The dominant view of the relationship between migration and development has changed significantly over the past three decades. Prior to the 1990s, the view was that migration had overall negative effects on migrants’ communities of origin. However, in the 1990s, the view was that the effects of migration were large and positive. Currently, the consensus among researchers is that the effects of migration on development are not invariably positive or negative but, rather, are contingent on a set of factors that vary over time and across locales. De Hass, for instance, writes:

Suggesting an automatic mechanism in which migration leads to more development (or the contrary) would be to ignore the accumulated evidence pointing to the differentiated nature of the spatial, temporal, social and sector-specific impact of migration. . . .Migration impacts are therefore highly context-sensitive (De Hass 2006:579).

Likewise, after conducting an extensive literature review on migrants’ remittances and development, Ghosh (2006:70) concludes that, “to sum up, remittances can contribute to investment and output growth, but this is not automatic, and should not be taken for granted.”

A closer look at the studies that lend empirical support to the current view reveals that multiple factors may shape the relationship between migration and development. These factors range from fiscal and socioeconomic policies (for example, exchange rates, interest rates, employment),...
to local infrastructure and natural resources (for example, schools, health clinics, roads, public transportation, running water, electricity, availability and quality of land), to migrants’ household and individual characteristics (for example, assets, number of dependants compared to earners, total months of U.S. experience). In practice, researchers work with different combinations of explanatory factors; for instance, some look at community- and national-level variables, others analyze community- and household-level variables, and others study community- and individual-level variables. As a result, when these studies are taken together, they show a great deal of variation in terms of the factors that facilitate (or impede) migration-driven development.

One goal of this chapter is to examine whether the large variability of findings reported in the literature since the mid-1990s has more to do with the multiple aspects and dimensions of analysis considered in studying the association and less to do with the nature of the association between migration and development. To this end, the chapter focuses on one particular aspect of economic development—productive investment.\(^2\) The selected studies have three characteristics in common: (a) they investigate the relationship between migration and productive investment, (b) they assess the level of investment, and (c) they advance an explanation for the observed findings. The systematic comparison of these studies shows that, indeed, they tend to focus on several goals, include different sets of explanatory factors, and use diverse methodologies, all of which contributes to the great diversity of findings reported in the literature.

However, the systematic comparison across studies also reveals that there are several common trends among them. In other words, the relationship between migration and productive investment, the development aspect examined here, turns out to be less erratic than an initial reading of the literature suggests. To be sure, the evidence shows that migration has varying effects on development; however, those effects are not randomly distributed across locales.

The second goal of this chapter, then, is to identify general trends across a diverse group of findings and to discuss the implications of these trends for the study of the interactions between migration and productive investment.

The divergent effects of migration on local development have been a central preoccupation in the Mexico-U.S. migration literature since the early
1990s. Moreover, many researchers have argued that the fundamental question regarding the relationship between migration and development is why international migration seems to be associated with positive development outcomes in some communities but not in others. Yet, few attempts have been made to offer a thorough answer to this question. In particular, researchers still lack a comprehensive framework that takes into account the multiplicity of factors that may contribute to development (or the lack thereof) in migrant-sending regions and, at the same time, examines the interactions among those factors and their evolution over time. This chapter contributes to the construction of such a framework.

Specifically, a framework is advanced that conceptualizes the relationship between migration and productive investment. This framework integrates the main findings of the literature, offering an overview of the multiple factors that may contribute to migration-driven investment. The chapter’s main argument is that investment is contingent on four main factors:

- A minimum amount of money remitted or saved
- A minimum level of local development
- The presence of suitable investment opportunities
- The existence of specific household arrangements.

These factors are, in turn, the result of other sets of interrelated factors, and some of those interrelations are examined, as well. In sum, the framework identifies a comprehensive set of conditions that account for high or low levels of productive investment in migrants’ communities of origin and specifies some of the mechanisms that lead to those outcomes. Accordingly, the chapter:

- Reviews the literature on the relationship between migration and development, particularly as it relates to migration from Mexico to the United States
- Compares a set of studies that report a significant level of productive investment with a set of studies that report a limited level of investment and identifies general trends within and between them
- Outlines a conceptual framework that examines the relationship between migration and productive investment
- Illustrates the proposed framework by applying it to the analysis of investment patterns of two migrant communities in western Michoacán, Mexico
Literature Review

Academic views on the relationship between migration and development have changed significantly in the last three decades.

From Pessimism to Optimism

In the specific case of Mexican migration to the United States, the dominant view during the 1980s was that migration contributed to increases in migrants’ household incomes and standards of living, but it seldom “stimulated production or created new employment opportunities” in their communities of origin (Reichert 1981:63; see also Stuart and Kearney 1981; Wiest 1984). Households with members working in the United States had access to an array of goods and services that made their lives not only more enjoyable but also more productive (for example, access to health care, education, better housing). These tangible improvements among migrant households led other community members to leave for the United States, increasing the share of the local population with migratory experience.

