Blended finance and women entrepreneurs: *Evidence from Türkiye*

Produced by the Office of the Chief Economist, EBRD

09

EBRD IMPACT BRIEF

DECEMBER 2023

Blended finance programmes combine public and private funding to enhance access to credit for specific groups, such as businesses run by women. Despite the disbursement of billions of dollars in blended finance, empirical evidence on the effectiveness of these programmes remains scarce. This Impact Brief addresses this knowledge gap by harnessing credit registry records and tax return data to evaluate the impact of a typical blended finance programme in Türkiye: the EBRD's Women in Business programme.

Blended finance in a nutshell

Increasing numbers of countries are implementing blended finance programmes to foster financial inclusion. Their goal is to correct market failures that keep some creditworthy firms, such as those run by women or minority groups, from borrowing and growing. In a typical blended finance programme, a development finance institution provides private banks with loans that contain a use-of-proceeds clause. The banks then pool this public finance with their own commercial funding and on-lend the combined funds to the type of borrower specified in the use-of-proceeds clause. Two other elements often feature in a blended finance programme:

1. technical assistance and advisory support to banks, such as for staff training and upgrading information technology (IT) systems
2. risk sharing through a partial credit guarantee issued by the development finance institution or a third party

The Women in Business programme

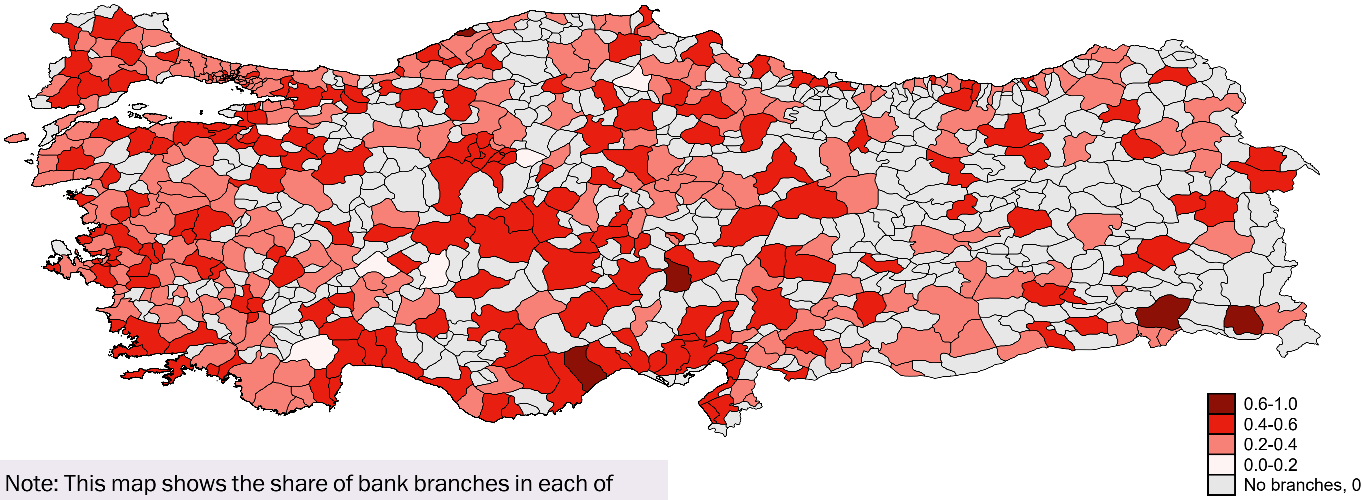
This Brief measures the impact of the European Bank for Reconstruction and Development's (EBRD) first Women in Business (WiB) programme, a blended finance programme for female entrepreneurs in Türkiye. The programme was set up by the EBRD, the European Union, the Turkish Ministry of Labour and Social Security, and the Turkish employment agency ISKUR. It was rolled out across five Turkish banks between 2014 and 2019, aiming to encourage these banks to lend more to small businesses run by women, especially those outside Ankara, Istanbul and Izmir.

