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What drives financial inclusion?

The economic impact

Investment implications



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Why women's financial inclusion matters

Key messages

- Female financial inclusion and gender equality are "macrocritical" to boosting economic activity.
- Inclusion is essential for labour market access and thus female financial independence.
- Lack of financial inclusion will pose risks to investment directly and indirectly.

What drives financial inclusion?

Economic inclusion of all social groups is important to help the world find answers to multiple challenges – including climate change, demographics and future implementation of artificial intelligence. Women's financial inclusion is both a key component of this and illustrates the likely problems other groups will face.

The **historical process of female financial inclusion** has been going on for a long time. For example, some U.S. states started giving women very limited property rights in the late 1700s, but it was not until 1974 that women's right to equal access to financial services was fully established with the U.S. Equal Credit Opportunity Act. (A similar timeline can be observed for the UK.) Many readers of this report will therefore have grown up in a period when women in these countries could still need a man's approval to open a bank account or take out a loan.

Legal barriers to female financial inclusion are now much reduced around the world, but we are still far away from achieving UN Sustainable Development Goal #5: To empower women and girls and ensure their equal rights. Statistics on pay indicate the size of problem: 2021 data from the World Economic Forum suggested that, on current trends, it would take 136 years to close the global gender pay gap¹. One result of this is that women have much less disposable income compared to men, can save less money and are less financially secure in old age – and this is a problem for higher-economies as well as lower-income ones, as revealed by a study this month from the Association of German Banks².

Global economic change both requires inclusion – and can help drive it. The figure below shows a proxy measure for financial inclusion – the **share of the adult population which has an account at a bank or other regulated institution**. As the figure shows, access to bank accounts has increased over the last decade, particularly in middle and low-income economies but women's access continues to lag that of men.

What causes this relative lack of access for women? The results of academic studies are unsurprising. For example, one recent study³ shows that the financial inclusion of women is lower in countries where women suffer from discriminatory laws, lower employment rates and fewer rights. Limited access to ID cards, cell phones and financial education may make things worse. Lack of access can be both a symptom of a lack of opportunity and a cause.

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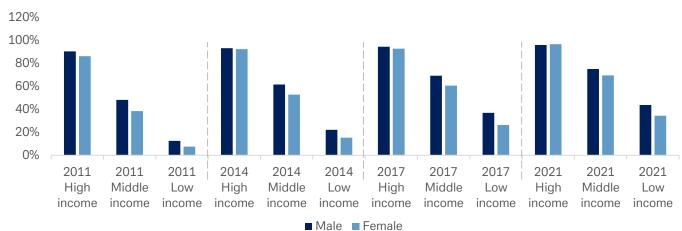


Figure 1: Share of adult population with access to bank accounts

Source: Demirgüç-Kunt, Asli, Leora Klapper, Dorothe Singer, Saniya Ansar. 2022. The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19. Washington, DC: World Bank.

Key to addressing global economic challenges is inclusion – for women or other groups – in the labour market. Multiple studies suggest that inability to access bank accounts will make it more difficult for women to enter the **labour market** and to progress within it. If women run companies, poor financial inclusion can make it more difficult for them to raise funds for further expansion. (This may not be just a matter of accessing bank accounts – other determinants, such as credit scoring, can be unfairly weighted towards men.)

The social benefits of financial inclusion are broad. Through allowing easier access to the labour market, financial inclusion can allow women, through control of household spending, to make decisions on geographical location and political empowerment.⁴ There may also be positive implications for personal security, with access to on-line accounts (so reducing the need to carry cash) resulting in fewer robberies according to one study.⁵

Technology (in particular, mobile phone-based banking) can accelerate financial inclusion, particularly in areas without a physical bank presence. However, the process of improving female financial inclusion is likely to have many more steps. These can be quite basic: for example, a hurdle can be the lack of identification documents (ID). Globally, a woman is 5 percentage points less likely to have ID than a man⁶. One in five women without a bank account attributes this a lack of ID.

However, changes are likely needed throughout **the policy and legal framework**⁷. Legal changes may also not translate immediately into effective access, particularly if female financial literacy is low to start with. Financial literacy can be linked to the level of education completed and also genderspecific roles in households, and remains lower for women in developed economies such as Germany⁸ and the U.S.⁹ The financial sector must play a greater role in increasing access, not just through web-based or personalised education on general financial literacy, but also through ensuring application and servicing processes for accounts and credit are appropriate for what women need and do not (by design or implementation) discriminate against them e.g. genderbiased credit scoring, as noted above. Reduced bureaucratic processes and digital financial solutions may help here.

The economic impact

The most obvious impact of higher rates of female financial inclusion, as noted above, is through increasing the size of the overall labour force – which, ceteris paribus, should increase output. Studies¹⁰ show a positive correlation between overall economic growth and the proportion of women who have a bank account or credit card.

However, female financial inclusion can also increase economic output in other ways, for example through boosting **workforce efficiency and potential**. One particularly interesting IMF Working Paper¹¹ looks at the causal impact of gender inequality on value-added and labour productivity. The paper's authors focus on how gender equality supports economic growth through allocating female labour to more productive uses. Gender equality – which requires financial inclusion – is seen as "macrocritical", to be given a high profile on policymakers' agenda. As they point out, measures to ensure a level playing-field for women are "not just a matter of human rights, equity and social justice, but relevant levers to boost economic growth – benefiting the economy as whole".



Female financial inclusion is not just relevant to investment in the financial sector. As discussed, better financial inclusion should have a positive impact on investment via economic growth and other metrics such as **consumption** – in a virtuous circle, inclusion will create investment opportunities which may encourage further inclusion. Investors should also consider financial inclusion from risk perspective. Continued relative lack of female financial inclusion in individual countries – which will likely be correlated with poor social, health and political indicators – will also make many investments more vulnerable to changing attitudes and beliefs elsewhere (e.g. through firms worrying about creating supplychain risks). This may also be true regarding other social groups. Ultimately, financial inclusion matters to everyone.

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Glossary

The World Bank's Global Findex Database includes data on access to formal and informal financial services across 123 economies, under the aegis of the World

The United Nations Sustainable Development Goals, finalised in 2015, include 17 sustainable development goals and 169 targets.

Bibliography

- 1. How long will it take to close the global gender gap? | World Economic Forum (weforum.org)
- 2. Umfrage: Female Finance 2024 (bankenverband.de)
- 3. Hanan Morsy; Access to finance Mind the gender gap, The Quarterly Review of Economics and Finance, Volume 78 2020.
- 4. Empowering Women Through Financial Inclusion: A Study of Urban Slum Indian Institute of Management
- 5. Less Cash, Less Crime: Evidence from the Electronic Benefit Transfer Program.
- 6. The Global Findex Database 2021
- 7. Women's Financial Inclusion UN Women
- 8. Study commissioned by the Bundesverbands deutscher Banken
- 9. TIIA P-Fin Index 2022
- 10. Laura Cabeza-García, Esther B. Del Brio, Mery Luz Oscanoa-Victorio; Female financial inclusion and its impacts on inclusive economic development, Women's Studies International Forum, Volume 77 2019.
- 11. Bertay, Dordevic and Sever Gender Inequality and Economic Growth: Evidence from Industry-Level Data. IMF, July 2020.

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