However, consistent with dependency theory and with a historical-structural perspective, many researchers argued that the higher rate of migration, and its concomitant greater flow of remittances and savings entering migrants’ communities of origin, did not lead to a significant change in the structural conditions that engendered migration in the first place. Migrant households did increase their levels of consumption, but very few were able to establish, enlarge, or renovate a business and, thus, directly contribute to local employment (including self-employment). Based on these findings, the general consensus among researchers was that:

- Once migration starts, it “perpetuates itself” (Wiest 1984:132)
- As migration to the United States becomes more prominent among the population of a locality, its economy becomes more dependent on, or tied into, U.S. labor markets
Migration does not contribute to the type of development that ensures “the long range viability and autonomy of sending communities” (Reichert 1981:64).

If, in the 1980s, the prevailing view in the literature on the effects of migration on development was pessimistic, the opposite was true in the 1990s. Articulated as the New Economics of Labor Migration, scholars subscribing to this position claimed that migration had positive and large effects on development. The gist of the argument, which served both as a critique of the previous position and as a foundation of its own, centered around the specifications of the appropriate object of study, the determinants of migration, and the effects of remittances on the economy at large.

New Economics of Labor Migration argues that migration is a household strategy and, consequently, when studying migration the appropriate unit of analysis is not the individual but the household. Also, in contrast with neoclassical economics and the historical-structural perspective of the 1980s, it maintains that migration is not driven primarily by wage differentials between sending and receiving countries, or by the lack of employment or meaningful employment opportunities in migrants’ communities of origin. Instead, it is driven by the desire to overcome risk and credit market failures. Migration is seen, therefore, as a household strategy to diversify sources of income, augment capital assets, and provide insurance against risks (Taylor 1999; Taylor et al. 1996).

If this premise is correct, as New Economics of Labor Migration’s proponents contend, then migrants’ remittances and savings cannot be analyzed independently of other household incomes, as was the practice during the 1980s, with the proliferation of remittances-and-savings use surveys. Rather, household expenditure decisions are made taking into consideration all household incomes and assets, whether they are available at present or in the future. In particular, some studies show that having a household member in the United States augments the propensity to invest in Mexico, possibly because it loosens capital constraints or acts as a tacit “insurance policy” against future, unforeseen risks (Taylor and Mora 2006; Taylor et al. 1996). This latter positive effect on development could not be captured with remittances-use surveys and thus remained unnoticed during the 1980s.

New Economics of Labor Migration’s main contribution to the migration and development debate, however, has been to draw attention to the
indirect or multiplier effects of migrants’ remittances and savings on the economy. As Durand, Parrado, and Massey (1996:425) explain:

By focusing on the small share of migradollars devoted to productive investment, however, prior investigators have ignored the indirect effects that consumer spending has on economic production and income in Mexico. Even though migradollars may be spent largely on consumption, this spending augments the demand for goods and services produced in Mexico, leading ultimately to more production, higher employment, and increased national income. In short, migradollars have potentially strong multiplier effects throughout the Mexican economy.

To be sure, during the 1990s, proponents of this position argued that migrants’ remittances and savings had potentially strong multiplier effects not only at the national and regional levels, but also at the community level. They maintained that as the amount of remittances and savings coming from the United States rose, so did “the demand for locally produced goods and services, creating entrepreneurial opportunities for nonmigrant households and raising production, income and employment throughout the community” (Massey and Parrado 1998:12; see also Papail and Arroyo Alejandre 1996:121; Taylor 1999).

In recent years, a number of studies have questioned the magnitude of the multiplier effects of remittances on the economy, showing that they have a limited impact on national growth (Fajnzylber and López 2007; Ghosh 2006; Kapur 2005; Rannveig Agunias 2006). In Latin America, for instance, Fajnzylber and López (2007:xi) find that in the 11 countries included in their sample, an average increase in remittances “from 0.7 percent of GDP [gross domestic product] in 1991–1995 to 2.3 percent of GDP in 2001–2005 is estimated to have led to an increase of only 0.27 percent per year in per capita growth.” At the local level, researchers have found that although the multiplier effects of remittances may vary greatly across locales, in general, those effects tend to be small because most of the goods and services demanded by migrant households are not produced or offered locally, but in nearby regional centers (Arroyo Alejandre and Berumen Sandoval 2000; Arroyo Alejandre and Corvera Valenzuela 2003; Arroyo Alejandre, De León Arias, and Valenzuela Varela 1991).

