Evidence suggests there is a structural issue, on a global scale, that affects women's ability to access credit to the same degree as men and that this imbalance in credit availability has costs for welfare, national and global economic growth. Much research comments on the effect on women from financial empowerment (of which access to credit is one facet) - this paper seeks to consider the issue from an economic perspective, rather than a social one, predominantly by focusing on the impact of less credit availability on women's entrepreneurial abilities. In Section I, I indicate some of the ways that women, face structural barriers to attaining credit. In Section II, I consider the impact of this lack of access on economic growth, giving indication of the channels by which we miss out on the growth premium of women's lack of access. In Section III, I offer a variety of motivations for policymakers to make this a priority - ranging from the impact on national health and living standards to the impact on productivity in agriculture and alleviating hunger and famine. Section IV focuses on the preconditions of resolving the problem of gender discrimination in credit provision, be they legal or cultural requirements to enable women to access credit. Section V concludes and summarises the main findings.

**Section I: Understanding the Difficulties Women Face Attaining Credit**

Women struggle to access credit to the same degree as men, the world over. The concept of women's financial liberation is often considered a developing-nation problem, but research indicates that developed countries, including the United Kingdom, continue to face gender gaps in access to credit. When it comes to attaining formal supplies of credit, women in developed nations face the bigger credit gap (approximately four per cent). In developing nations, much credit is provided on an informal basis, and the gender gap for such types of credit is also in the region of four per cent, indicating a global problem that manifests in whichever type of loan is predominant in a given country (Demirguc-Kunt, Klapper, Singer; 2013). World Bank research notes that businesses run by women tend to be less well capitalised as compared with those run by men in developing nations (Mason, King; 2001). Further analysis by the International Financial Corporation estimates the credit gap for women in formal microenterprises in developing nations globally to be worth between $154-188 billion, for small and medium-sized formal enterprises to be worth between $260-320 billion and for small and medium-sized enterprises, both formal and informal, it is expected to lie between $750-920 billion (2013). This implies credit issues grow worse as the businesses become more established.
A further study indicated that, in the USA technology industry, although there was no gender gap per se in how much capital a start-up could attract, there were gender distinctions in how this capital was attained, with women less likely to be able to access external credit (Robb, Coleman; 2009). The lack of access to external sources of credit can restrict potential business development. The same study found that women tended to start home-based businesses: to what extent this can be attributed to the need to conserve funds raised privately because women recognise they are widely unable to access credit, can only be hypothesised (Robb and Coleman note that home-based businesses in turn receive less external funding - to what extent this is thus an endogenous factor to understanding the gender gap has not been properly considered). The problem of credit availability is particularly acute in agricultural farming in developing countries - for example, in Africa, where women have access to just 1 per cent of the credit attributed to agriculture (The Montpellier Panel, 2012). The evidence, of which this is just a selection, points towards a structural problem with women accessing loans: that it is prevalent in all countries indicates that improving the relative wealth of a country is not sufficient to enable women's financial liberation - and the subsequent economic gains - alone.

Section II: How More Credit For Women Can Improve Growth Prospects

Claims of economic gains from increased credit availability to women can be motivated via several arguments, well grounded in empirical observations and studies. The first is a historic one: the impact of wider employment opportunities for women has been huge economic gains - estimates of the effect of narrowing the women-men employment gap suggest it is responsible for a quarter of European gross domestic product growth since 1995 (OECD; 2008). Since progressing towards the elimination of the gender gap in employment enabled these substantial gains in growth, it is plausible to suggest growth can be attained from doing likewise when it comes to allocating loans.

