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**Social capital, political connections, and
household enterprises**

Evidence from Vietnam

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Abstract: Social capital and political connections can play an important role in developing countries where markets fail and institutions are weak. This paper explores their role in household micro-enterprise operation and success in the rural low-income setting of Vietnam. We propose that social capital and political connections assist households in accessing resources necessary to establish and operate an enterprise. Using three waves of panel data on a large sample of households surveyed between 2008 and 2012 we find strong evidence to suggest that both are important in assisting enterprise operation, particularly for the poorest households. Their role in determining the success of an enterprise is less clear with the evidence suggesting that conditional on enterprise formation physical inputs play a more important role.

Keywords: social capital, political connections, household enterprises, Vietnam

JEL classification: D13, O12, O17,

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1 Introduction

This paper explores the role of social capital and political connections on rural micro-enterprise operation and success. Diversification is an important strategy for the income stability of poor households in developing countries, particularly for those engaged in subsistence agriculture. There is much evidence to suggest that engagement in non-farm activity is positively correlated with income and wealth in rural areas (Barrett et al. 2001; Bezu et al. 2012). In the absence of opportunities for waged work, the establishment of micro-enterprises is often the only means through which households can pursue a diversification strategy. The ability of households to take advantage of income-generating opportunities off-farm is, however, strongly linked to the institutional constraints they face, such as missing or incomplete markets for credit, labour and land (Barrett et al. 2005). These constraints lead to high transactions costs which can make establishing a household enterprise difficult and lead to more costly market-based exchanges for existing enterprises. This is particularly the case for poor households. Indeed, many studies have found that the initial endowments of physical and human capital possessed by the household are an important factor in overcoming these constraints (Bezu et al. 2012; Lay et al. 2008).

Where constraints of this kind exist, it is possible that social capital and political connections can play a role in alleviating them. Social capital facilitates the exchange of ideas, information and resources through expanding the extent of interactions between individuals and by increasing trust (Fafchamps and Minten 2002). Political connections can improve access to resources (such as credit) and information, and can substitute for missing property rights (Markussen and Tarp 2014; Kung and Ma 2011; Li et al. 2008). In this paper we consider the distinct roles of social capital and political connections in micro-enterprise development in rural areas of developing countries. We also consider whether the ability of households to capitalize on their social networks and political connections is linked with their initial endowments. Moreover, we distinguish between whether a household operates a micro-enterprise and the success of that enterprise, in terms of its ability to generate additional income for the household. This allows us to examine whether the role of social capital and political connections differs at the extensive margin, the households' decision to enter into self-employment by operating an enterprise, and the intensive margin, the intensity with which the enterprise performs and resources within the enterprise are utilized.

We use detailed panel data on household enterprises in rural Vietnam to investigate the role of social capital and political connections in alleviating the constraints to micro-enterprise development. Our results show that households with higher levels of social capital in the form of membership of the Women's Union and trust in others, and those households with a relative in a position of political or bureaucratic responsibility have a higher probability of operating a micro-enterprise. We also find that social capital is more beneficial for lower income households. We find some evidence that social capital is important for enterprise profitability, specifically for households who are members of the Farmer's Union and those with greater reported levels of trust. We find a negative impact of political connections on enterprise performance suggesting that households with connections incur some additional costs due to reciprocal arrangements associated with using those connections or are simply less suited to managing an enterprise.

The paper proceeds as follows. Section 2 outlines our conceptual framework based on the related literature. Section 3 explains our empirical approach. Section 4 describes the data while the results are presented and discussed in Section 5. Section 6 concludes.

2 Conceptual background

In this paper we bring together several distinct strands of development literature, combining research on micro-enterprise development with a growing literature linking social capital and political connections with enterprise performance. As highlighted in the introduction, establishing a micro-enterprise is an important means through which households can pursue an income diversification strategy, particularly in low-income rural settings where there are limited opportunities for other forms of off-farm income-generating activities. The impact of income diversification on the livelihoods of the rural poor has been well documented in the literature. It is well established that households that earn an income from non-farm activities do better but also that the initial endowments of households play an important role in the success of and returns from these activities. In particular, the returns to rural non-farm enterprises differ depending on whether they are established in response to ‘push’ factors, such as risk reduction, survival and diversification in the face of shocks, or ‘pull’ factors, such as specialization due to comparative advantage, complementarities between activities and proximity to urban areas (Barrett et al. 2001; Bezu et al. 2012; Lay et al. 2008). The initial endowments of the household in terms of their stock of productive assets and education levels are key indicators of whether they enter into low-return or high-return activities (Barrett et al. 2001, 2005; Bezu et al. 2012; Giesbert and Schindler 2012; Lay et al. 2008; Micevska 2008).

Two other ‘resources’ available to households are social capital and political connections. The role of social capital in overcoming institutional constraints in rural settings has been given much attention in the literature but its role in the context of micro-enterprises has been given less consideration, in particular the extent to which it plays a separate role in enabling households to operate a micro-enterprise on the one hand and enterprise performance on the other. Political connections have been linked to firm performance and the opportunities available to firms but few have considered their role in micro-enterprise development specifically. The key point of departure in our paper is that we examine the role of social capital and political connections not only at the extensive margin where a household member decides to diversify income by entering into self-employment but also at the intensive margin, where the intensity of work on the enterprise and utilization of resources is considered. This allows us to discern whether the role of social capital and political connections differs depending on the context for their use. In what follows we draw on the literature in each of these areas to bring together a conceptual framework to guide our empirical analysis.

