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Labour and migration in rural Vietnam

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Abstract: This paper provides an overview of the characteristics of migrant households and analyses the effects of migration in Vietnam, on the basis of the Vietnam Access to Resources Household Survey conducted in 2012 and 2014. The data reveal significant movements of household members, both intra- and inter-province. Differences are uncovered between migrant and non-migrant households: migrant households are wealthier than non-migrant households, as measured by food expenditure. The analysis shows that remittances and migration act as a shock-coping mechanism, especially in the presence of natural shocks. Remittance recipient households seem to react better to natural shocks, as the remittance flows counterbalance the need for borrowing.

Keywords: migration, remittances, Vietnam

JEL classification: J61, O1

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1 Introduction

According to the 2009 Vietnamese census, 6.6 million people migrated within Vietnam over the period 2004–09 (United Nations Viet Nam 2010), an increase of 46 per cent with respect to the number of internal migrants recorded in the 1999 census. The 2004 Vietnam Household Living Standard Survey unveils that almost 89 per cent of households with a migrant receive remittances (United Nations Viet Nam 2010), which constitute a substantial means by which households can pay daily expenses such as education or health care expenses.

The aim of this paper is to provide an overview of the characteristics of migrant households and analyse the labour market effects of migration in rural Vietnam, on the basis of the Vietnam Access to Resources Household Survey (VARHS) conducted in 2012 and 2014.¹ The economics literature has extensively explored the determinants of migration. The seminal paper by Harris and Todaro (1970) modelled the rural to urban migration decision. According to their theory, the main determinant of migration is the expected wage differential between the origin place of residence and the destination. Later contributions to the literature analysed other factors besides wage differentials and introduced income uncertainty and relative deprivation as further determinants of the migration decision (Stark 1991). The new economics of migration modelled the migration decision as a risk-sharing decision, whereby households can diversify risk by letting a member migrate to another labour market, with the aim of reducing the income risk facing households.²

This study discusses differences across migrant households on the basis of reasons for migrating and explores the features of migrants and migrant households. We try to establish whether a positive or negative self-selection of migrants can be identified. In particular, we focus on the labour market effects of migration. We investigate the move out of agriculture into more waged employment in urban and rural areas. Next, we examine the households that receive remittances and how they are used. Finally, we uncover the role of migration and remittances as shock-coping mechanisms in rural Vietnam.

This paper is organized as follows. Section 2 provides a policy background on migration directives in Vietnam and an overview of the literature. Section 3 describes the data, while Section 4 compares migrant versus non-migrant households. Section 5 discusses the characteristics of migrants, while remittance behaviour is explored in Section 6. Section 7 presents the results of the econometric investigation of the role of migration as a risk-coping mechanism, while Section 8 investigates the relationship between migration and access to credit. Section 9 concludes.

2 Policy background and literature review

The ‘Doi Moi’ policy, introduced in Vietnam in 1986, led to a drastic increase in domestic migration, in response to the rapid economic growth experienced with the opening up of the economy. Moreover, since 1986, Vietnam has seen an increase in the population leading to a shortage of arable land in the countryside. This has motivated many individuals to move from rural to urban areas, where industrial development offers more employment opportunities.

¹ VARHS data are available from the Central Institute for Economic Management (CIEM), Hanoi, Vietnam (see <http://www.ciem.org.vn/>).

² See Bauer and Zimmermann (1994) for an extensive review of the literature.

The socio-economic repercussions of migration have spurred the Government of Vietnam to implement a number of national regulations aimed at managing internal migration. Census 2009 figures for ‘unplanned’ internal migration in Vietnam reveal that migration between provinces reached 1.3 million individuals, about 2.5 per cent of the total population, in 1989, 2 million or 2.9 per cent of the total population in 1999, and 3.4 million or 4.3 per cent of the total population in 2009. Furthermore, the annual rate of migration within provinces increased from 0.6 per cent in 1999 to 4.2 per cent in 2009. Forecasts predict that migration will continue to rise, reaching 6 million or 6.4 per cent of the total population by 2019 (General Statistics Office of Vietnam 2011).

A few studies have investigated patterns of migration in Vietnam. Using the Vietnam Household Living Standard Surveys, Nguyen et al. (2008) explore the determinants of migration in Vietnam. The authors provide evidence that larger households and households with a higher level of education tend to be associated with higher emigration rates. Moreover, households involved in waged employment are more likely to migrate. A recent work by Nguyen et al. (2015) explores the relationship between shocks and rural–urban migration. The authors provide evidence that migration acts as a risk-coping mechanism. Gröger and Zylberberg (2015) analyse in particular the effect of a typhoon, which hit central Vietnam in 2009. Internal labour migration could be regarded as being a shock-coping strategy in rural economies when households cannot rely on remittances. Indeed, the analysis predicts that, after a typhoon, family members are more likely to migrate and support their relatives through remittances.

