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The Women's Entrepreneurship Diagnostic

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THE CASE FOR WOMEN'S ENTREPRENEURSHIP

In developed economies, women help create new jobs and income opportunities. Women-owned businesses in the United States, for instance, contribute nearly US\$3 trillion to the economy and have grown at more than twice the rate of businesses owned by men.¹ In developing countries, increasing women's entrepreneurship improves incomes while reducing poverty and inequality. For instance, there are nearly 6 million formal, women-owned small businesses in East Asia. In countries like Indonesia, Malaysia, Thailand, and Vietnam, women-owned small and medium enterprises (SMEs) are growing at a faster rate than men-owned firms.²

Expanding women's economic potential means expanding opportunities throughout the economy—both through growing incomes and improved well-being. In contrast, limiting women's economic potential and the talents of half the population is like leaving money on the table. Yet, the International Finance Corporation (IFC) estimates that SMEs with full or partial female ownership represent 31 to 38 percent of formal SMEs in emerging markets.³ Studies show that constraints to firms' investments, as they seek to grow in emerging markets, could lower aggregate economic productivity by as much as 25 percent.⁴ Similarly, when many countries seek to grow their way out of the recent economic crisis, we need to reduce the barriers to women's economic participation and enhance their efficiency and productivity.

¹ Center for Women's Business Research. October 2009. "The Economic Impact of Women-Owned Businesses in the United States."

² IFC. October 2011. "Strengthening Access to Finance for Women-Owned SMEs in Developing Countries."

³ Ibid.

⁴ Hsieh, Chang-Tai and Peter J. Klenow. 2012. "The Life Cycle of Plants in India and Mexico."

THE CASE FOR A DIAGNOSTIC

The Women's Entrepreneurship Diagnostic incorporates USAID's increasing focus on evidence-based policy-making to improve aid effectiveness.⁵ Evidence from the growing research literature shows that aspiring women entrepreneurs face different barriers than do their male counterparts, warranting tailored designs for them. Specifically:⁶

- Women tend to have less relevant education (for example in science and technology, business training);
- Women tend to operate in few industrial sectors, with smaller firms with low value-added and low growth potential;
- Several studies indicate that women have more difficulty accessing credit and face a higher cost of credit. Women may be less likely to apply for a loan when they need it;
- Women are less likely than men to personally know an entrepreneur who started a business and have greater difficulties in breaking into men's networks;⁷
- Cultural, institutional, and legal constraints also penalize women in particular (inheritance laws, property laws, etc.)⁸;
- Some studies suggest that women may have a higher aversion to risk but the evidence is mixed⁹;
- Conflicts between family responsibilities and the need/desire to work may push women into entrepreneurship, but constrain growth of their enterprises¹⁰;
- Adherence to cultural norms, female roles, and image shapes expectations¹¹.

As with other development objectives, we do not know in each specific country at a point in time which of the above barriers are the most binding and, which, if overcome, will unleash the

⁵ See Michael Crosswell (2012) "The USG Approach to Inclusive Growth" for a summary of the USAID policy framework for "broad-based" or "inclusive" growth, with direct recognition of development outcomes relevant to disadvantaged groups such as women, the poor, and certain ethnicities.

<http://blogs.usaid.gov/policy/files/2012/10/USG-Approach-to-Inclusive-Growth-Crosswell.pdf>

⁶ Elena Bardasi, World Bank, presentation delivered at the launch of the Women Leadership in SMEs initiative, November 2012.

⁷ Global Entrepreneurship Research Association (2013.) "Global Entrepreneurship Monitor 2012 Women's Report". Miriam Bruhn (2009) "Female-Owned Firms in Latin America: Characteristics, Performance, and Obstacles to Growth." World Bank Policy Research Working Paper No. 5122.

⁸ Mary Hallward-Driemeier, 2011, "Improving the Legal Investment Climate for Women in Africa".

