peru, South Africa** and the **BVI**), while there are no significant gender differences in more developed countries (i.e. **Czech Republic, Estonia, Germany, Hungary, Ireland, Poland** and the **UK** – Figure 11). In Norway women are even more likely than men to have payment products.

This is in line with the aggregate evidence (discussed more extensively in Section III) showing that in most regions of the world women have lower access than men to formal banking products and that the gender difference is larger in non-OECD countries.

Figure 16. Percentage of respondents who hold a payment product



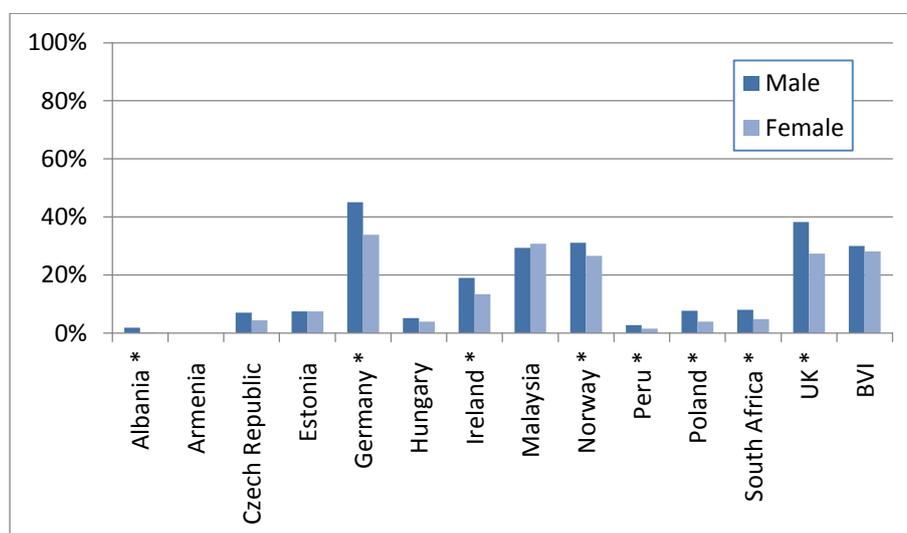
Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: In countries indicated with an asterisk * the gender difference is statically significant at 5 % level.

Men are significantly more likely than women to hold investment products in most of the countries analysed. However, as the holding of investment products is quite low in general, differences tend to be very small in most countries (Figures 12). Gender differences are more pronounced in **Germany** and the **UK**. Also in the **European Union** overall men are more likely than women to hold shares, bonds, and investment funds (European Commission, 2012).

Differences in risky financial holdings among men and women have been found also in another study about the **UK**. Women and men were equally likely to save into low-risk (and typically low-return) saving vehicles, but men were more likely to save into higher-risk/higher-return products, like shares, personal equity plans and unit trusts, compared to women (Westaway and McKay, 2007).

Overall, this is consistent with the literature reviewed in Section II showing that women are less likely to invest in risky assets than men.

Figure 17. Percentage of respondents who hold an investment product



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Note: In countries indicated with an asterisk * the gender difference is statically significant at 5 % level.

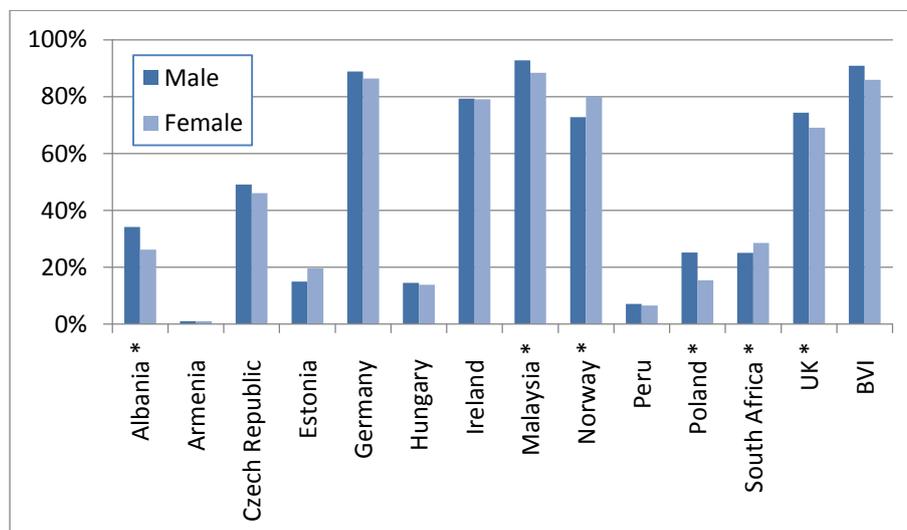
Gender differences in saving behaviour

Saving behaviour is also an important component of financial literacy, as it builds financial security and reduces the reliance on credit. Exploring gender differences in saving behaviour is relevant because economic, social and cultural factors may generate differences in the ability and propensity of men and women to save. Moreover, women and men’s respective decision-making power within the household may influence household decision-making patterns, and therefore also household overall saving decisions (Floro and Seguino, 2002).

In analysing gender differences in saving behaviour, it is important to remember that saving typically refers to the household and individual saving decisions are often part of the whole household decision-making. Bearing this caveat in mind, it is worth looking at gender differences in saving behaviour because it can help identify women’s vulnerabilities in the financial domain, especially for non-married women.

According to the OECD INFE survey, gender differences in saving products’ holding are not uniform across countries. As shown in Figure 13, men are more likely to have savings products (including savings accounts, term deposit, etc.) in **Albania, Malaysia, Poland** and the **UK**, whereas women are more likely to hold formal savings products in **Norway** and **South Africa**. In most countries covered by the survey, gender differences in saving holdings are not statistically significant (e.g., **Armenia, Czech Republic, Estonia, Germany, Hungary, Ireland, Peru**, and the **BVI**). Also other studies found that women were about as likely as men to have savings products (see Westaway and McKay, 2007 for the **UK**; Whitaker et al., 2013 for the **US**).

Figure 18. Percentage of respondents who hold a saving product



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: In countries indicated with an asterisk * the gender difference is statically significant at 5 % level.

Box 3. Women, financial literacy and credit card behaviour

Data from the FINRA Investor Education National Financial Capability Study in the US revealed that women with low levels of financial literacy were more likely to engage in costly credit card behaviours than men with low financial literacy. For example, women were five percentage points more likely to carry a balance, four points more likely to pay the minimum payment on their cards and six points more likely to be charged a late fee. There were, however, no differences in behaviour between men and women with high financial literacy (Mottola, 2012).

In terms of saving behaviour, however, it is more important to look at the size of saving flows and at the amount of accumulated savings rather than simply at savings products' holding, because it reflects more accurately people's ability to maintain their living standard during old age. Evidence from the INFE survey data and other sources highlights gender differences in relation to various aspects of saving behaviour, including how much men and women save, how they save, and what their motivations for saving are.

The existence of gender saving and wealth gaps has been documented in some countries, mostly Anglo-Saxon ones. For instance, in **Australia** there appears to be a large gender savings gap – annual median savings in 2010 were 150 AUD for women, and 620 AUD for men (Kelly and Gong, 2010).¹¹ A similar pattern emerges also from **UK** studies analysing personal financial holdings, and showing that women save less than men for retirement and in general (Westaway and McKay, 2007; Scottish Widows, 2012).

Gender differences in saving are typically compounded into gender differences in wealth. In **Canada** men age 25-65 are more likely to report holding retirement savings plans and to report higher asset values than women of the same age (Hui et al. 2011). In the **US**, single-female-headed households have significantly lower levels of wealth than single-male-headed households, with the gap being partially

related to differences in observable characteristics, such as age, education, and earnings (Schmidt and Sevak, 2006). Also in **Germany** there is a significant gender wealth gap, which is mostly correlated with individual income and labour market experience (Siermiska, Frick and Grabka, 2010).

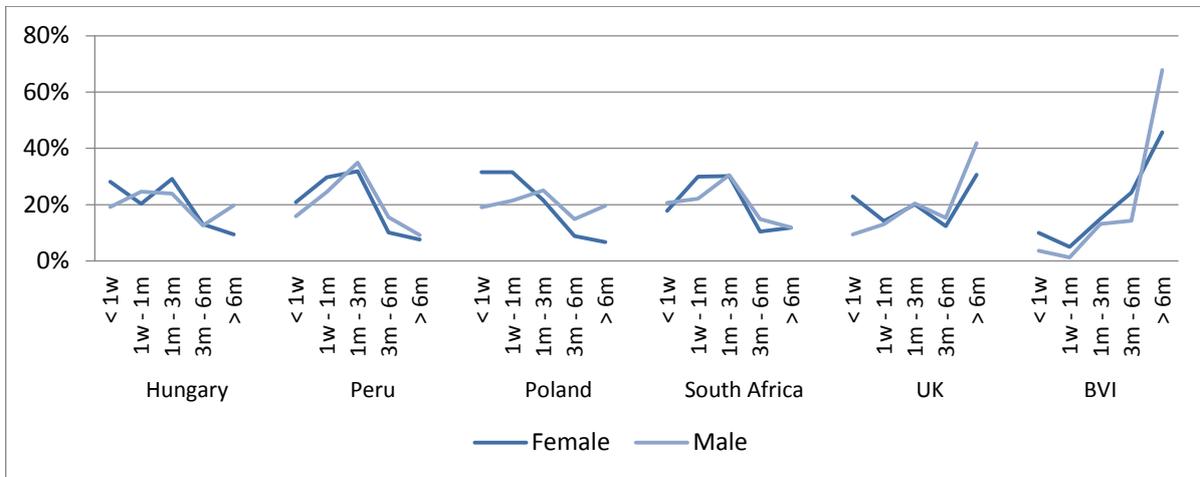
Another way to gauge the extent of people's financial reserves is to look at how long they would be able to cover their living expenses (without borrowing money or moving into a different house) in case they lost their income. Results from the OECD INFE survey shows that in **Hungary, Peru, Poland, South Africa, the UK** and the **BVI**, non-married men would be able to cope for a longer period than non-married women without their main source of income (Figure 14).¹²

Gender differences in the ability to save and the amount of saving are likely to be driven by several factors, whose respective importance may differ across countries. The existing evidence suggests that women are typically able to accumulate significantly less in savings than men during their life cycle because of lower earnings, due to lower labour market participation, occupational segregation, and a higher likelihood to work part-time. This is related to the fact that in many households women are responsible for the majority of unpaid work, including caring for children and the elderly. At the same time, patterns of marriage and family formation have changed over time, with more women being single for some periods in their life, with couples being more likely to separate or divorce, and with more women heading sole parent households. All these factors may reduce women's ability to save, especially for retirement, and may result in women being more likely than men to face financial hardship later in life (Lewis and Messy, 2012; Heathrose, 2012).

As women live longer, on average, than men, and typically retire at a younger age, different abilities to save for the long term between men and women – whether through pensions or other saving vehicles – may imply that women will be more likely to be less well off, to face poverty, or to depend on family members or welfare in old age.

Another factor potentially explaining gender differences in wealth accumulation is women's higher risk aversion, leading to more conservative portfolio allocations and lower investment returns. More research would be needed to further explore the relation between women's lower savings and gender differences in preferences (especially risk and time preferences) and in financial knowledge.¹³

Figure 19. Ability to cover living expenses in case of an income loss



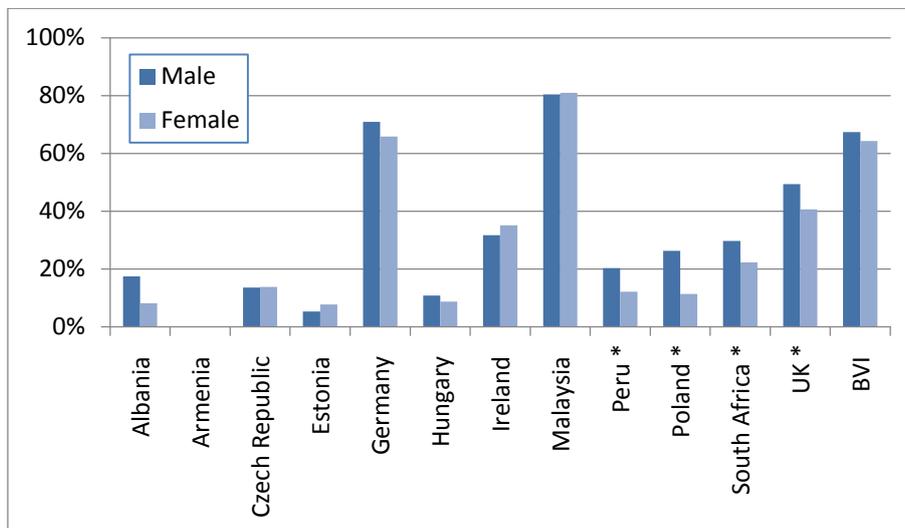
Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: Base: respondents who are not married or living with a partner. The graph reports the percentage of male and female non-married respondents who report that they would be able to cover expenses for: less than a week (< 1w); at least a week, but not one month (1w – 1m); at least a month, but not three months (1m – 3m); at least three months, but not six months (3m – 6m); more than six months (> 6m). The graph only reports countries for which the distribution of the outcome variable is significantly different between men and women at 5% level based on a Pearson's chi-squared test. In the other countries the difference is not statistically significant.

Complementing the evidence about women’s and men’s ability to save, the OECD INFE survey suggests the presence of some differences in relation to *how* men and women save. The OECD INFE measurement exercise investigated whether respondents had been actively saving in the previous year and through which channels, including saving cash at home, paying money to savings account or investment products, participating to informal savings clubs, etc.¹⁴

In some countries, including **Peru, Poland, South Africa**, and the **UK** among non-married respondents, men are more likely than women to be actively saving through formal financial products (such as paying money into a savings account; buying financial investment products other than pension funds; paying in for a term deposit, and/or paying into a building society contract - Figure 15). This is consistent with the results of Figure 12, showing that in some of these countries women are also less likely to use investment products.

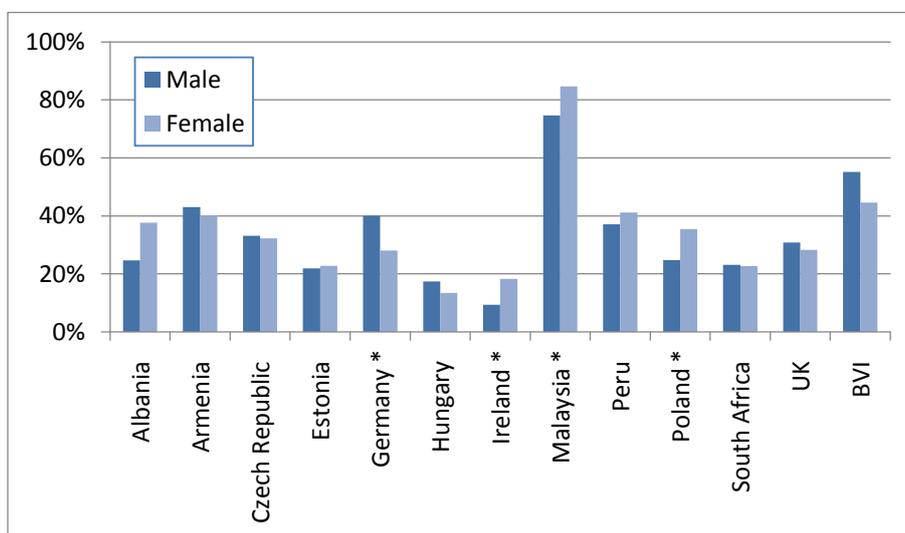
On the contrary, non-married women are more likely than non-married men to be saving cash at home or in their wallet, or to be saving in an informal savings club in **Ireland, Malaysia, and Poland** (Figure 16).¹⁵ Such a propensity to save informally may be a result of several forces, including demand and supply factors. Women may be unable to access formal financial institutions due to supply-side barriers (e.g. geographical distance, high fees, minimum balance requirements, etc.), and/or they may lack sufficient trust and knowledge to approach formal financial institutions and use financial products.

Figure 20. Saving behaviour: Actively saving through formal products



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: Base: respondents who are not married or living with a partner. The question about marital status is not asked in Norway. 'Actively saving through formal products' includes: including paying money into a savings account; buying financial investment products other than pension funds; paying in for a term deposit, and/or paying in to a building society contract. In countries indicated with an asterisk * the gender difference is statically significant at 5 % level.

Figure 21. Saving behaviour: Saving informally



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: Base: respondents who are not married or living with a partner. The question about marital status is not asked in Norway. 'Informal saving' includes: saving cash at home or in one's wallet, and/or saving in an informal savings club. In countries indicated with an asterisk * the gender difference is statically significant at 5 % level.

Box 4. Saving and spending by young people in the Netherlands

The “Survey of financial understanding and behaviour of 8 to 18-year-olds in the Netherlands” commissioned by CentiQ (2008) reveals a limited lack of control of money issues among Dutch young people. Lack of control is associated with not having learned from parents how to deal with money, and not being able to decide for oneself. According to the survey girls experience this lack of control more often than boys. Moreover, when asked whether they generally spend or save their pocket-money or any possible earnings, youths between 8 and 18 show an increase in their tendency to spend as they grow older. Typically this happens more often with girls than with boys. Girls exhibit a greater spending urge than boys in combination with money shortfalls, asking parents for more money and borrowing money from others.

Women are less likely to choose financial products appropriately

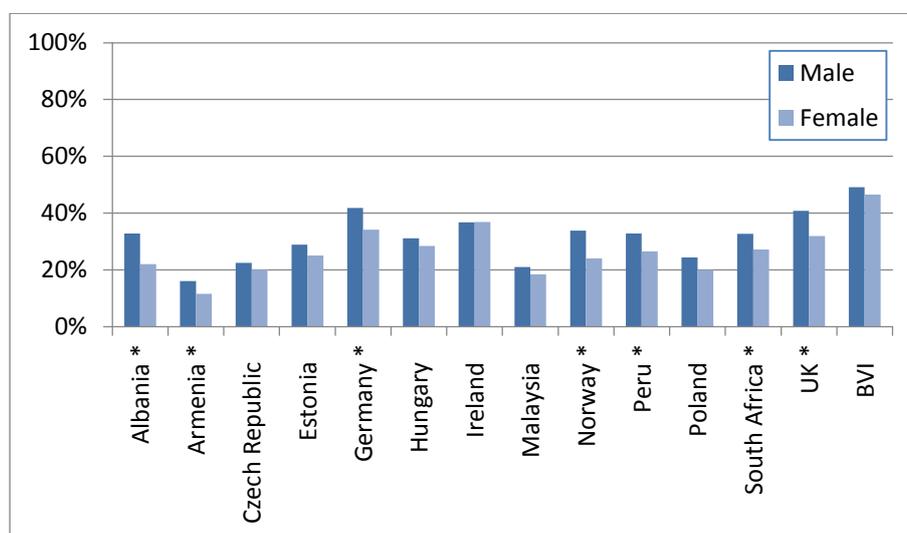
Finally, product choice is also an area of financial behaviour that is relevant for consumers’ financial literacy. If people attempt to make an informed decision by shopping around or using independent advice they are more likely to choose appropriate products that meet their needs in a cost effective way, less likely to buy something inappropriate, and potentially less likely to be subject to mis-selling or fraud.

Evidence from the OECD INFE survey and other studies conducted in OECD countries indicate that women might not choose financial products appropriately, as they are less likely than men to shop around, to take informed decisions, and to use formal sources of information and advice.

The results of the OECD INFE survey show that men are more likely than women to compare financial products across providers in their recent products choices and to shop around for financial products across a range of countries (i.e., **Albania, Armenia, Germany, Norway, Peru, South Africa**, and the **UK** – see Figure 17).¹⁶

Another relevant aspect of financial literacy related to product choice has to do with the use of sources of information and advice in deciding which products to take out. Not only it is important that consumers try to take an informed decision, but it is even more important that they choose professional and independent sources to gather information and advice.