If better use were made of women's human capital, global growth would increase at the same time as global poverty would fall in every country (ibid.). If women have improved access to credit, they can avail themselves of opportunities to exploit and improve their human capital, even when governments do/change nothing. Women could use credit to improve education/technology/employment prospects for them and their family, even in the absence of other types of government policies and programmes to support them - thus, credit availability should be seen as at least one tool to make better use of the skills of the world's women, even if it is wanted in an arsenal of many. This is reinforced by data that demonstrates the clear gains that can be achieved if women are better educated: the more education a woman gains, the lower is under-five child mortality, even after controlling for factors such as income and socioeconomic status; children are more likely to be vaccinated if their mother is more educated (Mason, King; 2001). A survey in Brazil showed a higher marginal return for spending on children if additional income was given to the mother rather than the father (ibid.). Increased credit for women can therefore be seen as a mechanism to increase human capital in the form of health and education, via the increased spending on children it enables, and with this superior quality of human capital in the future, the average economy will be able to do more with its resources - i.e. to achieve higher levels of productivity, wealth. We can provide the theoretical framework that explains why we should expect an expansion of an economy's production frontier due to better and more efficient labour, if women can gain better access to external sources of funding - conversely, we
see evidence that permitting gender-based discrimination serves to reduce the human capital stock, and to dampen/eradicate potential living standard improvements (i.e. World Bank, 2011). This should be seen as a key example of how promoting women's entrepreneurship would have positive effects on societal welfare.
The aforementioned gains are most commonly associated with developing nations. For example, we would not expect significantly increased vaccination of children in developed nations such as the United Kingdom, where vaccinations are the norm irrespective of women's financial empowerment, thanks to a national health care system that ensures no costs are passed on to parents for the healthcare requirements of under-18 year olds. An alternative account of the potential benefits to be accrued needs to be provided; I turn to this now.
One of the main problems with a financial set-up that systematically disadvantages women is that it creates an inefficient state of affairs, where resources are not being allocated to the most efficient production method possible. Instead of women's great ideas being turned into viable, profit-making businesses that create jobs, capital is allocated to worse ideas from men. Recent research based on American technology entrepreneurs indicates that women are more capital-efficient than men, creating businesses with less funding, and failing less often than average (Padnos, 2010). Given a world of finite resources, and a post-crisis financial system that is still wary to lend, ensuring that available credit is placed in the best possible hands is of importance to economic recovery, to maximise returns from our limited resources and improve living standards.

In addition, research indicates that women with low-incomes are more likely to start businesses in developed Europe than low-income men - which both reinforces the claim that increasing credit to women could help reduce poverty, but also demonstrates that helping improve access to credit for women is more likely to help the least-well off in developed society than corresponding loans to men. Female entrepreneurs in developing European nations, despite being wealthier than average, perceive fewer entrepreneurial opportunities than almost anywhere else in the world. Further, American women that choose to exit their entrepreneurial endeavours cite financial issues twice as often as men do (Kelley et. al; 2013). This indicates a large structural problem in developed nations which reinforces the concern that the current credit distribution is too unequal, and inequitable, to constitute the appropriate allocation of resources. Enabling women to access the credit lines they need, bearing in mind the previously discussed evidence that indicates women can achieve higher returns with less capital (see Padnos, 2013), would enable developed nations to become more productive, and to ensure they were making the most of their talent pools. Not only would this result in higher output levels, but this productivity gain, particularly when used to improve technology which drives growth could result in further extension of the production frontier as innovations contribute to growth. Given the research in technology shows that women are underfunded yet overachieving (ibid.), there are significant potential economic gains from addressing the shortfall in credit attributed to women.

Section III: Motivating This Issue For Decision Makers
Previously cited evidence indicates the USA faces structural challenges in ensuring fair access to women. However, if the UK were to merely match the USA’s standards for credit with regards to women, the UK economy would benefit from another 900,000 businesses and an extra £23 billion in gross value added each year (Greater Return on Women's Enterprise; 2009). Furthermore, the UK Government’s Department for Business, Innovation and Skills indicates that the UK stands to create as much as 150,000 extra businesses each year, if British women were creating businesses at the same rate as British men. This corresponds to a loss in tax receipts and fewer jobs than would otherwise be available (as women work for themselves, for example, they leave voids in companies that others must fill, whilst potentially creating jobs within their new enterprise), as well as lost output. For developed nations trying to promote growth in the wake of a severe financial crisis, this would make some difference in aiding the economic recovery.