At a more macro level, Phan and Coxhead (2010) explore the determinants of inter-provincial migration and the effect of migration on inter-provincial inequality. Using a gravity model, the authors show that migrants move from low-income to high-income provinces. As for the impact of migration on inequality, the evidence suggests that on average migration leads to a reduction in inequality, although the extent of the effect mainly depends on the type of receiving province.

We contribute to the existing literature by providing more recent evidence of the determinants of migration in Vietnam.

3 Data

Our data come from the 2012 and 2014 VARHS.³ It provides a detailed picture of the incomes, assets, and access to resources of rural households in 12 provinces. While data have been gathered using this survey instrument since 2006, in 2012, a new module was introduced to capture information on migration.⁴

According to the 2012 VARHS, about 20 per cent of interviewed households have at least one member who has migrated, of which 48 per cent are working migrants.⁵ We do not observe much variation over time, as in 2014 the percentages of migrant households and migrant households with a working migrant are indeed very similar (19.20 and 48 per cent, respectively).

³ The survey was developed in collaboration between the Development Economics Research Group, Department of Economics, University of Copenhagen; the Central Institute of Economic Management; the Institute for Labour Studies and Social Affairs; and the Institute of Policy and Strategy for Agriculture and Rural Development in Ha Noi, Vietnam.

⁴ See CIEM (2011) and CIEM et al. (2013) for comprehensive descriptive reports of the data gathered in each round of the survey.

⁵ We will refer to these households as migrant households.

About 22 per cent of migrant households have a permanent migrant, while 63 per cent of households have a migrant who is only away temporarily. Two years later, about 15 per cent of migrant households have at least one permanent migrant, while 69 per cent have at least one temporary migrant.

Table 1 presents the reasons for migration, distinguishing between temporary and permanent migrants. The majority of temporary migrants are away due to education and work, while the majority of permanent migrants are away either for family reunification or for work reasons. Army service also plays a role, with about 4 per cent of migrants away on army duty.

Table 1: Reasons for migrating

	All migrants (%)	Temporary migrants (%)	Permanent migrants (%)
2012			
Work/looking for work	45.29	46.05	40
Education	35.60	46.49	1.29
Marriage/family reunification	13.62	1.1	52.26
Army service	3.80	5.26	1.94
2014			
Work/looking for work	45.54	47.15	24.76
Education	36.63	44.57	1.90
Marriage/family reunification	10.72	2.25	60
Army service	4.04	4.75	0.95

Source: Author's calculations based on the VARHS database.

Table 2 presents the percentage of households with a migrant by province and the percentage of households with a working migrant. According to the 2012 VARHS, the province with the highest percentage of migrant households is Nghe An, where about 47 per cent of interviewed households have at least one migrant living away, while about 36 per cent of households have a working migrant. Quang Nam also reports a high percentage of households with a migrant (27 per cent), although it shows a smaller fraction of households with a working migrant (8.8 per cent). The data from the 2014 survey show some interesting changes in the percentages of migrant households by province. Three provinces in particular, Dak Lak, Dak Nong, and Lam Dong, report high percentages of migrant households, around 28 per cent. With the exception of Nghe An, all provinces show a remarkable increase in the number of households with a working migrant. It appears indeed that migration is continuing to rise at a remarkable speed.

Table 2: Province of origin

Province	2012		2014	
	Households with a migrant (%)	Households with a working migrant (%)	Households with a migrant (%)	Households with a working migrant (%)
Ha Tay	18.51	9.52	17.32	9.38
Lao Cai	17.76	9.35	5.61	3.74
Phu Tho	17.52	6.47	20.78	10.65
Lai Chau	7.46	1.49	15.55	5.18
Dien Bien	13.06	7.03	24.41	7.09
Nghe An	46.90	36.28	24.12	16.67
Quang Nam	27.22	8.88	17.45	7.99
Khanh Hoa	20.18	7.34	26.85	17.59
Dak Lak	18.18	7.88	28.39	8.02
Dak Nong	17.19	7.81	28.15	11.85
Lam Dong	20.25	2.53	28.20	8.97
Long An	7.49	3.25	13.51	6.61

Source: Author's calculations based on the VARHS database.