Figure 22. Has tried to compare financial products across providers

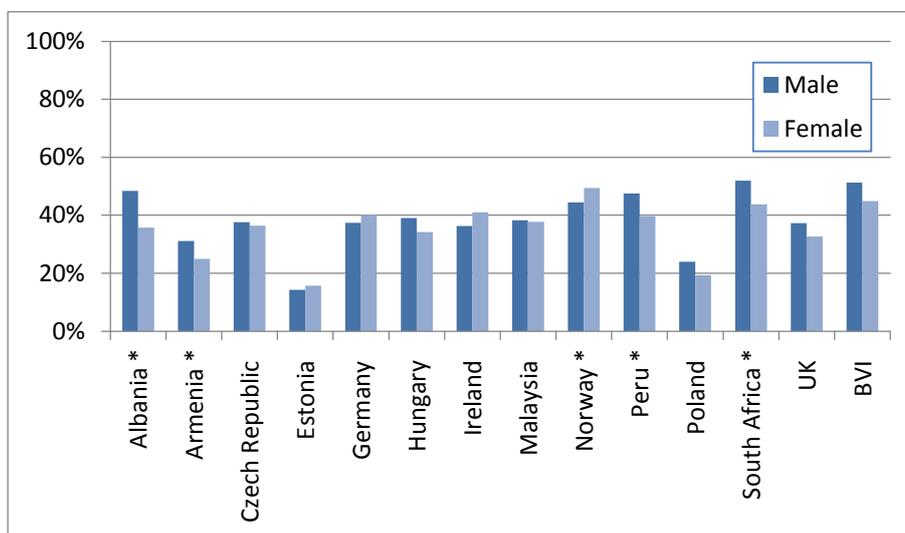


Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: Base: all respondents (Not comparing across providers also includes no recent product choice). In countries indicated with an asterisk * the gender difference is statically significant at 5 % level.

According to the OECD INFE survey, women in some countries show lower financial literacy than men in both aspects. First, women are less likely than men to have made an attempt at taking informed decisions in financial product purchases in **Albania, Armenia, Peru** and **South Africa** (measured by whether respondents have consulted either non-independent, such as bank staff, friends, trusted individuals or from general media coverage, or independent sources, including independent professional advisors, best buy and specialist magazines – see Figure 18). However, there are no gender differences in a majority of countries (and in women in Norway are even more likely than men to have tried to take an informed decision). Also a survey of **US** women living in middle- to high-income households reveals that about one third of surveyed women think they need a lot of help to make financial decisions, but at the same time less than half respondents have established an advisor relationship (Prudential, 2010).

Second, of the respondents who tried to take an informed decision, men are more likely to have consulted independent professional sources of information and advice in **Germany, Norway, South Africa**, and the **UK**. On the contrary, women in Ireland are more likely than men to have consulted an independent source (Figure 19). Also the 2009 **New Zealand** Financial Knowledge Survey illustrates that men are more likely than women to gain financial information or advice from formal sources of advice (including newspapers, magazines/leaflets, websites, and advisors), while women are more likely to rely on informal sources such as family, relatives and friends (ANZ–Retirement Commission, 2009). Women’s tendency to use informal sources of advice is reported also in the **Netherlands** and in **Germany** (Bucher-Koenen et al., 2012).

Figure 23. Information sources: made an attempt at taking an informed decision from independent or non-independent sources



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Notes: Base: all respondents. This is derived from a categorical variable taking three values: 0 = No attempt at taking an informed decision (used only unsolicited info received by post, TV ads, other ads) / no recent product choice; 1 = Used only non-independent sources (gathered info from bank staff, friends, trusted individuals or from general media coverage); 2 = Consulted independent professional information/advice (Independent professional info/advice, best buy and specialist magazines). This graph represents the share of female and male respondents who fall into categories 1 or 2. In countries indicated with an asterisk * the gender difference is statically significant at 5 % level.

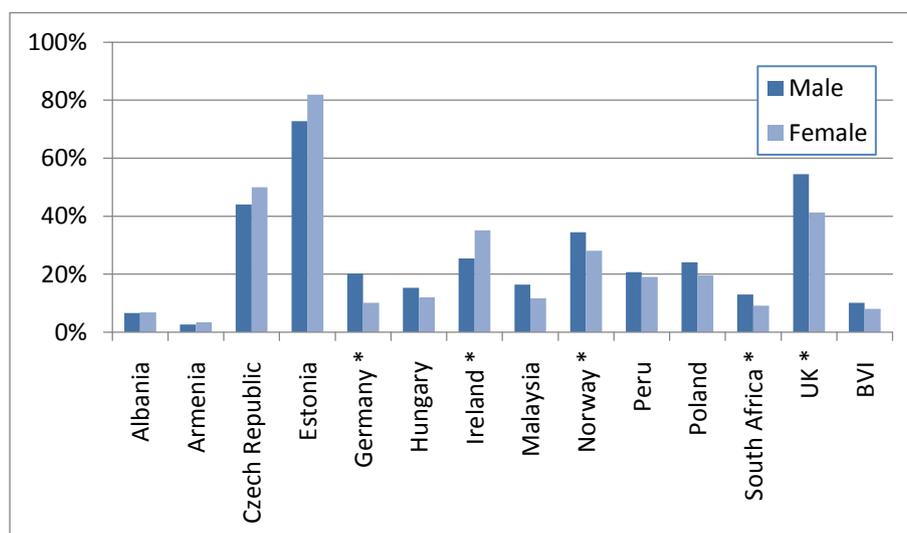
Other national financial literacy surveys highlight women’s difficulty with choosing products more broadly. The **UK** financial capability survey showed that women had lower scores in the ‘choosing products’ domain, which captured various aspects including information collection, the main source of information, product choice, and reading products’ terms and conditions (Atkinson et al., 2006). Analogously, the financial capability survey conducted in **Ireland** shows that women scored lower than men at staying informed (measured by a composite index based on respondents’ answers to four variables about the importance of keeping up to date with financial matters, the number of financial topics monitored, the frequency of monitoring financial topics, and the knowledge of whether specified savings and investments are affected by the stock market) (Irish Financial Regulator, 2009).

A study by the **UK** Financial Services Authority (FSA) on women and personal finance highlighted that men were much more likely than women to make decisions for savings accounts and mortgages based on product characteristics and price, while having an existing relationship with a financial institution was the most important factor in women’s decision-making. Moreover, the analysis indicated that women were less likely than men to say that they read about financial products and services in newspapers (Graham and Warren, 2001).

Using a survey of US households, Loibl and Hira (2011) showed that female investors were generally more likely to practice a lower-information search strategy (based on the number of sources used and on the frequency of use), using fewer online and mass media sources compared with male investors. This result is confirmed in a multivariate analysis controlling for demographic and attitudinal factors (including risk tolerance and self-confidence).

Women’s reluctance to use formal sources of advice may not only be a sign of low financial literacy, but may also be related to the quality of the advice they receive. In an audit study of the market for financial advice in the Boston area in the **US**, Mullainathan et al. (2012) show that some advisers refused to offer any specific advice as long as the potential client had not transferred his or her account to the company of the adviser. The results show that this behaviour was more pronounced towards females, meaning that female investors were more frequently expected than male investors to engage with advisers before being able to assess their quality. As the evidence on the supply side of financial advice, especially in relation to the quality of advice, is quite limited, more research is needed to explore the existence of any differential treatment to male and female investors, and why.

Figure 24. Information sources: consulted independent professional info/advice



Source: OECD INFE Financial Literacy Survey (Atkinson and Messy, 2012). Base: respondents who made some attempt at taking an informed decision. This is derived from a categorical variable taking three values: 0 = No attempt at taking an informed decision (used only unsolicited info received by post, TV ads, other ads) / no recent product choice; 1 = Used only non-independent sources (gathered info from bank staff, friends, trusted individuals or from general media coverage); 2 = Consulted independent professional information/advice (Independent professional info/advice, best buy and specialist magazines). This graph represents the share of female and male respondents who fall into category 2 given that they made some attempt at taking an informed decision (categories 1 and 2). In countries indicated with an asterisk * the gender difference is statically significant at 5 % level.

More research is needed to better understand gender differences in financial literacy

This section has collected a substantial amount of evidence on gender differences in financial knowledge, attitudes and behaviour. It also identified areas where more research and analysis should be carried out in order to obtain a more refined picture of women’s needs and gaps in the financial domain. In particular, a number of areas deserve further attention:

- **Gender differences in financial knowledge at young ages.** More evidence on gender differences in financial knowledge at young ages would help clarify to what extent these differences are due to women’s lack of opportunities for learning and experiencing about financial issues along the

life cycle. The results of the 2012 PISA financial literacy assessment will give more insights on a potential gender gap and on other factors associated to it;

- **Gender differences in financial attitudes.** First, evidence from a larger set of countries would be helpful in assessing the robustness of the results obtained so far. Second, it would be interesting to know more about what drives women's lack of confidence in their ability and their lower interest for financial matters with respect to men; on the relation, if any, between gender differences in financial knowledge and attitudes (especially confidence and risk aversion); and on the relation between gender differences in financial attitudes (especially time and risk preferences) and financial behaviour;
- **Gender differences in making ends meet and saving.** A larger evidence base would be helpful to strengthen the results shown in this report. Moreover, it would be interesting to know to what extent women's and men's attitudes, financial knowledge, and limited access to employment and entrepreneurship drive their ability and propensity to make ends meet, to cut expenses vs. earn higher incomes, and to save for unexpected expenses and for the long term;
- **Gender differences in saving behaviour.** Evidence from a larger set of countries, especially from developing and emerging ones, would be helpful obtaining more robust results. In addition, more evidence is needed about the ability of men and women to plan for the long term vs. manage their money in the short run;
- **Gender differences in the choice and use of sources of information and advice.** Women appear to be less overconfident than men and yet less likely to resort to advisors. Therefore, it would be important to know more about what drives gender differences in the propensity to seek advice, taking into account both demand and supply side factors.

2. Barriers to women's financial empowerment and Factors affecting gender differences in financial literacy

As shown in the previous section, women display on average lower financial knowledge and confidence, and have more difficulties in some aspects of financial behaviour with respect to men. This evidence calls for a better identification and understanding of what barriers affect gender differences in financial literacy.

A number of elements can be considered as potentially driving such gender differences. In particular, various factors may reduce women's opportunities to learn about financial matters and to acquire financial skills, as suggested also by previous research (Hung et al., 2012) and evidence from INFE member surveys. Limited access to education, employment and formal financial markets not only reduce women's financial well-being per se, but also limit the extent to which women can improve their knowledge, confidence and skills about economic and financial issues. These elements will be discussed in the following paragraphs, together with examples of issues and policies from a selected number of countries.

The literature on the potential causes of these gender differences in financial literacy is still in its infancy and it is difficult to establish causal links. In practice, causality probably goes both ways: factors limiting women's economic opportunities may reduce their ability to gain more financial literacy, and at the same time gender differences in financial literacy may reinforce disparities in other domains. This

highlights the need for policies addressing gender inequalities both in economic opportunities and in financial literacy as a means to improve women's financial well-being.

Gender roles in household financial decision making have limited impact

A potential explanation for women's lower financial literacy may have to do with specialisation of tasks within the household. The idea that men acquire greater financial knowledge and skills than women because they specialise in financial decision making within the household (for various reasons, including cultural and social norms) is consistent with the fact that men tend to display higher financial knowledge than women across a wide range of countries.

However, learning through household financial decision making seems to play a minor role in gender differences in financial literacy. First, as mentioned in the previous section, evidence from the OECD INFE survey shows that both partners are jointly responsible for day-to-day money management in a majority of households across several countries, weakening the idea of specialisation in financial decision making. Moreover, the evidence regarding a link between gender differences in financial literacy and specialisation within the household is mixed. Hsu (2011) finds that the financial literacy of older married women in the US increases as they approach widowhood, thus supporting the idea of household division of labour. Anticipating possible widowhood, women have incentives to begin learning. However, Fonseca et al. (2010) and Bucher-Koenen et al. (2012), studying the US and Dutch population respectively, do not find support for the specialisation hypothesis. More research is needed to shed more light on the link between financial decision making within the household and financial literacy.

Box 5. New Zealand: factors explaining women's lower retirement prospects

New Zealand displays relatively low levels of gender inequality. The female labour force participation rate is relatively high (72%) and the gender pay gap is among the lowest in the OECD (the difference in median earnings for male and female full-time employees was about 8% of male earnings in 2009) (OECD gender data browser). Similarly, there is virtually no difference in access to basic formal financial products (Demircuc-Kunt and Klapper, 2012).

The remaining gender gaps, however small with respect to other countries, generate differences in men's and women's life experiences that can lead to worse retirement prospects for women in old age. Life expectancy in New Zealand is relatively high with respect to the OECD average, making retirement issues particularly salient. To address these concerns, the Commission for Financial Literacy and Retirement Income (CFLRI) is working with the Treasury and Ministry of Women's Affairs to study the factors that are most likely to negatively impact women's financial wellbeing in retirement. A number of research projects have been commissioned, and will feed into a wider review of retirement income policy (CFLRI, 2012).

The ten factors thought likely to carry risks of negative impact include: the family/community the woman was born into; education; visible and invisible structural factors in the workplace; paid work response to breaks in earning; the nature of paid employment opportunities and earnings level; the nature of the household unit and family formation; the endowment a women may have been provided with or may take away from a relationship breakup; the extent to which savings schemes address life cycle changes in a fully gender-neutral manner; the level of assets and debts; and a variety of cultural and ethnic factors that may exacerbate disadvantages for women (CFLRI, 2012).

Box 6. Efforts to improve the situation of women and girls in India

Discrimination against women in India starts from a very young age, with the phenomenon of ‘missing women’ due to sex-selective abortions and female infanticide becoming increasingly prevalent amongst the middle class (Jha et al. 2011).

The gender gap in participation in schooling has been almost completely reduced for primary school and is reducing for secondary and tertiary educational levels. Examples of policies to encourage poor households to send girls to school include ‘school-meal’ policies, which have contributed to an increase in primary school participation for girls, but not for boys (Drèze and Kingdon, 2001). Policies to promote a ‘girl-friendly’ school environment, such as hiring more female teachers has also proven to have a positive impact on girls’ attendance. The evaluation of a randomised programme in India found that hiring additional female teachers increased girls’ attendance by 50% (Glewwe and Kremer, 2006).

Teenage girls and young women in India are very likely to be neither in education, employment nor training (NEET) from a very early age (57% of young women aged 15-24 is NEET, vs. 15% of young men). This is true especially in rural areas and for married girls. Young women who are married are much more likely to be NEET than unmarried women of the same age (OECD, 2012a). As early marriage can act as a barrier to participation in education and employment, the *Apni Beti Apna Dhan* programme provides cash incentives to girls and their families that are conditional on the daughters remaining unmarried until age 18. Initial evaluation results suggest this programme helped parents increase their investment in their daughters’ human capital (Sinha and Young, 2009).

Given the low overall female labour-force participation (around 30%) the government has tried to facilitate female employment through public work programmes. For instance, the Indian National Rural Employment Guarantee Act (NREGA) aims to promote women’s participation in the workforce by setting explicit quotas for female participation in the scheme; setting equal wages for men and women; by allowing childcare facilities to be provided on worksites; and by requiring provision of work close to participants’ homes (OECD, 2012a). The programme succeeded in granting women higher wages than in private rural employment (Holmes and Jones, 2011), but has been criticised for high costs and low efficiency (Niehaus and Sukhtankar, 2009), corruption (Liu and Deininger, 2010), and the lack of day-care facilities at or near the work sites (Bhatty, 2006).

Access to financial markets for personal use or entrepreneurship is also difficult for Indian women. Men are 70% more likely than women to have an account at a formal financial institution (44% of men and 26% of women aged 15 and older in 2011 – Demircuc-Kunt and Klapper, 2012). Access to banking services for women has increased over the years, even though this has favoured more urban women in more developed regions and socio-economic groups (Chavan, 2008). The Indian National Bank for Agricultural and Rural Development (NABARD) has various initiatives to promote the financial inclusion of women, for instance facilitating self-help groups (SHGs), which are mostly composed of women, to access credit from formal banking channels (NABARD, 2007). Similarly, many women face difficulties in accessing credit at sustainable interest rates. To alleviate this constraint, the government provides credit guarantees through the TRADE scheme, with a specific target for women-owned enterprises. Another programme – the Credit Link Capital Subsidy – has been implemented for financing technology upgrading of female-owned firms (OECD, 2012a).

Gender differences in socio-economic conditions: lower access to education and employment

Financial knowledge is typically correlated with the education level. It is reasonable to assume that lower access to education can affect opportunities to improve financial literacy. Access to formal education is lower for girls than for boys in some regions of the world. Enrolment in primary education is near universal in many countries, and gender gaps have closed in the majority of countries, albeit with some exceptions. Gender gaps in primary school participation persist in Africa and Southern Asia, despite marked progress. In these regions girls are also less likely than boys to enrol in secondary and tertiary

education (Table 1). In contrast, especially in high-income countries, boys are more likely to drop out of secondary education and are less likely to enrol in tertiary education than girls (OECD, 2012a; UN, 2011; World Bank, 2011b).

In spite of the progress in terms of school participation and greater gender equality in education in most countries, the transition from education to work continues to pose many challenges, and greater education equality does not always translate into greater equality in labour market outcomes.

In developed countries, more women have entered the workforce in recent years, but often experience more difficulty in finding a first job, earn less than men and are more likely to work part-time. Furthermore, the choices young women and men make in fields of study perpetuate gender segregation in the labour markets, with women underrepresented in the business sector and concentrated in health, welfare, educational and administrative fields (see also Box 7 about France). These gender differences exist to a large extent because women still bear the brunt of the unpaid domestic tasks, such as childcare and housework, because of shortage/high costs of childcare facilities, and because of family-unfriendly work conditions (OECD, 2012a; World Bank, 2011b). Table 1 shows differences in the availability, affordability and quality of childcare services across regions of the world (Economist Intelligence Unit, 2012). Moreover, gender differences in the labour market can have longer-term consequences affecting women's and men's ability to save for both short and long term needs (as mentioned in the previous section), and may especially impact women's outcomes in retirement. Box 5 highlights the experience of New Zealand in addressing women's lower outcomes in retirement.

In emerging and developing countries, young women are far more likely than young men to be neither employed nor in education or training (NEET) (See Boxes 6 and 8). This is frequently related to early marriage, child bearing and other caring responsibilities. Even when they enter the labour market, women are more likely to be confined to the most vulnerable jobs, frequently in the informal sector.

As mentioned previously, gender differences in financial literacy are strongly correlated with differences in socio-economic conditions of men and women (Bucher-Koenen et al., 2012; Fonseca et al., 2010). This suggests that addressing the barriers that limit girls and women's access to education and employment opportunities would be likely to have positive effects, among the others, also on reducing the gender gap in financial literacy, thus improving women's financial empowerment and well-being.

Table 5. Indicators of gender differences in economic opportunities

	Ratio of female to male primary enrolment (%)	Ratio of female to male secondary enrolment (%)	Ratio of female to male tertiary enrolment (%)	Ratio of female to male labour participation rate (%)	Access to childcare (%)	Women's access to finance programmes (%)
East Asia and Pacific	101.7	103.6	108.8	81.4	50	31.3
Europe and Central Asia	99.2	96.5	120.6	72.6	31.3	42.2
High income: non OECD	100.2	98.8	130.0	51.1	57.6	70.5
High income: OECD	99.3	99.7	123.8	77.8	63	99.1
Latin America and the Caribbean	96.7	107.8	127.4	67.1	29.4	19.1
Middle East and North Africa	93.4	91.6	99.1	27.5	29.6	33.3
South Asia	97.8	91.3	72.2	40.0	33.3	37.5
Sub-Saharan Africa	92.8	82.0	63.2	84.0	30.2	26.2

Sources: WB World Development Indicators (education and employment); Women's Economic Opportunity (WEO) Index (Economist Intelligence Unit, 2012) (access to childcare and to finance programmes). Note: the indicator on access to childcare indicates the availability, affordability and quality of childcare services, as well as the role of the extended family in providing childcare; the indicator on women's access to finance programmes expresses the availability of outreach programmes for women that target the provision of financial services through either government initiatives or private lenders. See Economist Intelligence Unit (2012) for details on the construction of both indices.

Gender difference in access to entrepreneurship and to finance

Not only do women have more difficulties in accessing salaried employment on an equal basis with men, but they also lag behind when they engage in entrepreneurial activities. In all regions of the world there are more male than female entrepreneurs, with a relatively high proportion of enterprises with at least one female owner in East Asia, Eastern Europe and Central Asia, and Latin America (35-45%) and a very low proportion in South Asia (less than 30%). When women do start businesses, they do it on a smaller scale than men and in a limited range of sectors, often at low capital intensity. Even when enterprises in the same size class and industry are compared, women-owned businesses have other features that are associated with lower sales, profits and labour productivity. In addition, women often have different motivations for starting a business than men: they are more likely to become business owners out of necessity, and tend to give more importance than men to the working time-flexibility afforded by self-employment (See the case of Mexico in Box 8). Moreover, typically women start their enterprises with lower human capital, lower prior work experience, and lower management skills and financial literacy than men (IFC, 2011; OECD, 2012a).

A number of financial and non-financial barriers limit the development of female-owned SMEs more than male-owned ones. Non-financial barriers include the cultural, legal and regulatory environment. In some countries women do not enjoy the same right to land as men and in general their property rights are not as secure. Social norms often induce further restrictions on women's entrepreneurial activities by limiting their mobility or by reducing the time available for business due to the prevailing gender division of labour within the household (IFC, 2011; OECD, 2012a).

