

Chapter 9 International Remittances and Development in West Africa: The Case of Burkina Faso

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Remittances are one of the precious spin-offs of international migration in developing countries. They have been fast growing for the last decade, but like any other income, they fluctuate with economic conditions which are affected by several shocks, such as the ongoing covid 19 pandemic. Nevertheless, these transfers sometimes exceed Official Development Aid (ODA) and Foreign Direct Investment (FDI) in some parts of the World such as Sub-Saharan Africa, demonstrating their importance for promoting socio-economic development. This chapter focuses on Burkina Faso, a West African country where more than 80% of the population practice subsistence agriculture, and bear heavily the consequences of poor climatic conditions, exacerbated by the ongoing climate change. The country also has a great history of migration mainly written by its colonial past. Using data from several sources such as the World Bank indicators and national surveys, this chapter aims firstly to understand the trends of remittances flows in the country for the last decade. Secondly, using a national survey on migration conducted in the country, we found that receiving international remittances increases the probability of setting up a non-agricultural business. This result suggests that remittances can help households to set up businesses and be less dependent on climatic conditions.

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9.1 Introduction

The ongoing Covid 19 pandemic has undoubtedly affected the lives of millions of people whether directly or indirectly. From the economic point of view, projections are alarming for many sectors of the economy. According to the World Bank, a decline in the amount of remittances is expected, and stems from the fall in the incomes of migrant workers in their countries of destination, as they are usually the most vulnerable on the labor market (World Bank, 2020). These inflows however represent an important source of income for poorer households in developing countries. As a matter of fact, the 2030 development agenda emphasizes their importance in target 10c that aims to reduce to "less than 3% the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5%" (UNDP, 2020).

Regarding the current situation, the World Bank predicts a sharp decline by 20% of global remittances resulting from the impact of covid 19 and national shutdowns. This decline is projected to be 23.1% in Sub-Saharan Africa (SSA). Though SSA countries do not rank among the top remittance-receiving countries, worker's remittances more than doubled between 2000 and 2006 (Mohapatra & Ratha, 2012). Remittances play a key role in reducing the negative impacts of a broad variety of shocks, (both before and after the shocks), but there is no unanimity in the direction of this impact.

Regarding the old scourge of poverty, Adams and Page (2005), working on developing countries, showed that remittances reduce poverty, by lowering the number of people living under the poverty threshold by 3.5%. For Acosta et al. (2006), if the share of remittances to GDP increases by 1%, it results in a decrease of 0.4% of poverty rates. For Moises and Donghun (2011), the dampening effect of international remittances on poverty is more noticeable for the 10% poorest countries. At the micro-level, similar results have been found in the case of Mexico (Lopez-Cordova, 2005), Nepal (Loskin & Bontch-Osmolovski, 2010), Mali (Gubert et al., 2010), and Ghana (Adams & Alfredo, 2013; Asiedu & Chimbar, 2020). Poverty put aside, empirical literature found that remittances have a dampening effect on consumption instability (Ebeke and Combes, 2011), climate shocks (Tapsoba et al., 2019), child labor (Boutin & Bargain, 2015) and income inequalities (Chauvet & Mesplé-Somps, 2007; Koechlin & Leon, 2007).

In the case of Burkina Faso, Lachaud (1999, 2005) showed that between 1999 and 2005, the country noted a poverty rise due to the decrease of remittances from Burkinabè migrants living in Ivory Coast. This period was marked by the political context between 1998 and 2003 that caused the fleeing of a large number of Burkinabè immigrants. Lachaud used two surveys conducted by the National Institute of Statistics and Demography (INSD) of Burkina Faso to assess the impact of remittances on poverty. The first one conducted in May 1998 concerned 8478 households, the second one in April 2003 concerned 8500 households across the country. The latter had a specific module regarding the Ivorian crisis. Remittances were measured by a binary variable, with one representing households receiving

remittances that constituted up to 75% of all transfers received, and poverty variables referring to poverty lines defined by INSD. Hence being poor was defined as inability to ensure basic needs, estimated at 72690 FCFA per capita per year in 1998 and 82,672 FCFA in 2003. The author found that remittances reduce poverty both in rural and urban areas. Regarding urban areas, the author argues that remittances help the most vulnerable such as inactive, jobless, independent workers, and mainly farmers, by relaxing their economic constraints in the short term. In the long term, remittances can help households set up activities and businesses to increase their income.