2.1 Social capital

The concept of social capital as a resource that can be utilized by individuals and groups originates in the work of Coleman (1988) who introduced a theory of social capital paralleling the concepts of traditional inputs such as financial, physical and human capital, but embodied in the relations *among and between* persons in a society. Coleman highlighted the productive nature of social capital, in that it makes possible the achievement of outcomes that in its absence would not be feasible. It also features other ‘capital-like’ properties in that it requires resources – mainly in the form of time – to create, it can be accumulated, acquired in formal or informal settings and has a measurable return to individuals/households.

A common measure of social capital applied in many empirical applications is the extent of the social network of individuals which is often measured through group membership. Social capital of this kind could be thought of as a type of productive intangible asset. Through interactions with group members, information, ideas and resources are exchanged that can help to alleviate market and institutional constraints. Moreover, repeated interactions help to increase trust levels which further facilitates the exchange of information, ideas and resources. A large body of empirical

literature has emerged which estimates the impact of social capital measured in this way on a broad range of outcomes including household welfare (Grootaert et al. 2002; Maluccio et al. 2000; Yusuf 2008; Adepoju and Oni 2012), access to credit (Grootaert et al. 2002), and formal savings (Newman et al. 2014).

More recently, the role of social capital in micro-enterprise performance has been given some attention. Santarelli and Tran (2012) find a positive relationship between social capital, measured through ‘weak-tie’ networks with formal organizations, banks and business partners, on enterprise operating profits in Vietnam. Also considering micro-enterprise performance in Vietnam, Chi and Nordman (2012) find a positive effect of membership of a business or local network on informal firm’s technical efficiency highlighting the importance of social network capital for enterprise performance. Berrou and Combarous (2011) also find support for the importance of networks of this kind for entrepreneurs in Burkina Faso. They also find that the effects are more pronounced for ‘strong-tie’ networks, such as friends and family, which they attribute to trust that is partly built up through regular interactions that facilitate exchange of resources such as information and financial support.

A similar impact from social capital is found by Fafchamps and Minten (2002) who examine the importance of social capital for agricultural traders in Madagascar. They find that social capital, in the form of relationships with other enterprises and relationships with potential lenders has a large and positive effect on firm productivity. However, they also show a negative and significant effect of relationships with businesses held by relatives, potentially due to interactions with relatives burdening the enterprise out of obligation, rather than leading to its more efficient operation. They suggest that the strong positive effect of social capital may be reflective of its importance for efficiency in economies that are subject to both weak market institutions and high transaction costs. Chi and Nordman (2012) also highlight the redistributive pressures faced by enterprises, finding that family, kinship and community level features exert influences on the size and type of transfers between households in Vietnam. Other examples of empirical studies linking social capital to household income generation include Ha et al. (2004) who find evidence of a link between social capital and household-run paper-recycling units in Vietnam and Haddad and Maluccio (2003) who find that trust and group membership have a positive impact on the per capita income of households in South Africa.

The evidence suggests that social capital, in the form of social networks, improves enterprise performance by helping to alleviate local constraints through facilitating the exchange of resources and building up generalized trust. A household’s stock of social capital is therefore likely to play a similar role in determining diversification decisions as other initial endowments such as physical and human capital. As such, in addition to improving enterprise performance, we might also expect social capital to impact positively on whether a household establishes an enterprise through the same mechanisms. To our knowledge, this has not been considered in the literature to date. Through interacting with other agents in the community, households will have access to more information about how to establish an enterprise, more ideas about what type of enterprise to establish and potentially more access to resources. They will have a greater level of trust in the local community which may make them more likely to undertake different, potentially more risky, investment opportunities.

We hypothesize that social capital will have a positive effect on a household’s decision to operate a micro-enterprise and on the performance of that enterprise, particularly for households with low initial endowments of other productive assets. We posit that social capital acts through three primary avenues: First, that resources are embedded in the social structures; second, that individuals have the opportunity to access these resources via their membership in groups and trust in others; and third, that these resources can be mobilized by individuals and households in

purposive actions (Lin 1999). Two measures of social capital are used in our analysis. First, we use membership in the two largest locally-based socio-political groups (the Women's Union and the Farmer's Union) to examine the importance of social networks in enterprise formation and success. Second, we use whether households observe their peers within the commune to be trustworthy as a measure of generalized trust levels.

2.2 Political connections

A large body of literature highlights the potential for corruption by politically connected firms to increase their value or improve their performance (Fisman 2001; Johnson and Mitton 2003). Political connections have been linked with preferential access to credit (Johnson and Mitton 2003; Khwaja and Mian 2005), corporate bailouts (Faccio et al. 2006), and favourable regulation (Agrawal and Knoeber 2001).

Few studies, however, have looked specifically at the role of political connections in the establishment and performance of household micro-enterprises. There are many reasons why we might expect political connections to be particularly relevant in these contexts, especially in rural and remote areas where institutions are weak. For example, political connections can be harnessed by households to overcome regulatory or bureaucratic burdens or can be used to access credit where households have limited collateral. Markussen and Tarp (2014) examine the importance of political connections on the investment decisions of Vietnamese agricultural farmers. They conclude that households significantly increase their investment in land as a result of having a relative move into public office and that the potential mechanisms through which this occurs are via improved access to off-farm employment and informal loans, in addition to a strengthening of de facto land property rights. Evidence of political connections acting as a substitute for missing or weak property rights is provided by Kung and Ma (2011) and in increasing access to finance by Li et al. (2008) for the case of China. These studies, however, did not consider how political connections are used in the case of household micro-enterprise development.