Access to finance is a key constraint for both male and female micro and small enterprises in developing countries. However, women face more difficulties in accessing finance, and fewer women than men use credit from banks to finance their start ups. The very characteristics of women's businesses

impact their ability to access finance, including the small size, the concentration in less profitable industries and their informality. In addition, women might be charged higher interest rates and asked for more guarantees, as they often have shorter credit histories, less operating capacity and collaterals. For instance, many female entrepreneurs in India face difficulties in accessing credit at affordable rates (see Box 6). It is also possible that some lenders might charge women more because they have biased expectations about women's capacity to meet their debt obligations, but evidence in this respect is scant. Finally, non-financial barriers likely interact with financial ones (e.g., weak property rights disadvantage women in credit markets) (IFC, 2011; OECD, 2012a). The extent to which these issues are addressed varies across regions: Table 1 provides evidence on the availability of outreach programmes for women that target the provision of financial services through government initiatives or private lenders (Economist Intelligence Unit, 2012).

As mentioned previously, gender differences in financial literacy are strongly correlated with differences in socio-economic conditions of men and women (Bucher-Koenen et al., 2012; Fonseca et al., 2010). This suggests that addressing the factors that limit girls and women's access to education and employment opportunities would be likely to have positive effects, among the others, also on reducing the gender gap in financial literacy, thus improving women's financial empowerment.

Women's lower financial inclusion

Women face difficulties in accessing finance not only for their businesses but also for their personal use. In most regions of the world, fewer women than men have an account at a formal financial institution, as shown in Figure 20. Moreover, in some regions of the world women are more likely than men to use informal products: in Sub-Saharan Africa more women savers report using an informal savings clubs and not a formal financial institution to save as compared to men (Demirguc-Kunt and Klapper, 2012).

Box 7. High gender equality in France but some issues still need attention

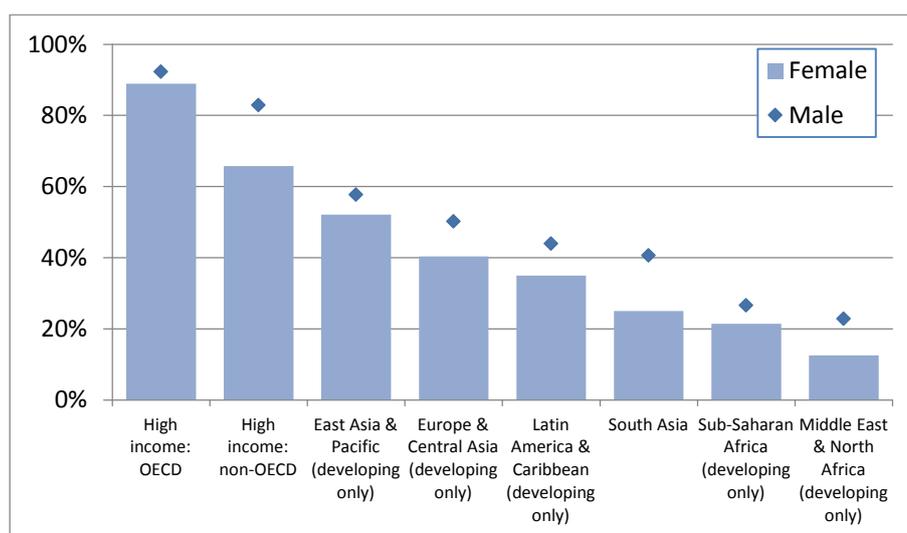
In France, participation in education and employment is fairly equal across genders, and gender disparities are relatively smaller compared to many other countries. However, inequalities still persist in some domains.

Even though participation in secondary education is roughly equal for boys and girls, there are differences in subject choice. As in most OECD countries, boys are much more likely than girls to complete ‘technical’ programmes (i.e. engineering, construction, and manufacturing) in both upper secondary and tertiary education (OECD, 2012a and 2012c). As a way to support young people in their choices, guidance and career advice (e.g. *carrefour des métiers*) assist students in school and university in challenging stereotyped assumptions and in encouraging non-traditional educational and occupational choices among young men and women. Similarly, occupational sector concentration is relatively low compared to other OECD countries, but women remain over-represented in some “feminised” occupations and the gender pay gap has even increased in recent years (OECD, 2012a).

Together with the Nordic countries, France has well-balanced work and family outcomes – relatively high female employment rates, fertility rates close to replacement levels and a more equal gender distribution of unpaid working time – and has work-family policies that provide parents with a continuum of support throughout the early years and until children become teenagers (Thévenon, 2011).

Finally, the proportion of women on boards in listed companies is relatively high compared to international standards (15-20%) as well as the proportion of female managers (over 35%). In this respect, mandatory gender board quotas for publicly listed companies have been introduced. A law adopted in 2011 obliges listed companies and companies employing at least 500 employees and with revenues over € 50 million to appoint at least 20% women on their boards within 3 years and 40% within 6 years. A key penalty of the law is that an appointment of a board member which does not meet the criteria in terms of gender will render the appointment invalid. Moreover, reference to gender is included in Corporate Governance Codes - self-regulatory measures where non-compliance usually does not result in a penalty, but requires an explanation. This is deemed to have some influence on the composition of boards in listed companies (OECD, 2012a).

Figure 25. Has an account at a formal financial institution (% of population age 15+)



Source: Global Findex (Demirguc-Kunt and Klapper, 2012)

Box 8. Women's economic opportunities in Mexico

In Mexico, participation in secondary education, as well as graduation rates in tertiary education, are higher for girls than boys, even though both indicators are low compared to other OECD countries (OECD 2012c). However, dropout rates after primary school are relatively high for girls in rural areas of the country. To counteract this phenomenon, the government initiated the gender-sensitive conditional cash transfer programme *Oportunidades*, paying higher cash transfers towards girls than boys. Within two years of its implementation *Oportunidades* contributed to the 9.3 percentage point increase in enrolment rates for girls in secondary school (from a base of 67%) (OECD, 2012a).

In spite of the encouraging education picture, women suffer from a disadvantaged position on the labour market. Girls and young women aged between 15 and 29 are 3.6 times more likely to remain not in education, either unemployed or not in the labour force, than men of the same age (OECD, 2011). While male labour force participation is higher than the OECD average, the female participation rate is very low (47% vs. 83% - gender data browser), and the time spent in unpaid work by Mexican women is more than three times higher than the time spent by men (OECD 2012c). To improve female participation in the workforce and to promote child development, Mexico developed a Federal daycare programme for working mothers, *Programa de Estancias Infantiles para Apoyar a Madres Trabajadoras* (PEIMT), subsidizing community and home-based daycare to facilitate the employment of low-income mothers. The programme offers both demand and supply-side incentives by providing financial aid to individuals and civil society organisations interested in running nurseries, as well as a subsidy to low-income mothers who wish to enrol their children. The co-payment means that daycare service comes at a lower cost to users but is not entirely free. One of the greatest achievements of the programme has been the creation of female employment, and by 2011, it had generated around 45 000 paid jobs for providers and their assistants, mainly women (OECD, 2012a).

Many women in Mexico try to develop small businesses because they lack other options for earning an income. Many more women than men start their business out of necessity. However, most of these entrepreneurial activities are in the informal sector. Women represent the majority of informal business owners without employees. Moreover, data on micro-firms in Mexico from 1992 to 2008 show that the percentage of female owners has been increasing more in the informal sector than in the formal one (OECD, 2012a). To encourage the transition into the formal sector, the SARE programme (*Sistema de Apertura Rápida de Empresas*) introduced 'single-window' services to reduce the number of procedures needed to register a business (OECD, 2009). 'Formalisation' programs can have a relatively large impact on women, given that the burden of complying with government regulations is heavier for the low-scale businesses where female owners are prevalent. Moreover, a large microcredit programme running since 2000 (*Programa Nacional de Financiamiento al Microempresario, Pronafim*) has targeted mainly women (87% of the beneficiaries in 2011) (OECD, 2012a).

Financial inclusion is also lower among Mexican women than Mexican men: 33% of men and 22% of women hold an account at a formal financial institution (Demirguc-Kunt and Klapper, 2012). In 2010 the Federal Government launched through BANSEFI a programme to support financial inclusion and strengthen savings and loan associations (*Programa de Apoyo para Fomentar la Inclusión Financiera y el Fortalecimiento del Sector de Ahorro y Crédito Popular y Cooperativo*), where mostly women participate (the programme is described in more detail later).

Different social and legal treatment of men and women

The gender differences in the ability to study, work and set up a business described before are in part related to social and legal institutions that affect women's capacity to participate in economic activities and achieve equal outcomes as men.

In many countries, albeit to varying degrees, discriminatory attitudes towards women's employment, including social norms about the division of paid and unpaid work across genders, and discriminatory social norms with respect to the status of women in the family (e.g., son bias, early marriage) still play a significant role in affecting women's access to economic resources and opportunities (OECD, 2012d). Moreover, cultural, social and economic factors may directly constrain women's ability to attend financial courses/seminars, apply their financial knowledge and act independently in the financial domain.

In addition, in some regions of the world there are substantial differentiations in not only in social, but also in legal treatment between men and women (World Bank, 2011a). The Middle East and North Africa (MENA), South Asia and Sub-Saharan Africa are the three regions where explicit legal gender differentiations are most common, both in accessing institutions and in using property. For instance, many economies in the MENA region impose at least one restriction on women's capacity to access institutions (e.g., a married woman may not be able to apply for a passport in the same way as a man, or a married woman may not be able to confer citizenship on her children in the same way as a man), and have different inheritance rights for men and women (see also Box 9 for more examples from MENA countries).

Differences in social attitudes and legal treatment towards men and women are at the roots of women's lower socio-economic empowerment. Even though many factors are at play in explaining women's economic participation, lower gender parity is associated with women's lower labour force participation and lower entrepreneurship levels (World Bank, 2011). In turn, these attitudes and practices are likely to limit also women's financial independence and empowerment.

Box 9. Reducing gender differences in the MENA region

Despite existing gender disparities in some Middle East and North Africa (MENA) countries in terms of enrolment rates at the secondary (and sometimes primary) level of education, tertiary enrolment of young women has been growing and often exceeding that of young men (UNESCO, 2011). Female tertiary enrolment rates rose from 42% in 1999 to 51% in 2009 in the region (UNESCO, 2012), and exceed male rates in Algeria, Jordan, Kuwait, Lebanon, Qatar, Saudi Arabia, Tunisia and the United Arab Emirates (WEF, 2011).

Significant progress towards reducing gender gaps in key dimensions of education and health has not always been coupled by similar improvements in employment outcomes, even though there is considerable cross-regional variation. The increase in female labour-force participation over the past two decades has been slight: from 22% in 1990 to 30% in 2010, almost 40 percentage points below male labour force participation rate in the region (OECD, 2012a). Moreover, women are often concentrated in the public sector (WEF, 2011). In Egypt, for example, the public sector accounts for 56% of employed women compared with 30% of men (Hendy, 2012).

Lack of policies to support work-family balance is one of the main barriers to women's employment opportunities in the region. Family responsibilities are considered a woman's domain and marriage plays a key role in women's labour force participation, particularly among women in the private sector. In Morocco, only 12% of married women join the labour force (compared with 79% of married men). In Egypt and Jordan, the share of women in private jobs falls sharply at marriage (Hendy, 2012), regardless of education level. Other institutional, legal, economic and social norms also contribute to explaining the slow progress of female labour force participation in the region. These include norms restricting the type and hours of work for women and requirements to get the permission of husbands or fathers to work. Many MENA governments have taken steps to improve women's employment prospects. Measures to guarantee public sector pay equity have been put in place in Egypt, Jordan, Morocco and Tunisia (OECD, 2012a).

Female self-employment rates range from over 30% of working age women in Algeria to less than 2% in the Gulf countries, and only a very small proportion of businesses owned by self-employed women have more than ten employees (Stevenson, 2010 and 2011). Women's low labour force participation rates arguably limit opportunities to acquire the job skills or management experience necessary for starting a business, and only about 9% of adult women engage in early-stage entrepreneurial activity, less than half the rate of men (19%). Women entrepreneurs are a heterogeneous group, whose firm characteristics and needs vary depending on location (urban versus rural) and education level (OECD, 2012a). In order to address the challenges related to women's access to employment and business opportunities, government, private sector and civil society representatives from the MENA region meet annually in the OECD-MENA Women's Business Forum to promote and support women's economic empowerment.

Not surprisingly, levels of financial inclusion are also lower for women. In countries such as Egypt, Iraq, Jordan, Lebanon, and Morocco men are about twice as likely as women to have an account at a formal financial institution (Demirguc-Kunt and Klapper, 2012).

Ongoing research efforts and policy action are needed to address the factors affecting gender differences in financial well-being

The evidence reviewed in the section highlights the existence of substantial gender disparities that can affect the way men and women acquire financial knowledge and skills, and that can bring about gender differences in financial literacy. However, the evidence on the potential causes of these gender differences in financial literacy is still limited and it is also very difficult to establish causal links between gender differences in financial literacy and on socio-economic outcomes. It is therefore of great importance to continue carrying out research efforts to improve the understanding of the factors that

limit women's financial literacy, and to foster policy initiatives addressing gender inequalities in economic and financial opportunities.

Financial education is a key instrument to improve women's overall financial and economic empowerment but cannot alone address all the challenges facing women's unequal socio-economic outcomes. Nevertheless, targeted and well designed financial education policies and initiatives can address women's needs and help them to improve their awareness, knowledge, confidence, and skills in dealing with financial issues.

In this respect, Section III will be devoted to examining which financial education programmes are in place for women and girls, what is their impact and what are the main challenges and good practices that can be drawn from them.

3. Addressing women's financial education needs through policies and dedicated programmes

A. Financial education policy initiatives: priorities and target groups

The evidence on gender differences in financial literacy presented by national and international studies, as well as the evidence on significant gender inequalities to economic opportunities, highlights the challenges to improving women's and girls' financial well-being.

Policy awareness on the financial education needs of women and girls is highly heterogeneous across countries. In light of the challenges identified above, various countries at different income levels have acknowledged the need to address the financial literacy of women and girls by developing targeted financial education policies and initiatives. A few countries, including **Brazil, Israel, Malaysia** and **Turkey**, have also included women as a specific target group of their national strategies for financial education (Grifoni and Messy, 2012).

In spite of the available evidence, policy awareness is still low in many other countries about the need to address gender differences in financial literacy and barriers to women's economic and financial well-being and opportunities, as revealed by a stocktaking exercise undertaken among members of the INFE.

This section collects information about countries' policy responses to such challenges, identifies efficient practices and case studies on financial education for women and girls in over 50 countries across all regions of the world, and analyses their main characteristics.¹⁷ The majority of initiatives reviewed are developed exclusively for women and/or girls; however, this section also includes a few other relevant programmes that are mostly taken up by women/girls, or that have a particular focus on women/girls even though they are open to both men and women (Table 4 in the Appendix provides a list of programmes, together with details on additional information and material).

The initiatives identified take place in developed and developing countries, in both rural and urban settings, and in areas with different levels of economic and financial development. Most programmes are targeted at the needs of specific subgroups of women, such as young women, elderly/widows, low-income women, and women who are unemployed, financially excluded, or living in disadvantaged areas. Programmes are developed by a range of stakeholders including public authorities (such as governments and financial markets regulators), not-for-profit organisations operating at the local or international level, microfinance institutions (MFIs), and financial institutions.

The programmes identified address various topics, ranging from financial products awareness and day-to-day financial management, to borrowing, long-term financial planning, and consumers' rights. In several cases, standard financial education topics are combined with other important skills such as entrepreneurship and business skills, and health-related issues (e.g. HIV/AIDS prevention). Several initiatives aim at the same time at increasing the financial literacy and financial inclusion of women, combining financial education with access to formal financial products (mostly savings accounts).

While most initiatives are in the form of training courses and seminars, these are often coupled with paper-based materials, advisory and counselling services, websites and videos. As an example of video-based resources, the programme 'I'm worth it: financial stories, ideas and strategies for women' developed by the Securities Commission of Manitoba in Canada combines a series of videos and guides to help women understand their financial situation and manage their money. An example of paper-based material is given by the guide 'Money Talk: A Financial Guide for Women' to teach women basic money management (Brennan and O'Neill, 2009).

To some extent the financial needs of women and girls are different across various regions of the world and this is partly reflected in the characteristics of the financial education programmes devoted to them. Most programmes in developed countries are targeted at adult women and address money management and saving topics. These programmes are also frequently focused on planning for retirement and avoiding over-indebtedness.

On the contrary, financial education programmes in developing and emerging economies are very often targeted at girls and young women, and aim at helping them improve their financial (and overall) empowerment. Financial education programmes in low and middle income countries are also typically linked to financial inclusion initiatives, allowing girls to access transaction, saving and microfinance products. Moreover, many of these programmes also include training on entrepreneurship skills and business development, to sustain women and girls in setting up and running income generating activities.

The rest of the section is devoted to describing the main characteristics of the most relevant initiatives, based on their policy goals:

- Addressing the needs of specific subgroups, i.e. young and old women, low-income and other marginalised groups of women, and female small and micro entrepreneurs; and
- Improving women's strategies in dealing with various financial matters, including fostering the use of formal saving accounts, preventing over-indebtedness, or helping women planning for retirement.

Addressing the needs of specific subgroups of women

As shown in Section II, some subgroups of women have particularly low financial knowledge and financial literacy in general, namely young and elderly women, widows, less well-educated and low-income women. Moreover, marginalised women in need of improved financial literacy often include micro entrepreneurs who start a business out of necessity. Various organisations have recognised these groups as being most in need of targeted financial education initiatives, and have designed specific financial education programmes to address them.

Young women

Especially in developing countries, young women and girls face various challenges from a young age. They need to be prepared to take responsibility for meeting their daily needs, to deal with life cycle events such as marriage and births, to cope with emergencies and unexpected events, and to take advantage of economic and social opportunities when they present themselves (Amin et al., 2010). Moreover, there is evidence of gender differences in financial knowledge even at young ages (see Section II). Financial education can contribute to building an understanding of basic concepts around sound money management, promoting awareness of personal financial issues and choices, ultimately fostering their economic independence and helping them become informed financial decision makers as they move into adulthood. Moreover, greater financial literacy and more financial independence can play a key role in empowering them also from a broader social and health perspective (Morcos and Sebstad, 2011).

For these reasons, NGOs operating in various countries of Africa, Asia and Latin America provide financial literacy training and access to financial services specifically to young and vulnerable girls.

For instance, the 'Safe and Smart Savings Products for Vulnerable Adolescent Girls' in **Kenya and Uganda** is an ongoing project conducted in Kenya and Uganda by the Population Council in collaboration with other international NGOs (Microfinance Opportunities, MicroSave Consulting) and local banks/MFIs. The programme targets young females, and aims at empowering girls from an economic point of view by providing (i) weekly group meetings with their savings group and a female mentor in 'safe spaces'; (ii) training on financial education; and (iii) access to an individual savings account at local banks with no opening balance requirements or monthly fees (Austrian, 2011).

Another example is the 'Financial education for young women in rural **Zambia**', implemented by the Camfed Association in 2009-2011. It focused on empowering young women aged 16-35 years, across eight rural Zambian districts with economic independence and life choices through financial literacy training. Training was delivered by peer trainers from the Camfed Association network of young women (Cama), using a cascade training model (i.e., training a number of Core Trainers and Peer Educators, who in turn train other women directly in each district) (FEF, 2012).

In the **Dominican Republic**, Micro Finance Opportunities (MFO) deliver financial education to urban girls together with the possibility of opening a savings account at ADOPEM, a local MFI that is a member of the Women's World Banking (WWB). ADOPEM also launched a soap opera with financial education contents to improve financial literacy and money management skills among low-income Dominican families. While the soap opera does not specifically target adolescent girls, it can contribute to reinforce the financial education messages of the training.

While school programmes are typically not targeted at boys and girls separately, other initiatives have been developed with a focus on young women and students. For instance, the **Saudi Arabian** Capital Market Authority organises visits and training programmes in schools and universities on investor education topics that are open to all students, but where mostly women/girls participate.

Elderly women

Similarly, older women are more likely to face poverty or financial hardship than men due to their longer life expectancy, lower average earnings, and lower labour market attachment. Particularly in countries with limited social security provision, women may have to rely heavily on their own money

management skills in old age. Moreover, elderly women may need additional support in the financial choices due to deteriorating cognitive abilities. Some programmes have been developed in recent years to support elderly women in difficulty.

For example, in order to address elderly women's vulnerabilities, the **Canadian** National Initiative for the Care of the Elderly (NICE) runs the programme 'Older Women and Financial Literacy: Bridging the Income Gap'. The programme engaged older (55+), immigrant and/or low-income women to develop, teach and share financial literacy tools about financial planning, debt management, preventing situations of financial abuse, etc. and to providing money management workshops in Vancouver, Montréal and Toronto.