⁹ Global Entrepreneurship Research Association 2013

¹⁰ Bruhn 2009; Wendy V. Cunningham and Carlos Ramos Gomez (2004). "The home as factory floor: employment and remuneration of home-based workers." World Bank Policy Research working paper no. WPS 3295.

¹¹ Field, E., Jayachandran, S. & Pande, R. 2010. "Do Traditional Institutions Constrain Female Entrepreneurship? A Field Experiment on Business Training in India." *American Economic Review* 100, No. 2.

greatest impact in reducing the gender gap in entrepreneurship, particularly among SMEs. The value of this diagnostic is that it uses rigorous analysis to identify a prioritized short list of potential binding constraints, rather than a laundry list of all barriers to female entrepreneurship.¹² This tool is not designed to address constraints for the smallest microenterprises, typically self-employed women, but focuses on constraints starting or growing small and medium enterprises. Also, the tool focuses on those constraints most directly relevant to women’s entrepreneurship, and thus does not consider important but less relevant issues such as women’s employment options and motivations for entrepreneurship, or ethnic divisions.

This diagnostic is loosely based on the Hausmann, Rodrik, and Velasco (HRV) decisional framework, best known for its role in Growth Diagnostics.¹³ “An *inclusive growth diagnostic (IGD)* is a particular analytical approach within development economics. IGDs identify and prioritize a relatively small number of core impediments—say, two to three—to inclusive growth. The key contribution that these analyses make is to use economic evidence to distinguish from a longer list of economic concerns those problems that are *binding constraints* to inclusive growth.”¹⁴ HRV uses four principles of differential diagnostics. If a constraint is binding, then:

1. The (shadow) price of the constraint should be high.
2. Movements in the constraint should produce significant movements in the objective function.
3. Agents in the economy should be attempting to overcome or bypass the constraint.
4. Agents less intensive in that constraint should be more likely to survive and thrive, and vice versa.¹⁵

Applications of these four principles for women’s entrepreneurship, rather than overall growth, will be detailed in the framework below. For a concrete example of the application of the tool, please refer to the Women’s Entrepreneurship Diagnostic report for USAID/Liberia, completed in 2013¹⁶.

This light-footprint tool is for USAID staff or implementing partners designing programs to integrate a focus on female entrepreneurship as the primary activity or as part of a larger economic growth activity. It can be incorporated into the gender analysis that is mandatory for

¹² For one example of an evaluation recommending such donor diagnoses before designing projects, see: http://erc.undp.org/unwomen/resources/docs/genderequality/313_ILO_WEDGE_2011.pdf

¹³ “Doing Growth Diagnostics in Practice: A ‘Mindbook’.” Ricardo Hausmann, Bailey Klingler, Rodrigo Wagner CID Working Paper No. 177, September 2008.

¹⁴ Steven Anderson, USAID. 2013. Draft “USAID Guidelines for Inclusive Growth Diagnostics.”

¹⁵ Hausmann, Klingler, and Wagner (2008), “[Doing Growth Diagnostics in Practice: A ‘Mindbook.’](#)” Cambridge, MA: Harvard University Center for International Development (CID) Working Paper No. 177.

Millennium Challenge Corporation (2013). “Chapter 2: Guidelines for Conducting a Constraints Analysis.” Washington, DC: MCC.

¹⁶ <http://wlsme.org/library/liberia-womens-entrepreneurship-diagnostic>

project design, or conducted separately as project activities are developed. USAID staff and implementers can use the tool to focus programming on the most important and effective interventions. Of course, others can use the tool as well.