From a national development point of view, the literature shows that remittances have a significant impact on investment, particularly in transport. Migrants in their country of destination or return migrants bring their expertise in this sector, by renewing the vehicles and offering new services (Bredeloup & Kouraogo, 2007). In the short term, Sabo and Kouraogo (2013) state that remittances ease the financial constraint of recipients, enhance their ability to avoid poverty and hunger, and promote gender equity in education.

As stated earlier, the beneficial effect of remittances on people's living conditions is not unanimously recognized in the literature. In the short term, they can dig the gap between households who can send a migrant abroad (in the end receive remittances), and others that cannot. However, as migrants leave the locality, they may establish networks that could be used by members of poorer households to migrate (Mouhoud, 2010). In the same vein, Stark et al. (1986) argue that the network resulting from the migration of people from the community may allow households with no migrants to also experience migration and remittances. Hence, remittances may initially increase inequalities, tbut decrease it later on, due to the network developed by primary migrants abroad. At the macro level, Ebeke (2010) found a nonlinear impact of remittances on inequalities. In the context of poor countries such as SSA countries, they exacerbate income inequalities and reduce them in North African countries. Social inequalities between migrant households and nonmigrant households can also take the form of discrimination or stigmatization of migrant households. Some of these households might be stereotyped as more prone to leisure thanks to the remittances they receive (Gubert, 2007; Acosta et al., 2009).

In the case of Burkina Faso and according to Wourtese (2008), remittances contribute to increasing inequalities between households that receive remittances and households that do not. This point of view is somehow shared by Lachaud (1999) who also argues that the dampening effect of remittances on inequalities is only found in the rural areas. Hence, remittances tend to exacerbate inequalities in urban areas. Cazachevici et al. (2020), adding to the numerous empirical work on the effect of remittances, produced a meta-analysis of their impact on the growth of countries. Based on 538 estimates, the authors found that 40% of them report no effect, 20% a negative effect, and 40% found a positive effect. They suggest that remittances are growth enhancers in Asia, but not in Africa (Cazachevici et al., 2020).

The usage of remittances by households can somehow give an insight into why this inflow has or does not have an impact on people's livelihood. In the case of Burkina Faso, Dabiré (2016) highlights the developmental impact of international

migration. Hence, the Center East region of Burkina Faso is according to the author, a testimony to the development impact of remittances. The diaspora input takes multiple modern forms and modern circuits such as banks, financial and governmental institutions. The remittances they send help families to improve their livelihood by modernizing their agricultural techniques, diversifying their sources of income, and building more resilience to climate shocks. It is therefore a matter of how remittances are used by receiving households to avoid poverty. A report of the Organization for Economic Co-operation and Development (OECD) suggests that households who receive remittances in urban areas mainly use them for education, health, and savings purposes. Rural areas rather use them for agricultural activities and health expenses (OCDE/ISSP, 2017).

In this chapter, we are taking advantage of a migration survey conducted in the country in 2014 to go further into understanding the developmental impact of remittances, by assessing the ability of adults to set up businesses when receiving remittances. There is an interesting and abundant literature regarding the role that remittances plays in explaining scourges such as food insecurity, income inequalities and poverty in Africa, and specially in Burkina Faso. However, to the best of our knowledge, this is the first work that investigates the link between remittances and enterprises in Burkina Faso. We aim to contribute to the discussion on the developmental effect of remittances, by assessing if receipt of remittances motivate people to set up non-agricultural businesses. By doing so, they become less dependent on climatic conditions, more capable of fulfilling their needs, and improving their living standards, which ultimately enables them to participate in national development.

9.2 Remittances and Development in Burkina Faso

9.2.1 Migration and Remittances in the History of Burkina Faso

The current pattern of migration in Burkina Faso is intimately linked to the colonial history of the country. During the colonial times, the country was considered a labour force tank, where French people drew their labour force for the development of the West African French colony. Hence, during the twentieth century, 40% of Burkinabè male migration was towards international destinations. Ivory Coast was the first destination, because of French colonial interest, and Ghana came second, mainly because of geographical proximity and the less coercive character of British laws (Piché & Cordell, 2015).