In this paper, we explore whether political connections impact on households' decisions regarding income diversification. The measure of political connections used is whether a household has a relative in a position of public responsibility. As with social capital, through political connections households can gain access to both formal and informal resources that are then used to assist in both the creation of a household enterprise and its operation. We hypothesize that a household's endowment of political connections will impact on their ability to operate an enterprise. The link between political connections and enterprise performance is less clear a priori. On the one hand it is possible that having political connections leads to better business opportunities and a larger business network. If so we might expect political connections to impact positively on enterprise performance. On the other hand, it may be that households that use political connections to establish an enterprise are later burdened by those connections leading to less profitable outcomes. For example, households with political connections may incur some cost associated with maintaining those connections in the future or if connections are through relatives, may make less efficient business decisions out of obligation to family or relatives that helped them to start the business (Fafchamps and Minten 2002). It is also possible that households that use their connections to establish an enterprise are not suited to managing an enterprise (Faccio 2010). This will lead to poorer enterprise outcomes for connected compared with unconnected households. We explore these possibilities in our empirical analysis.

3 Empirical approach

To examine the link between social capital, political connections and household micro-enterprises we estimate two key equations. First, we investigate the effect of social capital and political connections on the probability that a household operates a micro-enterprise as given in Equation (1).

$$E_{it} = \alpha_i + \beta_1 \mathbf{GM}_{it} + \beta_2 GT_{it} + \beta_3 RC_{it} + \beta_4 \mathbf{HH}_{it} + \tau_t + v_{it} \quad (1)$$

where: E_{it} is an indicator of whether household i has an enterprise in time period t ; \mathbf{GM}_{it} is a vector containing indicators of membership in the two main local socio-political groups: the Woman's Union and the Farmers Union; GT_{it} is a dummy variable which takes a value of one where a household believes that other members of the commune can be trusted as a measure of generalized trust; RC_{it} is a dummy variable representing whether the household has a relative in a position of public responsibility; \mathbf{HH}_{it} is a vector of household characteristics and controls expected to be important for enterprise formation including the stock of transport vehicles (as measures of physical capital), years of education (as a measure of human capital), age and age-squared (as a proxy for experience), household income (as a proxy for household wealth and excluding any income from micro-enterprise operation), a household member working externally, household size, whether the household has a telephone (as a measure of remoteness) and indicators for whether the household suffered an economic or natural shock; α_i are household fixed effects; τ_t are time dummy variables; and v_{it} is a statistical noise term. As hypothesized in the previous section, we expect the coefficients on the social capital and political connections variables, β_1 , β_2 and β_3 , to be positive and statistically significant.

Second, we examine the effect of social capital and political connections on the success of the household enterprise, using the net income generated by the enterprise as the dependent variable. The regression equation for the success of the enterprise is a simple production function, in line with the method used by Grootaert et al. (2002), among others. We augment this production function to include the social capital and political connections variables. In line with our conceptual framework developed in Section 2, both can be thought of as an additional type of productive capital available to the enterprise. We also include a vector of household characteristics, alongside controls for whether the household experienced an external shock, the type of industry and time dummies. The regression model we estimate is given in Equation (2).

$$\begin{aligned} \ln I_{it} = & \alpha_i + \delta_1 \mathbf{GM}_{it} + \delta_2 GT_{it} + \delta_3 RC_{it} \\ & + \delta_4 L_{it} + \delta_5 \mathbf{K}_{it} + \delta_6 \mathbf{HH}_{it} + \delta_7 IN_{it} + \tau_t + u_{it} \end{aligned} \quad (2)$$

where: $\ln I_{it}$ is the log of the net income generated by the enterprise; L_{it} is the total labour employed in the enterprise, both paid and unpaid; \mathbf{K}_{it} is a vector of variables capturing the human capital endowment of the enterprise manager (years of education, age and age squared) and the financial capital of the enterprise (the initial investment into the enterprise); IN_{it} is a dummy variable for whether the enterprise has a manual or services-based industry classification. All other variables and terms are as before. We are interested in the sign and significance of the coefficients δ_1 , δ_2 and δ_3 which will capture the additional impact that social capital and political connections have on the success of the enterprise, controlling for all other inputs and household characteristics. We expect δ_1 and δ_2 to be positive. The sign on δ_3 could be either positive or negative.

The challenge in estimating these equations is that there is potential endogeneity between the measures of social capital and political connections and the outcomes of interest. The source of this endogeneity could be due to omitted variable bias or reverse causation. In the case of the former, it is possible that unobserved characteristics of the household are correlated with the household's level of social capital and political connections, and the probability that the household runs an enterprise or the success of that enterprise. Using household-level fixed effects eliminates the potential for any time-invariant characteristics of the household to act as confounding factors in our analysis. Moreover, we utilize the extensive information contained in our data to construct a rich set of time-varying control variables. It is nevertheless possible that some omitted variable bias remains due to unobserved time-varying household characteristics and so some caution should be exercised in interpreting the results as causal.