THE DECISION TREE

This diagnostic outlines a series of questions that can help answer the overarching question of what keeps women from investing in their businesses to spur firm growth. The analyst works down a decision tree using a process of elimination for what is or is not a binding constraint (see Diagram 1, page 7). This diagnostic adapts the four tests developed by HRV to assess which constraints are binding at each node of the tree for women entrepreneurs compared to men entrepreneurs:

1. The shadow price (real economic cost) of the constraint is high
2. Women entrepreneurs seek to bypass the constraint
3. Co-movement: when the constraint is relaxed, women entrepreneurs' rate of investment increases
4. Constraint-intensive women-managed firms do worse

The analyst will need different sources of data depending on the question. Annex I gives more detail on the various global data sources as well as stakeholder interviews this tool relies on. Many countries lack sufficient sex-disaggregated data on firm performance over time and across different sizes.¹⁷

Given data limitations, there are likely to be questions that cannot be answered for every node, requiring the analyst to rely on those that can be answered. As with the HRV framework, ultimately the analyst needs to use good judgment as well as objective data and expert opinion to rank constraints. Part of this is asking why something is a constraint and whether there is some other underlying causal relationship, using the questions below only as a starting point.

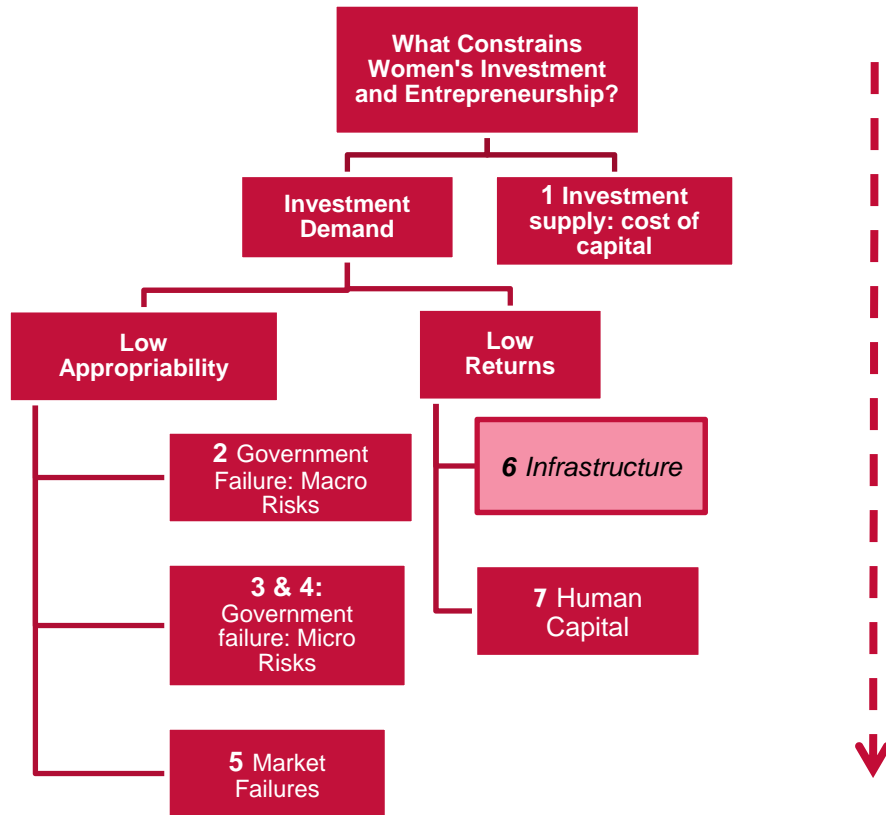
The country's gender gap in entrepreneurship

As an overview, the analyst would first look at sex-disaggregated patterns of firm ownership and management by firm size, using data from the past five years or so. Sex disaggregation of firms' real annual sales growth and productivity growth would also be useful, although these indicators would be revisited later on. The analyst could then look at women-led versus men-led firms by firm age, to see if there were any significant events in the past that caused a change in these trends in either direction. Assuming that there is a gender gap in management and

¹⁷ If the question asks what constrains investment for growth, then an economy-wide Growth Diagnostic should be conducted. Note that some of the diagnostic tests of the HRV framework have to be skipped here, since gender-disaggregated data on firm-level characteristics and performance are often not available beyond one point in time.

ownership of firms, especially SMEs, the analyst would go down the tree in order, answering the following questions as much as data allows. At the end, the balance of evidence should point to a few constraints that are more binding than others.