From Uniform Effects to Diverse Effects

As the idea that migration had varying effects on development took hold in the literature, researchers began to look at the circumstances under
which the observed effects tended to occur. Further, some scholars maintained that the discussion about whether migration had positive or negative effects on development missed the point. Rather, they argued, efforts should focus on what they considered the fundamental question of this debate: why migration is associated with positive development outcomes in some cases but not in others (Durand and Massey 1992; Ghosh 1992:432; Taylor 1999:65). This analytical shift—from describing the effects to investigating their causes—marked a new phase in the study of the relationship between migration and development.

A direct consequence of this analytical shift has been the difficulty in interpreting the large variability in results reported in the literature. In part, this has to do with the fact that many studies tend to look at the conditions that account for a specific outcome without investigating whether those same conditions are present or absent in other studies. Without a systematic comparison across studies, it will be difficult to assess whether there are common trends across different locales and, most important, to advance a thorough answer to the key question mentioned above.

Migration and Investment: A Comparative Analysis of the Literature

As a preliminary step to advancing a general framework that examines the relationship between migration and investment, a systematic review of the literature on this problem was conducted. Two sets of studies were analyzed: (a) studies that report a positive and significant association between international migration and productive investment in migrants’ communities of origin, and (b) studies that report a positive but limited association between these two processes. In both cases, the studies’ goals, data, methodology, and suggested explanatory factors were investigated. These topics and whether there are some common trends between these two groups of studies are the focus of this section.

Productive Investment in Migrant-Sending Regions

Table 10.1 provides details about a set of studies that report a positive and significant association between international migration, including migrants’ remittances and savings, and productive investment in migrant-sending
<table>
<thead>
<tr>
<th>Study</th>
<th>Goal</th>
<th>Data and methodology</th>
<th>Explanatory factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arroyo Alejandro and Corvera Valenzuela 2003</td>
<td>Identify the conditions that determine the positive impact of remittances on migrants' communities of origin in western Mexico</td>
<td>General Census of Population and Housing, and other economic censuses, Mexico, 1998, 2000</td>
<td>Entrepreneurial structure</td>
</tr>
<tr>
<td>Basok 2003</td>
<td>Study “the link between the impact of migration on local development and the nature of communities in which remittances are spent” (p. 6)</td>
<td>Guest workers survey conducted in 11 communities of Guanajuato and Tlaxcala, Mexico in 1999–2000</td>
<td>Worse-endowed communities greater investment in land</td>
</tr>
<tr>
<td>de Haan 1999</td>
<td>Identify the conditions that determine the impact of migration on agriculture</td>
<td>Analysis of secondary sources, including the author's previous research, various countries</td>
<td>Context</td>
</tr>
<tr>
<td>Durand et al. 1996</td>
<td>Determine the factors that affect the odds of spending U.S. earnings on production relative to consumption</td>
<td>Household survey conducted in 30 communities of Guanajuato, Jalisco, Michoacán, Nayarit, and Zacatecas, Mexico, 1982–83 and 1987–92, and secondary sources</td>
<td>Presence of an Ejido</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Objective</td>
<td>Methodology</td>
<td>Data</td>
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<tr>
<td>Durand, Parrado and Massey 1996</td>
<td>Determine the conditions under which farm households tend to use U.S. earnings to finance agricultural production</td>
<td>Analysis of secondary sources, including the authors’ previous research, Mexico</td>
<td>Household survey conducted in 29 municipalities of Zacatecas, Mexico in 1990–91</td>
</tr>
<tr>
<td>Lindstrom and Lauster 2001</td>
<td>Examine the initial conditions of municipalities that currently offer favorable investment opportunities to migrants</td>
<td>Household survey conducted in 29 municipalities of Zacatecas, Mexico in 1990–91</td>
<td>Household survey conducted in 29 municipalities of Zacatecas, Mexico in 1990–91</td>
</tr>
<tr>
<td>Massey and Parrado 1998</td>
<td>Identify the factors that affect the likelihood of financing a business with U.S. earnings</td>
<td>Household survey conducted in 30 communities of Guanajuato, Jalisco, Michoacán, Nayarit, and Zacatecas, Mexico, 1982–83 and 1987–92</td>
<td>Household survey conducted in 30 communities of Guanajuato, Jalisco, Michoacán, Nayarit, and Zacatecas, Mexico, 1982–83 and 1987–92</td>
</tr>
<tr>
<td>Papail and ArroyoAlejandre 1996</td>
<td>Identify the conditions that contribute to establishing a firm or business among international migrants</td>
<td>Household survey conducted in four cities of Jalisco, Mexico, in 1993</td>
<td>Household survey conducted in four cities of Jalisco, Mexico, in 1993</td>
</tr>
<tr>
<td>Sana and Massey 2005</td>
<td>Test hypotheses that remittances are used for risk diversification and investment versus family maintenance or as income supplement; identify conditions when remittances play the former role</td>
<td>Household survey conducted in Costa Rica, the Dominican Republic, Mexico, and Nicaragua between 1999 and 2002</td>
<td>Household survey conducted in Costa Rica, the Dominican Republic, Mexico, and Nicaragua between 1999 and 2002</td>
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</tbody>
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(continued next page)
**TABLE 10.1 (continued)**