Citi and the National Institute on Consumer Education launched in **Japan** a programme for middle-age and elderly women to help them learn how to set up and manage a budget, save regularly, and select appropriate financial instruments for loans and insurance.

Other programmes, described later, are devoted at anticipating women's financial difficulties in old age by helping them plan for their retirement during their mid-life.

Low-income and marginalised women

Low-income and other marginalised groups of women and girls are the targets of a large proportion of the programmes reviewed, across a range of developed and developing countries.

As an example, in 2010 the Capital Markets Board (CMB) of **Turkey** launched a financial literacy programme for unemployed, unbanked, and low-income women consisting of short seminars delivered by CMB experts on basic concepts about savings, debt, and investment. Also the Ministry of Economy and Finance of **Spain** promoted a financial education programme targeted at low income families (mostly attended by women) and implemented by the Women's World Banking.

The Mann Deshi Foundation – the NGO arm of the Mann Deshi Bank in **India** – has developed a financial education programme for women in rural areas of the state of Maharashtra. The basic programme is devoted to illiterate or semi-literate women and makes large use of pictures; an advanced and business financial literacy curriculum is being developed to help the financial inclusion of marginalised communities.

Financial education is one component of some conditional cash transfer (CCT) programmes in Latin America (e.g. 'Bolsa Família' in Brazil, 'Familias en Acción' in Colombia and 'Juntos' in **Peru**). These programmes are targeted to families living in extreme poverty, and identify mothers as the recipients of the CCT and of financial literacy training.

Female small and micro entrepreneurs

Women's economic participation includes being able to develop entrepreneurial activities. Governments and development organisations have attempted to increase women's empowerment by improving their financial literacy as a means to successfully start and manage income generating activities. Various examples of such programmes are found especially in developing countries and emerging economies.

In the **Philippines**, the 'Gender-Responsive Economic Actions for the Transformation of Women' (GREAT Women) project is promoted by the Philippine Commission on Women and by the National Anti-Poverty Commission. It aims to encourage and support women's economic empowerment, addressing particularly women in micro enterprises. The financial education component of the project has involved the development of Gender and Financial Literacy training material and the training of trainers.

The project 'Femmes Entrepreneuses en Méditerranée' (FEM) was implemented in 2006-2008 in **Tunisia, Egypt, and Lebanon** in partnership with French NGOs experienced in capacity building services and professional support. FEM aimed to improve women's economic conditions and develop their income-generating capacity through self-employment thanks to micro enterprise, as well as strengthening the capacities of the partner institutions that are in direct relationship with the women concerned. FEM activities ranged from training trainers, conducting studies of new lines of business, providing business development services to micro entrepreneurs (European Commission, 2008). In Lebanon, the NGO Al Majmoua participated in the programme by delivering financial literacy training workshops to women together with access to microfinance.

Two programmes developed by the ILO in **Cambodia** are focused primarily on female entrepreneurs and workers. The 'Women's Entrepreneurship Development and Gender Equality' (WEDGE) project addresses poor women running small businesses that have potential to grow and develop, poor families with working children, as well as people living with disabilities or affected by HIV/AIDS. The main goals of the project are to support the target group to make better spending, savings and investment decisions; to enable them to reach their financial goals without the need to rely on child labour; and to promote women's economic decision-making capacity within the household. In addition to standard financial education topics (based on the ILO training manual "Financial Education", developed for Cambodia and adapted for Nepal, Mongolia and Indonesia), the training includes entrepreneurship and business planning topics and promotes the formation of self-help groups connected to microfinance institutions.

Also the 'Strengthening employment and economic opportunities for workers' project was developed by the ILO in **Cambodia** and was designed with the aim of providing employment and economic opportunities for garment workers, in particular for those leaving the industry and returning to their home towns. Analogously to the WEDGE project, it combines financial education training, entrepreneurship training and self-help group formation.

The Self-Employed Women's Association of **India** (SEWA) in conjunction with the Citi Center for Financial Literacy at the Indian School of Microfinance for Women organises financial literacy training to female micro and small entrepreneurs to help them increase their assets and expand their businesses.

Improving women's financial strategies

As the evidence presented above shows, women are less likely to be using some types of financial products and services than men, and even when they do participate in financial markets they appear to have difficulties in some areas, such as choosing products and searching for information and advice.

To help women manage their own finances and profit from economic opportunities, various public authorities and non-for-profit organisations have developed and implemented financial education and awareness programmes for women with a particular aim to improving financial inclusion and fostering appropriate use of saving and credit products. While the focus in developing countries and emerging economies is mostly on increasing the use of formal saving products and loans, institutions in developed

countries design programmes with a view to preventing and reducing over-indebtedness, and supporting women in planning for retirement.

Increasing financial inclusion

Various examples of financial education programmes address the fact that women tend to be less financially included than men.

In **Mexico**, the Banco del Ahorro Nacional y Servicios Financieros (BANSEFI) – an instrument of the Federal Government to promote savings and access to financial services – launched in 2010 the programme ‘Programa de Apoyo para Fomentar la Inclusión Financiera y el Fortalecimiento del Sector de Ahorro y Crédito Popular y Cooperativo: Educación Financiera’ (Support Program for Promoting Financial Inclusion and Strengthening the Popular and Cooperative Savings and Loan Sector: Financial Education). While the programme is targeted at low-income rural and urban population without gender distinction, the vast majority of participants are women (BANSEFI, 2010). The financial education component of the programme aims at providing the tools and information so that the target population can make better financial decisions, use their incomes more efficiently, and access to generic financial products and services available in the market, without orienting the target population towards a specific product or provider.

Among the various projects carried out by the ILO in **Cambodia**, the ‘Microfinance for Decent Work’ (MF4DW) project targets microfinance clients, who are mostly women. It was launched by the ILO Social Finance Programme in 2008 and started by identifying specific decent work challenges among microfinance clients.¹⁸ In Cambodia, two partner-MFIs identified risk management and over-indebtedness as major issues faced by their clients. To address them, a financial education programme was designed to deliver training on financial management and advisory services to microfinance client, in order to expose them to financial education messages prior to receiving the loan and through the entire loan cycle.

The West AreAre Rokotanikeni Association produced two booklets on ‘Woman and Banking’ and ‘Women and Money’ that target rural women in the **Solomon Islands**, using funding from the International Women’s Development Agency in Australia.

Improving the use of formal saving products

The empirical evidence presented in the Section II highlighted that in some countries women show a tendency to save informally (i.e. at home or in informal savings club). This may have to do with women’s lower confidence in approaching formal financial institutions and with supply side barriers to access them (e.g., high fees, minimum balance requirements, etc.).

A project linking financial education and access to saving for women is embedded in the conditional cash transfer programme ‘Juntos’ developed by the Government of **Peru**. The Juntos programme targets rural households living in extreme poverty and selected mothers as the recipients of the conditional transfer. Recently, the pilot project ‘Promoción del ahorro en familias Juntos’ (Promoting savings in Juntos families) was implemented in two areas of the country. The pilot aims at encouraging saving behaviour through formal saving products, and it combines financial literacy and awareness training with access to a saving account.

The project ‘Mujeres Ahorradoras en Acción’ (MAA) (Women as active savers), launched in **Colombia** in 2007 by Acción Social (i.e. the Presidential Agency for Social Action and International Cooperation)

offers an example of a financial education programme dedicated to encouraging the use of formal saving products by women. Based on the results of the Colombian Report presented to the UN Committee on the Elimination of Discrimination against Women (CEDAW), the Colombian authorities decided to address women's financial needs. The MAA programme incorporates training and support for low-income women living in regions affected by high levels of poverty and violence due to the illegal traffic and production of drugs. Its objective is to promote women's socio-economic development, strengthening their productive activities and generating a culture of savings and payment through the formal system. The programme combines financial education with microcredit lending and business training. Within this programme, women have the opportunity to open a basic saving account in the Banco Agrario (Agricultural Bank, linked to the Ministry of Agricultural and Rural Development), which provides special benefits to the programme participants in order to encourage them to participate and continue saving.

In addition to these public programmes, various NGOs have developed programmes for young women and girls in developing countries that combine financial education with access to saving products. For instance, girls ages 14-18 in **Mongolia** had the opportunity to open a savings account at a local MFI, member of the WWB, after attending an eight-week financial education training (Morcos and Sebstad, 2011).

Supporting women in planning for retirement

As women tend to live longer, earn less, and have more discontinuous working careers than men, they are more likely to face poverty or financial hardship in old-age. This risk has been amplified in the US and in some European countries by a shift from Defined Benefit to Defined Contribution pension schemes, resulting in a transfer of responsibilities related to retirement planning from pension providers to individuals.

In addition, given women's lower financial knowledge and confidence, they may need additional help to prevent financial difficulties during old-age. In particular, they need to be aware of risks, to understand the need to save for old-age, to plan carefully their retirement and health care expenditures, and to be able to make savvy investment choices for their old-age.

Accordingly, some governments have investigated the extent and causes of gender differences in retirement outcomes. The Australian Human Rights Commission started in 2009 to investigate the factors contributing to the gender gap in retirement savings to inform solutions for increasing women's economic independence over their lifetime (Australian Human Rights Commission, 2009). In New Zealand the Commission for Financial Literacy and Retirement Income is undertaking research about women's future retirement prospects in the country (CFLRI, 2012; See also Box 5).

Various programmes have been developed in recent years to ensure that women of working age make sound plans for their financial security in retirement. In **Australia**, the Office of Women's Policy of the government of the state of Victoria has developed a dedicated programme aimed notably at ensuring that women are actively planning for their future financial security, including in retirement. The programme involves financial literacy training for women to help them become more financially secure throughout their life-course, increase their earnings and plan for a more comfortable retirement (Government of Victoria, 2008).

The **United States** government carries out two financial literacy programmes for women with a focus on retirement. The Department of Labor's 'Wi\$eUp' programme targets women born between the mid-1960s and the mid-1990s. Moreover, the Department of Health and Human Services created the

‘National Education and Resource Center on Women and Retirement Planning’, targeting traditionally hard-to-reach women, such as low-income women, non-white women, and women with limited English proficiency. While both programmes cover similar topics, such as retirement planning, investing, and money basics, the programmes engage in different activities. Wi\$eUp is an online and classroom curriculum, while the National Resource Center uses peer counsellors and offers information through model programmes, workshops tailored to meet special needs, and print and web-based publications (GAO, 2012).

Again in the US, in the 1990s the American Association of Retired Persons (AARP) run the ‘Women’s Financial Information’ programme (WFIP) to help mid-life and older women increase their financial management skills, develop confidence, and to gain more control over their finances. Part of the training was specifically devoted to saving and planning for retirement (de Vaney et al., 1995).

In **Singapore**, the Tsao Foundation ‘Financial Education Programme for Mature Women’ helps women ages 40-60 to manage their finances better so that they can be financially independent in their older years.

Avoiding over-indebtedness

Women’s lower financial knowledge and experience with financial issues and products may leave them more exposed to unhealthy financial behaviours. Various organisations recognise women’s over-indebtedness as an area of concern and have started offering financial education programmes to help women address this issue.

The ‘Finanz- und Konsumwissen’ (Financial Knowledge for Consumers) programme implemented by the IfS-Schuldenberatung gemGmbH (Department of Social Services, an organisation of independent charities operating in the Vorarlberg region in **Austria**) is a consumer education training programme targeted at women returning to the labour market (e.g., after having children) with the aim to discuss financial habits, give advice and information on how to deal with daily financial topics and to discuss debt traps in which women may fall.

The **Swedish** Enforcement Authority found in 2010 that women’s proportion of debts, especially in relation to short-term credit, had increased. As a result it engaged in 2010 in a preventive communication project called ‘Women and the Economy’ targeted at women above 26 years of age. It consists in a website containing tools and guidance to manage one’s personal finances, as well as course material to be used by groups and organisations coaching people about personal finance to help women facing over-indebtedness problems.

Helping women choosing financial products appropriately

The evidence reviewed in the Section II highlighted women’s needs in relation to product choice, information collection, and advice seeking. Consistently with this, several programmes identified by this stock-taking exercise include information seeking and/or decision-making about financial products purchase among the topics covered. Most of these initiatives have already been mentioned in the previous paragraphs, including the ILO projects in Cambodia; programmes in Canada implemented by the NICE and the Manitoba Securities Commission; the GREAT project in the Philippines; the Camfed programme in Zambia for young women; as well as programmes to improve women’s financial inclusion in Colombia and Mexico.

Public sector initiatives are coupled by private sector efforts to cater for women's financial advice needs. For instance, there are examples of financial advisory companies targeting mainly women clients (e.g. 'Ms. Financial Services' in **Germany**).

B. Impact and effectiveness of financial education initiatives

This section describes the main results of available impact assessment evaluations of financial education programme for woman and girls. In addition, it also examines whether there has been a gender difference in the programme impact for the few programmes targeting both men and women which report evaluation results disaggregated by gender.¹⁹

A growing number of impact evaluation exercises show that well designed programmes are successful in raising women's financial literacy and inclusion. Several financial education programmes targeting women reported an impact in terms of improved financial knowledge and attitudes, and in a range of financial behaviours, including money management, credit card use and borrowing. A number of programmes in emerging and developing countries, with a more specific focus on saving behaviour and formal inclusion, reported an increase in inclusion, saving and the use of other formal financial products.

Nevertheless, more efforts are needed to increase the knowledge base on the impact of financial education programmes. Rigorous impact assessment exercises should be carried out systematically, and whenever possible, results should be disaggregated by gender to allow programme designers and policy makers to learn more about any differential gender impact and incorporate new evidence into future programmes. Quantitative analysis should also be accompanied by qualitative research and focus groups to investigate further divergence in expectations, confidence, learning preferences and styles between male and female programme participants.

Financial knowledge and attitudes

According to their evaluation reports, various programmes improved the financial knowledge and attitudes of participants. The financial education training for young women carried out by the Camfed Association in **Zambia** contributed to increasing the number of participants with a positive perception of saving, banks and banking services and reported that there was a significant increase in the number of respondents mentioning banks as a legitimate source of credit from the baseline to the endline evaluation. The evaluation report also indicated that saving attitudes generally improved in financial education intervention districts (Hamweemba, 2011).

Analogously, results from a pilot evaluation of the 'Safe and smart saving products for vulnerable adolescent girls' developed by the Population Council in **Kenya** report an improvement in financial knowledge and attitudes among participating girls. The programme evaluation involved three groups of girls: two received the programme (including access to a savings account at two MFIs), and one served as a control group. Girls from one of the treatment groups were significantly more likely to correctly answer financial knowledge questions than girls in the comparison group after the intervention. Girls from both treated groups were significantly more likely to have a long-term financial goal compared to girls in the comparison group (Population Council, 2011a).

The Population Council in partnership with BRAC and Underprivileged Children's Educational Program (UCEP) evaluated a pilot project delivering financial literacy training to adolescent girls age 14-19 in **Bangladesh**. A comparison of treated and control sites before and after the intervention revealed an

increase in knowledge and an increased likelihood of positive attitudes about budgeting and saving among girls who had received the training (Amin et al. 2010).

In addition to improving attitudes and knowledge, some programmes also appear to have increased women's confidence in financial matters. For instance, a quantitative analysis of a session on "Saving and Investing for Retirement" of the Women's Financial Information Program (WFIP) conducted by AARP in the **United States** suggests that participants gained confidence in their ability to make financial decisions. In particular, the use of a workbook during the training session on saving and investing and the completion of the workbook exercises during the workshops helped the participants gain confidence (de Vaney et al., 1995).

Similarly, the programme 'An Opportunity for All: Financial Education in Africa' seems to have increased the confidence of women more than that of men, in at least some of the countries involved.²⁰ This is one of the very few programmes targeting both men and women which also compares baseline and endline results separately for the two genders. Even though the programme did not have a different impact on the financial behaviour (budgeting, saving, etc.) of men and women, it appears to have increased confidence in dealing with financial issues more for women than for men in **Uganda** and **Malawi** (on the contrary, the results show little gender difference among participants in **Ghana**, and no clear gender pattern in **Mozambique**) (Pennington, Gustafson, and Ngo, 2011).

Financial behaviour

Some financial education programmes targeting women reported an impact in a range of financial behaviours, including money management, credit card use and borrowing.

For instance, the ILO WEDGE project in **Cambodia** reports that the majority of beneficiaries improved their financial management skills (including cash management, decision making, financial control of their business activities), even though results were different across individual target groups.

The project implemented by the Population Council, BRAC and UCEP in **Bangladesh** for adolescent girls revealed improved (self-reported) budgeting and saving behaviour among treated participants (pre-post comparison of treated and control) (Amin et al. 2010).

In the **United States**, the FDIC's Money Smart programme appeared to have had a differential impact on men and women in specific areas.²¹ For example, over the course of the programme women improved more than men in paying the full balance on their credit card bills and in being in control of their money. However, men made greater improvements in keeping to their budget than women (FDIC, 2007).

Other programmes in emerging and developing countries, with a more specific focus on saving behaviour and formal inclusion, reported an increase in inclusion, saving and the use of other formal financial products.

Preliminary findings indicate that the **South African** programme 'Gender, Socioeconomic Status, and Youth HIV Risk' induced some positive behavioural change (the evaluation was conducted at baseline and two years afterwards among treated and control groups).²² In addition, the programme appears to have been more effective for female than for male participants. While both young women and young men were more likely than the control group to have used financial services from a bank, the improvement

over the control groups was higher for young women than for young men in the extent to which they discussed financial decision making and started saving money (Hallman et al., 2007).

In another study about the **US**, Clark et al. (2006) provide evidence that women are more likely than men to change their (planned) behaviour after attending a seminar on retirement issues. The authors use data from three surveys of participants in seminars offered by TIAA-CREF and estimate changes in retirement goals and saving behaviour after the respondents have attended the seminar.²³ The results indicate that women were more responsive to the seminar and were more likely to raise their desired retirement age, increase their target income replacement goal, and change their planned saving behaviour.

The **Colombian** 'Mujeres Ahorradoras en Acción' promoted the use of savings products and reduced the use of informal credit providers from 19.3% in 2007 to 5.3% in 2011. In particular, the project has reduced the use of informal credit sources, such as the usurer "gota a gota" financing methods (Acción Social and IICA, 2011).²⁴

Also the financial education training carried out by BANSEFI in **Mexico** appears to have increased saving. The evaluation report indicates that people who attended the financial education course (the vast majority were women) increased the number of transactions and the balance of their savings account more with respect to programme participants who did not receive the training (BANSEFI, 2010).

The 'Safe and smart saving products for vulnerable adolescent girls' reported positive impact on financial behaviour in both Kenya and Uganda. Results of a pilot evaluation in **Kenya** showed that programme participants were more likely to have been to a bank, to have used a bank's services, and to have saved any money in the previous six months than girls in the comparison group (Population Council, 2011a). Similarly, the pilot evaluation in **Uganda** showed that girls attending the programme were significantly more likely than the comparison group to have a budget and to have a savings plan, after controlling for age, religion, and baseline measures. Moreover, programme participants were more likely than the comparison group to report that they had saved in the last six months and that they used their own savings a source of money to cover their own spending needs. According to the evaluation, while the use of formal savings increased, even girls with a savings account were still using informal methods (Population Council, 2011b).

The financial education training delivered by Camfed in **Zambia** focused on providing young women with a perspective on when borrowing is appropriate and to be aware of what the penalties are if the repayment terms of the loan are not met. Borrowing among young trainees rose from baseline to endline, with the main reason for borrowing being business set-up and growth. This was complemented by a drop in share of respondents reporting moneylenders as their main source of credit (Hamweemba, 2011).

4. Challenges and lessons learnt

This section highlights the main challenges and lessons derived from the analysis of the case studies and evidence presented in previous sections. In addition, building on the evidence and experiences presented in this report, the OECD/INFE elaborated Policy Guidance on Addressing Women's and Girls' Needs for Financial Awareness and Education (INFE, 2013). This offers preliminary guidance to help identify the needs for financial education of women and girls in different settings, and to support the development of dedicated policy initiatives consistent with the overall priorities for economic and financial gender equality.

Some of the challenges highlighted by the stock-taking exercise are not specific to programmes targeting women/girls or to gender differences in programme audience. For instance, countries reported issues concerning the difficulty in changing behaviour (mentioned by the ILO WEDGE project in Cambodia); difficulty of targeting the programme to the audience (ILO SPG project in Cambodia, GREAT programme in the Philippines); lack of time and internal capacities (ILO MF4DW project in Cambodia); and difficulties in reaching the trainers (Camfed programme in Zambia).