Diagram 1: Decision Tree



Investment supply

The first question is: do businesswomen have the same level of investment demand or investment supply as businessmen? And if women's investment demand is the problem, is it because businesswomen face external, governmental or market barriers in realizing their business ventures? Or do businesswomen need better human capital themselves to succeed in their entrepreneurial endeavors?

I. Cost of capital

- a. Test 1: Are businesswomen less likely to have loans from formal, financial institutions than are businessmen? (Descriptive statistics from the World Bank Global Findex database, World Bank (WB) Enterprise Survey)

- b. Test 1: Do those women who do borrow for their business pay higher interest rates and put down more collateral for smaller or shorter-term loans than do men? (Descriptive statistics from the WB Enterprise Survey; conduct interviews with lenders and entrepreneurs)
- c. Test 2: Do those women who do not borrow from formal lenders but need financing seek it from family, friends, trade credit, and other sources? To what extent do women not apply for loans because they do not need financing, or because of unfavorable loan application processes or loan terms? (Descriptive statistics from WB Enterprise Survey; conduct focus groups with female business owners)
- d. Test 2: Do women entrepreneurs concentrate in non-capital-intensive sectors? (Country economic statistics, WB Enterprise Survey)
- e. Test 3: If there has been a significant change in women's access to finance in past years (e.g., through changes in government policy or emergence of new lending institutions), did this affect the number or performance of women-led businesses? (Donor and entrepreneur interviews, WB Enterprise Survey)
- f. Test 4: Do those businesswomen who have loans from formal lenders, compared to capital from family and friends, have higher revenues and productivity? (WB Enterprise Survey)

If finance is found to be a constraint for women entrepreneurs, then the next question is to understand why that may be the case:

- g. To what extent is a lack of access to finance due to women having lower-value assets, less education, or working in a lower-profit sector, and therefore having less formal credit history (i.e. are actually riskier as a borrower)? This could be answered by a combination of looking at correlations in WB Enterprise Survey data across credit and sectoral focus, looking at credit bureau coverage in the WB Women, Business and the Law database, and interviewing lenders and investors in the country. If women entrepreneurs are actually riskier borrowers, then the real issue is under low appropriability or low social returns.
- h. To what extent is a lack of access to finance due to the fact that women are excluded from male-dominated business networks and access to venture capitalists, for example? This question can be addressed by interviewing investors, donors, and women business associations. Access to networks is an issue under low appropriability.
- i. To what extent is a lack of access to finance due to the fact that loan officers are predominantly male, and lenders' underwriting policy and processes discriminate against women, beyond actual lending risks? Is there an anti-discrimination law for lending, and is it enforced? This question can be addressed by interviewing women

entrepreneurs, lenders, and legal experts. If this is the underlying cause, then costly financial intermediation is a binding constraint

If investment supply is not the binding constraint, the analyst can move to investment demand.

Investment demand

2. Macro risks: tax rates and administration

- a. Test 1: Do businesswomen spend more time or make a greater number of visits dealing with tax officials than do businessmen? (WB Enterprise Survey and focus groups/interviews with women and men entrepreneurs)
- b. Test 1: Do more businesswomen cite tax rates or tax administration as a major constraint? (WB Enterprise Survey)
- c. Test 2: Are more women-led businesses informal (unregistered) in order to avoid paying taxes? (Country economic data, WB Enterprise Survey)

If tax rates or administration are found to be a constraint, the next question is the underlying cause. To what extent is this due to the sector or size of women's firms, or is there a gap that the economic sector or size cannot explain? This can be answered through a simple regression if there is sufficient data, or by simply comparing the gender gaps in sector/ size of firms and the answers under 2.a, 2.b and 2.c above. If there are gender gaps in tax policy or administration that sector and size cannot explain, tax policy and administration may be a binding constraint.