<table>
<thead>
<tr>
<th>Study</th>
<th>Goal</th>
<th>Data and methodology</th>
<th>Explanatory factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sofranko and Idris 1999</td>
<td>Study “whether the use of remittance income for business investment was influenced by several extended family measures” (p. 465)</td>
<td>Household head survey conducted in a community in Pakistan, early 1990s Regression analysis</td>
<td>Household head surveys for business investments</td>
</tr>
<tr>
<td>Taylor 1999</td>
<td>Identify the conditions that influence the nested decisions of migrating and allocating remittances and savings to investments</td>
<td>Case studies from Mexico Use of Social Accounting Matrices Policies (unspecified)</td>
<td>Household head surveys for business investments</td>
</tr>
<tr>
<td>Taylor 2004</td>
<td>Determine the conditions that affect the extent of the positive effects of migrant remittances</td>
<td>Analysis of secondary sources, including the author’s previous research, Mexico Profitability of new production activities or techniques</td>
<td>Household head surveys for business investments</td>
</tr>
<tr>
<td>Woodruff and Zenteno 2007</td>
<td>Study “the impact of migration networks in Mexico on the development of microenterprises in the country” (p. 510)</td>
<td>National Survey of Microenterprises, Mexico, 1998 Regression analysis Access to product markets</td>
<td>Household head surveys for business investments</td>
</tr>
</tbody>
</table>

**Note:** a. The factors that appear in more than one study are in italics.

b. In addition to the factors identified in the table, de Hann (1999) points to the seasonality of migratory flows, and the social structure and institutions allowing women and others to pursue activities previously reserved for men and household heads.
regions. As the table shows, researchers have analyzed very different aspects of this association (see the “Goal” column of the table). In effect, some studies look at the characteristics of the municipalities and communities in which migrants are more likely to invest their remittances and savings (Basok 2003; Lindstrom and Lauster 2001). Some studies investigate the conditions that affect the economic impact of migrants’ remittances and savings on their communities of origin (Arroyo Alejandre and Corvera Valenzuela 2003; Taylor 2004). Other studies examine the conditions that contribute to establishing a firm or a business among international migrants (Massey and Parrado 1998; Papail and Arroyo Alejandre 1996; Sofranko and Idris 1999; Woodruff and Zenteno 2007). Other studies analyze the relationship between migration and investment in agriculture (de Haan 1999; Durand, Parrado, and Massey 1996), while the remaining studies have other goals.

Since these studies have such varying research goals, it is not surprising that they point to a wide range of explanatory factors to account for their findings (see the “Explanatory factors” column of table 10.1). However, if we only compare studies within the same thematic group outlined above (that is, municipality and community characteristics, remittances’ impacts, business and firm formation, and migration and agricultural effects), we still find that they advance different sets of explanatory factors. Thus, for instance, the studies that investigate business and firm formation among international migrants suggest that different conditions may contribute to starting a business. Just to take two examples, while Massey and Parrado (1998) claim that the amount of remittances, the life cycle, the migratory status, and the total years abroad affect the propensity to invest U.S. earnings in a business, Papail and Arroyo Alejandro (1996) maintain that the economic crises, the low exchange rates, the labor experience in the United States, and the total years abroad contribute to that end. That is, there is only one explanatory factor common to both studies: total years abroad. In addition, while the former study includes household-level variables in its explanation, the latter study points to national-level variables.

Finally, the other aspect that may contribute to the large variability of findings is the use of different data sources and methodological approaches. As table 10.1 shows, studies employ a large diversity of sources. Data sources include national censuses; standardized surveys (for example, the National Survey of Microenterprises); customized surveys (designed by the study’s authors); and secondary sources, which usually include qualitative studies.
To use the same comparison as above, Massey and Parrado (1998) and Papail and Arroyo Alejandre (1996) use different data sources to study migration and business formation in Mexico; each uses their own household survey. The surveys differ in terms of the content and representativeness of the data; the former was conducted in 30 communities distributed across five states, while the latter was carried out in four cities within a single state. In addition, these studies differ in terms of methodological approaches—a regression analysis in one case and a descriptive statistical analysis in the other. The use of different data sources and methodologies may certainly contribute to different findings.