Where do migrants move to? Table 3 reports the list of the main provinces receiving migrants. Ha Noi and Ho Chi Minh provinces received the highest share of migrants in our sample in 2012, 26.55 and 16.51 per cent, respectively, supporting the idea that migrants tend to converge in big urban cities. This pattern is even more remarkable in 2014, as Ha Noi and Ho Chi Minh provinces attracted 27.20 and 20.71 per cent share of migrants, respectively, in our sample.⁶

Table 3: Province of destination

	2012		2014	
	Observations	%	Observations	%
Ha Noi	193	26.55	176	27.20
Ho Chi Minh	120	16.51	134	20.71
Da Nang	70	9.63	49	7.57
Nghe An	40	5.50	19	2.94
Quang Nam	37	5.09	7	1.08
Binh Duong	24	3.30	14	2.16
Phu Tho	22	3.03	15	2.32
Dien Bien	21	2.89	22	3.40
Dak Lak	19	2.61	26	3.99

Source: Author's calculations based on the VARHS database.

The majority of migration occurs across provinces: in 2012, about 62 per cent of the migrant households reported that the migrant migrated outside of the province of origin, while 37 per cent of migrants moved within the province. Less than 1 per cent moved internationally. Working migrants are less likely to move within the province of origin and are more likely either to move to another province or to move internationally (see Table 4). We observe a significant increase in inter-province migration in 2012, as 73 per cent of migrants moved to another province. A significant increase is also noted in international migration, as 10 per cent of working migrants are reported to have migrated abroad.

Table 4: Inter-province and intra-province migration

	2012		2014	
	All migrants (%)	Working migrants (%)	All migrants (%)	Working migrants (%)
Same province	37.55	34.06	20.06	15.30
Another province	61.90	65	73.30	74.14
Abroad	0.55	0.94	6.64	10.55

Source: Author's calculations based on the VARHS database.

4 Migrant and non-migrant household characteristics

Are migrant households wealthier? In order to address this issue we consider the distribution of migrant and non-migrant households by expenditure quintile. The results are shown in Table 5. A smaller percentage of migrant households is in the first food expenditure quintile. The difference is particularly striking if we look at working migrant households, where the percentage of households in the first quintile in 2012 is just 10.16 per cent compared to 21.99 per cent of non-migrant households. A much higher percentage of working migrant households is in the last food expenditure quintile, therefore indicating that working migrant households are wealthier. The distribution of migrant and non-migrant households appears to be unchanged in 2014. The aim of Table 5 is to present a simple but informative correlation between household wealth and

⁶ We do not find any evidence that out-migration affects social capital in the commune of origin. Communities with higher out-migration show similar levels of trust and social capital as communes with lower levels of out-migration.

migration status. However, we cannot infer from these summary statistics whether migrant households are wealthier because they have a migrant away (and potentially receive remittances) or whether they were able to send a migrant away because they are wealthier. Also, working migrants are likely to be wealthier than other migrants, as they are more likely to be educated and therefore better off.

Table 5: Distribution of migrant and non-migrant households by food expenditure quintile

Food expenditure quintile	Distribution of migrant households (%)	Distribution of working migrant households (%)	Distribution of non-migrant households (%)
2012			
1	12.03	10.16	21.99
2	18.23	17.97	20.79
3	20.86	25.39	19.46
4	19.55	16.02	20.06
5	29.32	30.47	17.70
2014			
1	14.42	10.85	21.41
2	15.92	13.95	20.95
3	19.85	19.77	20.04
4	20.60	21.32	19.85
5	29.21	34.11	17.75

Source: Author's calculations based on the VARHS database.

Table 6 compares migrant and non-migrant households in terms of a set of demographic features. Non-migrant household heads tend to be older than non-migrant household heads and the difference is statistically significant at the 5 per cent level in 2012 and 2014. Migrant households have a higher net income than non-migrant households and the difference is statistically significant in both years. This finding is indeed consistent with the summary statistics presented in Table 5 on food expenditure quintiles. Ethnicity also seems to play a role. A higher percentage of migrant households belong to the Kinh ethnic group, compared to non-migrant households, suggesting that they either have more opportunities for migration or are more willing to do so.⁷ Finally, a larger proportion of migrant households are affected by natural shocks in 2012, but no difference appears to exist in terms of exposure to shocks in 2014.

Table 6: Migrant and non-migrant household characteristics

Variable	Migrant households (1)	Non-migrant households (2)	Difference (1)-(2)
2012			
Age	41.96	43.66	-1.67**
Net income ('000 VND)	2017	1778	239**
Kinh	87.74%	77.39%	10.35***
Economic shock	19.14%	18.94%	0.00
Natural shock	38.71%	31.06%	0.08***
2014			
Age	40.69	44.70	-4.00***
Net income ('000 VND)	2366	1885	481***
Kinh	82.17%	78.77%	0.04*
Economic shock	13.75%	12.99%	0.01
Natural shock	25.58%	22.77%	0.03

Note: *Significant at 10%; **significant at 5%; ***significant at 1%.