The second possibility is reverse causality. For example, in relation to group membership, it is possible that a household that has an enterprise or a household that has a more profitable enterprise is more likely to become a member of a group, particularly if that group is well regarded in the locality or if the success of the enterprise increases the time available to the household for leisure and social activities. It is also possible that the process of operating an enterprise or running a successful enterprise makes a household trust in their community more. It must be pointed out, however that in the case of rural Vietnam a large emphasis is placed on cooperation and reciprocity between individuals and these norms tend to be embedded into the society. It is therefore unlikely that embedded trust levels would vary on the basis of income diversification or profits. The potential for reverse causality between the operation/success of an enterprise and political connections is also possible but is less likely in our case given the measure of political connections that we use. Our measure is whether a relative of the household moves into a position of public or bureaucratic responsibility. It is unlikely that a successfully operating micro-enterprise would influence the decision of a relative in a different household to take up a position as an official. Our measure is the same as that used by Markussen and Tarp (2014) who argue the exogeneity of this variable along similar lines.

To rule out the possibility of reverse causality we run regressions examining whether the lag of having an enterprise or the lag of enterprise profits impacts on group membership, trust and political connections in order to discern whether having an enterprise or having a more profitable enterprise influences a household's endowment of social capital and political connections. In all cases the coefficients are statistically insignificant giving us some confidence that reverse causality is not a concern.¹

Additional identification problems arise when estimating the performance of the enterprise. Enterprise success is only observed for those households who self-select into establishing a micro-enterprise and as such we are examining a selected sample that is not representative of the entire household cohort. Our interpretation of the second stage results is therefore the impact that social capital and political connections have on enterprise profitability *conditional* on a household having established an enterprise.

¹ We find a marginally statistically significant negative impact of the lag of having an enterprise on the measure of generalized trust. Given that the direction of the relationship is the opposite of what we would expect if there was reverse causality we are not concerned about an upward bias on the coefficient on trust in the estimation of Equation (1) through this mechanism.

4 Data and descriptive statistics

We use the Vietnam Access to Resources Household Survey (VARHS) implemented across twelve provinces in Vietnam in 2008, 2010 and 2012.² The dataset contains information on 3,714 households across three time periods. Repeated observations are available for 3,022 households, of which 128 are observed for two time periods and the remaining 2,894 across all three time periods.

Table 1 contains summary statistics on the household enterprises operating in each year of the panel. Approximately 25 per cent of households operate a household enterprise in each year, with female-led enterprises accounting for over half of this figure. Enterprises are almost evenly split between those that operate in a manual industry sector, such as quarrying, mining or manufacturing and those operating in a service-based sector, for example in education, beverages, food and repair. Regarding the years of operation of the enterprises we observe that only 287 households consistently operate a household enterprise in each year of the panel. The remainder of enterprises are operated by households in one or two periods. 2012 saw the largest increase in new enterprises, with approximately 39 per cent of households establishing an enterprise for the first time. This highlights the dynamic nature of the micro-enterprise sector in Vietnam and is reflective of the operating environment in many low-income countries.³

Table 1: Household enterprise characteristics

Variable	2008	2010	2012
Enterprise			
0	2,414 (78%)	2,220 (73%)	2,618 (74%)
1	667 (22%)	803 (27%)	913 (26%)
Operating years			
1	183 (27%)	212 (26%)	359 (39%)
2	197 (30%)	304 (38%)	267 (29%)
3	287 (43%)	287 (36%)	287 (32%)
Gender			
0 (female)	370 (55%)	461 (57%)	476 (52%)
1	297 (45%)	342 (43%)	437 (48%)
Industry			
0	268 (40%)	406 (51%)	435 (48%)
1 (services)	399 (60%)	396 (49%)	478 (52%)

Source: Authors' calculations using VARHS data.

Table 2 contains summary statistics describing the social capital and political connections endowments of households. Over 50 per cent of households are affiliated with the Woman's Union and approximately 40 per cent of households are members of the Farmer's Union. Extremely high levels of trust are evident, with over 85 per cent of households answering 'yes' when asked whether members of the commune can be trusted. Given the close knit community

² The sampled provinces (by region) are Red River Delta: Ha Tay; North East: Lao Cai, Phi Tho; North West: Lai Chau, Dien Bien; North Central Coast: Nghe Anh; South Central Coast: Quang Nam, Khanh Hoa; Central Highlands: Dak Lak, Dak Nong, Lam Dong; Mekong River Delta: Long An. The sample is statistically representative at a provincial level, but not at a national level.

³ For this reason we examine the importance of social capital and political connections for households operating a micro-enterprise in a given year, due to the constantly changing level of enterprise activity.

evident in rural Vietnam and the prominence given to family, kin and the household head, it is not surprising that we observe such a high degree of trust. Regarding political connections, around 20 per cent of households have a relative who is in a position of public responsibility.

We estimate our models using household fixed effects and so our parameters are identified by relating the within-household variation in social capital and political connections to enterprise operation/performance. Table 3 details the within-household standard deviations in these variables. We observe that the households' level of social capital and political connections and whether the household operates an enterprise exhibit a lot of within-household variation over the three time periods. This gives us confidence in the ability of our data to identify the effect of social capital and political connections on enterprise outcomes using household fixed effects.⁴

Table 2: Social capital and political connections

Variable	2008	2010	2012
Woman's Union			
0	1,501 (49%)	1,279 (42%)	1,406 (40%)
1	1,580 (51%)	1,744 (58%)	2,125 (60%)
Farmer's Union			
0	1,893 (61%)	1,732 (57%)	2,001 (57%)
1	1,188 (39%)	1,291 (43%)	1,530 (43%)
Relatives			
0	2,478 (80%)	2,404 (80%)	3,007 (85%)
1	603 (20%)	619 (20%)	524 (15%)
trust			
0	422 (14%)	491 (16%)	464 (13%)
1	2,659 (86%)	2,532 (84%)	3,067 (87%)

Source: Authors' calculations using VARHS data.