**Limited Productive Investment in Migrant-Sending Regions**

Table 10.2 presents a set of studies that report a limited or very limited association between international migration and productive investment in migrant-sending regions. In contrast to the studies in table 10.1, most of these studies have a similar goal: to identify the conditions that tend to be associated with low levels of productive investment in migrants’ communities of origin (Arroyo Alejandre, De León Arias, and Valenzuela Varela 1991; Basok 2000; Delgado Wise and Rodríguez Ramírez 2001; Gundel 2002; Pedraza Rendón, García García, and Ayvar Campos 2004; Taylor et al. 1996). The remaining studies focus on various aspects (Arroyo Alejandre and Berumen Sandoval 2000; Durand, Parrado, and Massey 1996; Durand et al. 1996; Zárate-Hoyos 2004).

Table 10.2 also shows that researchers in these studies advance similar types of explanatory factors to account for low levels of productive investment in migrants’ communities of origin. In effect, with the exception of Arroyo Alejandre, De León Arias, and Valenzuela Varela (1991), Basok (2000), and Delgado Wise and Rodríguez Ramírez (2001), who include household-level factors, individual-level factors, or both, in their explanations, all of the studies in table 10.2 point to unfavorable conditions that operate at the national, regional, and local levels. At the local level, two factors are consistently mentioned—the lack of basic infrastructure and public services, and the lack of high-quality land. Finally, with respect to data and methodology, researchers use a wide range of sources (national and regional household surveys, interviews, secondary literature, and so forth), and methodological approaches (quantitative and qualitative analyses) to obtain these findings.
<table>
<thead>
<tr>
<th>Study</th>
<th>Goal</th>
<th>Data and methodology</th>
<th>Explanatory factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arroyo Alejandre and Berumen Sandoval 2000</td>
<td>Identify the characteristics of the municipalities or regions that tend to be associated with low levels of productive investment (buy, establish, or enlarge a business)</td>
<td>Survey on Migration in Mexico’s Northern Border, 1995 Descriptive statistics</td>
<td>Metropolitan municipalities Regions with low migration rates</td>
</tr>
<tr>
<td>Arroyo Alejandre, De León Arias, and Valenzuela Varela 1991</td>
<td>Examine the main factors responsible for the low utilization of remittances in the development of the rural and semi-urban communities of the study</td>
<td>Household survey conducted in 69 localities of Jalisco, Mexico; interviews; and other secondary sources, 1988–89 Regression analysis</td>
<td>Lack of infrastructure Poor natural resources Low profitability of agriculture Lack of experience in organizing, financing, and administering a business</td>
</tr>
<tr>
<td>Basok 2000</td>
<td>Study the “problems” associated with the low propensity of Canada-bound migrants to invest remittances productively</td>
<td>Interviews with participants of the Canadian Seasonal Agricultural Workers Program conducted in Canada and Mexico in 1996–98 Descriptive statistics</td>
<td>Decline of subsistence agriculture in Mexico because it is considered a nonviable activity Composition—temporal absence of males Low income</td>
</tr>
<tr>
<td>Study</td>
<td>Goal</td>
<td>Data and methodology</td>
<td>Explanatory factors</td>
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</tr>
<tr>
<td>Delgado Wise and Rodríguez Ramírez 2001</td>
<td>Identify the “structural features” that account for migrants’ low levels of productive investment of remittances</td>
<td>National surveys and secondary sources including the authors’ previous research, Mexico Descriptive statistics</td>
<td>Economic difficulties (shrinking of the domestic market) Institutional difficulties (lack of support to small businesses) Lack of a dynamic economy (limited multiplying benefits of remittances on the local economy) Low amounts of remittances and savings (excessive fragmentation of resources for funding projects) Lack of business experience Limited vision for investment options in migrants’ communities</td>
</tr>
<tr>
<td>Durand et al. 1996</td>
<td>Identify the factors that “simultaneously generate high rates of out-migration and low rates of investment” (p. 250)</td>
<td>Household survey conducted in 30 communities of Guanajuato, Jalisco, Michoacán, Nayarit, and Zacatecas, Mexico, 1982–83 and 1987–92 and secondary sources Regression analysis</td>
<td>Limited access to regional product markets Shortage of arable land Small and poorly educated workforce Poor transportation and communications</td>
</tr>
<tr>
<td>Durand, Parrado and Massey 1996</td>
<td>Determine the conditions under which farm households are less likely to use U.S. earnings to finance agricultural production</td>
<td>Analysis of secondary sources, including the authors’ previous research, Mexico Regression analysis</td>
<td>Limited access to product markets Poor-quality land Limited infrastructure (few roads, schools, sewage plants, electricity, phones, etc.)</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Methodology</td>
<td>Findings</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Gundel 2002</td>
<td>Identify the circumstances that prevent the Somali diaspora from investing in productive activities</td>
<td>Lack of political stability, Lack of a favorable economic environment, Lack of political stability</td>
<td></td>
</tr>
<tr>
<td>Pedraza Rendón et al. 2004</td>
<td>Study the factors that account for the very limited use of remittances with productive ends</td>
<td>Lack of economic stability, Lack of political stability, Lack of a favorable investment climate at the regional level</td>
<td></td>
</tr>
<tr>
<td>Taylor et al. 1996</td>
<td>Determine &quot;the obstacles to the effective promotion of development through emigration&quot; (p. 402)</td>
<td>Lack of well-functioning factor markets—mainly rural credit markets, Poor public services and infrastructure, Poor-quality land, fragmented tenure system, and unequal land distribution</td>
<td></td>
</tr>
<tr>
<td>Zarate-Hoyos 2004</td>
<td>Examine why remittance-receiving households from rural areas are less likely to invest in productive activities than households in urban areas</td>
<td>Lack of basic infrastructure and little or no availability of public services in rural areas</td>
<td></td>
</tr>
</tbody>
</table>