For developing nations, motivating for policymakers comes from research that demonstrates the positive effects assisting women financially has on the stock of human capital in the economy,
ranging from improved health (via vaccinations, for example) to improved educational opportunities for their children (Mason, King; 2001). In addition, in developing nations, the economic gains estimated from creating a more equal distribution of financial resource in households can be expected to be significant. The World Bank 49
estimates that more equitable control over resources and farming income within a household by gender could result in farm yields being up to 20 per cent higher (2011). This result could have significant positive consequences for nations that suffer from food instability.

For women who are able to receive their loans, studies in Bangladesh indicate that when women have greater access to capital, their status and negotiating power in the household increases (World Bank; 2011) - in other words, the financial empowerment of women promotes the liberation of women more generally. In some countries, this coupling of financial empowerment and liberation would be undesirable; in the 11% of nations where women are legally obliged to obey their husband, strengthening their bargaining position may not be a desired outcome (Demirguc-Kunt, A., Klapper, L., Singer, D., 2013). For non-government organisations, for human rights groups and for charities, the knowledge that programmes to improve women's access to loans have the ability to go beyond the purely economic into the field of improving social justice, should be a powerful motive for action.

Importantly for fiscally-constrained governments, improving access to credit does not require that the government stumps up the cash either - microcredit institutions are able to pick up some of the slack required, continuing their successful trend. Data from 2006 indicates that microcredit institutions made loans to more than 133 million people - 85% of the poorest of these people were women, with hopes to reach 175 million in 2015 (Daley-Harris; 2006). Communications companies are becoming innovative in how they ensure money gets delivered to rural areas - Safaricom's M-PESA in Kenya enables people to credit their phones at an array of different locations with relative ease. 17 million people use M-PESA for banking purposes - accounting for two thirds of the adult population (The Economist; 2013). Creating the conditions for these programmes to flourish, legally and socially, would enable other organisations to step in and fill the gap - in access to banking generally, as well as the gender gap - to provide the loans, and not require costly government initiatives to provide credit themselves. The OECD has previously said microfinance remains one of the most effective ways to empower women (2008).

Importantly, women entrepreneurs are more likely to embark upon ventures that pursue social, as well as economic, goals. Although at start-up the proportion of ventures that are committed to social goals is equal across genders, ventures run by women are more likely to retain their focus on social outcomes/goals by a further 9% (Meyskens, Allen, Brush; 2011). Research completed in the USA indicates this result holds there too - women are more likely to start up social entrepreneurial ventures (Van Ryzin et al; 2009). This implies, not just that women contribute to society via enhancing growth and thus living standards, but that women are more likely to try to solve problems in their community or society more generally. Enhancing women's ability to do this promotes social welfare beyond that achieved by growth alone, and reduces the competition for government funds, allowing tax revenue to be allocated elsewhere.

Section IV: The Conditions Required To Enhance Credit to Women
The conditions required to enhance credit to women depends on the starting position of the country in question. It is necessary to distinguish between the conditions required of developing nations (which are much more extensive and are more likely to require greater effort to achieve) and those of developed nations (which are likely to require the government to confront biases and opaque decision-making processes on the part of creditors, particularly since gender-
discrimination is already illegal in many of these countries). I consider each in turn, beginning with developing nations.