Table 3: Within-household variation

Std. Dev.	Freq (%)	Freq (%)	Freq (%)	Freq (%)	Freq (%)
Variable	Wu	Farmers	Relatives	Trust	Enterprise
0	4,485 (50%)	4,655 (52%)	5,655 (63%)	5,663 (63%)	6,200 (69%)
0.5773505	4,371 (49%)	4,227 (47%)	3,231 (36%)	3,237 (36.5%)	2,706 (30%)
0.7071068	92 (1%)	66 (1%)	62 (1%)	48 (.5%)	42 (1%)
Total	8,948 (100%)	8,948 (100%)	8,948 (100%)	8,948 (100%)	8,948 (100%)

Source: Authors' calculations using VARHS data.

⁴ The political connections variable captures whether households have a relative at any level of bureaucratic responsibility, including at a village, commune, district, province and government level. Variation in this variable is most likely due to the 2011 election in Vietnam, changes to the people's council and people's committee at a provincial level, changes to the commune survey board and turnover in positions from illness, death or retirement/removal from positions over the five year time period.

5 Results and discussion

In the first part of our analysis we relate the probability that a household will operate a micro-enterprise, and the success of that enterprise, to their initial endowments of income, wealth and other resources before considering the separate role of social capital and political connections. The full list of control variables are defined in Appendix Table 1. The results for the estimation of Equations (1) and (2) excluding the social capital and political connections variables are presented in Table 4.

As revealed in column (1), our results suggest that ‘push’ factors are important for enterprise operation.⁵ This is consistent with similar studies examining the income diversification strategies of rural households (see, for example, Barrett et al. 2001; Bezu et al. 2012; Lay et al. 2008). We observe a significant and negative coefficient on household income and external labour. This implies that households who have a higher income and households who receive a wage from external labour are less likely to have a micro-enterprise. The coefficient on the indicator variables for whether the household’s income is in the lowest 30 per cent of the income distribution is positive and well-determined suggesting that some enterprises are operated by households in response to ‘push’ factors. We also find, however, that the coefficient on the variable indicating whether the household has been classified as poor by authorities is negative and significant suggesting that poor households that are in receipt of state assistance due to their noted poverty status do not need to generate additional income via the operation of a household enterprise; state supports are serving their social safety net purpose.⁶ Households that suffer a natural shock, such as a flood or crop disease, are also more likely to have a household enterprise, again reinforcing the view that enterprises appear to be established out of necessity.

Turning to the success of enterprises (conditional on enterprise formation) in column (2) we observe that higher levels of labour and financial capital are important determinants of enterprise income, consistent with a standard production function interpretation. We find no evidence that the enterprises of low income households are less profitable than high income households once these inputs are taken into account. While we do find that enterprises in households that experienced a natural shock perform worse, there is little by way of other evidence to suggest that the success of the enterprise is related to whether the enterprise was established in response to ‘push’ factors, although initial endowments of labour and capital are clearly important.

Overall, our baseline findings suggest that: (i) households operate micro-enterprises in response to ‘push’ factors; and that (ii) the success of the enterprise depends to a large extent on standard labour and capital inputs once shocks are controlled for. The next step of our analysis explores the extent to which social capital and political connections play a role in this process. In relation to the former we consider whether they act as a facilitating mechanism in the running of enterprises, particularly for otherwise poorly endowed households. While in the case of the latter we consider whether, as has been found in other studies, social capital and political connections enhance the performance of enterprises.

⁵ We focus here on the initial endowments of households. The coefficients on the characteristics of household head are largely as expected.

⁶ It is also possible that these households are in poverty to the extent that they are largely incapable of establishing an enterprise.

Table 5 presents the results for Equation (1) when the social capital and political connections variables are included. The control variables are not presented for ease of exposition. The results are very similar to those presented in Table 4.

Table 4: Probability a household establishes an enterprise and income from enterprise – Baseline household fixed effects model

	(1) Probability of owning an enterprise	(2) Enterprise income
Total vehicles	0.0254* (0.013)	0.044 (0.080)
Ln income ¹	-0.026*** (0.005)	0.0007 (0.021)
Household size m ²	-0.0002 (0.0001)	0.001** (0.0007)
Telephone	0.049*** (0.013)	0.068 (0.098)
Ln education ²	-0.016 (0.013)	0.030 (0.206)
Age ²	0.013* (0.007)	0.018 (0.022)
Age-squared ²	-0.0001** (0.00005)	-0.0002 (0.0002)
Adults ³	0.034*** (0.007)	
Children	0.034*** (0.008)	-0.050 (0.050)
Household poor	-0.032* (0.017)	-0.235* (0.127)
Gender	0.016 (0.031)	0.161 (0.102)
Natural shock	0.020* (0.011)	-0.227** (0.098)
Economic shock	0.015 (0.013)	-0.111 (0.093)
External labour	-0.075*** (0.016)	-0.358*** (0.106)
Low Income	0.062*** (0.016)	0.136 (0.102)
Ln total labour		0.415*** (0.109)
Ln initial investment		0.066*** (0.021)
Formal		0.139 (0.113)
Enterprise industry		0.141 (0.173)
Year 2010	0.018 (0.011)	0.0196* (0.011)
Year 2012	-0.002 (0.012)	0.0015 (0.012)
Constant	0.042 (-0.218)	8.469*** (0.640)
Household fixed effects	Yes	Yes
Number of observations	6,253	1,636
Number of Households	2,134	900
R-squared	0.045	0.17

Note: Robust standard errors clustered at the household level are included in parentheses. Results are also robust to clustering at the Commune level. Significance levels: *** p<0.01, ** p<0.05, * p<0.1.