Workers' migration towards the neighboring countries had already at the time, financial spin-offs. Migration towards Ivory Coast for example was financially compensated in exchange for work in commercial agriculture, forestry, and the construction of the main railway linking Ivory Coast and Burkina Faso (Surret-Canale, 1964; Mandé, 1992; Piché & Cordell, 2015). In the case of Ghana, where the

migration was on a voluntary basis, Burkinabè's surveyed between 1900 and 1931 declared that they went to Ghana to work in agriculture, and earn higher salaries.¹

Since the independence of the country, Gregory (1974) suggested that in the period 1968-1970, remittances in the country were estimated between 12,000 and 20,000 FCFA per capita per year. Specifically, on the migration towards Ivory Coast, a study by Kohler (1972) showed that short-term migration (between a year and two years) brings the most remittances with an estimated 32,500 FCFA per capita. This result is emphasized by Rémy (1968) who found that migration between 6 and 18 months is the most lucrative. Studies showed an important role of remittances on the national budget. Hence, Songré and Sawadogo (1972) using the West African Central Bank (BCEAO) data showed that in 1968 and 1970, Burkinabè in Ivory Coast sent between 3.2 and 5 billion FCFA home. The amounts gathered in 1968 could have represented according to Piché and Cordell (2015), 3.3% of the GDP and 3.5% of the receiving households' income. A percentage which is underestimated according to Kohler (1972), who thinks that the numbers are 25 to 35% in reality. For Coulibaly (1987), the same year of 1968 recorded remittances worth 75% of the total value of exports, 52% of the national budget, and 7.6% of the GDP between 1968 and 1978. Lastly, for Blion (1990), remittances sent between 1970 and 1974 covered 43% of the commercial deficit of the country. Despite the amount, some authors suggest that their impact is very little on development. From the money sent back home, 1/3 was used to pay taxes, and the rest was sometimes used for prestigious consumption (clothes, jewelry, bikes, radios) (Kohler, 1972; Coulibaly, 1987).

9.2.2 Sources of Remittances Data and Their Impact on Development

9.2.2.1 The World Bank Indicators

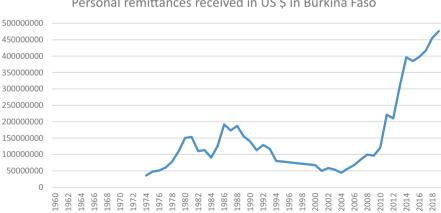
The World Bank is one of the main global sources of information on remittances. They record personal remittances which are personal transfers and employee compensation. Personal transfers come from countries' balance of payments. They are goods or financial assets sent by migrants to people in their countries of origin. They include according to BCEAO, personal transfers, and transfers from non-lucrative organizations in favor of households (BCEAO, 2013). Personal transfers also do not take into account the filiation link between the sender and the recipient.

Employee compensation are the seasonal income of nonresident employees, working in a foreign country. These data give an insight into the evolution of remittances, but the reason for sending and the utilization of these funds are not

¹A study conducted at this time on return migrants show that the maority of them declared that thay went to Ghana to earn more money and be able to pays the taxes in the French colony of Haute Volta at the time (Marchal, 1980).

recorded. These flows are generally rising for most of the recipient countries, however, the scientific community often thinks that they are underestimated. Amuedo-Dorantes and Pozo (2005) argue that only banks and money sending operators are traceable. Informal channels such as "hand to hand" are difficult to monitor on a macro level. Clemens and Mckenzie (2014) argue that the common increase of remittances is mainly due to the improvement of tracking systems, rather than the rise in the amount sent or the rise in the stock of migrants abroad. Between 1990 and 2010, only 21% of the remittances' growth is effectively due to a growth in the stock of migrants, and the improvement of their living conditions in destination countries (Clemens & Mckenzie, 2014). The remaining 79% are only the cause of more sophisticated ways of measuring remittances.

Figure 9.1. shows the evolution of personal remittances in Burkina Faso since 1974. When looking at the last 20 years, we can see that since 2000, remittances have been generally rising, with small declines, which can be explained by global challenges and political conditions in the main destination country of Burkinabè migrants. Ivory Coast's political situation in the early 2000s caused the fleeing of hundreds of thousands of Burkinabè, resulting in a decline of remittances. In that situation, Lachaud (2005) argues that 21.1% of households were receiving remittances from Ivory Coast in 1998, and only 4.8% of them were receiving remittances in 2003. After this difficult period, the amounts of remittances started to grow again, thanks to the end of conflicts in Ivory Coast. Migrant workers were able to go back to the Ivory Coast, where a large number of them had their lands. The global financial crisis in 2007 caused a small decline in remittances in 2008, but in the following years, the amounts grew again. It is important to note that through the years, the destination of migrant workers diversified. Hence, Burkinabè began to broaden their horizon, and in absence of a national census, national surveys often showed that Burkinabè were now migrating towards countries like Italy, Equatorial Guinea,



Personal remittances received in US \$ in Burkina Faso

Fig. 9.1 Burkina Faso's Personal remittances' evolution. (Source 1: The World Bank Development Indicators and authors' calculations)

Gabon, and Guinea Conakry. Nevertheless, Ivory Coast remains the main destination, and the spinoff of this migration has been recorded by early national surveys on migration.