Source: Author's calculations based on the VARHS database.

⁷ According to the findings in Newman and Kinghan (2015), ethnic minorities are more likely to transition out of specialized agriculture, i.e. are more likely to diversify activities. It is interesting to note that such a diversification does not include location mobility.

Given the different reasons for migrating, Table 7 presents the characteristics of working migrant households with respect to non-working migrant households. Working migrant household heads are older than non-working migrant household heads and the difference is statistically significant in 2012 and 2014. There is no difference in terms of net household income in either year, while Kinh households are more likely to have a working migrant, although this difference is statistically significant in 2014 only. Regarding exposure to shocks, we do not find much difference between working migrant and non-working migrant households in either year, apart from the percentage of households affected by a natural shock in 2012. We explore this aspect in the regression analysis in Section 7.

Table 7: Working migrant and non-working migrant household characteristics

Variable	Households with a working migrant (1)	Households with other migrant (2)	Difference (1)–(2)
2012			
Age of household head	43.41	40.70	2.70*
Net income ('000 VND)	2137	1914	–5598
Kinh	90.28%	85.54%	0.05
Economic shock	16.20%	21.69%	–0.05
Natural shock	43.06%	34.94%	0.08*
2014			
Age of household head	42.50	38.96	3.53***
Net income ('000 VND)	2688	2058	629***
Kinh	86.50%	78.03%	0.08**
Economic shock	13.09%	14.39%	–0.01
Natural shock	25.00%	26.13%	–0.01

Note: *Significant at 10%; **significant at 5%; ***significant at 1%;

Source: Author's calculations based on the VARHS database.

5 Migrant characteristics

Table 8 presents the characteristics of migrants by comparing working migrants with non-working migrants. A slight majority of migrants are men, although the percentage is higher for working migrants in both years. About 30 per cent of migrants are married, while this percentage slightly increases for working migrants. Working migrants tend to leave the commune later than other types of migrants, which might be related to the fact that they are more likely to receive their education before migrating compared to households that migrate to attend school. Indeed a lower percentage of working migrants have no diploma. There is no difference in the length of the migration experience between the two groups. On average, migrants have been away for two years. There does not seem to be any statistically significant difference between working and non-working migrants in terms of the intended length of stay in 2012, although this difference becomes statistically significant in 2014: it appears that working migrants are more likely to return to their home community. This result is not unexpected, given that migrants who moved for family reasons are less likely to return to their home communities.

Table 8: Working migrant and non-working migrant characteristics

Migrants characteristics (variable)	All migrants		Working migrants		t-Test of difference
	Mean	SD	Mean	SD	
2012					
Male	51.05%	0.50	58.96%	0.49	***
Married	30.50%	0.46	36.70%	0.48	***
Age at migration	22.45	8.06	25.39	9.14	***
No diploma	62.43%	48.46	40.46%	0.49	***
Years since the migrant left	2.14	1.95	2.05	2.01	
Permanent	25.37%	0.43	22.79%	0.42	
2014					
Male	52.78%	0.50	57.29%	0.49	***
Married	27.99%	0.45	32.22%	0.47	***
Age at migration	22.62	8.16	24.50	8.86	***
No diploma	63.65%	0.48	47.83%	0.50	***
Years since the migrant left	2.07	1.90	2.13	2.13	
Permanent	19.19%	0.39	13.78	0.34	***

Note: *Significant at 10%; **significant at 5%; ***significant at 1%.

Source: Author's calculations based on the VARHS database.

What do migrants do? In the light of labour market movements, it is crucial to understand what migrants' occupations are during their migration experience. Table 9 presents the percentage of working migrants by occupation. The majority of migrants are employed in manual jobs and they work either as unskilled workers or as skilled workers. A significant percentage of migrant workers are employed in top or mid-level occupations.

Table 9: Migrant occupation

	2012 (%)	2014 (%)
Army	3.96	1.74
Leaders in all fields and levels	7.25	2.48
Top level occupations in all fields	7.25	9.93
Mid-level occupations in all fields	5.71	20.60
Staff (elementary occupations, white-collar technical personnel)	9.45	4.96
Skilled workers in personal services, security protection, and sales	2.86	5.96
Skilled workers in agriculture, forestry, and aquaculture	1.54	0.25
Skilled handicraftsmen and other related skilled manual workers	19.78	17.87
Assemblers and machine operators	7.69	8.93
Unskilled workers	33.41	26.55
Communal officials who are not public servants	0.88	0.74

Source: Author's calculations based on the VARHS database.