¹ Refers to the household total income excluding any generated from operating an enterprise, a full description is detailed in Appendix Table 1; ² Characteristics refer to the household head in column (1) and the enterprise manager in column (2); ³ The adult variable is omitted in column (2) with the total labour variable capturing the number of adults working for the enterprise (both paid and unpaid).

Source: Author's own calculations using VARHS data.

Table 5: Probability a household establishes an enterprise – the role of social capital and political connections

	(1)	(2)	(3)	(4)	(5)
	Probability of owning an enterprise				Enterprise income
Women's Union	0.0227* (0.0129)	0.00738 (0.0143)	0.0229* (0.0129)	0.0224* (0.0129)	0.0786 (0.082)
Farmers Union	-0.0196 (0.0133)	-0.0193 (0.0133)	-0.0192 (0.0133)	-0.0193 (0.0133)	0.128* (0.0668)
Trust	0.0346** (0.0142)	0.0335** (0.0142)	0.0253 (0.0165)	0.0345** (0.0142)	0.365*** (0.126)
Political connections	0.0319** (0.0146)	0.0325** (0.0145)	0.0319** (0.0146)	0.0425** (0.0167)	-0.215* (0.116)
Low income indicator	0.0618*** (0.0158)	0.0276 (0.0214)	0.0311 (0.0332)	0.0698*** (0.0164)	0.125 (0.0978)
WU X low income		0.0597** (0.0251)			
Trust X low income			0.0355 (0.0325)		
PC X low income				-0.0469 (0.0305)	
Household fixed effects	Yes	Yes	Yes	Yes	Yes
Number of observations	6,253	6,253	6,253	6,253	1,636
Number of households	2,134	2,134	2,134	2,134	900
R-squared	0.049	0.05	0.049	0.049	0.191

Note: Each model includes the full set of control variables included in Table 4. Robust standard errors clustered at the household level are included in parentheses. Results are also robust to clustering at commune level. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: Author's own calculations using VARHS data.

As revealed in column (1) the results strongly support the hypotheses outlined in Section 2 regarding enterprise operation. We find positive and significant results for our social capital and political connections variables. Regarding social capital in the form of groups, membership of the Woman's Union increases the probability of a household having an enterprise. This is not surprising given the high level of Women's Union membership observed in our sample and the fact that over 50 per cent of enterprises are operated by a female manager (see Section 4). Our data also contains information on the self-reported benefits of Woman's Union membership to households and the resources the Woman's Union assists households in accessing. Table 6 highlights that the main benefits to households are 'knowledge' and 'economic benefits' whereas the main resources it assists households in accessing are 'credit or insurance' and 'market access'. We can infer from this that the Woman's Union is an important resource used by households in running a micro-enterprise.

Table 6: Self-reported benefits and access to resources from group membership

Variable	2008	2010	2012	Total
Women's Union				
<i>Benefits</i>				
Benefits community	11 (9%)	18 (6%)	16 (5%)	45 (6%)
Economic benefits	12 (10%)	45 (15%)	35 (11%)	92 (12%)
Social status	10 (8%)	18 (6%)	19 (6%)	47 (6%)
Knowledge	33 (27%)	69 (23%)	77 (23%)	179 (24%)
Other	55 (45%)	156 (51%)	186 (56%)	397 (52%)
Total	121 (100%)	306 (100%)	333 (100%)	760 (100%)
<i>Provides access to</i>				
Agri-inputs or tech	16 (14%)	17 (6%)	20 (6%)	53 (7%)
Credit or insurance	25 (22%)	56 (20%)	34 (10%)	115 (16%)
Education or training	14 (12%)	26 (9%)	20 (6%)	60 (8%)
Market access	9 (8%)	13 (5%)	23 (7%)	45 (6%)
Other	49 (43%)	164 (60%)	248 (72%)	461 (63%)
Total	113 (100%)	276 (100%)	345 (100%)	734 (100%)
Farmer's Union				
<i>Benefits</i>				
Benefits community	6 (7%)	10 (7%)	6 (3%)	22 (5%)
Economic benefits	21 (24%)	20 (13%)	24 (13%)	65 (15%)
Social status	13 (14%)	19 (12%)	10 (5%)	41 (10%)
Knowledge	31 (34%)	61 (41%)	73 (39%)	165 (39%)
Other	19 (21%)	41 (27%)	74 (40%)	134 (31%)
Total	90 (100%)	150 (100%)	187 (100%)	427 (100%)
<i>Provides access to</i>				
Agri-inputs or tech	24 (29%)	28 (20%)	43 (23%)	95 (23%)
Credit or insurance	19 (23%)	27 (19%)	24 (13%)	70 (17%)
Education or training	4 (5%)	12 (8%)	11 (6%)	27 (7%)
Market access	10 (12%)	25 (17%)	20 (10%)	55 (13%)
Other	27 (32%)	51 (36%)	90 (48%)	168 (40%)
Total	84 (100%)	143 (100%)	188 (100%)	415 (100%)

Source: Authors' calculations using VARHS data.