9.2.2.2 National Surveys and the Impact of Remittances on Development

Two main migration surveys have been conducted in Burkina Faso after the independence. The first one in 1974 was collecting retrospective data on the population's movement and was gender-sensitive. Stories of 93,387 migrants were recorded (Coulibaly et al., 1975). The second one, conducted in 2000 recorded migration information of 8644 Burkinabè (Piché & Cordell, 2015).

According to Piché and Cordell (2015), studies using the first survey showed that labor migration had no impact on the development of Burkina Faso. Using remittances as an explanatory variable, they show that they had no significant impact on development measured par the setup of productive activity. For the second survey, the discussion mainly focused on the dampening effect of remittances on poverty. Living standards indicators designed by the INSD showed that the vast majority of remittances received by households were coming from the Ivory Coast. However, the flow started to decline around the 1990s. For Lachaud (1999), this reduction contributed to making households poorer. Sawadogo (2009) tried to explan this finding by arguing that people receiving remittances are more reluctant to work, and often abandon their jobs, relying on remittances sent by previous household members. On a macro level, using economic growth as a development indicator, Piché and Cordell (2015) show that indeed poverty did not go down with migration, but rather went up. On this matter, Ouedraogo (2009) thinks that development might not be centered only on the financial impact, but also on health, education, life expectancy, to understand the role of remittances and migration.

Since these two surveys, numerous surveys have been conducted in the country, addressing migration issues whether directly or indirectly. The INSD often conduct surveys that do not exclusively concern migration, but some questions give a view of what is going on in the migration scene. Examples are living standards surveys (INSD, 2018), Demography and Health surveys, and national censuses.² Generally, for INSD, 46% of remittances are used for food consumption, 15.5% for economic activities, 12.4% for health, 6.1% for education. An analysis of the link between poverty and population using three series of data, namely living conditions standards survey, demography and health surveys, confirm that migration and remittances have a positive impact on children schooling and better housing conditions (Zoukaléini & Kaboré, 2007).

We chose to present here the results of a survey conducted by BCEAO (Banque Centrale des Etats de l'Afrique de l'Ouest) in the West African Economic and

²The last national census conducted in 2019 results is yet to be published, but features interesting questions about migration and remittances.

Monetary Union (WAEMU) countries in 2011. This survey aimed to understand the pattern of workers' remittances in the WAEMU area. The Central Bank emphasizes that remittances were fast-growing and ranked at the second position of inflows, surpassing ODA and behind FDI. They defined workers' remittances as money sent from a former member of a household living in a foreign country. This money represents a fraction of what is earned by the migrant abroad, and have the following characteristics:

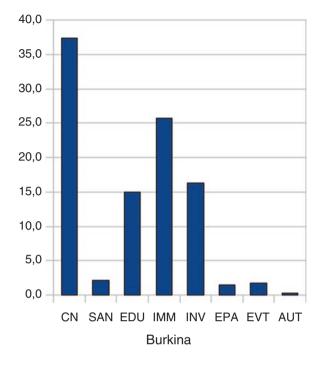
- They are transactions between individuals or households;
- They are rather sent from richer countries to less rich countries;
- They rise during festivities (religious and cultural events such as Ramadan Christmas...);
- They are usually small amounts sent frequently;
- They vary with economic conditions in countries of destination and shocks in countries of origin;
- They sent mainly through informal channels.

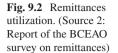
In Burkina Faso, 2281 households have been part of the survey. Results show that 74% of the remittances were sent via formal channels such as money sending operators. Obviously, 30.9% of the remittances were from Ivory Coast, with a total of 46.9% remittances coming from the rest of Africa.