3. Micro risks: corruption, registration, and contracts enforcement

- a. Test 1: Do businesswomen face more frequent or deeper corruption, including sexual harassment? (WB Enterprise Survey, women entrepreneur and donor interviews)
- b. Test 1: Are businesswomen more likely to cite corruption, the commercial court system, or business licenses and registration requirements as a major constraint than are businessmen? (WB Enterprise Survey)
- c. Test 2: Are more women-led businesses informal (unregistered) in order to avoid corruption and licensing requirements? (WB Enterprise Survey)
- d. Test 4: Do those businesswomen who do not see corruption, court systems, or business licenses and registration requirements as a constraint have higher revenues or productivity in their firms? (WB Enterprise Survey)

If corruption or registration requirements are found to be a constraint, the underlying cause should be explored: To what extent is this due to the sector or size of the women's firms, or is there a gap that sector or size cannot explain? Again, this can be answered through a simple regression if there is sufficient data, or by simply comparing the gender gaps in sector/ size of firms and the answers to 3a-d above. If there is a gap unrelated to sector or size of their firm,

then corruption or registration requirements may be a binding constraint to women entrepreneurs.

4. Micro risks: property rights¹⁸

- a. Test 1: Do women enjoy the same legal property rights as men in ownership, use, and transfer, (e.g. in commerce, marriage, and inheritance) whether de jure or de facto? This is especially important for rights over land and real estate. (WB Women, Business and the Law database, Living Standards Measurement Study/LSMS, expert interviews)
- b. Test 1: Are businesswomen more likely to cite their own property rights as a major constraint? (WB Enterprise Survey)
- c. Test 2: Do married businesswomen put their own or their children's names as the sole holder on property, or otherwise bypass unfavorable property tenure systems? (Interviews with women entrepreneurs and experts)
- d. Test 3: If there has been a legal change in women's property rights in the past years, did this affect the number or performance of women-led businesses? (WB Women, Business and the Law database, WB Enterprise Survey)

5. Market failures: sectoral segmentation, information, and household demands

- a. Test 1: Are there proportionally more female owners and managers in certain sectors of the economy than male owners and managers?¹⁹ If so, are these sectors more or less profitable than sectors where women are few? (WB Enterprise Survey)
- b. Test 1: Do general and industry chambers of commerce accept and seek female members? If so, does the proportion of female membership match the proportion of women entrepreneurs in that economy/sector? (Stakeholder interviews)
- c. Test 1: Are women as likely as men to know an entrepreneur? (Global Entrepreneurship Monitor, GEM)
- d. Test 2: Do women form their own business associations and social networks? If any projects have supported this, how was uptake? (Stakeholder and donor interviews)
- e. Test 2: Do potential businesswomen seek ways to work around limited geographic mobility outside the home (e.g. because of few safe transportation options)? (Women entrepreneur and expert interviews)

¹⁸ This constraint is harder to link directly to firm performance, since most business surveys do not collect demographic information about the entrepreneur, including their ownership of different assets. Household or labor market surveys, or better yet, individual-level surveys, might be better sources for this node.

¹⁹ Ideally this question could be asked below the agricultural/ manufacturing/services level, since women tend to concentrate in retail, personal services, and agriculture globally. See IFC, October 2011. "Strengthening Access to Finance for Women-Owned SMEs in Developing Countries."

- f. Test 2: Do businesswomen seek ways to work around their responsibilities for household, childcare, or eldercare, such as by outsourcing this work? (Women entrepreneur and expert interviews)

If any of these is a constraint, the next question is whether there are underlying cultural norms limiting women's engagement in specific sectors (e.g. construction), specific occupations (e.g. as a manager over others), specific networks (e.g. business networks), or the ability to outsource household duties, which are usually mentioned in existing gender studies. Or is it because women have less access to information about profitable sectors? Do these norms only affect women when they try to start or grow their business as adults? Or are women constrained to specific sectors and roles because of what and how much they studied from a young age? If the first two, market failure in social norms is a binding constraint. If the last, this points to the human capital constraint.