Given the level of inter-province migration, it is also interesting to explore how migrants manage to find their job at the destination. The literature on migration networks explores the role of family and friends in providing information about job opportunities to potential or recent migrants. Interestingly, in the case of Vietnam, the role of migration networks in providing support to migrants seems more limited. Table 10 presents the evidence. About one-third of migrants in the sample found a job through their migration network (i.e. family and friends). However, the majority found an occupation in the location of destination either through an employment service or, more generally, through self-seeking. This is a rather interesting pattern that suggests migrants may have migrated to a specific destination without the support of an existing migration network.

Table 10: Role of migration networks

How did the migrant get the job?	2012 (%)	2014 (%)
Self-seeking	57.45	51.77
Relative/friend	30.50	34.09
Employment service	4.96	5.81
Other	7.09	8.34

Source: Author's calculations based on the VARHS database.

6 Remittance behaviour

Migrants may send remittances for altruistic motives, a sense of social responsibility; as a risk-sharing mechanism, to smooth consumption in the face of external shocks; or as a combination of these reasons (Maimbo and Ratha 2005). Although our data do not allow us to uncover the motives for sending remittances, we can explore the characteristics of those who receive remittances and those who do not and analyse the reasons for sending as reported by the receiving households. We observe a remarkable increase in the percentage of households receiving remittances: only 26 per cent of migrant households in our sample received remittances in 2012, while the percentage rose to 45 per cent in 2014. Remittance recipient households differ on many aspects with respect to migrant households that do not receive remittances. Table 11 shows that remittance recipient households have a smaller household size and an older household head than non-remittance recipient households, although the difference in age of household head takes the opposite sign in 2014. We find no difference in net household income between the groups in 2014, although in 2012 remittance recipient households appear to have a slightly higher income. We find no statistically significant difference in terms of ethnicity in either year. Remittance recipient households are more likely than non-remittance recipient households to be affected by a natural shock in 2012, while the difference disappears in 2014. We explore further the relationship between remittances and shocks in Section 7.

Table 11: Remittance recipient and non-remittance recipient household characteristics

Variable	Remittance recipient households (1)	Non-remittance recipient households (2)	Difference (1)–(2)
2012			
Age of household head	46.63	40.34	6.29***
Household size	3.61	4.29	0.68***
Net income ('000 VND)	2345	1903	442**
Kinh	91.67%	86.38%	0.05
Economic shock	14.17%	20.87%	-0.07*
Natural shock	50.00%	34.78%	0.15***
2014			
Age of household head	38.17	42.70	-4.52***
Household size	4.59	4.18	0.41***
Net income ('000 VND)	2375	2345	18
Kinh	83.40%	81.18%	0.02
Economic shock	13.97%	13.59%	0.00
Natural shock	26.64%	24.74%	0.02

Note: *Significant at 10%; **significant at 5%; ***significant at 1%.

Source: Author's calculations based on the VARHS database.

A recent strand of the migration literature has focused on the ability of migrants to control how remittances are used. The issue is relevant given the asymmetric information that characterizes the relationship between migrants and their family of origin. Ashraf et al. (2015), Batista and Narciso (2013), Elsner et al. (2013) and McKenzie et al. (2013) show that spatial distance and lack of monitoring harms the quality of information flows between migrants and their family and friends in the commune of origin. Table 12 compares how remittances are used by households, with respect to migrants' purpose for sending remittances.

According to column 1, remittances are mainly spent for daily expenses (i.e. daily consumption and bills). The second largest category is savings, followed by expenses for special occasions and medical and educational expenses. There is no statistically significant difference between the way households spend the remittances and the migrants' purpose of sending remittances. This finding differs with respect to previous results found in the literature, but it is likely to be driven by the fact that the remittance recipients have a biased view of what the migrant's purpose for sending remittances is and might simply respond to the question in a way that validates the way they spend the remittances.

Table 12: Remittance use

	How household spends remittances (%)	Migrant's purpose for sending remittances (%)
2012		
Daily meals and bills	44.57	46.86
Medical expenses	6.86	5.14
Educational expenses	5.14	5.71
Savings	14.29	14.86
Special occasion	6.86	6.86
House	9.14	7.43
2014		
Daily meals and bills	56.72	55.72
Medical expenses	6.47	7.46
Educational expenses	5.47	5.47
Savings	11.44	13.43
Special occasion	1.49	1.49
House	2.99	2.49

Source: Author's calculations based on the VARHS database.