Figure 9.2 suggests that 37% of remittances were used for consumption (CN), 25.7% for investments in property (IMM), 16.3% for other investments (INV), and 15% for education (EDU). The survey used in this work however do not give information about the usage of remittances by households. However, in the following lines, and given the availability of data, we try to understand if people who receive remittances in the context of this survey, use them for longer term purposes, which are setting up businesses.

9.3 Remittances and Enterprises

In a country where 80% of the population is living on subsistence agriculture, income diversification can be a good way of facing possible shocks. However, income and activities' diversification highly depend on the financial capacity of households, their aversion to risks, and several other determinants related to their characteristics (Barrett et al., 2001). Financial barriers are however one of the main determinants. They can prevent poor households (that are the most vulnerable) from developing nonagricultural activities, especially when insurance and credit markets are deficient (Reardon, 2001). These barriers tend to leave poorer households into less diversified income activities, and higher risks of income variations. Therefore, when finances draw the investment patterns, asset poverty trap can emerge, causing the poor households to stay unable to break through a circle of low return activities, while wealthier households diversify in more remunerating activities (Barrett et al., 2001). Transfers such as remittances can act as barrier lifters. In fact, due to market





failures, agricultural households take part in non-farm activities in two steps (Reardon, 1997a, b). First, they can sell labour to the migratory market,³ and secondly, use remittances (assuming with the New Economics of Labour Migration (NELM), that migration decision is taken at the household level, and that migrants keep interactions with their families through remittances) to set up businesses and invest in other remunerated activities.

According to the INSD, an enterprise is an economic entity, that aims to produce goods and services for selling purposes (INSD, 2018). The literature linking remittances and entrepreneurship often measure entrepreneurship with self-employment variables. This literature is very global, and often find a positive impact of remittances on the probability of setting up businesses. Hence, in the case of Kosovo (Kotorri et al., 2020), Tunisia (Mesnard, 2004), Albania (Piracha & Vadean, 2010), Uzbekistan (Kakhkharov, 2018), El Salvador (Acosta, 2007), it was found that remittances have a positive and significant impact on the probability of being self-employed (setting up an enterprise). More precisely, using microdata in Mexico, Shapiro and Mandelman (2016) showed that remittances have a positive impact on

³Migration has been found in the literature to be a coping strategy for households that face shocks of any kind. In the case of Botswana and India, (Lucas & Stark, 1985) and (Rosenzweig & Stark, 1987) showed that migration is a strategy adopted by households to cope with harvest shortfalls, and dampen the effect of consumption fluctuations. Diversification is another way of coping with climate uncertainty.

self-employment, qualified as micro-enterprises by the authors. In the case of Ecuador, Vasco (2013) argues that there is no effect of remittances or migration on the probability of households owning businesses. However, education and access to services are correlated positively with the probability of owning an enterprise. Also in Latin America, Acosta (2007) underlines the importance of gender and living in an urban area in understanding the link between remittances and entrepreneurship in El Salvador. In the case of Africa, to the best of our knowledge, micro-level studies that seek to understand the impact of remittances on entrepreneurship are rare. However, examining 19 African countries, Ajide and Osinubi (2020) found that remittances and foreign aid are complementary, impacting positively the creation of small start-ups. In the case of Burkina Faso, we then propose to assess the impact of international remittances on the creation of nonagricultural businesses using the OECD/ISSP survey on migration and development.

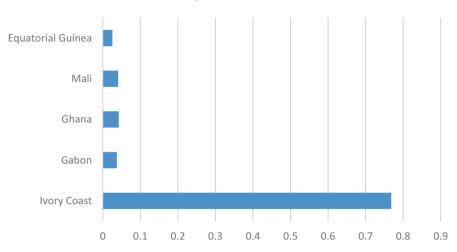
9.3.1 Descriptive Statistics

The 2014 national migration survey conducted in Burkina Faso gives us a good insight of the development potential of remittances in Burkina Faso. Sponsored by OECD and conducted by ISSP, the IPPMD (Interractions entre politiques publiques migration et développement) survey which was conducted between April and May 2014 has both a quantitative and qualitative fieldwork components. The quantitative fieldwork of the study surveyed 2200 households, consisting of 63% non-migrant households and 38% migrant households. The study aimed to understand the relationship between migration and key sectors such as the labor market, agriculture, education, investment, and financial services (OCDE/ISSP, 2017).