6. Infrastructure

Infrastructure includes access to transportation such as roads and ports, electricity, and also telecommunications. Infrastructure has not generally been found to be a constraint that is more severe for women entrepreneurs than men; however, where that may be the case for specific countries, the question could be examined here with relevant data on the underlying causes. These may be linked ultimately to the sectors or parts of supply chains that women entrepreneurs operate in.

7. Human capital

Do businesswomen have the human capital to maximize commercial returns?

- a. Test 1: Do women and girls have the same levels of education as do men and boys? Are there certain tracks where women and girls are concentrated, or others where there are fewer women and girls, especially in business, science, and technology? Are women entrepreneurs also more concentrated in those sectors where more women and girls are educated, compared to men? (WB World Development Indicators database, country-level statistics on secondary and post-secondary education)
- b. Test 1: How do women's business skills, technical skills, and financial literacy compare to men's? (WB Global Findex database, country-level financial literacy surveys)
- c. Test 2: Do any existing business training programs for current entrepreneurs find proportionate interest from women, compared to men? (Interviews with training organizations)
- d. Test 3: To what extent do female graduates of university business tracks actually end up owning or managing firms, compared to their male peers? (Interviews with universities and business schools)

- e. Test 3: If there are data on a past change in education for women and girls in business, science or technology, has this resulted in changes in women's entrepreneurship? (Expert interviews, VWB Enterprise Survey)

If human capital is found to be a constraint, the next question is why. Do family members encourage girls to pursue certain tracks for economic or cultural reasons? Do educational spaces, timing, or transportation modes need to be made safer or more appropriate for women and girls? Are female students not learning as much in their courses as male students? Or are there some other reasons? These questions are often answered in existing studies on gender issues in education.

THE DIAGNOSIS: A SYNDROME

The conclusion of the above analysis, considering the balance of evidence according to the four tests of differential diagnostics, as well as the causal linkages between different issues, will generate a short list of the top binding constraints for women's entrepreneurship in the country. It should also yield a coherent, broad picture of how these binding constraints relate to one another, or potentially share an underlying root cause (such as cultural norms entrenched in social institutions). This "syndrome" diagnosis then allows policy-makers to make informed decisions about prioritizing different solutions and also to anticipate what they might see in other issue areas when they address one binding constraint.

ANNEX: GLOBAL DATA SOURCES

Node in decision tree	Database name	Author	Link
Cost of capital	Enterprise Survey	World Bank	www.enterprisesurveys.org
	Global Findex database	World Bank	http://datatopics.worldbank.org/financialinclusion/
	Women, Business and the Law	World Bank	Wbl.worldbank.org
Macro risks	Enterprise Survey	World Bank	www.enterprisesurveys.org
Micro risks: corruption, registration and contract enforcement	Enterprise Survey	World Bank	www.enterprisesurveys.org
Micro risks: property rights	Women, Business and the Law database	World Bank	Wbl.worldbank.org
	Enterprise Survey	World Bank	www.enterprisesurveys.org
	Living Standards Measurement Study	World Bank	iresearch.worldbank.org/lsm/lsmssurveyFinder.htm
Market failures	Enterprise Survey	World Bank	www.enterprisesurveys.org
	Global Entrepreneurship Monitor	Global Entrepreneurship Research Association	www.gemconsortium.org
Infrastructure	Enterprise Survey	World Bank	www.enterprisesurveys.org
Human capital	World Development Indicators	World Bank	Data.worldbank.org/data-catalog/world-development-indicators
	Enterprise Survey	World Bank	www.enterprisesurveys.org
	Global Findex database	World Bank	http://datatopics.worldbank.org/financialinclusion/

Note on Enterprise Surveys:

The World Bank conducts Enterprise Surveys regularly for most developing countries, but focus on non-agricultural formal firms with at least 5 employees. Most countries now have a survey that included a disaggregated question on the sex of the firm's top manager. Besides the tables that can be downloaded directly from the webpage, the analyst can also request access to download the full dataset to do their own analysis and pull specific questions.