Returning to Table 5 we find that our measure of trust is also positive and well-determined. Households who are more trusting of others are more likely to have a household enterprise. This can be explained by the fact that trust increases cooperation and reciprocity between households facilitating enterprise operation. We also find that political connections are important, with the coefficient for having a relative in a position of public responsibility positive and statistically significant. Households who have access to political connections have a higher probability of operating a micro-enterprise.

In sum, we find a positive and well-determined relationship between social capital, political connections and enterprise operation, suggesting, as hypothesized in Section 2, that households utilize these resources to diversify their incomes, and in particular, to run household micro-enterprises. Thus social capital and political connections have a positive impact at the extensive margin on the decision of households to enter into self-employment.

We also hypothesize in Section 2 that social capital and political connections will be particularly important for households with lower initial endowments. Given that our results suggest that enterprises are established in response to ‘push’ factors it is possible that social capital and political connections enable enterprise operation by acting as an additional resource that households can use to facilitate their income diversification decisions. To explore this possibility we interact the social capital and political connections variables with a dummy variable indicating whether household income is in the lowest 30 per cent of the income distribution.⁷ Columns (2)-(4) contain the interaction of this income indicator variable with membership of the Women’s Union, trust and having relatives in positions of political power, respectively.⁸ The interaction between membership of the Woman’s Union and the low income indicator is positive and well-determined. This suggests that group membership is more important for poorer households. The interaction term between having relatives in positions of political power is insignificant, while the level effect remains positive and significant. This suggests that using political connections to operate an enterprise does not differ across income groups. The interaction between the low income indicator and the trust variable is also not well determined suggesting that there is no difference in the impact of trust on enterprise formation for low and high income households. As discussed in Section 3, this is as expected given that trust as a form of social capital captures the extent of cooperation and reciprocity between individuals that is embedded in their society and as such we would not expect this to differ on the basis of household income.

Regression results examining the importance of social capital and political connections for enterprise profitability are presented in Column (5) of Table 5. The effect of membership in the Woman’s Union is insignificant. Women’s Union membership is particularly important for poor households in establishing and operating an enterprise. It appears, however, that it plays no role in enhancing enterprise profitability. We observe a positive and significant coefficient on the indicator for membership in the Farmer’s Union. Although both Women’s Union membership and Farmer’s Union membership are used as measures of social networks, we posit that they are actually playing different roles in the community. The focus and aim of the Farmer’s Union is to improve the success of farm enterprises. Therefore it is not surprising that it has no impact on a household’s decisions to operate an enterprise directly. It is plausible however, that membership would have positive spillover effects on the performance of non-farm household enterprises that

⁷ As a robustness check both Equation (1) and (2) were re-run using the lowest 20 per cent and 10 per cent of the income distribution as the low income indicator variable and results remained consistent.

⁸ We also estimated Equation (1) including the interaction term between the measures of human capital and social capital in order to discern whether higher levels of education are important for maximizing returns to social capital, however, the interaction terms were insignificant in all cases. Results not presented.

already exist, given the focus of the Farmer's Union on improving efficiency which may be transferable to successful micro-enterprise operation. Table 6 details the self-reported benefits of Farmer's Union membership to households and the resources the Farmer's Union assists households in accessing. Knowledge and economic benefits are the most important benefits and membership assists households in accessing agricultural inputs and related technologies and credit or insurance. This reinforces our conclusions that households who are members of the Farmer's Union and operate household enterprises have access to resources and benefits that can help improve their enterprise performance. Trust remains positive and significant suggesting that it facilitates the overall operating environment in rural Vietnam.

Regarding political connections, the coefficient on having a relative in a position of public responsibility has a negative and statistically significant (albeit marginal) relationship with enterprise success. Coupled with our result that political connections increase the probability of starting an enterprise, this suggests that households that use political connections to establish an enterprise may find maintaining political connections post-enterprise establishment costly. This is consistent with other studies which show that political connections can be beneficial to firms but are not necessarily productivity or performance enhancing (see Faccio 2010, for example).⁹ In other words, households that use political connections to facilitate running an enterprise may not be the most successful managers. Given that our measure of political connections is family focused it is also possible that in enterprises that are operated with the assistance of family connections a reciprocal arrangement may require households to share their profits with family members or make less efficient business decisions out of family obligation (Fafchamps and Minten 2002). Overall social capital and political connections have a mixed impact on the performance of firms at the intensive margin, in terms of improving the intensity and profitability of firm performance.

As a robustness check on our results we consider whether social capital and political connections impact on the success of the enterprise in terms of its survival, whereby the household receives a sustainable income from the enterprise over successive years. We re-estimate Equation (2) with a new dependent variable denoting whether the household enterprise operates in two consecutive years. The results are largely consistent with those using profitability as a measure of enterprise success.

In sum, we conclude that households operate micro-enterprises in response to 'push' factors and that social capital in the form of Women's Unions and trust assist in that process. Political connections also play a role in the operation of micro-enterprises.¹⁰ The success of enterprises, conditional on establishment, largely depends on the efficient use of standard inputs such as labour and human and physical capital. There is no evidence that low income households perform worse. Consistent with the literature (see, Berrou and Combarous 2011; Fafchamps and Minten 2002; Santarelli and Tran 2012, among others) we find some evidence that social capital in the form of trust and membership of the Farmer's Union are positively related to enterprise performance. The latter we attribute to knowledge spillovers. Finally, we find that political connections have a negative effect on profits and attribute this to the possibility that households with politically

⁹ Faccio (2010) examined political connections within firms across 47 countries, finding that companies with political connections were more likely to have higher leverage, pay lower taxes and have more market power, however, they had a poorer accounting performance than non-connected firms.