Note: a. The factors that appear in more than one study are in italics.
Accounting for Differences in Productive Investment: A Comparison Across Studies

A closer look at the factors that tend to promote and hinder productive investment (tables 10.1 and 10.2) reveals some interesting trends.

First, different levels of productive investment tend to be associated with different types of explanatory factors. In the case of a positive and significant correlation between migration and productive investment (table 10.1), most studies identify diverse combinations of structural and individual factors. Investment tends to occur, in general, when there are certain national-, regional-, or local-level conditions or a combination thereof (structural factors) and when individuals or households have certain characteristics (individual factors). In other words, these studies seem to indicate that a favorable investment structure, however defined, is a necessary but not sufficient condition for productive investment to occur. On the other hand, most studies that show a positive but limited association between migration and productive investment (table 10.2) point to structural factors alone. That is, the presence of an unfavorable investment structure seems to be a sufficient condition for observing low levels of productive investment in migrant-sending regions.

Second, similar levels of productive investment tend to be associated with multiple sets of factors. The evidence suggests that, indeed, a particular level of investment (low or high) may occur under multiple conditions. However, the observed diversity of factors among studies primarily results from including different groups of variables. That is, the variables present in one study are, in general, partially absent in another study. An example from each table will illustrate the point. Arroyo Alejandre and Corvera Valenzuela (2003) and Taylor (2004) study the conditions that affect the economic impact of migrants’ remittances and savings on their communities of origin (see table 10.1). The former argue that the impact depends on the entrepreneurial structure of migrants’ communities of origin, and the amount, uses, and proportion of remittances within total household incomes, while the latter maintains that it depends on the profitability of the new production activities or techniques and the amount of remittances.

As we can see, only the amount of remittances (the higher, the greater the impact) is common to both studies. Likewise, Arroyo Alejandre, De León Arias, and Valenzuela Varela (1991) and Durand, Parrado, and Massey
(1996) agree that a limited infrastructure and poor natural resources are associated with low levels of productive investment in migrant-sending regions (see table 10.2). However, they also identify other factors: the former study recognizes the low profitability of agriculture and the lack of experience in organizing, financing, and administering a business, while the latter study recognizes the limited access to product markets.

Third, the identification of different sets of factors does not represent, in general, competing explanations of the same problem. In effect, when we consider comparable studies (that is, studies that examine similar research problems), their explanations do not tend to conflict with each other. Instead, they focus on different aspects, offering complementary accounts of the same reality. Take, for instance, the last example. As we have seen, Arroyo Alejandre and his colleagues find that one of the factors that contributes to the low levels of investment in migrants’ communities of origin is the low profitability of agriculture, while Durand and his associates point to limited access to markets. Although several elements contribute to the low profitability of agriculture in Mexico, a limited access to product markets is certainly one of them. People from rural areas with poor roads, high transport costs, limited market information, and scant technical assistance face enormous obstacles to selling their products at a competitive price (IFAD 2006). This example illustrates how, in general, the different explanations advanced by these studies tend to offer complementary accounts of the same problem.

This analysis of the literature provides new grounds for revising the current position on the relationship between migration and development. Specifically, it suggests that although some of the factors that facilitate (or impede) investment may vary across migrant-sending areas, there are clear regularities linking explanatory factors and levels of productive investment.