The programme was made up of three components: (1) EBRD credit lines to five banks worth a total of €300 million, (2) a risk-mitigation mechanism in the form of a first-loss risk cover that guaranteed up to 10 per cent of each participating bank's portfolio, and (3) technical assistance. The technical assistance component involved tailored consultancy packages that included classroom training on gender-responsive sales, marketing and communication; online training modules for bank staff on gender awareness and overcoming behavioural constraints; and optimising management information systems for gathering, monitoring and analysing gender-disaggregated lending data. The programme also helped banks to develop new financial products and procedures that cater to women entrepreneurs.

The banks combined the credit lines with their own funding. A total of €417 million had been disbursed to more than 12,000 women-led small businesses by the end of 2017. **Chart 1** shows the district-level market shares of the participant banks measured by their branch presence in 2014. Because banks received programme funding at different times, they also started disbursing subloans at different times.

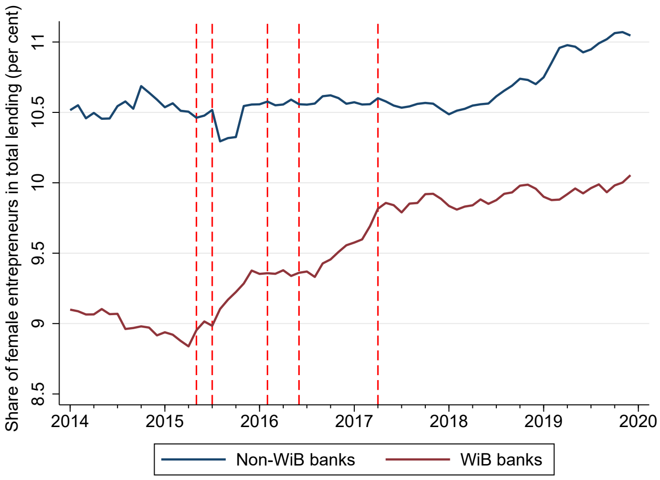
The vertical red lines in **Chart 2** indicate these staggered start dates, a feature that can be exploited to measure the programme's impact. The chart also shows a gradual and partial closing of the gap between treated banks (those participating in the WiB programme) and other (control) banks in terms of the gender composition of their small business loan portfolios. This descriptive evidence gives an initial indication of the WiB programme's impact at the bank level.

Chart 1: Pre-programme market share of branches operated by WiB banks



Note: This map shows the share of bank branches in each of Türkiye's districts at the end of 2014 that were operated by banks participating in the WiB programme.

Chart 2: Staggered rollout of WiB programme and share of lending to female entrepreneurs



Note: This chart shows total outstanding loans to female entrepreneurs as a percentage of the total outstanding stock of loans to all entrepreneurs for treated (WiB) banks in red and non-treated (non-WiB) banks in blue. The vertical dashed lines indicate when each of the five treated banks disbursed their first loan as part of the WiB programme: May 2015, July 2015, February 2016, June 2016 and April 2017.

Data

The main dataset used in this Impact Brief is the Turkish credit registry, which contains information about defaults on either bank loans or obligations to suppliers. These data are merged with various firm-level administrative records from the Turkish Ministry of Treasury and Finance. Using these combined data, this Brief aims to answer three questions:

1. Can blended finance generate a durable increase in bank lending to female entrepreneurs?
2. Which businesses owned by women (if any) gain better access to credit?
3. What are the real economic impacts (if any) on these firms?

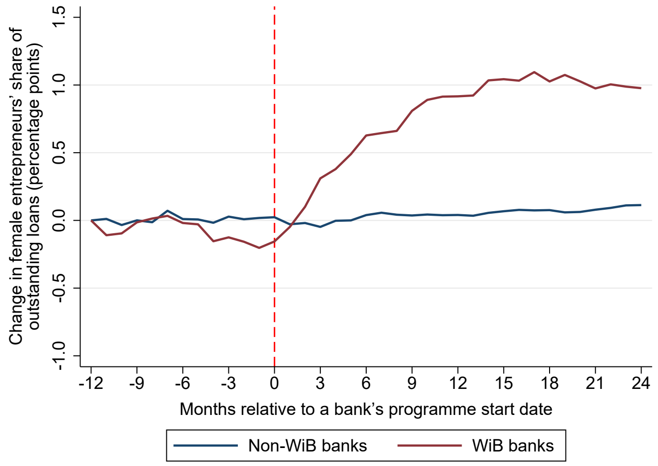
Methodology

To identify the programme's effects, a two-way fixed-effect model is built around the programme's staggered start dates. Because standard two-way fixed-effect estimators can return biased estimates when treatment effects vary across units and time, the model uses a "stacking" difference-in-differences methodology. A synthetic difference-in-differences estimator is also applied, which creates a synthetic control bank for each of the five banks in the programme. These synthetic control banks were designed to be on development paths very similar to those the banks participating in the WiB programme were on (in terms of the gender composition of their small-business lending) before the programme started.