Other challenges are specifically related to the fact of targeting women/girls, and mostly have to do with difficulties in reaching women and delivering relevant material. The main challenges include:

- **Raising policy awareness** about gender inequalities in economic and financial opportunities and about gender differences in financial literacy as a first step to improving women's financial well-being and empowerment;
- **Changing social attitudes** that may reduce women's financial independence. The ILO WEDGE project in Cambodia mentioned the difficulty of changing the imbalance of women's power in decision making, and the pressure women's face to join social events (that may imply substantial financial burdens). More generally, the review of factors potentially affecting gender differences in financial literacy (Section III) highlighted the role of social and cultural norms in affecting gender inequalities in the access to economic and financial opportunities.
- Women's **attitudes** towards money matters may offer opportunities and at the same time pose challenges in developing programmes for women. Women appear to be aware of their lower knowledge and are less confident than men in their financial knowledge and skills. As a result, they may be more 'teachable' and willing to learn in order to improve their skills. For instance, Lusardi et al. (2008) conducted focus groups and in-depth interviews in order to devise a planning aid to help employees planning for retirement; they found that women were more likely than men to state they needed more information and education programmes. However, the fact that women also appear to be less interested than men in financial matters may reduce their motivation for learning.
- Women may be a particularly **hard-to-reach group**, due to social segregation, or lack of time due to work/social obligations. Some programmes target very specific groups of women, which can make 'recruitment' particularly hard. For instance, this was the case of the programme implemented by the NICE in Canada, where the target group included low income, older, single and/or immigrant women. Also the programme by BANSEFI in Mexico encountered difficulties in reaching the target population (low-income rural and urban population living in poor areas) due to the distance or difficult access to their location. Finally, women who are employed may not have enough time to attend the training because they are often engaged in both working and domestic/care activities. For example, feedback from focus groups indicate that many women would like to attend financial education training but have a conflict with the meeting time or feel they cannot afford the time, because of full-time employment and the need to care for children at home (Lown, 1999 and 2010). Similarly, some participants in a pilot training in the UK mentioned that they would not be able to attend the course if they had not been offered travel expenses and child care costs (WEETU, 2008).

- **Tailoring the content and delivery method** to the audience:
 - Women are not necessarily a homogenous group, and it can be difficult to produce material that is **appropriate** for women with different circumstances and levels of knowledge. For instance, the Manitoba Securities Commission implementing the programme 'I'm worth it' in Canada highlighted that because of limited budget it was difficult to produce one product that would appeal to a wide age range of women, living different life stages, and with different levels of technical ability. Based on the experience of various financial education programmes for adolescent girls, also Morcos and Sebstad (2011) emphasise the need to customise the training content and delivery method to be specific to the age, life-cycle situation, and literacy of trainees.
 - **Gender-sensitive content.** The Philippine Commission on Women developing the GREAT Women project highlighted the need to ensure that gender and development concerns are taken into account in developing the training modules, and that trainers have to be knowledgeable in gender and development issues.
 - **Teaching practices.** There is a possibility that different learning skills between boys and girls may bring about gender differences in financial knowledge, and whether specific teaching practices should be adopted to address these differences in outcomes. Good teaching practices should be identified in order to ensure that both genders excel.
 - **Language / communication:** as for all financial education programmes, the delivery of financial education and of financial information should be targeted to the audience. Programmes addressing women should take into account that on average they have lower knowledge and experience of financial concepts and terminology, and often have less confidence in dealing with financial issues and products than men. It is important that financial education, communication, and information reduces or eliminates the use of jargon (while at the same time remaining relevant and meaningful).
- **Finding ways to provide relevant and unbiased advice** to women. Women tend to have lower financial knowledge than men, and they also appear to be more likely than men to use informal sources of financial advice and information. It is therefore important to provide women with the opportunity to obtain financial advice that is not only unbiased and independent, but also tailored to their specific needs and level of understanding.

In addition to challenges, many programmes also identified a number of good practices and lessons that are specific to financial education programmes targeting women or girls. These include:

- **Broader approach.** Women's financial empowerment should not be pursued in isolation, but rather integrated in broader approaches aiming at improving women's economic and social empowerment. Financial education delivered in connection with financial products/services and other training relevant to women (e.g., about health, business and job training, life skills, etc.) has the potential to improve their independence in a vast set of domains (e.g. access to employment and entrepreneurship opportunities, escaping domestic violence, etc.). For instance, the 'Safe and smart saving products for vulnerable adolescent girls' project in Kenya and Uganda highlighted that simply providing girls with economic empowerment (i.e. savings account only) had the potential to increase their vulnerability (also to sexual harassment), unless it was done in a context of a more holistic asset-building program where access to a

savings account was accompanied by participation to a savings group, and the delivery of financial and health education. More generally, this highlights that self-help groups and rotating savings and credit societies constitute a valuable context for improving women's financial literacy and financial inclusion through the combined provision of financial education, access to financial products and services, and mentoring on other relevant skills.

- **Starting from a young age.** The existing evidence, to be complemented by the forthcoming results of the PISA financial literacy assessment of 15-year-old students, suggests that gender differences in financial knowledge arise already from a young age. This highlights the importance of starting delivering financial education from a young age, as already done by a number of initiatives targeting young women and girls. Especially teaching financial education in schools is a way to improve financial literacy on an equitable basis at the same time when gender roles are being formed.
- **Learning environment.** Some programmes highlighted the importance of learning in a group together with other women, allowing participants to feel more at ease and to realise they are not the only one experiencing problems. For instance, the programme 'Financial Knowledge for Consumers' carried out in Austria by IfS-Schuldenberatung allowed women to work in small groups to discuss personal experiences and good practices. Also the Canadian programme 'I'm worth it' emphasised that talking about money and finance in a supportive environment, and hearing stories from other women on their struggles and successes could inspire women to take action. Participants to a pilot training in the UK appreciated the possibility to meet with other women, as it allowed them to share ideas and it reassured them that other women had the same concerns. Many participants also like the women-only format, because they would have felt intimidated by the presence of men (WEETU, 2008). Moreover, the 'Safe and smart saving products for vulnerable adolescent girls' project in Kenya and Uganda revealed that group belonging can have positive effects beyond those on financial behaviour and knowledge. While belonging to a group did not seem to have an effect on the amount saved, there were important differences in terms of improved social assets, future life goals, and health knowledge.
- **Role models.** Other programmes also used female trainers as role models to build confidence among trainees. For instance, the Canadian programme 'I'm worth it' resorted to the participation of local women who were willing to discuss their personal financial situations in a series of videos. Similarly, the Camfed initiative in Zambia trained as trainers young women with a similar background to the trainees, in order to strengthen confidence amongst participants. Also Lown (2010) suggests adopting testimonials of women who have overcome financial and psychological obstacles as role models.
- **Women trainers.** Engaging women as trainers can have a positive impact on the trainers themselves (in programmes that have a train-the-trainers component). For instance, the programme run by the NICE in Canada adopted a peer educator model, where a number of women representative of the project's target population (low-income, older, unattached and/or immigrant women) were identified and trained as trainers. This enhanced the leadership skills and confidence of the women involved in the delivery of the financial education tools. Similarly, the 'cascade' training model adopted within the Camfed project increased the confidence and status in their communities of the women involved as core trainers and peer educators, as a result of the training they received and their role in the project.

Concluding remarks

The need to address the financial literacy of women and girls as a way to improve their financial empowerment is gaining global relevance and is reflected in the G20 Leaders' Declaration in June 2012 recognising the need for women to gain access to financial services and financial education.

Women are often facing unequal economic and financial opportunities with respect to men in developed and developing countries. This report identifies various women's financial education barriers and needs, and discusses financial education initiatives addressing these issues. It draws on previous OECD INFE work, including the financial literacy measurement survey and stock-taking exercises among INFE members, as well as on extensive academic research and national evidence on financial education programmes for women and girls.

Overall, the analysis of the evidence on gender differences in financial literacy highlights a number of issues:

- Women display lower financial knowledge and confidence than men in many countries. In particular, young women, elderly/widows, less well-educated and low-income women lack financial knowledge the most;
- Women appear to be more vulnerable than men in some aspects of financial behaviour, namely in relation to making ends meet; saving strategies; and in choosing products.

A number of factors and barriers appear to affect women's financial opportunities. Gender differences in financial literacy are correlated with differences in socio-economic conditions of men and women, suggesting that limited access to education, employment and formal financial markets not only reduce women's financial well-being per se, but also limit the extent to which women can improve their knowledge, confidence and skills about economic and financial issues.

In light of these challenges, various countries have acknowledged the need to improve the financial literacy of women and girls by implementing targeted national financial education policies and initiatives. The most important policy goals of financial education initiatives for women include:

- Addressing the needs of specific subgroups, such as young and old women, low-income women, and small and micro female entrepreneurs; and
- Improving women's financial inclusion and financial strategies, including fostering the use of formal saving accounts, preventing over-indebtedness, and supporting women in planning for retirement.

The available impact assessment results show that a number of well designed programmes were successful in improving women and girls' financial knowledge and confidence in their financial skills. Moreover, various initiatives have increased women's financial inclusion, saving and use of formal financial products.

The analysis of the case studies and of their evaluations reveals a number of challenges and good practices. The INFE Policy Guidance on Addressing Women's and Girls' Needs for Financial Awareness and Education offers guidance to help identify the needs for financial education of women and girls in

different settings, and to support the development of dedicated policy initiatives consistent with national priorities for financial education and gender equality (INFE, 2013).

Notes

- ¹ See the roadmap of the Expert Subgroup [INFE(2011)6/ADD1].
- ² Countries that contributed with cases studies and/or evidence to the 2011 and 2012 questionnaires on gender differences in financial literacy and financial education programmes for women and girls comprise Australia, Austria, Cambodia, Canada, Colombia, India, Indonesia, Lebanon, Mexico, New Zealand, Philippines, Saudi Arabia, the Solomon Islands, Spain, Sweden, Turkey, the UK, and Zambia. Belgium, Chile, the Czech Republic, Denmark, Ecuador, Finland, Malaysia, the Netherlands, Japan, Paraguay, Poland, Portugal, Serbia, Slovakia, Switzerland, Thailand responded to inform that they have no programmes for women/girls. See also the compilation of responses to the questionnaires carried out in 2011 [INFE(2011)12] and 2012 [INFE(2012)5].
- ³ The OECD INFE financial literacy measurement pilot collects data on financial knowledge, attitudes and behaviour of the adult population of 14 countries around the world. Refer to Atkinson and Messy (2012) for more detailed information on the survey, as well as on the methodology used for computing financial literacy scores.
- ⁴ The OECD INFE core questionnaire measures financial knowledge through eight questions (summary information on each question is provided in Atkinson and Messy, 2012). The questions have been chosen to cover a range of financial topics (such as time value of money, interest, inflation, risk and return, and diversification) and to vary in difficulty, although none of them requires expert knowledge. The financial knowledge score used in this analysis is constructed by counting the number of correct responses given by each respondent.

Moreover, the questions have been chosen so as to ensure a mix of open-ended and multiple choice questions, with and without numerical content, in order to minimise potential gender effects (i.e. women and men may have a different performance when responding to different question formats).

Additional analysis of the OECD INFE pilot data shows that: i) there is no gender pattern across open-ended and multiple-choice questions. This was conducted by splitting the knowledge across open-ended questions and multiple-choice questions to see if gender differences in financial knowledge persisted, and to see whether women had more difficulty with one or the other type of questions; ii) in some countries the presence/absence of a numerical component plays a role in the differential ability of men and women to answer financial knowledge questions (which is consistent with girls' lower mathematical ability found in PISA tests). In particular, in Albania, Armenia, the BVI, Malaysia and South Africa there was no gender difference when looking at non-numerical financial knowledge questions, while gender differences were there when analysing questions with a numerical content. This could be a sign that women have a harder time than men handling maths, or that the non-numerical questions are difficult for both men and women (two out of three non-numerical questions are about investment concepts).

- ⁵ Based on a multivariate analysis, including a series of separate ordinary-least-squares regression analyses for each country on the whole set of female and male respondents. The outcome variable is the overall financial knowledge score and the explanatory variables are gender, age, marital status, education, household income and occupational status.
- ⁶ Since various socio-demographic characteristics are likely to be associated with financial knowledge and with each other, these results are based on a multivariate analysis of the INFE pilot data (a series of separate ordinary-least-squares regressions for each country on the subsample of female respondents, where the

outcome variable is the overall financial knowledge score and the explanatory variables are age, marital status, education, household income and occupational status). Full results are in Table 2 in the Appendix.

- ⁷ Men may be more likely than women to guess when they don't know the answer. The OECD/INFE questionnaire minimises the likelihood of respondents making correct guesses by using several open response questions.
- ⁸ This result holds also when considering respondents who have a budget *without* conditioning on having personal or joint responsibility for day-to-day money management decisions in the household.
- ⁹ Making ends meet can be closely related to the allocation of resources within the household. However results are very similar when the analysis is restricted to respondents who do not have a partner (i.e. are single, divorced/separated, or widowed).
- ¹⁰ Again, the results are qualitatively the same when excluding respondents who are married or live with their partner (since making ends meet typically involves household resources and is not necessarily an individual behaviour in married or cohabiting couples).
- ¹¹ The study includes adults aged 15 and over not in full-time education. Where an asset or debt is a household item (for example a mortgage), the change in value is divided by the number of adults in the household. Assets and debt include cash deposits, shares, superannuation, own business (net), education loans, other debt, home mortgage, and other property loans. Cash deposits include accounts held with financial institutions, debentures, bonds, loans to other people, trusts and other financial investments (Kelly and Gong, 2010).
- ¹² This is self-reported information. As men tend to be more over-confident than women, they may also be over-optimistic about how long they would be able to cope in case of an income loss.
- ¹³ The effect of women's higher risk aversion is not straightforward a priori. Higher risk aversion is expected to lead to more conservative portfolio allocations and lower investment returns. However, risk-averse individuals are expected to accumulate more wealth as a way to respond to income uncertainty through higher precautionary savings. Also time preferences may play a role but are unlikely to explain women's lower savings. The economic and psychological research reports some evidence that women may be more patient than men. On a meta-analysis of over thirty psychological studies Silverman (2003) finds that women are better able to delay gratification, even though the gender difference was found to be small. Also Gränsmark (2010) and Wang et al. (2011) find that women are more patient than men. However, gender does not have a significant effect on a subject's patience according to Sutter et al. (2010). Even though the evidence is not yet conclusive, this is an area that warrants further investigation and that may have important policy implications on women's saving propensity
- ¹⁴ Gender differences in saving by building up a balance on one's current account and by giving money to one's family to save are not reported here. Men tend to be more likely to be passively saving by accumulating money in their bank account in many countries. The option of saving by giving money to a family member was rarely chosen. Men were more likely than women to choose this option in Estonia, Germany and Malaysia, but less likely in Peru.
- ¹⁵ The 'informal saving' category in Malaysia also includes "buying poultry". In Germany non-married men are more likely than women to save through formal products (savings accounts, investments and building societies), but also to save cash (at home/ in their wallet); saving in informal savings clubs was not among the options in the German survey.
- ¹⁶ Note that in Figure 17 respondents who did not compare across providers also include those who had not made any recent product choice in the past two years. As in many countries women may be less likely to hold

formal financial products, it is important to check that gender differences in shopping around are not driven by gender differences in product holding and product choice. Results are qualitatively unchanged when excluding respondents who did not make any recent product choice.

- ¹⁷ The evidence for this section has been collected through two surveys carried out among OECD INFE members in 2011 and 2012, as well as on desk research. Example of case studies were found for Argentina, Australia, Austria, Bangladesh, Bolivia, Brazil, Burundi, Cambodia, Canada, China, Colombia, Democratic Republic of Congo, Dominican Republic, Egypt, Germany, Guatemala, Haiti, India, Indonesia, Israel, Japan, Kenya, Lebanon, Malta, Mexico, Mongolia, New Zealand, Nicaragua, Niger, Pakistan, Palestine, Paraguay, Peru, Philippines, Poland, Samoa, Saudi Arabia, Senegal, Sierra Leone, Singapore, Solomon Islands, Somalia, South Africa, Spain, Sweden, Tanzania, Thailand, Turkey, Uganda, UK, US, Vietnam, and Zambia. Where statements or examples are not supported by references, they are taken from countries' responses to the OECD INFE surveys and from other material supplied by INFE members.
- ¹⁸ Decent work has been defined by the ILO as being productive work for women and men in conditions of freedom, equity, security and human dignity.
- ¹⁹ This section draws both on the replies to the surveys of OECD INFE members and on desk research of evaluation reports publicly available. Most of the programmes mentioned have already been described in Section IV (whenever the programme targets mostly or exclusively women). When programmes target both men and women without distinction, the programme is described in a footnote.
- ²⁰ 'An opportunity for all, Financial Education in Africa' is coordinated by Opportunity International and is implemented by local commercial MFIs in Ghana, Malawi, Mozambique and Uganda. The project aims at increasing awareness and use of a range of financial services, as well as promoting a better management of credit/debt, via multi-media financial literacy training modules. Financial education is delivered to clients in banking halls and to rural communities by means of portable devices (Pennington, Gustafson, and Ngo, 2011).
- ²¹ Money Smart is a comprehensive financial education curriculum developed by the US Federal Deposit Insurance Corporation (FDIC). It is designed to help low- and moderate-income individuals outside the financial mainstream enhance their financial skills and create positive banking relationships (FDIC, 2007).
- ²² The Population Council programme 'Gender, Socioeconomic Status, and Youth HIV Risk' took place in the KwaZulu-Natal province of South Africa in 2004-2007 and targeted female and male youth aged 14-24 living in poor, HIV-affected communities. The project addressed youth vulnerabilities with a multi-dimensional programme featuring three components: (i) "safe spaces" and social network in order to reduce social isolation; (ii) financial literacy training on budgeting, saving, planning, etc.; (iii) knowledge of HIV/AIDS prevention, treatment, and care (Hallman et al., 2007).
- ²³ TIAA-CREF is a US retirement provider for workers in the academic, research, medical and cultural fields.
- ²⁴ Note that these are the results of the overall MAA project, and that it was not possible to disentangle the effect of the financial education component alone.

REFERENCES

- AANDC (Aboriginal Affairs and Northern Development Canada) (2010), "Backgrounder – Aboriginal Women's Entrepreneurship: Key Issues, Aboriginal Affairs and Northern Development Canada", www.aadnc-aandc.gc.ca/eng/1292345911615 (Accessed on July 12, 2012).
- Acción Social and IICA (Instituto Interamericano de Cooperación para la Agricultura), (2011), *Línea de Base y Evaluación. Mujeres Ahorradoras en Acción*, Acción Social and IICA, Bogotá <http://www.mujaresahorradorasenaccion.com/index.php/publicaciones/2011/38-linea-de-base-y-evaluacion-mujeres-ahorradoras-en-accion-2011>
- Agarwalla, S. K., S. Barua, J. Jacob, and J. R. Varma, (2012), A Survey of Financial Literacy among Students, Young Employees and the Retired in India, Indian Institute of Management Ahmedabad <http://www.iimahd.ernet.in/files/youngemployessandretired2012.pdf>
- Alessie, Rob, Maarten Van Rooij and Annamaria Lusardi (2011). "Financial literacy and retirement preparation in the Netherlands." *Journal of Pension Economics and Finance*, 10, pp 527-545. doi:10.1017/S1474747211000461.
- Almenberg, Johan and Jenny Säve-Söderbergh (2011). "Financial literacy and retirement planning in Sweden." *Journal of Pension Economics and Finance*, 10, pp 585-598. doi:10.1017/S1474747211000497.
- Alpha Research (2010) *Financial Literacy Survey, Report on the Key Findings of the Survey Prepared for the World Bank*, Alpha Research, June 2010, Sofia, Bulgaria http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/World_Bank_Bulgaria_FinLit_Report.pdf (Accessed on July 12, 2012)
- Amin, S., L. Rahman, S. Ainul, U. Rob, B. Zaman and R. Akter (2010) *White Paper. Enhancing Adolescent Financial Capabilities through Financial Education in Bangladesh*, Population Council September 2010. http://www.popcouncil.org/pdfs/2010PGY_WhitePaperBanglaFinancialEd.pdf
- ANZ (Australia and New Zealand Banking Group) (2011) *Adult Financial Literacy in Australia. Full Report of the results from the 2011 ANZ Survey*. December 2011. <http://www.anz.com/resources/f/9/f9fc9800493e8ac695c3d7fc8cff90cd/2011-Adult-Financial-Literacy-Full.pdf.pdf?CACHEID=f9fc9800493e8ac695c3d7fc8cff90cd> (Accessed on July 12, 2012)
- ANZ–Retirement Commission, (2009), *2009 ANZ–Retirement Commission Financial Knowledge Survey* <http://www.financialliteracy.org.nz/research-/results-anz-retirement-commission-financial-knowledge-survey/2009> (Accessed on July 12, 2012)
- ASIC (2002), "Hook, line & sinker: Who takes the bait in cold calling scams?" ASIC Report 15, June 2002, Australian Securities and Investment Commission

[http://www.asic.gov.au/asic/pdflib.nsf/LookupByFileName/HookLineSink er.pdf/\\$file/HookLineSink er.pdf](http://www.asic.gov.au/asic/pdflib.nsf/LookupByFileName/HookLineSink er.pdf/$file/HookLineSink er.pdf)

Atkinson, A, S. McKay, E. Kempson, and S. Collard (2006), "Levels of Financial Capability in the UK: Results of a Baseline Survey", *Consumer Research 47*, Prepared for the Financial Services Authority by Personal Finance Research Centre University of Bristol, Financial Services Authority. <http://www.fsa.gov.uk/pubs/consumer-research/crpr47.pdf> (Accessed 13 June 2012).