For legal reasons, nations that do not allow women full property rights, or require women to defer to male relatives, will struggle to advance women's access to credit. There is no incentive to lend to someone who is legally obliged to do with the funds as another party sees fit, rather than to honour the 50
contractual agreements she herself has agreed to. A precondition for any discussion of women's economic liberation - credit-based or otherwise - is their ability to control their economic status, as workers, as earners, as borrowers and as savers. This is especially relevant in farming and agriculture. Women produce 50% of all food, but unless they have strong access to, and control over, land, then not only does productivity fall, but women struggle to access credit, as land is a vital source of collateral (World Bank; 2001). Importantly, giving women the right to control their economic status is insufficient if they cannot act upon its violation; in 11% of countries covered in the World Bank's *Women, Business and the Law* report, women's testimonies in court are given lower weight (World Bank; 2012a). In order for microfinancing companies to feel confident that the economic environment supports their right to lend to women and will uphold their contracts with those women in the event of violation (even against family members), such laws must be altered, or removed.

The second condition is that women must be seen as no less trustworthy for being women. In Pakistan, for example, microfinancing requires two guarantors - neither can be female. Married women must attain permission from her husband before she may take out a loan. Yet, estimates indicate that when a woman does take out a loan, 50%-70% of the time the loan is utilised by male relatives whilst the women continue to take responsibility for repayment (World Bank; 2012b). Although this represents poor economic (and ethical) behaviour on the part of the microfinanciers, the government has a role to play in ensuring that gender equality is taken seriously - particularly since, as outlined, the economic gains can be so significant. Legislating against such practices, or perhaps more simply, publicly encouraging microfinancing firms to recognise the value of women as creditors and guarantors could be effective. Cultural and legal change may be necessary to promote women's access to credit.

Another condition is that women must be able to accept control for assets and responsibility in the household. When women are able to control their household's assets the likelihood of their using formal financial products increases - based on results from 90 developing countries, 80% satisfy this criterion, but another 20% stand to benefit from amending their laws (Demirguc-Kunt, Klapper, Singer; 2013). This requires government action - either to remove or mitigate previous action they have taken to undermine these requirements (i.e. having passed laws that obstruct women's ability to own household assets), or to help promote the cultural change that would enable these to manifest.

Rich, OECD countries do not face these constraints in the way that many developing countries do or might, but OECD countries have other challenges to face. For example, in addressing both the perception that women-run businesses are less successful (when by many accounts, they're more successful), and the perception that women are more likely to be unsuccessful in attaining formal credit. We need to address whether or not women make decisions that result in receiving low levels of credit as a consequence of anticipating low levels of credit, in order to ensure that women-run businesses are not undercapitalised - for example, do women self-select into certain industries because they perceive their chances of receiving the required level of credit is higher? If so, this indicates the estimates of the gender-based credit gap could be grossly underestimated. It is important that all countries work to address this gap however it manifests - the gains may be more modest in developed nations, but they are by no means inconsequential.
Section V: Concluding Remarks
This paper has demonstrated that there is a clear gender-based credit gap, and that this could be underestimated if the existence of the credit gap is affecting women's choices of business. The consequences of this gap include lower growth, lower human capital (education and health, primarily) and lower living standards. Most importantly, the paper displays that whilst the problem is more acute 51
in developing nations, developed nations are not immune - relative wealth is no cure-all solution. This should act to motivate NGOs, charities and policymakers to consider how they can best use their resources to advance the economic fortunes of those most in need, and the economy as a whole. The gains stand to be strong, if certain conditions are met, particularly those enshrining legal protections for women akin to those enjoyed by men, and addressing perceptions that harm women's access to credit in nations where such laws are already in place.

Bibliography


Мэйскенс, М., Эллен, Е.И., Брук, С.Г., 2011. *Human Capital and Hybrid Ventures.* *Social and Sustainable Entrepreneurship* [published online].

Мория Мэйскенс, И. Элайн Эллен, Кандида Г. Брук. "Human Capital and Hybrid Ventures" In Social and Sustainable Entrepreneurship. Published online: 2011; 51-72. 52


World Bank, 2012b. *Are Pakistan’s Women Entrepreneurs Being Served by the Microfinance Sector?* [online]