The impact of the WiB programme on participating banks

Chart 3 shows that before banks joined the WiB programme, banks to be treated (auburn line) and control banks (blue line) were on similar trajectories in terms of the gender composition of their small business loans. Once banks gained access to blended finance, at time 0, they started allocating more credit to women-led firms (auburn line). Nothing changed for the control banks (blue line).

Chart 3: Change in share of lending to female entrepreneurs relative to WiB programme start date

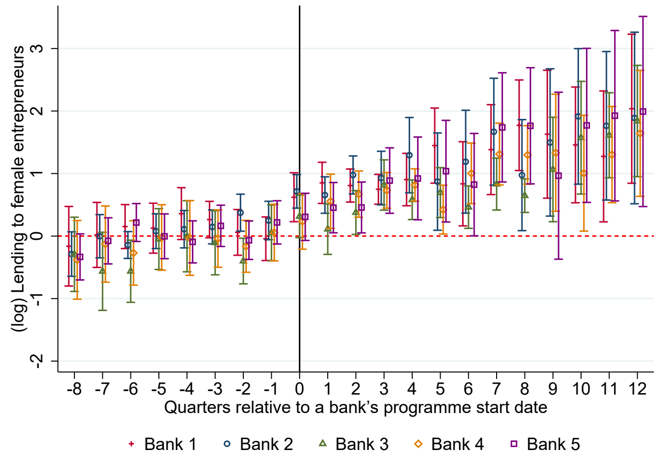


Note: This chart shows the average bank-level change in the share of women entrepreneurs in the stock of outstanding loans to all entrepreneurs before and after banks started participating in the WiB programme. For each of the five treated banks, we normalise the month in which the bank disbursed its first loan as part of the programme to 0. For banks that never participated in the WiB programme, we use their monthly observations that correspond to the normalised timescale for each WiB participant bank. We then calculate the average share of lending to female entrepreneurs in each month, relative to the start of the programme, for WiB banks and for non-WiB banks separately.

Further analysis of the micro data confirms that the WiB programme durably increased lending to women entrepreneurs – both in absolute terms and relative to firms owned by men. Participating banks expanded new loan issuance to women entrepreneurs much more quickly than control banks did.

Chart 4 shows this for each of the five banks participating in the WiB programme. More specifically, treated banks increased the share of all business lending allocated to women by 2 percentage points on average in the first two years after they joined the programme. This is an economically meaningful effect (an increase of 23 per cent), given that treated banks allocated only around 8.6 per cent of their total lending to female entrepreneurs in 2014.

Chart 4: Blended finance and lending to female entrepreneurs: event-study estimates based on a synthetic difference-in-differences methodology



Note: This chart shows estimates for each WiB bank in an event study set up using a synthetic difference-in-differences estimator. The dependent variable is (log) total loan volume to female entrepreneurs. Error bands show the 95 per cent confidence intervals.

Who benefited?

The data show that the WiB programme helped banks to lend more to their existing female clients. This accounts for half of the increase in the share of lending allocated to women. However, the other half is entirely due to lending to borrowers that were new to the banks. Around 30 per cent of the overall increase comes from female borrowers that were poached from other lenders. The remaining 20 per cent concerns loans to first-time borrowers who had never borrowed before from any bank. In short, the programme not only expanded lending to existing, credit-constrained borrowers, but also improved the financial inclusion of new female borrowers.

Did loan quality suffer?

On the one hand, if the training (designed to help banks expand lending to women entrepreneurs in a profitable way) was effective, one would expect no effect (or a positive effect) on credit quality. On the other hand, the programme may have pushed loan officers to take too much risk, thus eroding loan quality. A comparison between female first-time borrowers who received their first loan from a WiB bank and those borrowing for the first time from a non-WiB bank, reveals no evidence that the blended finance programme undermined credit quality. Female first-time borrowers are equally likely to default – either on bank credit or on debts to suppliers – irrespective of whether they borrow from a WiB or non-WiB bank. They are also as likely to receive a follow-up loan from their first lender or, by contrast, to leave that bank in the medium term.