Also, the previous analysis sheds some light on the nature of the relationship between migration and development. De Hass (2007:70), for instance, maintains that the large diversity of findings reported in the literature shows the “fundamentally heterogeneous nature” of migration/development linkages. However, the empirical evidence discussed here casts some doubts on that conclusion. The diversity of findings seems to be less related to the nature of the linkages between migration and development and more to the multiple aspects, explanatory factors, and methods of analysis considered in studying these linkages.
Finally, the systematic analysis of investment patterns in migrants’ communities of origin speaks directly to the central question of why remittances seem to be associated with positive development outcomes in some communities but not in others. According to the studies just examined, migration is less likely to be associated with productive investment (the aspect of development considered here) when migrants come from communities that have poor public services and infrastructure (roads, schools, banks, and so forth), poor natural resources (in particular, agricultural land), and a rudimentary economic structure. The reverse situation, however, does not seem to be a sufficient condition for investment to occur. In addition to a minimum infrastructure and rich natural resources (in the case of rural areas), studies point to individual and household characteristics for productive investment to occur.

Research on the differential effects of migration has contributed to a better understanding of the complex relationship between migration and development. Still, there are two aspects that have received very little attention: (a) the identification of the mechanisms through which certain conditions lead to certain results, and (b) the study of the interactions and feedback loops among groups of variables and their evolution over time. The few studies that have focused on these aspects offer more nuanced and compelling accounts of how multiple interconnected conditions contribute to produce certain outcomes. Building on these studies and the literature findings outlined above, the next section advances a conceptual framework to examine a specific aspect of the relationship between migration and productive investment in migrants’ communities of origin.

Migration and Investment: Toward a New Conceptual Framework

Most studies that focus on the conditions that tend to facilitate productive investment in migrants’ communities of origin assume that these conditions have independent and unidirectional effects on the outcome. The following example nicely illustrates this type of explanation:

*Migrants with access to resources such as education, potential family workers, a migrant spouse, ejidos, [collective landholding units] and real assets such as land, businesses, and housing are far more likely to channel their migradollars into*
productive investments than are persons without access to such resources, who tend to devote their earnings to consumption (Durand et al. 1996:261).

A minority of studies, however, adopt a different approach (de Haas 2006, 2007; Ghosh 1992, 2006; Lindstrom 1996; Rionda Ramírez 1992; Zachariah, Mathew, and Irudaya Rajan 2001). The authors of these studies propose that the conditions associated with productive investment are interdependent and have feedback effects—the interactions among conditions affect the outcome and, in turn, the outcome affects those interactions. The most important contribution of these studies is the idea that the interactions among factors, rather than the factors per se, are what create favorable and suitable conditions to invest. Consequently, the same combination of explanatory factors may lead to different results if there are differing interactions among these factors.

Lindstrom’s model of trip duration (1996) is a good example of this type of explanation. His main argument can be summarized as follows: The character of capital markets and investment opportunities in migrants’ communities of origin determine the options available for investing foreign earnings. These options, in turn, determine the extent to which migrant earnings will be used to satisfy long-term as opposed to short-term needs. The more the opportunities for local investment, the greater the incentives migrants have to accumulate capital and remain abroad. The evidence shows that migrants from economically dynamic communities are more likely to prolong the duration of their trips and to invest in productive activities than migrants from economically depressed communities (Lindstrom 1996).10

As illustrated in this example, the proposed explanatory factors are closely interconnected and tied to one central issue—the availability (or lack thereof) of investment opportunities in the place of origin. Similarly, the studies identified above focus on other central, interconnected aspects. Taken together, they not only complement each other but also offer a comprehensive view of the multiple components that may affect the relationship between migration and investment. Based on these studies and the extensive body of secondary literature, four primary “nodes of interaction” are identified to account for migration-driven investment outcomes. These nodes are the building blocks of a reference framework that aims to (a) offer a synopsis of the main interactions among key sets of variables, and (b) capture the extremely complex and dynamic nature of the
relationship between migration and productive investment in migrant-sending regions. The four primary nodes of interactions are as follows.

*The first node: Investment is contingent on the amount of money remitted*\(^{11}\)

Investment is contingent on the amount of money remitted, which “fundamentally depends on the migrants’ social and economic position at the destination” (de Haas 2007:15). Migrants’ positions abroad are the result, in turn, of several factors. Chief among them are social networks, which play a fundamental role in the way migrants are incorporated into the labor market of the receiving country. Because recently arrived migrants generally find jobs through other network members, the larger and longer-standing the community of people from the same place of origin living abroad, the greater a migrant’s chances of accessing a better-paying job (Light 2006; Massey and García España 1987; Zahniser 1999).\(^{12}\) Two additional factors directly affect migrants’ earning capacity: legal status and total time spent abroad (Reyes 1997). Using data from the March 2004 Current Population Survey, Passel (2005) finds that “incomes for unauthorized migrants are low compared to legal immigrants and the native born, but they increase somewhat the longer an individual is in the country.” At the same time, social networks have a large impact on the total time migrants spend abroad, particularly among undocumented workers. Indeed, as shown elsewhere (Galetto 2008), migrant networks may encompass very different levels of social capital—that is, the set of resources, information, and support that an individual is able to mobilize by virtue of his or her social relations. A large and well-established migrant network is usually better equipped to handle and, sometimes, partially reduce, the risks, fears, and sense of vulnerability that most undocumented workers confront in the country of destination. Experienced migrants are an invaluable source of information and emotional support to help negotiate and succeed in an unfamiliar and hostile environment. Thus, as migrants and, in particular, recently arrived migrants, are able to tap into these network resources, they are far more likely to find a job, withstand the hardships of being an undocumented worker, extend the duration of their trips and, ultimately, save money to invest in a productive activity.