There is some evidence that migrants receive transfers from the household of origin as well. About a third of all migrants in our sample receive transfers, a result which is mainly driven by the large number of migrants who moved for motives of education. However, it is interesting to note that a percentage of working migrants also receive transfers (7 per cent in 2012, 14 per cent in 2014), therefore highlighting the potential vulnerability working migrants face—an issue that needs further investigation in future research.

7 How does migration impact on the welfare of sending households

How does migration impact on the welfare of sending households? To explore this question we create a household panel that tracks migrant and non-migrant households in 2012 and 2014. We consider the extent to which migration serves as a risk-coping mechanism and estimate the following model:

$$\Delta FoodExp_pc_{ht} = b_1 migrant_{ht} + b_2 shock_{ht} + C'_{ht}g + a_h + t_t + e_{ht}, \quad (1)$$

where $\Delta FoodExp_pc_{ht}$ is the change in household food expenditure per capita, for household h at time t ; the variable $migrant_{ht}$ takes the value 1 if household h is a migrant household at time t and 0 otherwise; the indicator variable $shock_{ht}$ measures whether the household experience a shock (either economic or natural shock); and X_{ht} is a vector of household characteristics, such as ethnicity, an indicator variable for remittance recipient households, age of the household head, and whether the household head is a woman. We also include household fixed effects (α_h) and time fixed effects (τ_t). Table 13 presents the results of this simple exercise.

Table 13: Migration and food expenditure

Variables	Change in per capita food expenditure					
	(1)	(2)	(3)	(4)	(5)	(6)
Shock	6.05 (16.689)	5.21 (16.748)	-1.43 (18.098)	5.19 (16.778)	4.87 (16.847)	-1.39 (18.105)
Migrant	85.04*** (20.588)	69.02*** (24.914)	55.58* (30.047)			
Migrant × shock			25.93 (38.909)			
Remittance recipient household		43.87 (34.316)	44.61 (34.196)	43.75 (34.351)	43.97 (34.340)	43.32 (34.388)
Kinh			-3.26 (189.619)		-2.05 (188.904)	-5.55 (189.244)
Age of household head			1.12 (0.764)		1.12 (0.771)	1.12 (0.767)
Female household head			56.54 (57.435)		56.29 (57.440)	56.59 (57.478)
Working migrant				70.45** (32.168)	67.76** (32.273)	51.58 (41.456)
Other migrant				67.83** (29.311)	65.97** (29.395)	59.74* (35.414)
Working migrant × shock						39.31 (53.626)
Other migrant × shock						14.97 (49.381)
Observations	4739	4739	4738	4739	4738	4738
Number of households	2715	2715	2714	2715	2714	2714
Adjusted <i>R</i> -squared	0.024	0.025	0.025	0.025	0.025	0.025

Note: Each model includes household and time fixed effects. Robust standard errors clustered at the household level in parentheses. *Significant at 10%; **significant at 5%; ***significant at 1%.

Source: Author's calculations based on the VARHS database.

As expected, economic and natural shocks have a negative impact on the change in food expenditure, although the estimated coefficient is not statistically significant (Table 13, column 1). Migrant households show higher food expenditure per capita and the relationship is statistically significant at the 1 per cent level. The next column adds the remittance recipient household dummy variable, which takes the value 1 if the household receives remittances and 0 otherwise. We find no statistically significant difference between remittance recipient households and other households. In column 3 we interact the shock dummy variable with the indicator variable of being a migrant household. We find that migrant households are not affected by shocks differently from non-migrant households. Of course, the reason for migrating is very relevant; therefore, in the next column we distinguish between working migrants and migrants who left the household for other reasons such as education, family reunification, or military service. Column 4 shows that having a working migrant outside the household has a positive and statistically significant impact on the change in per capita food expenditure, for both working migrant households and other migrant households, relative to non-migrant households. The results hold also when we control for other household characteristics, such as age of the household head, ethnicity, and whether the household head is a woman (column 5). Finally, in column 6, we interact the shock dummy variable with the indicator variable of having a migrant, distinguishing between working migrants and other migrants. We find that the coefficient of the interaction term is not statistically significant, while the relation between other migrant households and the change in per capita food expenditure is still positive and statistically significant.