¹⁰ Equation (1) and (2) were re-run including province specific time trends as an additional robustness check. When these trends are included the coefficients on women's union and political connections are no longer well determined. This suggests that some time-varying province specific trend may be underlying the results for women's union and political connections. There is no impact on the results for enterprise success suggesting that there are different forces at work depending on whether we are examining the extensive or intensive margins.

connected relatives may incur some additional costs associated with maintaining those connections, or that connected households are simply less suited to running an enterprise. Overall, our findings highlight the potentially important and complex role that social capital and political connections play in the formation and success of household enterprises in rural settings.

6 Concluding remarks

For agricultural households, income diversification is an important means through which households cope with risks and increase overall household income levels. In many rural settings in developing countries waged employment is hard to come by and so to diversify incomes many households run a small household enterprise. To do so, however, requires resources in the form of capital, information and know-how. Accessing these resources can be difficult in settings where market failures, such as credit market or information failures, for example, exist and institutions are weak. Social capital and political connections can serve as a vehicle through which households can access these resources. This paper examined whether social capital and political connections impact on a household's ability to diversify their income, through the operation of a household micro-enterprise, and for the success of that enterprise.

Using panel data on rural households in Vietnam for the period 2008 to 2012 we find that both social capital and political connections have a positive impact on a household's ability to run a micro-enterprise. Social capital, in the form of membership of the Women's Union and having higher levels of trust in others, and political connections in the extended family, increases the probability that the household will have a micro-enterprise. We find evidence that household enterprises in operation in rural Vietnam are likely established in response to 'push' factors, such as natural shocks and the need for an additional source of household income. Investigating this further we find that social capital in the form of Women's Union membership tends to be used by poorer households. Our results suggest that without social capital these households may in fact be unable to run an enterprise. More generally, this suggests that social capital can play a role in low-income countries by providing access to resources and support for enterprise operation that would generally be fulfilled by the efficient operation of markets and institutions in other settings.

Regarding the profitability of household enterprises we find a positive effect for social capital in the form of trust and membership of the Farmer's Union. We put forward the view that the focus of the Farmer's Union on improving farm enterprises assists those household's in the success of their already established enterprises. A strong and positive effect of trust for both enterprise formation and success suggests that it plays a role in the exchange of information and resources between households in rural areas. Given that a close knit community is a fundamental aspect of Vietnamese rural society it is not surprising that trust is important for the smooth functioning of the business environment.

We find a negative effect of political connections on enterprise success. Given that these political connections are family-based, a system of reciprocity may mean that these relatives burden the enterprise by sharing gains from the business in exchange for their assistance. A similar view to this was put forward in Fafchamps (2002). An alternate explanation relates to that of Faccio (2010) who found that non-connected firms often outperformed connected firms on an accounting basis, stating that although connections are value enhancing, those firms with strong political connections may have managers who lack the skills to run a successful company.

Overall, this paper provides increased recognition for the importance of relationships in a business setting. We show that social capital and political connections are important for enterprise operation, indicating their potential to improve efficiency in economies with incomplete markets

and institutions. This reinforces both the viewpoint first put forward by Coleman (1988) of social capital as a resource allowing for household outcomes that would otherwise not be feasible and the views of recent literature on the role of political connections in developing country contexts.

Appendix

Appendix Table A1: Description of variables

Variable	Description
Total vehicles	total number of transport vehicles owned by the household: sum of the bicycles, cars and motorbikes
Ln income	total income of the household, excluding income generated by a non-farm enterprise. Includes income from rent, public and private transfers, external wages and agriculture
Telephone	the household has one or more telephones
Ln education	the number of years of education the household head/ enterprise manager has
Age	the age of the household head/enterprise manager
Age-squared	age squared of the household head/enterprise manager
Adults	the total number of adults in the household, this measure refers to all household members who are not in full time education
Children	the total number of children in the household, this measure refers to all household members who are in full time education
Household poor	the household has been classified as poor by the local authorities, these households receive state assistance due to their acknowledged poverty status
Gender	whether the household head/enterprise manager is male or female
Natural shock	the household suffered a natural shock natural shocks: drought, flood, typhoon, pest infestation, crop disease or avian flu
Economic shock	the household suffered an economic shock economic shocks: change in crop prices, shortage of a key input, change in prices of food and commodities, unemployment, loss from investment, divorce, illness or death
External labour	the household has one or more household members who earn a wage by working in a job external to the household
Formal	the enterprise is formally registered
Ln Initial investment	the total initial investment made to start the enterprise
Enterprise Industry	the enterprise is operating in a manual or services-based industry types manual: manufacturing, quarrying, mining, waste collection types services: food and beverages, accommodation, transport
Ln total labour	the total number of people both paid and unpaid working for the household enterprise
Household size m ²	the total size of the household in square meters
Low income	the household has an income in the lowest 30% of the income distribution
Political connections	the household has a relative who holds a position of public or bureaucratic responsibility
Women's Union	the household has one or more household members who are members of the women's group
Farmer's Union	the household has one or more household members who are members of the farmers group
Trust	the household head believes that people in the commune can be trusted
Year 2010	year dummy variable for 2010
Year 2012	year dummy variable for 2012

Source: Authors' calculations using VARHS data.

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