Atkinson, A. and Messy, F-A. (2012), "Measuring Financial Literacy: Results of the OECD / International Network on Financial Education (INFE) Pilot Study", *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 15, OECD Publishing. <http://dx.doi.org/10.1787/5k9csfs90fr4-en> (Accessed 13 June 2012).

Australian Government and Financial Literacy Foundation (2008), *Financial Literacy – Women Understanding Money*, Australian Government, Financial Literacy Foundation. <http://www.financialliteracy.gov.au/media/209296/women-understanding-money.pdf> (Accessed 13 June 2012).

Australian Human Rights Commission (2009), *Accumulating poverty? Women's experiences of inequality over the lifecycle. An issues paper examining the gender gap in retirement savings*. Australian Human Rights Commission, Sidney. http://www.hreoc.gov.au/pdf/sex_discrim/accumulating_poverty.pdf

Austrian, Karen (2011), *Safe and Smart Savings Products for Vulnerable Adolescent Girls - Kenya Rollout Phase Baseline Survey*. September 2011 http://www.financialeducationfund.org/storage/files/PopCouncil_Kenya_Rollout_Baseline_Report_Oct_28_2011.pdf (Accessed on February 8, 2012).

Azerbaijan Micro-finance Association, (2009) *Final Report - Results of the Financial Literacy Survey*, Baku, Azerbaijan Micro-finance Association, Azerbaijan: December 30, 2009. http://siteresources.worldbank.org/INTECAREGTOPPRVSECDEV/Resources/Financial_Literacy_Survey_Report_EN.pdf (Accessed online on June 20, 2012)

Banco de Portugal, (2011), "Survey on the financial literacy of the Portuguese population" [http://clientebancario.bportugal.pt/pt-PT/Publicacoes/InqueritoLiteraciaFinanceira/Documents/Survey%20on%20the%20Financial%20Literacy%20of%20the%20Portuguese%20Population%20\(2010\)%20-%20Final%20Report.pdf](http://clientebancario.bportugal.pt/pt-PT/Publicacoes/InqueritoLiteraciaFinanceira/Documents/Survey%20on%20the%20Financial%20Literacy%20of%20the%20Portuguese%20Population%20(2010)%20-%20Final%20Report.pdf) (Accessed on July 12, 2012)

BANSEFI (Banco del Ahorro Nacional y Servicios Financieros), (2010) *Impacto del programa de educación financiera de BANSEFI en el ahorro de clientes Premiahorro e indicadores de eficiencia*.

Bhattacharjee, Anindita and Narayan C. Das (2011) "Profile of the Adolescent Girls: Findings from the Baseline Survey for Social and Financial Empowerment of Adolescents (SoFEA) Programme". Research Monograph Series No. 46, June 2011. http://www.bracresearch.org/monographs/Monograph_46.pdf (Accessed on July 12, 2012)

Bhatty, K. (2006), "Employment Guarantee and Child Rights", *Economic and Political Weekly*, (May 20), pp.1965-1967. <http://www.jstor.org/stable/4418234>

- BRAC (2010a), *Tanzania Annual Report 2010*. Bangladesh Rural Advancement Committee International, Amsterdam, the Netherlands. <http://www.brac.net/sites/default/files/BRAC-Tanzania-report-2010.pdf> (Accessed on July 12, 2012)
- BRAC (2010b), *Uganda Annual Report 2010*. Bangladesh Rural Advancement Committee International, Amsterdam, the Netherlands. <http://www.brac.net/sites/default/files/brac-uganda-report-2010.pdf> (Accessed on July 12, 2012)
- Brady, Martha, Ragui Assaad, Barbara Ibrahim, Abeer Salem, Rania Salem, Nadia Zibani (2007), Providing new opportunities to adolescent girls in socially conservative settings: The Ishraq program in rural Upper Egypt – Full report, The Population Council, New York. <http://www.popcouncil.org/pdfs/IshraqFullReport.pdf> (Accessed on July 12, 2012)
- Brennan, P. Q., & O'Neill, B. M. (2009). *Money Talk: A financial guide for women*. Ithaca, NY: Cornell University Natural Resource, Agriculture and Engineering Service.
- Bucher-Koenen, Tabea and Annamaria Lusardi (2011). "Financial literacy and retirement planning in Germany." *Journal of Pension Economics and Finance*, 10, pp 565-584. doi:10.1017/S1474747211000485. Bucher-Koenen, Tabea, Annamaria Lusardi, Rob Alessie, and Maarten van Rooij (2012) "How financially literate are women? Some new perspectives on the gender gap". Netspar Panel Paper 31, <http://arno.uvt.nl/show.cgi?fid=126935>
- Capital One (2009). "Capital One Survey of High School Seniors Reveals Gender Gaps in Financial Literacy", <http://phx.corporate-ir.net/phoenix.zhtml?c=70667&p=irol-newsArticle&ID=1301899&highlight> (Accessed 6 February 2012).
- Catino, Jennifer, Alejandra Colom, and Marta Julia Ruiz (2011) "Equipping Mayan girls to improve their lives". Transition to Adulthood Brief No. 5 (Updated March 2011). http://www.popcouncil.org/pdfs/TABriefs/05_MayanGirls.pdf (Accessed on July 12, 2012)
- CentiQ (2008), *Summary. Financial understanding and behaviour of 8- to 18-year-olds in the Netherlands*. CentiQ. http://www.wijzeringeldzaken.nl/media/13194/summary_financial_understanding_%208to18_netherlands.pdf
- CFLRI (Commission for Financial Literacy and Retirement Income) (2012), *Research on Women's Retirement Income Prospects*, Commission for Financial Literacy and Retirement Income Wellington, New Zealand. <http://www.cflri.org.nz/files/file/Intro-for-website-4.pdf> (Accessed on July 12, 2012)
- Charness G. and U. Gneezy (2011), "Strong Evidence for Gender Differences in Risk Taking". *Journal of Economic Behavior and Organization*, 83 (1), pp. 50-58. <http://www.sciencedirect.com/science/article/pii/S0167268111001521>
- Chavan, P. (2008) "Gender Inequality in Banking Services", *Economic and Political Weekly*, 43 (47) (Nov. 22 - 28, 2008), pp. 18-21 <http://www.jstor.org/stable/40278202>

- Chen, H., and R.P. Volpe, "Gender Differences in Personal Financial Literacy Among College Students," *Financial Services Review*, Vol. 11, No. 3, 2002, pp. 289-307.
http://www2.stetson.edu/fsr/abstracts2/Vol11_A18.pdf
- CIDA (Canadian International Development Agency) (2011), Project profile for Financial Literacy and Business Development Services for Women, <http://www.acdi-cida.gc.ca/cidaweb%5Ccipo.nsf/projEn/A035077001> (Accessed on July 12, 2012)
- Clark, R. L., M. D'Ambrosio, A. A. McDermed, and K. Sawant (2006), "Retirement plans and saving decisions: the role of information and education", *Journal of Pension Economics and Finance*, 5(1), pp. 45-67. <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=400442>
- Crossan, Diana, David Feslier and Roger Hurnard (2011). "Financial literacy and retirement planning in New Zealand." *Journal of Pension Economics and Finance*, 10, pp 619-635.
doi:10.1017/S1474747211000515
- de Vaney, S., E. Gorham, J. Bechman, and V. Haldeman, (1995), "Saving and Investing for Retirement: The Effect of a Financial Education Program," *Journal of the Family Economics and Resource Management Division of AAFCO*, 1995, pp. 153-158.
<http://hec.osu.edu/people/shanna/ferm/devwfip.pdf>
- Demirguc-Kunt, Asli, and Leora Klapper, (2012), "Measuring Financial Inclusion: The Global Findex", World Bank Policy Research WP 6025.
http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469372&piPK=64165421&menuPK=64166093&entityID=000158349_20120419083611 (Accessed on July 12, 2012)
- Drèze, J. and G. Kingdon (2001), "School participation in rural India". *Review of Development Economics*, Vol. 5, No. 1, pp.1-33. <http://onlinelibrary.wiley.com/doi/10.1111/1467-9361.00103/abstract>
- Eckel, C. C. and P. J. Grossman (2008), Chapter 113 Men, Women and Risk Aversion: Experimental Evidence, In: Charles R. Plott and Vernon L. Smith, Editor(s), *Handbook of Experimental Economics Results*, 2008, Volume 1, Pages 1061-1073.
<http://www.sciencedirect.com/science/article/pii/S1574072207001138> (Accessed 13 June 2012).
- Economist Intelligence Unit (2012) *Women's economic opportunity 2012*. Economist Intelligence Unit, London. https://www.eiu.com/public/topical_report.aspx?campaignid=weoindex2012
- European Commission (2008), Role of Women in Economic Life, Regional Cooperation - Programme information sheet http://ec.europa.eu/europeaid/where/neighbourhood/regional-cooperation/enpi-south/documents/case_study_women.pdf (Accessed on 4 April 2012).
- European Commission (2012), *Special Eurobarometer 373 / Wave EB76.1, Retail Financial Services Report*, Directorate-General Internal Market and Services, Brussels, Belgium.
http://ec.europa.eu/internal_market/finservices-retail/docs/policy/eb_special_373-report_en.pdf
- FDIC (Federal Deposit Insurance Corporation), (2007), *A Longitudinal Evaluation of the Intermediate-term Impact of the Money Smart Financial Education Curriculum upon Consumers' Behavior and Confidence*. April 2007. FDIC, Washington.
<http://www.fdic.gov/consumers/consumer/moneysmart/pubs/ms070424.pdf>

- FEF (Financial Education Fund), (2012), Financial Education Fund website, <http://www.financialeducationfund.org> (Accessed on 15 February 2012)
- Floro, Maria, and Stephanie Seguino, (2002), "Gender Effects on Aggregate Saving", Policy Research Report on Gender and Development, Working Paper Series No. 23, the World Bank <http://siteresources.worldbank.org/INTGENDER/Resources/wp23.pdf> (Accessed on July 12, 2012).
- Fonseca, Raquel, Kathleen J. Mullen, Gema Zamarro, and Julie Zissimopoulos (2010), "What explains the gender gap in financial literacy", RAND Working Paper No. WR-762, June 2010. http://www.rand.org/content/dam/rand/pubs/working_papers/2010/RAND_WR762.pdf
- Fornero, Elsa and Chiara Monticone (2011). "Financial literacy and pension plan participation in Italy." *Journal of Pension Economics and Finance*, 10, pp 547-564. doi:10.1017/S1474747211000473.
- G20, (2012), *G20 Leaders Declaration*, Los Cabos, Mexico. http://www.g20.org/images/stories/docs/g20/conclu/G20_Leaders_Declaration_2012.pdf
- GAO (United States Government Accountability Office) (2012), *Financial Literacy. Overlap of Programs Suggests There May Be Opportunities for Consolidation*, GAO, Washington, US. <http://www.gao.gov/products/GAO-12-588>
- Glewwe P. and M. Kremer (2006), "Schools, Teachers, and Education Outcomes", in Hanushek, E. A. and F. Welch (eds), *Handbook of the Economics of Education*, Volume 2,
- Government of Victoria (2008), *Victorian Women's Policy Framework 2008-11*, Office of Women's Policy, Department of Planning and Community Development, Melbourne, Australia. http://www.dpcd.vic.gov.au/_data/assets/pdf_file/0007/39589/DPCD_Vic_Women_Pol_Framework14.pdf (Accessed 13 June 2012).
- Graham, M. and R. Warren (2011), *Women and personal finance: the reality of the gender gap*. Financial Services Authority, Consumer Research 7. <http://www.fsa.gov.uk/pubs/consumer-research/crpr07.pdf>
- Gränsmark, Patrik (2010), "A Rib Less Makes You Consistent but Impatient: A Gender Comparison of Expert Chess Players", Working Paper 5/2010, Swedish Institute for Social Research (SOFI), Stockholm University, http://www.sofi.su.se/polopoly_fs/1.65029.1323949620!/WP10no5.pdf
- Halko, M.-L., Kaustia, M., Alanko, E., (2011). "The gender effect in risky asset holdings". *Journal of Economic Behavior and Organization*, 83 (1), pp. 61-81. <http://www.sciencedirect.com/science/article/pii/S0167268111001569>
- Hallman, Kelly, Kasthuri Govender, Eva Roca, Rob Pattman, Emmanuel Mbatha, and Deevia Bhana K. Govender, E. Roca, R. Pattman, E. Mbatha, and D. Bhana, (2007), Enhancing financial literacy, HIV/AIDS skills, and safe social spaces among vulnerable South African youth. *Promoting Healthy, Safe, and Productive Transitions to Adulthood Brief* (no. 4), http://www.popcouncil.org/pdfs/TABriefs/PGY_Brief04_SafeSpaces.pdf (Accessed on August 26, 2012).

- Hamweemba, Pamela (2011), *Camfed – End of project report* (16th December 2011).
http://www.financialeducationfund.org/storage/files/Camfed_End_of_Project_Report_2011_12_FINAL_FEF_Copy.pdf (Accessed online on February 9, 2012)
- Heathrose, (2012), *Women’s Retirement Income*, A Summary of Key Issues from the Literature. Prepared for The Commission for Financial Literacy and Retirement Income, 24 March 2012,
<http://www.cflri.org.nz/sites/default/files/docs/RI-Womens-Literature-Review-2012.pdf>
- Hendy, R. (2012), “Female Labour Force Participation in the Middle East and North Africa: Evidence from Egypt and Jordan”, Background paper for the OECD Gender Initiative.
- Holmes R. and N. Jones (2011) “Public works programmes in developing countries: Reducing gendered disparities in economic opportunities?”, Overseas Development Institution, Paper prepared for the International Conference on Social Cohesion and Development, 20-21 January 2011, Paris, France
<http://www.oecd.org/development/perspectivesonglobaldevelopment/46838043.pdf>
- Hsu, Joanne W. (2011), “Aging and strategic learning: The impact of spousal incentives on financial literacy”, *Networks Financial Institute Working Paper*, No. 2011-WP-06, Indiana State University.
<http://www.federalreserve.gov/pubs/feds/2011/201153/201153abs.html>
- Hui, T. S., C. Vincent and F. Woolley (2011), *Challenges to Canada’s retirement income system. Understanding gender differences in retirement saving decisions*. The Social Research and Demonstration Corporation, Ottawa.
- Hung, A., J. Yoong and E. Brown (2012), “Empowering Women Through Financial Awareness and Education”, *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 14, OECD Publishing. <http://dx.doi.org/10.1787/5k9d5v6kh56g-en> (Accessed 13 June 2012).
- IFC (International Finance Corporation), (2011), *Strengthening Access to Finance for Women-Owned SMEs in Developing Countries*. International Finance Corporation, Washington, DC.
http://www1.ifc.org/wps/wcm/connect/a4774a004a3f66539f0f9f8969adcc27/G20_Women_Report.pdf?MOD=AJPERES (Accessed 13 June 2012).
- INFE (2013), *INFE Policy Guidance on Addressing Women’s and Girls’ Needs for Financial Awareness and Education*, in OECD/INFE (2013) *OECD/INFE set of criteria, principles, guidelines and policy guidance to improve financial education. Part 2: addressing youth and women’s needs for financial education*. OECD, Paris.
- Irish Financial Regulator (2009), *Financial capability in Ireland: An overview*.
http://www.financialeducation.ie/files/file_20090702103121Financial%20Capability%20-%20An%20Overview.pdf (Accessed on January 19, 2012).
- Jha, P., M. Kesler and R. Kumar, (2011), Trends in selective abortions of girls in India: analysis of nationally representative birth histories from 1990 to 2005 and census data from 1991 to 2011, *The Lancet*, 377: 9781, 1921-1928, doi: 10.1016/S0140-6736(11)60649-1
- Jianakoplos, N. A. and A. Bernasek (1998), “Are Women More Risk Averse?” *Economic Inquiry*. 36 (4), pp. 620–630, October 1998. <http://onlinelibrary.wiley.com/doi/10.1111/j.1465-7295.1998.tb01740.x/abstract> (Accessed 13 June 2012).

- Kashfi, Farzana (2009) Youth Financial Services: The Case of BRAC & the Adolescent Girls of Bangladesh. Case Study No. 5, Youth-Inclusive Financial Services Case Study Series 2009, Making Cents International.
http://www.makingcents.com/pdfs/resources/caseStudy10/BRAC_CaseStudyNo%205_September2009.pdf (Accessed on July 12, 2012)
- Kelly, S and Gong, H. (2010), *Saving Tomorrow - The savings and spending patterns of Australians*, AMP.NATSEM Income and Wealth Report, Issue 25, April 2010, AMP, Sydney.
http://www.melbourneinstitute.com/downloads/hilda/Bibliography/Other_Publications/AMP.NATSEM_Saving_Tomorrow_Report.pdf
- Kinney, J., and K. Goebel (1995), "Women's Financial Information Program (WFIP). Reflections of Attitudinal and Behavior Changes" *Journal of the Family Economics and Resource Management Division of AAFCS*, 1995, pp. 159-160. <http://hec.osu.edu/people/shanna/ferm/goebel.pdf>
- Klapper, L. and G. A. Panos (2011), "Financial literacy and retirement planning: the Russian case", *Journal of Pension Economics and Finance*, 10 (4): 599–618, October, 2011.
<http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8403939>
- Lewellen, Wilber G., Ronald C. Lease, Gary G. Schlarbaum, "Patterns of Investment Strategy and Behavior among Individual Investors," *Journal of Business*, L (1977), 296–333.
<http://www.jstor.org/stable/2352539>
- Lewis, S. and F. Messy (2012), "Financial Education, Savings and Investments: An Overview", *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 22, OECD Publishing.
<http://dx.doi.org/10.1787/5k94gxrw760v-en>
- Liu Y. and K. Deininger (2010), "Poverty Impacts of India's National Rural Employment Guarantee Scheme: Evidence from Andhra Pradesh", Selected Paper prepared for presentation at the Agricultural & Applied Economics Association 2010 AAEA, CAES, & WAEA Joint Annual Meeting, Denver, Colorado, July 25-27, 2010 http://ageconsearch.umn.edu/bitstream/62185/2/Paper_NREGA.pdf
- Livesey Barbara and Alice Aruhe'eta Pollard (2011), *Women and Money*, International Women's Development Agency. Melbourne, Australia.
- Loibl, C. and T. K. Hira (2011), "Know your subject: A gendered perspective on investor information search," *Journal of Behavioral Finance*, 12, pp.117-130.
<http://www.tandfonline.com/doi/abs/10.1080/15427560.2011.600841#preview> (Accessed on July 12, 2012)
- Lown, Jean M. (1999), "Financial Planning for Women: An Educational Model", *Journal of Consumer Education*, 1999 (17), pp. 8-13.
http://www.cefe.illinois.edu/JCE/archives/1999_vol_17/Lown%201999.pdf
- Lown, Jean M. (2010), "A Profile of Financial Planning for Women Participants: Implications for Education and Advising", *Academy of Financial Services Proceedings*, 2010.
<http://www.academyfinancial.org/10Conference/10Proceedings/%283C%29%20Lown.pdf>

- Lührmann M., M. Serra-Garcia and J. Winter, (2012), "The effects of financial literacy training: Evidence from a field experiment with German high-school children", University of Munich Discussion Paper No. 2012-24, <http://epub.ub.uni-muenchen.de/14101/> Lusardi, A. and O. S. Mitchell (2011), "Financial literacy around the world: an overview", *Journal of Pension Economics and Finance*, October 2011, 10 (4), pp. 497-508. <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8403921> (Accessed 13 June 2012).
- Lusardi, A. and P. Tufano (2009), "Debt literacy, financial experiences, and overindebtedness", NBER Working Paper, no. 14808. <http://www.nber.org/papers/w14808>
- Lusardi, A., O. S. Mitchell and V. Curto (2010) "Financial literacy among the young", *Journal of Consumer Affairs*, 44(2), pp. 358-380 <http://onlinelibrary.wiley.com/doi/10.1111/j.1745-6606.2010.01173.x/abstract>
- Lusardi, Annamaria and Olivia S. Mitchell (2011a). "Financial literacy around the world: an overview." *Journal of Pension Economics and Finance*, 10, pp 497-508. doi:10.1017/S1474747211000448.
- Lusardi, Annamaria and Olivia S. Mitchell (2011b). "Financial literacy and retirement planning in the United States." *Journal of Pension Economics and Finance*, 10, pp 509-525. doi:10.1017/S147474721100045X.
- McGraw-Hill (2011), *Corporate Responsibility and Sustainability - 2010 Report*. Columbus, Ohio, US <http://www.mcgraw-hill.com/Content/cr/2010-corporate-responsibility-annual-report.pdf>
- McKay, S. (2011), "Understanding Financial Capability in Canada Analysis of the Canadian Financial Capability Survey", Research paper prepared for the Task Force on Financial Literacy http://publications.gc.ca/collections/collection_2011/fin/F2-213-2011-eng.pdf (Accessed on 19 January 2012).
- Messy, F. and C. Monticone (2012), "The status of financial education in Africa", *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 25, OECD Publishing. <http://dx.doi.org/10.1787/5k94cqx90wl-en>
- Morcos, C. and J. Sebstad (2011), *Financial Education for Adolescent Girls* www.yfslink.org/resources/general-resources/Financial_education_for_adolescent_girls (Accessed on 7 February 2012).
- Mottola, G. J. (2012), *In Our Best Interest: Women, Financial Literacy and Credit Card Behavior. Insights: American Financial Capability. A Report from the FINRA Investor Education Foundation*. April 2012. <http://www.finra.org/web/groups/foundation/@foundation/documents/foundation/p125971.pdf> (Accessed on July 12, 2012).
- Mullainathan, S., M. Noeth and A. Schoar (2012), "The Market for Financial Advice: An Audit Study", NBER Working Paper 17929, <http://www.nber.org/papers/w17929>
- NABARD (Indian National Bank for Agricultural and Rural Development), (2007) NABARD's Strategy. <http://www.nabard.org/microfinance/strategymicrofinance.asp> (Accessed on August 23, 2012).