Table 14 explores to a greater extent the role of remittances in acting as a coping mechanism in the event of negative shocks. We interact the dummy variable capturing remittance recipient household with the shock dummy variable. As expected, per capita food expenditure is correlated in a negative way by economic and natural shocks, although the coefficient is not statistically significant. Being a remittance recipient household is not correlated with food expenditure. Interestingly, the estimated coefficient on the interaction term between remittances and shock is positive and statistically significant at the 5 per cent level, thus providing evidence that remittances act as a shock-coping mechanism. Similar results hold when we control for household characteristics (column 2).

Table 14: Remittances and food expenditure

Variables	Change in per capita food expenditure	
	(1)	(2)
Shock	-4.48 (17.458)	-4.88 (17.515)
Migrant	67.00*** (24.961)	64.89*** (25.072)
Remittance recipient household	-1.68 (44.006)	-1.85 (43.956)
Remittance recipient household × shock	113.01** (55.226)	113.41** (55.084)
Kinh		-16.06 (191.617)
Age of household head		1.11 (0.770)
Female household head		57.57 (57.157)
Observations	4739	4738
Number of households	2715	2714
Adjusted R-squared	0.027	0.027

Note: Each model includes household and time fixed effects. Robust standard errors clustered at the household level in parentheses. *Significant at 10%; **significant at 5%; ***significant at 1%.

Source: Author's calculations based on the VARHS database.

The variable shock captures both economic and natural shocks. Given the potential endogeneity between economic shocks and household behaviour, we repeat the previous analysis and focus on natural shocks only.

Table 15 analyses the impact of migration and natural shocks on the change in food expenditure. Again, migration is associated with a positive and statistically significant increase in food expenditure, while the estimated coefficient on natural shocks is negative but it is not statistically significant. These findings hold also when we control for household characteristics (column 2). Next, we interact the migrant household dummy variable with the natural shock indicator. Migration seems to act as a natural shock-coping mechanism as migrant households are able to offset the impact of the natural shock on the change in per capita food expenditure. In columns 4–6, we distinguish between the reasons for migrating. Working migrants are positively associated with a change in food expenditure and so are other types of migrants. A word of caution is needed here. Wealthier households are more likely to send their children to study away from home (other migrant). This could explain the positive and statistically significant coefficient on the other migrant variable. On the other hand, having a working migrant might signal that the household is less wealthy and therefore had to send a member to work somewhere else. Interestingly, having a working migrant offsets the impact of negative shocks on the change in food expenditure (column 6).

Table 15: Migration and natural shocks

Variables	Change in per capita food expenditure					
	(1)	(2)	(3)	(4)	(5)	(6)
Natural shock	-22.64 (18.163)	-22.97 (18.123)	-42.58** (19.444)	-22.65 (18.171)	-22.98 (18.131)	-41.90** (19.418)
Migrant	68.73*** (24.890)	66.50*** (25.016)	41.03 (29.727)			
Migrant × natural shock			75.95* (39.210)			
Remittance recipient household	46.37 (34.408)	46.52 (34.412)	46.52 (34.303)	46.23 (34.441)	46.41 (34.445)	42.34 (34.606)
Kinh		-5.63 (188.097)	-1.01 (190.473)		-5.69 (188.215)	-2.21 (189.901)
Age of household head		1.13 (0.790)	1.16 (0.784)		1.13 (0.789)	1.14 (0.793)
Female household head		56.99 (57.315)	57.02 (57.186)		56.98 (57.326)	56.55 (57.175)
Working migrant				70.41** (32.122)	67.72** (32.224)	29.30 (39.129)
Other migrant				67.33** (29.303)	65.48** (29.399)	54.35(36.011)
Working migrant × economic shock						119.89** (53.082)
Other migrant × economic shock						37.00 (50.871)
Observations	4739	4738	4738	4739	4738	4738
Number of households	2715	2714	2714	2715	2714	2714
Adjusted R-squared	0.025	0.026	0.028	0.025	0.026	0.028

Note: Each model includes household and time fixed effects. Robust standard errors clustered at the household level in parentheses. *Significant at 10%; **significant at 5%; ***significant at 1%.

Source: Author's calculations based on the VARHS database.

Finally, Table 16 presents the evidence related to the relationship between remittances and the type of shock. We find that remittances act as a coping mechanism in the face of economic or natural shocks, as remittance recipient households manage to counterbalance the negative effect of natural shock on food expenditure.

Table 16: Remittances and type of shock

Variables	Change in per capita food expenditure	
	(1)	(2)
Natural shock	-31.16* (18.813)	-31.68* (18.775)
Migrant	67.38*** (24.945)	65.17*** (25.067)
Remittance recipient household	14.88 (41.572)	14.25 (41.500)
Kinh		-15.76 (189.749)
Age of household head		1.15 (0.792)
Female household head		58.50 (57.138)
Remittance recipient household × natural shock	93.81* (55.286)	95.73* (55.152)
Observations	4739	4738
Number of households	2711	2710
Adjusted R-squared	0.054	0.054

Note: Each model includes household and time fixed effects. Robust standard errors clustered at the household level in parentheses. *Significant at 10%; **significant at 5%; ***significant at 1%.