The sampling in the survey considered two criteria which were urbanization and the intensity of international migration. Urbanization was chosen as a criterion given that cities are more attractive for international return migrants, and that rural areas are the departure areas for emigration. The international migration criterion was based on the 2006 national census of Burkina Faso, where the results show that the majority of international migration was towards Ivory Coast (INSD, 2009). In each district, the number of international emigrants plus the number of international returned migrants were divided by the total number of the population in the district.

The descriptive analysis gives us an insight of the migration, but also remittances pattern from Burkinabè abroad.

Figure 9.3 shows that the primary destination of Burkinabès is Ivory Coast at 76%, followed by Ghana at 4.4%, Gabon at 4.1%, Mali at 3.7%, and Equatorial Guinea at 2.5%. The remaining percentage is for numerous countries in Africa (Angola, Algeria, Benin, Cameroon, Congo Brazaville, The Gambia, Guinea Conakry, Niger, Nigeria, and Togo), Europe (France, Greece, Italy, Netherlands), Americas (USA, Brazil), and Asia (Taiwan, UAE). This shows the rather diverse destinations of Burkina Faso's migrants, but the historical and colonial destinations remain.



Burkinabè migrants' main destinations

Fig. 9.3 Share of emigrants by country of destination. (Source 3: OECD/ISSP survey and author's calculations)

1				
Households with international migrants		Households with no international migrants		
Variable	Mean	Variable	Mean	
Food expenditures	22876.6	Food expenditures	24558.74	
Kitchen carburant	6987.5	Kitchen carburant	4899.721	
Transport expenditures	12770.81	Transport expenditures	13671.35	
Water expenditures	3000.957	Water expenditures	3588.569	
Electricity expenditures	8813.327	Electricity expenditures	8391.272	
Health expenditures	22480.14	Health expenditures	22479.09	
School expenditures	58313.64	School expenditures	73507.85	
Clothing expenditures	32076.98	Clothing expenditures	33581.32	
Agricultural expenditures	45926.32	Agricultural expenditures	51392.02	

Table 9.1 Descriptive statistics of households according to their migration status

Source 4: OECD/ISSP survey and author's calculations

On a total of 2200 households, 13.77% have an international migrant and 86.23% do not. Table 9.1 shows different expenses with a distinction of their migration status. Regarding food, transport, water, school clothing, and agricultural expenditures, households with no migration experience spend more money. In the case of health expenditures, though the number of migrant households is lower than non-migrant households, their average expenditures in health are close to non-migrant households. Expenditures in carburant and electricity appear higher for migrant households.

9.3.2 Remittances and the Probability of Setting Up a Business

9.3.2.1 Baseline Specification

We are estimating the following model, where:

$$Y_i = a_i + \beta_1 X_i + \beta_2 Z_i + \varepsilon_i$$

 Y_i : takes the value 1 if the individual owns an enterprise

 a_i : Constant term

 X_i = takes 1 if the individual received international remittances

 Z_i = other explantory variables like age, gender, school levels, marital status and living in a rural/urban area.

 ε_i = eorror term

Table 9.2 presents the first results of the probit estimation. The results suggest that receiving remittances increases the probability of individuals setting up a nonagricultural business. Marital status also seems to explain very well this probability. When the individual is married, there is a higher probability to set up a business. This can be explained by the responsibility that comes with being married and having to provide for the family. Also, in many African countries, marriage is sometimes a matter of two families coming together, and with that, comes a huge financial responsibility.

Living in a rural area decreases the probability to set up a business. Rural areas are usually agricultural areas, where opportunities for income diversification are

Variables	Enterprise	Enterprise	Enterprise	Enterprise	Enterprise
Remittances	0.128*	0.139*	0.142*	0.156**	0.190**
	(0.0751)	(0.0754)	(0.0758)	(0.0760)	(0.0771)
Marital status	0.298***	0.358***	0.372***	0.409***	0.336***
	(0.0502)	(0.0513)	(0.0518)	(0.0570)	(0.0579)
Rural area		-0.316***	-0.313***	-0.312***	-0.427***
		(0.0462)	(0.0462)	(0.0462)	(0.0485)
Gender (Female)			-0.200***	-0.214***	-0.258***
			(0.0442)	(0.0456)	(0.0465)
Age				-0.00410**	-0.00671***
				(0.00161)	(0.00162)
school level					-0.528***
					(0.0661)
R.Squared	0.0096	0.0214	0.0265	0.0280	0.0466
Observations	6335	6335	6335	6335	6335

Table 9.2 Effect of receiving remittances on the probability of starting an enterprise