- NASD Investor Education Foundation (2006), *Investor Fraud Study Final Report*, May 12, 2006, NASD Investor Education Foundation, <http://www.sec.gov/news/press/extra/seniors/nasdfraudstudy051206.pdf>
- Nibud (2012) *Mannen, vrouwen en geldzaken*, Nibud Factsheet June 2012. http://www.nibud.nl/fileadmin/user_upload/Documenten/PDF/onderzoeken/2012/Factsheet_man_vrouwen_geldzaken.pdf
- Niehaus and Sukhkukery (2009), "Corruption Dynamics: the Golden Goose Effect," UC San Diego, mimeo
- Nordic Consulting Group (2011), End Review of the Project – Strengthening Women Entrepreneurs in Uganda "Enterprise Uganda", <http://www.oecd.org/aidfortrade/47399575.pdf> (Accessed on August 30, 2012).
- OECD (2009), "Informal is Normal? Towards More and Better Jobs in Developing Countries", *OECD Development Centre Studies*, Paris
- OECD (2011) *Education at a Glance 2011. Country note – Mexico*. OECD, Paris. <http://www.oecd.org/mexico/48667287.pdf>
- OECD (2012b), *Gender Equality in Education, Employment and Entrepreneurship: Final Report to the MCM 2012* [C/MIN(2012)5], OECD, Paris. <http://www.oecd.org/els/familiesandchildren/50423364.pdf>
- OECD (2012c), *Gender Initiative Data Browser* (Version 2- 8 March 2012). OECD, Paris. <http://www.oecd.org/dataoecd/32/38/49835798.xls>
- OECD (2012d), *Social Institutions and Gender Index (SIGI)*. OECD, Paris. <http://genderindex.org/>
- OECD (2012a), *Closing the Gender Gap: Act Now*, OECD, Paris. doi: [10.1787/9789264179370-en](https://doi.org/10.1787/9789264179370-en)
- Pennington, Mary, Helen Gustafson, and Rebecca Ngo (2011), 'An Opportunity for All: Financial Education in Africa' *Opportunity International – Impact Evaluation* [http://www.financialeducationfund.org/storage/files/OIUK_ImpactAssessment_FEF_Final_0212\[1\].pdf](http://www.financialeducationfund.org/storage/files/OIUK_ImpactAssessment_FEF_Final_0212[1].pdf) (Accessed on February 21, 2012)
- Population Council (2011a), *Safe and Smart Savings Products for Vulnerable Adolescent Girls – Kenya. Summary/Sample Pilot Evaluation Results*.
- Population Council (2011b), *Safe and Smart Savings Products for Vulnerable Adolescent Girls – Uganda Pilot Evaluation Report – Draft – August 2011*.
- Prince, M. (1993), "Women, men and money styles", *Journal of Economic Psychology*, Volume 14, Issue 1, March 1993, Pages 175-182, <http://www.sciencedirect.com/science/article/pii/016748709390045M>
- Prudential, (2010), *Financial Experience and Behaviour among women. 2010-2011 Prudential research study*. http://www.prudential.com/media/managed/Womens_Study_Final.pdf

- Roscam Abbing, Maud I. (2011) Loan officers of Pro Mujer México - An explorative case study on field workers' issues in a non-profit microfinance institution in Mexico (December 2011), <http://edepot.wur.nl/193006>
- Schmidt, Lucie and Purvi Sevak (2006), "Gender, Marriage, and Asset Accumulation in the United States", *Feminist Economics*, 12 (1-2), pp. 139-166
<http://www.tandfonline.com/doi/abs/10.1080/13545700500508445>
- Scottish Widows (2012), *Women and Pensions Report: Mind the expectation gap*, November 2012, http://www.scottishwidows.co.uk/documents/generic/2012_women_and_pensions_report.pdf
- Sebstad, J., (2011), *Girls and Their Money: Strategies for Promoting Savings, Financial Education and Social Support for Adolescent Girls in Low-Income Countries. Synthesis Report*, Microfinance Opportunities, <http://microfinanceopportunities.org/wp-content/uploads/2011/08/Nike-Report-2011.pdf>
- Sekita, Shizuka (2011). "Financial literacy and retirement planning in Japan." *Journal of Pension Economics and Finance*, 10, pp 637-656. doi:10.1017/S1474747211000527.
- Shell, Ben (2009) Product Development for Girls: Girls' Savings and Financial Education. Case Study No. 14, Youth-Inclusive Financial Services Case Study Series 2009, Making Cents International. http://www.swwb.org/sites/default/files/docs/product_development_for_girls.pdf (Accessed on July 12, 2012).
- Siermiska, Eva M., Joachim R. Frick, and Markus M. Grabka, (2010), "Examining the Gender Wealth Gap", *Oxford Economic Papers*, 62, pp. 669-690, doi:10.1093/oep/gpq007
- Silverman, I. W. (2003), "Gender Differences in Delay of Gratification: A Meta-Analysis", *Sex Roles*, 49 (9/10), pp. 451-463
- Sinha, N. and Young, J. (2009), "Long-Term Financial Incentives and Investment in Daughters: Evidence from Conditional Cash Transfers in North India", *Policy Research Working Paper* 4860, World Bank, Washington DC
http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=478060&piPK=64165421&menuPK=64166093&entityID=000158349_20090309091453
- Spielberg F., B. Crookston, S. Chanani, J. Kim, S. Kline and B. Gray (2010) "Leveraging microfinance networks to scale up HIV and financial education among adolescents and their mothers in West Bengal: a cluster randomized trial and mixed-method evaluation", *Freedom from Hunger Research Paper* No. 15 <http://www.ffhtechnical.org/resources/research-reports/leveraging-microfinance-networks-No15>
- Stevenson, Lois (2010), *Private Sector and Enterprise Development: Fostering Growth in the Middle East and North Africa*, International Development Research Centre (IDRC), Ottawa.
- Stevenson, Lois (2011), *The role of women's entrepreneurship in the Middle East and North Africa Labour Market*, High-Level Consultation of the MENA-OECD Initiative on Governance and Investment for Development, 16 May 2011, Paris.

- Sundén, A., Surette, B., (1998). Gender differences in the allocation of assets in retirement savings plans. *American Economic Review Papers and Proceedings* 88, 207–211.
<http://www.jstor.org/stable/10.2307/116920> (Accessed on July 12, 2012).
- Sutter, M., M. G. Kocher, D. Rützler, S. T. Trautmann (2010) “Impatience and Uncertainty: Experimental Decisions Predict Adolescents’ Field Behavior”, IZA Discussion paper No. 5404, December 2010
- Thévenon, O. (2009), “Increased Women’s Labour Force Participation in Europe: Progress in the Work-Life Balance or Polarization of Behaviours?”, *Population (English Edition)*, Vol. 64, No. 2, pp. 235-72.
- Trivelli, C., J. Montenegro and M. C. Gutiérrez, (2011), “Un Año Ahorrando. Primeros Resultados del Programa Piloto Promoción del Ahorro en Familias Juntos”, Documento de Trabajo No. 159, IEP Instituto de Estudios Peruanos, Lima <http://archivo.iep.pe/textos/DDT/unanoahorrando.pdf>
- UN (United Nations) (2011), *The Millennium Development Goals Report 2011. Annex*. New York: United Nations <http://unstats.un.org/unsd/mdg/Resources/Static/Data/2011%20Stat%20Annex.pdf> (Accessed on August 8, 2011).
- UNESCO (2011), *Education for All Global Monitoring Report 2011*, UNESCO, Paris.
<http://unesdoc.unesco.org/images/0019/001907/190743e.pdf>
- UNESCO (2012), Education database, UNESCO Institute for Statistics,
<http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx>
- Wang, M., M. O. Rieger, and T. Hens, (2011), “How Time Preferences Differ: Evidence from 45 Countries”, Discussion paper 18 2011, Norwegian School of Economics.
- WEETU (Women’s Employment, Enterprise and Training Unit) (2012), *Financial Capability for Women. Report on a pilot training course*. WEETU, March 2008.
http://www.insighteast.org.uk/WebDocuments/Public/approved/user_9/WEETU%20Financial%20Capability%20for%20women%20pilot%20project%20report.pdf
- WEF (2011), Global Gender Gap Report, World Economic Forum, <http://reports.weforum.org/global-gender-gap-2011/#>.
- Westaway, Jenny, and Stephen McKay (2007), “Women’s financial assets and debt”, Fawcett Society, London. <http://www.fawcettsociety.org.uk/documents/Fawcett%20Assets%20Report.pdf> (Accessed on July 12, 2012).
- Whitaker, Elizabeth Ann, Janet L. Bokemeiner, Scott Loveridge (2013), “Interactional Associations of Gender on Savings Behavior: Showing Gender’s Continued Influence on Economic Action”, *Journal of Family and Economic Issues*, 2013 934), pp. 105–119. World Bank (2011a), *Women, Business, and the Law. Removing barriers to Economic Inclusion*. The World Bank and the International Finance Corporation, Washington, DC. <http://wbl.worldbank.org/>
- World Bank (2011b), *World Development Report 2012 - Gender Equality and Development*. The World Bank, Washington, DC. <http://siteresources.worldbank.org/INTWDR2012/Resources/7778105-1299699968583/7786210-1315936231894/Overview-English.pdf>

APPENDIX: TABLES

Table 6. Financial knowledge across subgroups of women

		Albania	Armenia	Czech Republic	Estonia	Germany	Hungary	Ireland	Malaysia	Norway	Peru	Poland	South Africa	UK	BVI
Marital status															
Married (ref.)															
Living with a partner	Coeff.	15.044	0.000	-9.458	3.486	-4.557	-4.128	-2.701			-0.402	-2.430	0.816	-2.844	14.852
	Signif.		***	**											**
Divorced	Coeff.	4.501	-6.526	-1.600	0.154	-0.246	1.506	-3.162	-0.112		-6.393	-1.783	-0.929	2.885	14.407
	Signif.														***
Single	Coeff.	2.267	-2.753	-4.252	-0.750	-1.647	-3.953	-4.405	-1.354		4.212	1.218	2.168	-2.724	3.835
	Signif.							*			**				
Widow	Coeff.	-7.051	-2.526	-6.533	-6.689	-4.109	-4.106	-5.699	-19.381		-1.418	-3.085	-4.338	0.621	12.396
	Signif.	*		**	*			*	***				*		***
Age															
18-29	Coeff.	3.889	-1.592	-3.335	3.295	-5.719	2.110	-9.093	-2.613	-9.281	-6.206	2.042	3.384	-5.507	0.204
	Signif.					*		***		***	***		**	**	
30-59 (ref.)															
60+	Coeff.	-4.119	-2.941	-7.355	-0.718	-0.462	-1.932	1.882	-8.381	-0.523	5.345	0.164	-2.864	1.404	-0.308
	Signif.			**					**		*				
Working status (not working as reference category)															
Working	Coeff.	6.218	2.619	-2.914	-1.910	2.976	1.658	5.803	3.586	-1.563	2.426	6.492	4.099	6.037	-3.467
	Signif.	**						***	*			**	***	***	
Household income															
Below median	Coeff.	1.646	-5.461	-6.607	-2.162	-0.695	-1.434	-6.683	1.699	-7.409	-0.810	-4.759	-8.793	-4.852	-4.206
	Signif.		***	**				***		***		*	***	**	
Median (ref.)															

Above median	Coeff.	5.515	-7.779	4.048	1.070	12.065	1.192	-0.445	2.656	-0.324	1.981	6.063	0.502	0.635	0.543
	Signif.	*				***						*			
Education															
Below secondary	Coeff.	-5.845	-9.151	-7.922	-12.774	-13.747	-10.425	-12.791	-14.191	-8.243	-7.919	-11.562	-7.111	-8.938	-7.637
Secondary (ref.)	Signif.	**	**	***	***		***	***	***	***	**	***	***	***	**
Above secondary	Coeff.	7.415	5.906	3.260	3.748	9.588	5.190	2.481	9.285	5.577	6.592	4.845	-0.371	5.715	6.439
	Signif.	**	***			***	**		***	***	***	**		***	**

Source: OECD INFE Financial Literacy Pilot Survey (Atkinson and Messy, 2012). Notes: ordinary least squares regressions. Coefficients: Empty cells: the explanatory variable is not available for this country (e.g. marital status not available for Norway)/ no observations in the cell (e.g. the category "living with partner" was not coded in the Armenian survey). Dummies for refusals/DK were included in the regressions, but not reported in the table. Omitted categories: marital status: married is the omitted category for marital status; age: 30-59 omitted; working status: not working was omitted; household income: median omitted; education: complete secondary school omitted. Significance levels: *** 1%; ** 5%; * 10%. The financial knowledge score is based on 8 questions and has been rescaled on a 0-100 scale.

Table 7. Gender differences in financial product holding

	Payment product holding		Saving products holding		Pension products holding		Investment products holding		Insurance products holding	
	Difference	Significance	Difference	Significance	Difference	Significance	Difference	Significance	Difference	Significance
Albania	6.5	*	8.0	*	-0.5		1.6	*	1.7	
Armenia	0.5		0.0		-0.1		0.0		0.5	
Czech Republic	3.1		3.0		-4.9		2.6		1.5	
Estonia	-0.6		-4.7		1.2		0.0		5.7	
Germany	0.2		2.4		-8.6	*	11.1	*	4.3	*
Hungary	2.7		0.7		6.6		1.2		1.5	
Ireland	1.6		0.2		5.9		5.7	*	-2.3	
Malaysia	7.1	*	4.3	*	-0.7		-1.5		13.3	*
Norway	-3.2	*	-7.2	*	5.3	*	4.5	*	-1.7	
Peru	8.1	*	0.5		12.9	*	1.2	*	11.6	*
Poland	1.8		9.7	*	5.0		3.8	*	6.2	*
South Africa	5.8	*	-3.5	*	3.9		3.2	*	5.0	*
UK	0.8		5.4	*	10.0	*	10.9	*	2.9	
BVI	11.0	*	5.0		-6.3		1.8		3.2	

Source: OECD INFE Financial Literacy Pilot Survey (Atkinson and Messy, 2012). The table reports the average difference in product holding between men and women (i.e. a positive difference means that men are more likely to hold that product than women). Differences are expressed in percentage points. An asterisk * in the significance column indicates that the gender difference is statically significant at 5 % level. Pension product holding: product holding is computed only for working respondents.

Table 8. Financial education programmes for women and girls

Country	Main stakeholders	Programme Name	Main target	Targeting women	Main focus	Source	Website
Asia	Standard Chartered	Women's Empowerment Program	Adult women	Exclusively for women	Entrepreneurship	IFC (2011)	
Asia (China, Indonesia and Vietnam)	Prudential Plc.	Investing in your Future	Women working in state owned enterprises	Exclusively for women	Money management / Saving / Investments	http://www.prudential.co.uk/prudential-plc/cr/communityprogrammes/china/beijing http://www.prudential.co.uk/prudential-plc/cr/crnews/cr2005/2005-08-30/	
Australia	Government of Victoria	Financial literacy programme	Adult women	Exclusively for women	Planning for retirement	Government of Victoria (2008)	
Australia	Women's Information and Referral Exchange (WIRE)	Workshops and print guides	Adult women	Exclusively for women	Money management / Debt	http://www.wire.org.au/information-resources/money/	
Australia	The Women's Investment Club	Various	Adult women - various segments	Exclusively for women	Money management / Investing	http://www.thewomensinvestmentclub.com.au/About-Investment-Club.php	
Austria	IFS-Schuldenberatung gemGmbH	Finanz- und Konsumwissen (financial knowledge for consumers)	Women returning to the labour market	Exclusively for women	Debt	INFE questionnaire 2012	http://www.ifs.at/schuldenberatung.html
Austria	Schuldnerberatung Wien	Supervised Bank Account	Low-income	Open to anybody but mostly women participate	Financial inclusion / overindebtedness	INFE questionnaire 2012	http://www.schuldenberatung-wien.at/
Austria	Schuldnerhilfe OÖ	e-Learning Finanzkompetenz	Students	Open to anybody, partly focused on women/girls	Basic financial literacy contents	INFE questionnaire 2012	www.finanzkompetenz.at
Austria	Schuldnerhilfe OÖ	OÖ Finanzführerschein (financial literacy driver's licence)	Adolescents / students	Open to anybody, partly focused on women/girls	Money management / Saving / Debt	INFE questionnaire 2012	http://www.schuldnerhilfe.at/
Austria	Schuldnerhilfe OÖ	Finanzworkshop	Young people	Open to anybody, partly focused on women/girls	Overindebtedness	INFE questionnaire 2012	http://www.schuldnerhilfe.at/
Bangladesh	BRAC	SOFEA (Social and Financial Empowerment of Adolescents)	Rural girls / young women	Exclusively for girls	Access to microfinance and financial education	Morcos and Sebstad (2011); Kashfi (2009); Bhattacharjee and Das (2011)	http://www.brac.net/content/social-and-financial-empowerment-adolescents

Country	Main stakeholders	Programme Name	Main target	Targeting women	Main focus	Source	Website
Bangladesh	Population Council, BRAC and Underprivileged Children's Educational Program (UCEP)	Promoting Financial Education Through Mentoring Relationships	Adolescent girls	Exclusively for girls	Saving	Amin et al. (2010)	http://www.popcouncil.org/projects/307_PromoteFinancialEd.asp
Burundi	CARE	Ishaka: courage for the future	Adolescent girls	Exclusively for girls	Access to saving products	Morcos and Sebstad (2011), Messy and Monticone (2012), Sebstad (2011)	http://www.care.org/cereswork/projects/BDI066.asp
Brazil	Central Bank, Ministry of Education, Ministry for Social Development and Hunger Alleviation	Educação Financeira sem Fronteiras	Poor communities	Open to anybody, but mostly women participate	Budgeting / Planning	INFE meeting	http://www.unilab.edu.br/noticias/2013/04/22/abertas-inscricoes-para-programa-sobre-educacao-financeira/
Cambodia	ILO Microfinance for Decent Work (MF4DW) project	Microfinance for Decent Work action research	Microfinance clients	Open to anybody, but mostly women participate	Financial inclusion / Overindebtedness	INFE questionnaire 2012	www.ilo.org/socialfinance
Cambodia	ILO Social Protection and Gender Equality Project for the Cambodian Garment Workers (SPG project)	Strengthening employment and economic opportunities for workers' project	Garment workers	Open to anybody, but mostly women participate	Entrepreneurship / Access to saving	INFE questionnaire 2012	www.ilo.org/wed
Cambodia	ILO Women's Entrepreneurship Development and Gender Equality (WEDGE) project	Women's Entrepreneurship Development and Gender Equality (WEDGE) Project	Low-income	Mostly for women, but open to anybody	Entrepreneurship / Access to saving	INFE questionnaire 2012	www.ilo.org/wed
Canada	Manitoba Securities Commission	I'm Worth It: Financial Stories, Ideas and Strategies for Women	Adult women	Mostly for women, but open to anybody	Money management / Saving	INFE questionnaire 2012	http://www.imworthit.ca/
Canada	National Initiative for the Care of the Elderly (NICE)	Older Women and Financial Literacy: Bridging the Income Gap	Low-income elderly women	Exclusively for women	Budgeting / Saving / Debt / Retirement	INFE questionnaire 2012	http://www.nicenet.ca/detail.aspx?menu=52&app=236&cat1=653&tp=2&lk=no
Canada	Government of Canada	Aboriginal women's entrepreneurship	Aboriginal women	Exclusively for women	Entrepreneurship	AANDC (2010)	
Colombia	Fondo de Garantías de Instituciones Financieras (Fogafin)	Mujeres Ahorradoras en Acción (Women as active savers)	Women in vulnerable areas	Exclusively for women	Saving / Entrepreneurship	INFE questionnaire 2012	http://www.mujeresahorradorasenaccion.com/