The impact of the WiB programme on women-led businesses

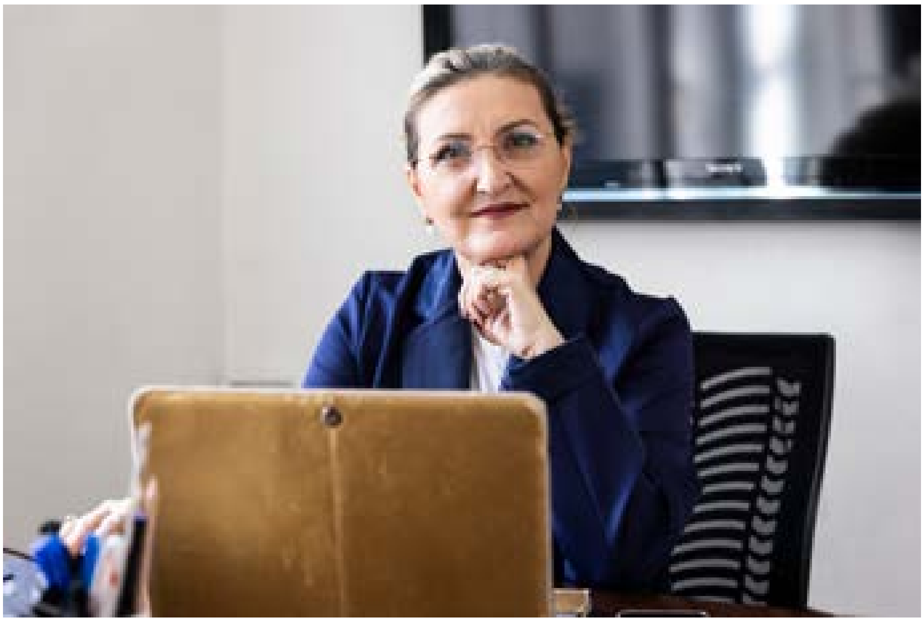
An important question is whether the greater availability of bank credit resulting from the blended finance programme also helped women-led firms to perform better. The analysis shows that this was the case: a 10 per cent increase in the supply of bank credit to a female entrepreneur resulting from the WiB programme led to an increase in investment of 1.3 per cent. Firms also increased their sales and profits by 1.3 and 8.2 per cent on average, respectively, due to such a positive credit shock.

Combined, these impacts ensure that beneficiary firms are 2.4 percentage points more likely to remain in business one year after the start of the programme. Importantly, not all firms benefited equally from the WiB programme: those that were initially more credit constrained, as reflected in higher capital productivity, borrowed and invested more. This suggests that the programme was effective in helping to improve the allocation of capital across small and medium-sized firms in Türkiye.

Lessons learned

Blended finance programmes bundle liquidity support, comprehensive training and risk sharing. The analysis summarised in this Impact Brief indicates that programmes like these can be powerful tools for motivating and enabling banks to lend more to underserved business segments.

The results show that while banks relaxed collateral requirements for existing borrowers as part of the programme, they did not do so for new borrowers. This explains why a large part of the programme's impact occurred on the intensive margin. A higher (temporary) first-loss risk cover might help to entice banks to expand their lending to new women borrowers even further. Another way to enhance the programme's impact (other than scaling up) would be to introduce performance-based incentives. Participating banks would receive an interest discount on their credit lines that depends on whether they achieve specific goals at the portfolio level, such as a higher share of women borrowers among all clients or among all first-time clients. Powerful incentives like these, applied temporarily and phased out over time, may help to further shift bank lending towards underserved target segments in a profitable and durable way.



Suggestions for further reading

H. Aydın, C. Bircan and R. De Haas (2024), “Blended finance and female entrepreneurship”, EBRD Working Paper Series, No. 286.

CONTRIBUTORS
Halil Aydın, Central Bank of the Republic of Türkiye
Çağatay Bircan, EBRD
Ralph De Haas, EBRD

PHOTOGRAPHY
©EBRD

European Bank
for Reconstruction and Development