Source 5: OECD/ISSP survey and author's calculations

Robust standard errors in parentheses

*** p < 0.01, ** p < 0.05, * p < 0.1

rare. The literature in fact argue that in order to cope with eventual shortages of income, individuals often engage themselves in non-agricultural activities for three main reasons. They may want to insure themselves against food or consumption shortages (Reardon et al., 1992), they may just want to survive when facing shocks (Islam, 1997), or they have an opportunity (Reardon, 1997a; Murdoch, 1995). This opportunity often comes with the development of markets, which create new activities, and opportunities for the population. Cities are usually the result of this development and therefore may explain for our estimation, the fact that living in a rural area hurt the probability of setting up a business.

Gender also plays a big role. Our results show that being a female decreases the probability to set up a business. The same result is found for age and having a secondary school level or more. Regarding gender, its fairly understandable given the fact that women are not often found in the entrepreneurial scene in Burkina Faso, especially in rural areas. Regarding schooling, it is important to note that surveys conducted by the INSD on employment and informal sector, showed that the majority of self-employed people have never been to school, or have a primary school level (INSD, 2016a, b). Hence, the result of our schooling variable is not surprising.

9.3.2.2 Heterogeneity

Given that Burkina Faso is mainly an agricultural country, we ascertained if there is any difference between agricultural households and non-agricultural households. To do so, we divided our sample into two, using a variable coming from the question "During the last 12 months, did your household exploited a farm". This question sought to capture the information regarding the fact that the household worked in the agricultural sector during the last 12 months. From this question, we found that 66.68% of adults were living in agricultural households and 33.32% were living in non agricultural households. For the sub-sample of agricultural households, we introduced two additional control variables, which are the surface area of the crop field, and a binary variable that takes 1 if the household sells a part of its harvest. On average, individuals are living in households that have 4.57 ha of crop field. Also, 39.04% of individuals are living in households that sell a part of their harvest to the market. Results in Table 9.3 show that receiving remittances do not explain the probability of setting up a business in the case of agricultural households. Rural areas being mainly poorer, one can expect that remittances may not be enough to deal with immediate expenses such as food expenditures, and also contribute to setting up non agricultural businesses. In fact, living in a rural area reduces the probability of setting up a non agricultural business. Results are the same for characteristics such as gender (being a woman), age, and having a secondary school level or more. We can also see that if the total field area owned by the household increases, the probability of setting up a business decreases. This result suggests that bigger land owners might not be encouraged to set up non agricultural businesses, perhaps because their agricultural activity is enough for them. The same result is found for the variable that capture if the household is selling a part of its harvests. Hence,

Variables	Enterprise	Enterprise	Enterprise	Enterprise	Enterprise	Enterprise	Enterprise
Remittances	0.147	0.152	0.0905	0.111	0.134	0.0733	0.0205
	(0.0954)	(0.0961)	(0.0947)	(0.0952)	(0.0957)	(0.0999)	(0.103)
Marital status	0.628^{***}	0.667***	0.383^{***}	0.475***	0.420***	0.465***	0.471***
	(0.0622)	(0.0632)	(0.0701)	(0.0796)	(0.0822)	(0.0860)	(0.0881)
Rural area		-0.370***	-0.353^{***}	-0.359^{***}	-0.396^{***}	-0.279^{***}	-0.263^{***}
		(0.0537)	(0.0553)	(0.0555)	(0.0569)	(0.0597)	(0.0610)
Gender (Female)			-0.212^{***}	-0.251^{***}	-0.267***	-0.304^{***}	-0.312^{***}
			(0.0552)	(0.0586)	(0.0588)	(0.0609)	(0.0621)
Age				-0.00858^{***}	-0.00974^{***}	-0.0102^{***}	-0.0105^{***}
				(0.00203)	(0.00203)	(0.00212)	(0.00215)
school level					-0.354^{***}	-0.335^{***}	-0.316^{**}
					(0.105)	(0.108)	(0.110)
Total field area						-0.0655^{***}	-0.0607***
						(0.0147)	(0.0148)
Harvest sold							-0.128^{**}
							(0.0625)
Observations	5280	5280	4203	4203	4203	3993	3875

Table 9.3 Results for agricultural households

Source of UECD/ISSF survey and autr Robust standard errors in parentheses *** p < 0.01, ** p < 0.05, * p < 0.1