Country	Main stakeholders	Programme Name	Main target	Targeting women	Main focus	Source	Website
Colombia and Peru	Government of Colombia / Government of Peru	JUNTOS, Red Unidos, Familias en Acción	Low-income women (Mothers recipients of conditional money transfers)	Exclusively for women	Budgeting / Saving / Financial risks, Financial services	Trivelli et al (2011) and http://pro-savings.org/es/casos/encuenta-2-educacion-financiera-innovations-scaling-financial-education-en-y-colombia	
Democratic Republic of Congo	Rawbank	Lady's First	Adult women	Exclusively for women	Entrepreneurship	IFC (2011)	
Dominican Republic	Microfinance Opportunities, World Women Banking and ADOPEM	Savings and Financial Education Project	Adolescent girls	Exclusively for girls	Access to saving products	Morcos and Sebstad (2011), Sebstad (2011)	http://www.swwb.org/press/can-soap-operainspire-woman-change-her-life-wwb-network-member-banco-adopem-launches-social-s
Egypt	Population Council	Ishraq: Bringing Marginalized Rural Girls into Safe Learning Spaces in Upper Egypt	Vulnerable rural girls	Exclusively for girls	Life skills / Basic financial literacy contents	Brady et al. (2007) and Messy and Monticone (2012)	http://www.popcouncil.org/projects/40_IshraqSafeSpacesGirls.asp
Germany	Levi Strauss Foundation - Evers Jung	(f)in-fit - Financial Training for Migrants	Ethnic minorities and women		Money management / Insurance / Debt / Retirement	http://www.financial-education.org/Germany_(f)in-fit_Financial_Training_for_Migrants.html	
Germany	Frauenfinanzdienst (Ms financial services)	Frauenfinanzdienst (Ms financial services)	Adults, especially women	Open to anybody, but mostly women participate	Financial Advice	http://www.ingenere.it/en/articles/women-and-financial-issues	http://www.frauenfinanzdienst.de/
Guatemala	Save the Children Guatemala		Rural youth	Focus on girls	Entrepreneurship	Morcos and Sebstad (2011)	
Guatemala	She's the First	Starfish One by One	Young girls	Exclusively for girls	Education	http://www.shesthefirst.org/2011/02/starfish-one-by-one/	http://www.starfishoneyone.org/index.html
Guatemala	Population Council	Abriendo Oportunidades	Mayan girls and young women	Exclusively for girls	Life skills / Basic financial literacy contents	Catino et al. (2011)	http://www.popcouncil.org/projects/244_CreateOpportunitiesMayan.asp#jQueryUITabs1-1

Country	Main stakeholders	Programme Name	Main target	Targeting women	Main focus	Source	Website
Haiti	Making Cents International	Supporting Girls to Gain Safe and Empowered Lives through Livelihoods and Protection Strategies	Adolescent girls	Exclusively for girls	Life skills / Basic financial literacy contents	http://childfinanceinternational.org/index.php/component/mtree/government-representatives/central-america/haiti-programs/supporting-girls-to-gain-safe-and-empowered-lives-through-livelihoods-and-protection-strategies?Itemid=	
India	Mann Deshi	Financial Literacy Program	Illiterate women	Exclusively for women	Financial inclusion / Entrepreneurship	INFE questionnaire 2011	http://www.mannideshi.org/foundation/financial_education.html
India	SEWA / Indian school of microfinance for women / Citi	Financial literacy training	Poor self-employed women	Exclusively for women	Microfinance / Entrepreneurship	INFE questionnaire 2011 and Amin et al. (2010)	http://www.ismw.org.in/activities.php?pcid=C4316B281F5E102EB90882DCCA618782 http://www.sewa.org/images/Annual_Report/PDF/Our%20Very%20Own%20Bank%20-%20SEWA%20Bank.pdf
India	Reach India	Learning Games for Adolescent Girls and their Mothers	Rural adolescent girls and their mothers	Exclusively for women/girls	HIV / Saving	Morcos and Sebstad (2011) and Spielberg et al. (2010)	
India	Sanchayan Society	Programmes for rural women	Self help groups and women			http://www.financial-education.org/India_The_Money_Matters_Financial_Literacy_Project.html	http://sanchayansociety.org/about-us/projects/
Indonesia	Ministry of Manpower and Transmigration, National Agency of Placement and Protection of Indonesian Workers, and Bank Indonesia	Financial Education Program for Migrant Workers	Migrant workers and their families	Open to anybody, but mostly women participate	General financial literacy training / Financial inclusion	INFE questionnaire 2012	
Israel	Economic Empowerment for Women (EEW)	Savings for the Future	Low-income women	Exclusively for women	Asset Development (IDAs) / general financial literacy training	http://www.womensown.org.il/en/template/?maincatid=2&catid=10&pageId=46	

Country	Main stakeholders	Programme Name	Main target	Targeting women	Main focus	Source	Website
Israel	Center for Jewish-Arab Economic Development (CJAED) Women Empowerment Unit	Initial Business Training Courses	Women with severe economic difficulties	Exclusively for women	Entrepreneurship	http://www.cjaed.org.il/In dex.asp?CategoryID=91&A rticleID=74	
Japan	Citigroup Japan and National Institute on Consumer Education	Financial Life Skills and Money Management for Women	Middle-aged and elderly women	Exclusively for women	Money management / Saving and borrowing / Insurance	http://www.citigroup.jp/english/press_release/2011/20110623_en.pdf	
Kenya	Equity Bank, United Nations Development Programme (UNDP), ILO, and the Ministry of Finance	Fanikisha Project	Adult women	Exclusively for women	Entrepreneurship	IFC (2011)	http://www.ke.undp.org/index.php/projects/promoting-women-in-business-and-investment-fanikisha-initiative
Kenya and Uganda	Population Council and Microfinance Opportunities	Safe and smart products for adolescent girls	Adolescent girls	Exclusively for girls	Access to saving products	Austrian (2011), Messy and Monticone (2012), Sebstad (2011)	http://www.popcouncil.org/projects/48_SafeSmartSavingsVulnerableGirls.asp
Latin America (Argentina, Bolivia, Mexico, Nicaragua and Peru)	Pro Mujer / McGraw-Hill		Women	Exclusively for women	Saving / Credit	Roscam Abbing (2011) and McGraw-Hill (2011)	
Lebanon	Al Majamoua	Femmes Entrepreneuses en Mediterranee - FEM Program	Adult women	Exclusively for women	Entrepreneurship	INFE questionnaire 2011 and EC (2008)	
Malta	SIFE	Women Entrepreneurs	Adults, young adults and especially women		Entrepreneurship	http://www.financial-education.org/Malta_Women_Entrepreneurs_project.html	http://www.european-microfinance.org/data/file/section_nos_services/publications/magazine/magazine_4.pdf
Mexico	Banco del Ahorro Nacional y Servicios Financieros (BANSEFI)	Programa de Apoyo para Fomentar la Inclusión Financiera y el Fortalecimiento del Sector de Ahorro y Crédito Popular y Cooperativo: Educación Financiera	Low-income women	Open to anybody, but mostly women participate	Financial inclusion	INFE questionnaire 2012	

Country	Main stakeholders	Programme Name	Main target	Targeting women	Main focus	Source	Website
Mexico	SEFIA / Espacios Alternativos		Rural women	Exclusively for women	Saving / Credit		http://www.sefia.com.mx/sefia/tituloscontenido/sefiaprofileenglish.pdf
Mongolia	Microfinance Opportunities, World Women Banking and XacBank	Savings and Financial Education Project	Low- and middle-income girls	Exclusively for girls	Access to saving products	Morcos and Sebstad (2011), Sebstad (2011) and Shell (2009)	
New Zealand	Craigs Investment Partners	Women's Wealth	Adult women	Exclusively for women	Investor education		http://www.craigsip.com/Investor-Education/Womens-Wealth.aspx
New Zealand	Women in Super (WIS)	Various	Adult women and girls in schools	Exclusively for women/girls	Retirement	http://www.cflri.org.nz/financial-literacy/hub/workplace-hub/preparing-women-their-retirement	http://www.womeninsuper.org.nz/index.htm
Niger, Senegal, and Sierra Leone	Making Cents-Plan WARO	Making Financial Services and Business Skills Development Available to African Children and Youth Project	Out of school working children and youth	Focus on girls	Access to financial services and business development	Morcos and Sebstad (2011)	
Pakistan	Kashf / CIDA	Financial Literacy and Business Development Services for Women	Adult women	Exclusively for women	Entrepreneurship	CIDA (2011)	
Palestine	Palestine Monetary Authority, Palestine Capital Market Authority, Interarab Cambist Association, Association of Banks in Palestine	Public awareness campaign	Youth, Low-income, un/underbanked	Open to all, but women/girls are given special encouragement/incentives to participate	General financial literacy training / Financial inclusion	INFE questionnaire 2011	
Paraguay	Fundación Paraguaya	All-Girls Self-Sustainable School	Low-income rural girls	Exclusively for girls	Access to savings/microfinance and entrepreneurship	Morcos and Sebstad (2011)	
Peru	Inter-American Development Bank (IDB), Mibanco	Mibanco- Crecer mi Negocio	Low-income micro-entrepreneurs	The majority of recipients will likely be women	Entrepreneurship	IFC (2011)	http://www.iadb.org/en/projects/project,1303.html?id=pe-11073

Country	Main stakeholders	Programme Name	Main target	Targeting women	Main focus	Source	Website
Philippines	Philippine Commission on Women	GREAT Women Project-- Gender and Financial Literacy Module Development and Training of Trainers	Adult women	Exclusively for women	Entrepreneurship	INFE questionnaire 2012	http://pcw.gov.ph/gwp
Poland	Kronenberg Foundation (Citi) and Centre for Women's Rights	Building a Woman's Financial Independence	Women experiencing violence	Exclusively for women	Money management / Planning	http://www.financialeducationsummit.org/presentations/day2-Krzysztof_Kaczmar.pdf	http://www.citibank.pl/poland/kronenberg/polsk/11426.htm
Samoa	South Pacific Business Development (SPBD) Network	Financial Literacy Programme	Underprivileged women	Exclusively for women	Money management	http://www.spbdmicrofinance.com/news/financial-literacy-underprivileged-women	
Saudi Arabia	Capital Markets Authority	Visits and training programmes in schools and universities	Young / students	Open to anybody, but mostly women/girls participate	Investor education	INFE questionnaire 2012	http://www.smart-investor.net/
Singapore	Tsao Foundation	Financial education programme for mature women	Women ages 40-60	Exclusively for women	General financial literacy training	http://www.financial-education.org/Singapore_financial_education_programme_for_mature_women.html	http://www.tsaofoundation.org/citi_tsao_foundation_financial_education_programme_for_mature_women.html
Solomon Islands	West `Are`Are Rokotanikeni Association (WARA)	Women and Money	Rural women	Exclusively for women	Financial inclusion / Saving	Livesey and Pollard (2011)	
Somalia	Himilio Relief and Development Association (HIRDA)	Financial Literacy Training	Adult women	Exclusively for women			http://www.hirda.org/
South Africa	Population Council	Gender, Socioeconomic Status, and Youth HIV Risk	Young men and women age 15-24	Open to young men and women	Budgeting / Saving / Planning / Health (HIV/AIDS)	Hallmann et al. (2007)	http://www.popcouncil.org/projects/149_SouthAfricaGndrSocStatYthHIV.asp
South Africa – KwaZulu-Natal	Zimele	Zimele Developing Community Self Reliance project	Rural women	Exclusively for women	Saving / Credit /Entrepreneurship	INFE meeting	http://www.sanews.gov.za/south-africa/kzns-zimele-community-receive-over-r7m
South Africa – KwaZulu-Natal	SaveAct	SaveAct	Rural and peri-urban communities	Open to anybody, but mostly women participate	Saving / Credit /Entrepreneurship	INFE meeting	http://www.saveact.org.za/
Spain	Ministry of Health, Social Policy and Equality / Women's World Banking	Educacion y Asesoramiento Financiero	Vulnerable families (majority of participants are women)	Open to anybody, but mostly women participate	Financial education and overindebtedness	INFE questionnaire 2011	(NB: the programme has been suspended)
Sweden	Enforcement Authority	Women and Economy	Adult women	Mostly for women, but open to anybody	Overindebtedness	INFE questionnaire 2012	http://www.kronofogden.se/kvinna

Country	Main stakeholders	Programme Name	Main target	Targeting women	Main focus	Source	Website
				Exclusively for women		http://www.eximbank-tz.com/More%20info/Annual%20Reports/Annual%20report%202010.pdf	
Tanzania	Exim Bank	Women Entrepreneurs Finance Programme	Adult women		Entrepreneurship		
Tanzania and Uganda	BRAC	Empowerment and livelihood for adolescents (ELA)	Young girls in villages	Exclusively for girls	Training on financial literacy and access to microfinance	BRAC (2010a, 2010b) and Messy and Monticone (2012)	http://www.brac.net/content/where-we-work-tanzania-empowerment-and-livelihood-adolescents
Thailand	Government, Citi Foundation, Kenan Institute Asia	Financial literacy training for at-risk women	Low-income, low-educatoin, and serving in a high-risk, short-duration occupation (slum, nightlife, vocational)	Exclusively for women/girls	Planning / Saving / Spending / Investing	presentation at the BSP-OECD Asian Seminar on Financial Literacy and Inclusion: Addressing the Upcoming Challenges (September 2012)	http://www.kiasia.org/en/Group_Tier3.asp?GroupTierId=9&SubGroupTier_ID=131&SubTier_ID=331
Turkey	Capital Markets Board of Turkey	Capital markets-related financial education for women	Low-income	Exclusively for women	Budgeting / Saving / Debt / Retirement	INFE questionnaire 2011	
Uganda	Enterprise Uganda	Strengthening Women Entrepreneurs in Uganda	Adult women	Exclusively for women	Entrepreneurship	Nordic Consulting Group (2011)	http://www.norway.go.ug/Embassy/Development/privatesectordevelopment/womenentrepreneursinuganda/
UK	The Money Advice Service	Parent's guide to money	Expectant mothers	Open to all, delivery channel is expectant mothers	Money management / Saving	INFE questionnaire 2011	https://www.moneyadvice.service.org.uk/
UK	Women's Employment, Enterprise and Training Unit (WEETU)	Financial Capability for Women (pilot)		Exclusively for women	Attitudes to money / Understanding financial products / Planning	http://www.weetu.org/	http://www.insighteast.org.uk/WebDocuments/Public/approved/user_9/WEETU%20Financial%20Capability%20for%20women%20pilot%20project%20report.pdf
US	Jewish Women International	LifeSavings: Financial Literacy for Young Women	Young women, students, young professionals, mothers	Exclusively for women/girls	Money management / Saving	http://www.jwi.org/page.aspx?pid=1269	
US	St Louis Community Credit Union	Building Wealth for Women	Adult women	Exclusively for women/girls	Saving / Credit / Tax filing	https://www.stlouiscommunity.com/community/foundation/cu-excel-center	

Country	Main stakeholders	Programme Name	Main target	Targeting women	Main focus	Source	Website
US	American Association of Retired Persons (AARP)	Women's Financial Information programme (WFIP)	Middle-age and older women	Mostly for women, but open to anybody	Money management / Planning / Investing for retirement	de Vaney et al. (1995); Kinney and Goebel (1995)	
US	Delaware Financial Literacy Institute	From Purses to Portfolios	Adult women	Mostly for women, but open to anybody		http://www.citigroup.com/citi/press/2008/081029c.htm	http://www.dfl.org/index.cfm?ref=03000
US	Department of Health and Human Services	National Education and Resource Center on Women and Retirement Planning	Low-income women, non-white women, and women with limited English proficiency	Exclusively for women	Retirement / Budgeting / Investments	GAO (2012)	http://www.aoa.gov/AoA_programs/Elder_Rights/Women_in_Retirement/index.aspx
US	Department of Labor Women's Bureau	Wi\$eUp	Generation X & Y women (born in 1960s-1990s)	Exclusively for women	Money management / Saving	http://www.mymoney.gov	http://wiseupwomen.tamu.edu/
US	Iowa State University	Annie's project	Farm and ranch women	Exclusively for women	Business management		http://www.extension.iastate.edu/annie/
US	Rutgers University	Money Talk: A Financial Guide for Women (Book)	Adult women		Financial basics / Insurance / Investing / Retirement / Planning	Brennan and O'Neill (2009)	
US	Utah State University	Financial Planning for Women (WFP)	Adult women	Exclusively for women	Planning / Debt / Investing for retirement	Lown (1999); Lown (2010)	http://www.usu.edu/fpw/index.html
US	Women's Campaign International	Financial literacy workshops within Girls' Advocacy and Leadership Series (GALS)	Students	Exclusively for girls	Personal financial management / Business	http://www.womenscampaigninternational.org/2012/05/managing-your-money-gals-financial-literacy-workshop/	
US	Young Women's Christian Association (YWCA)	The Money Conference for Women	Adult women	Exclusively for women	Money management / Investment / Retirement	http://www.ywcahartford.org/finliteracy.php	
Zambia	Bank of Zambia / Camfed	Financial Education	Low-income rural young women	Exclusively for women/girls	Budgeting / Saving / Debt / Inclusion	INFE questionnaire 2012	

LIST OF ACRONYMS

AARP	American Association of Retired Persons
ANZ	Australia and New Zealand Banking Group
ASIC	Australian Securities and Investment Commission
ATM	Automatic Teller Machine
BANSEFI	Banco del Ahorro Nacional y Servicios Financieros (Mexico)
BRAC	Bangladesh Rural Advancement Committee
BVI	British Virgin Islands
CEDAW	UN Committee on the Elimination of Discrimination against Women
CFLRI	Commission for Financial Literacy and Retirement Income (New Zealand)
CMB	Capital Markets Board of Turkey
FDIC	US Federal Deposit Insurance Corporation
FEM	Femmes Entrepreneuses en Méditerranée (Tunisia, Egypt, and Lebanon)
FINRA	US Financial Industry Regulatory Authority
FSA	UK Financial Services Authority
GPII	Global Partnership for Financial Inclusion
GREAT	Gender-Responsive Economic Actions for the Transformation of Women (Philippines)
IFC	International Finance Corporation
ILO	International Labour Organization
INFE	International Network on Financial Education
MAA	Mujeres Ahorradoras en Acción (Colombia)
MENA	Middle East and North Africa
MF4DW	Microfinance for Decent Work
MFO	Microfinance Opportunities
NABARD	Indian National Bank for Agricultural and Rural Development
NEET	Neither Employed nor in Education or Training
NGO	Non-Governmental Organisation
NICE	National Initiative for the Care of the Elderly (Canada)
OECD	Organisation for the Economic Co-operation and Development
SEWA	Self-Employed Women's Association (India)
SMEs	Small and Medium Enterprises
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
WEDGE	Women's Entrepreneurship Development and Gender Equality (ILO)
WEETU	Women's Employment, Enterprise and Training Unit (UK)
WWB	Women's World Banking

The Russia Financial Literacy and Education Trust Fund was established in 2008 at the World Bank with funding provided by the Ministry of Finance of the Russian Federation. The work supported by the Trust Fund is jointly managed by the World Bank and the Organisation for Economic Co-operation and Development (OECD) and is directed toward improving public policies and programs to enhance financial knowledge and capabilities in low- and middle-income countries. This effort has focused on the review of national strategies for financial education, the development of methods for the measurement of financial knowledge and capabilities, methods for evaluating the impact and outcome of programs, and research applying these methods to programs in developing countries. The products of this program of work can be found at the Trust Fund website at:

www.finlitedu.org