Source: Author's calculations based on the VARHS database.

8 Migration and access to credit

How does migration affect the financial behaviour of households? The evidence reported in Table 17 shows that households with a working migrant and other migrant households show no statistically significant relationship with the change in total amount borrowed. Interestingly, remittance recipient households experience an increase in the total amount borrowed, a result that can be interpreted as showing that remittances increase collateral and ease access to credit. Column 2 presents the results related to the interaction between the type of migrant household and natural shocks. We do not find a statistically significant relationship between this interaction and the change in total amount borrowed.

The next column explores the impact of remittances in the presence of natural shocks. Being a working migrant household eases access to credit in the case of a negative natural shock, therefore supporting the view that working migrant households face natural shocks by resorting to more borrowing. On the other hand, remittance recipient households reduce the amount borrowed in the case of a negative natural shock. We may conclude that, on the one hand, having a working migrant eases access to credit in the case of a natural shock; on the other, remittances counteract the negative impact of a natural shock by reducing the amount borrowed by the household.

Table 17: Migration, remittances, and borrowing behaviour

Variables	Change in total amount borrowed		
	(1)	(2)	(3)
Natural shock	1879.04 (1950.738)	1023.97 (2054.101)	1008.40 (2052.619)
Working migrant	-1663.62 (3116.848)	-4352.46 (4077.264)	-6247.71 (4229.039)
Other migrant	-240.29 (3162.492)	203.43 (3990.438)	-2344.27 (4109.934)
Working migrant × nat. shock		8,438.58 (6384.379)	16,582.28** (7090.551)
Other migrant × nat. shock		-757.88 (5187.580)	6,595.55 (5829.505)
Remittance recipient household	10,624.35*** (3481.131)	10,120.28*** (3513.153)	17,483.77*** (4782.449)
Remittance recipient household × natural shock			-21,336.69*** (7417.379)
Kinh	12,844.70 (11,324.693)	12,956.21 (11,426.000)	16,167.97 (11,324.048)
Age of household head	-40.44 (49.572)	-41.14 (49.784)	-43.90 (49.713)
Female household head	-3932.56 (3671.569)	-3986.55 (3673.432)	-4357.86 (3617.205)
Observations	4569	4569	4569
Number of households	2653	2653	2653
Adjusted <i>R</i> -squared	0.010	0.011	0.015

Note: Each model includes household and time fixed effects. Robust standard errors clustered at the household level in parentheses. *Significant at 10%; **significant at 5%; ***significant at 1%.

Source: Author's calculations based on the VARHS database.

9 Conclusions

This paper provides an overview of the characteristics of migrant households and analyses the effects of migration in Vietnam, on the basis of the VARHS conducted in 2012 and 2014. The data reveal significant movements of household members, both intra-province and inter-province, with about 20 per cent of the interviewed households having at least one member who has migrated. The two main reasons for migrating are education and work-related motives. Significant differences are uncovered between migrant and non-migrant households, as migrant households are wealthier than non-migrant households, as measured by food expenditure quintiles. The econometric analysis shows that remittances and migration act as a shock-coping mechanism, especially in the presence of natural shocks. Migrant households are also more likely to have better access to the market for credit. In particular, remittance recipient households seem to react better to natural shocks, as the remittance flows counterbalance the need for formal borrowing.

Given the large and increasing migration movements within Vietnam, it has become crucial to understand the role of remittances as a means of poverty reduction and as a risk-coping mechanism and also the features of migrant households, especially in the face of shocks affecting household welfare. This paper makes a significant first step in understanding these issues for the 12 provinces included in the VARHS dataset. The results suggest that migration has the potential to act as a safety valve for vulnerable households in rural communities. Better-off households are more likely to migrate, however, which suggests that there are constraints to migration for less-well-off households. Our findings suggest that constraints to voluntary migration should be removed, particularly for poorer households where members may have the desire to leave their home community to find work but may not have the resources to do so. Moreover, there may be a role for government or other agencies in developing formal banking mechanisms to facilitate the remittance of funds back to sending households. On a final note, we would like to emphasize that the VARHS data focus on the characteristics of the sending households and not the migrants themselves. More data and research are needed on the vulnerability and welfare of the migrants who move to find work. This is beyond the scope of these data and this study.

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