Variables	Enterprise	Enterprise	Enterprise	Enterprise	Enterprise
Remittances	0.250*	0.249*	0.247*	0.229*	0.285**
	(0.128)	(0.128)	(0.129)	(0.129)	(0.133)
Marital status	0.354***	0.354***	0.356***	0.325***	0.263***
	(0.0775)	(0.0775)	(0.0781)	(0.0831)	(0.0847)
Rural area		-0.0188	-0.0303	-0.0196	-0.172
		(0.214)	(0.212)	(0.213)	(0.217)
Gender (Female)			-0.176**	-0.169**	-0.266***
			(0.0739)	(0.0742)	(0.0784)
Age				0.00420	-0.000628
				(0.00269)	(0.00277)
school level					-0.655***
					(0.0873)
R.Squared	0.0165	0.0165	0.0205	0.0220	0.0666
Observations	2100	2100	2100	2100	2100

Table 9.4 Results for non agricultural households

Source 7: OECD/ISSP survey and author's calculations Robust standard errors in parentheses *** p < 0.01, ** p < 0.05, * p < 0.1

selling a part of their harvest decreases the probability of setting up a non agricultural business. This result is understandable if we consider that households that sell the crops they harvest can be considered as a form of agricultural business. The conclusion here, might be that belonging to a household that has a type of agricultural business reduces the probability of an individual to set up a business.

Table 9.4 shows the result for nonagricultural households, and the results are fairly different, but similar to the main specification results. People who receive remittances are more likely to set up businesses, and the coefficient is significant. This result is the same for married people, who are also more likely to set up businesses. Some characteristics however play negatively. Indeed, people living in rural areas, having at least secondary school education, and women are less likely to set up businesses.

9.4 Conclusion

The present work took advantage of the World Bank indicators, national living standards surveys, and latest 2014 migration survey conducted by ISSP to understand the remittances patterns and the role they play in development in Burkina Faso. Personal remittances recorded by the World Bank Group show that they have been rapidly growing for the past 20 years, with a few fluctuations due to political issues in the main destination country of Burkinabè migrants' (Ivory Coast), as well as global issues such as the 2007 financial crisis. The living standards surveys that measured indirectly some migration indicators show that remittances have been mainly used by households for consumption, and mainly nonproductive expenditures.

The survey sponsored by OECD and led by ISSP aimed to understand the links between migration and development. Descriptive statistics first showed that the historical migration pattern of Burkina Faso is still up to date. Hence the majority of migrant workers still have Ivory Coast, Ghana, and Mali as main destination countries. Descriptive statistics also showed that nonmigrant households do often engage more in nonproductive activities.

Secondly, focusing on remittances and adult people, we attempted to understand the role that remittances play regarding the probability of starting a business. The results show several interesting conclusions. When receiving remittances, people are more likely to set up businesses. Moreover, the responsibility that comes with marriage plays an important role as they increase the probability of setting up a business. Age, being a female, living in a rural area, and having a secondary school level decreases the probability of starting a business. Regarding the rurality, one can think that cities offer more opportunities than villages. Regarding school level, the national survey on employment and informal sector showed that most businesses are led by young male people, who have a maximum of primary school level. When dividing our sample in two according to the farming status of households, we found that remittances play no role in setting a business up.

Our results suggest that agricultural households do not use remittances they receive for new activities such as non agricultural businesses. We saw in Sect. 9.2.2.2 that national surveys conducted in the country suggest that remittances received by households are mainly used for short term consumption. For this sub-population of agricultural households, that are usually the poorer, remittances might just not be enough for them to fulfill their basic needs, and develop other activities. Hence, remittances seem to help people who are not primarily living on agriculture to further develop enterprises. People who live in agricultural households however, might use them for short term purposes such as consumption.

Given the ongoing crisis and the conflict context of Burkina Faso, the horizon seems very gloomy for the development of the country. In fact, remittances are expected to drop significantly for receiving countries according to World Bank and may cause an impoverishment of households that were former recipients. In order to ensure that this precious source of income helps the population to avoid poverty durably, government, as well as development institutions should contribute to identifying productive sectors of the economy where households can invest remittances that they receive. As stated by Maphosa (2007) based on a study in Zimbabwe, countries such as Burkina Faso and international organizations should implement programs to encourage the flow of remittances, and channel them into sustainable investments, which can contribute significantly to poverty reduction and development. Also, following goal 10 of the sustainable development goals, efforts should be made to facilitate a safe transfer of remittances at lower costs.

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