Other factors that tend to be associated with migrants’ earning capacity abroad are:

- The general economic situation in the country of destination
- The economic sector in which migrants find employment
- Migrants’ human capital.
The second node: Investment is contingent on a minimum level of local development

The decision of how and when to use savings earned abroad depends on the investment conditions in the country and, specifically, the community of origin of migrants (de Haas 2007:15). The conditions that favor investment are many and vary according to geographic and socioeconomic context. However, in the case of rural areas, there is a set of local conditions that seems to be critical. They are:

- The provision of basic services such as education, electricity, running water, and phones lines
- The availability of passable roads year-round
- The existence of a minimum level of commercialization
- The accessibility of markets (which is often conceptualized as the relative proximity to commercial centers)
- The availability of natural resources within or near the locality, in particular high-quality land.¹³

Investment conditions may vary over time as a result of the migration process itself. Communities with minimal development may alter the conditions of investment through three basic types of interventions: individual, collective, and joint (private-public) actions. Individual actions that directly affect the investment conditions of a locality include initiating activities that are profitable and nonexclusive. At first, few people are willing to take the risk of investing in a new activity, but once it proves to be profitable, a significant number of people from the same community, migrants and nonmigrants alike, begin to adopt it. The key point is that the activity is profitable and nonexclusive— that is, that the demand for the products and services offered is large enough to support a considerable number of suppliers without affecting its profitability.

When a considerable number of people adopt a new activity it creates new demands for goods and services, thereby stimulating other economic sectors. For instance, when avocado production began to grow steadily in the State of Michoacán, Mexico in the 1970s, so did the industries that were related to the production, transportation, and commercialization of this crop. As a result, migrant communities strengthen and diversify their economic structures. The few studies that offer detailed accounts of the conditions that allowed a significant share of the population to invest in an economic activity show that people invested in the production of commercial crops that were profitable and nonexclusive. In all cases,
these migration-driven investments contributed to the transformation of the economic structure of those communities (see Galetto 1999 for avocado production; Mestries 1994 and Nichols 2004 for peach production; and Rionda Ramírez 1992 for lentil production).\(^\text{14}\)

In addition to individual actions, the investment conditions of a locality may improve through collective actions. Of particular importance are those actions carried out by U.S.-based hometown associations and their counterparts in the country of origin. Hometown associations vary greatly in terms of size, organizational capacity, fundraising, and number and magnitude of projects managed per year. However, they primarily focus on the development of basic infrastructure in migrants’ communities of origin. Some of the most common projects they carry out are the construction and paving of roads; the remodeling of schools; and the provision of water, sewerage, electricity, and street lighting (Alarcón 2002; Kapur 2005; Levitt 1997; Orozco 2000; Zabin and Escala Rabadan 1998). As a result of these actions, migrant organizations “directly help to set the stage for future investments in these communities” (IADB 2006). The study of investment patterns in migrant-sending regions should not only investigate, then, the type of investment (individual vs. collective), but also how these two types of investments evolve and influence one another over time.

Finally, a third way of improving the investment conditions of a locality is through the joint action of the public and private sectors. In Mexico, the quintessential example of this type of intervention is the so-called “Programa 3 x 1.” The program is based on the principle that for each dollar contributed by the migrants, the government contributes three dollars—one each from the federal state, the provincial state, and the municipal state. Since its inception in 1999, “the priority in allocating funds has been the development of basic infrastructure” including the provision of water and electricity, and the building or remodeling of schools, parks, and squares (García Zamora 2004:187; Urciaga García 2004; World Bank 2001). Although collective and joint actions focus on the same types of projects, in practice they are substantially different. The main difference lies in the magnitude of the projects carried out in partnership with the state—they tend to be significantly more costly, larger, and more complex. On the other hand, securing the support of the state requires considerable levels of community organization among members on both sides of the border, and the right political connections between local and
provincial-level authorities (García Zamora 2004; World Bank 2001). Hundreds of communities that do not meet those conditions are at a serious disadvantage because they cannot request desperately needed resources to improve the basic infrastructure and, consequently, the local investment conditions.  

The third node: Investment is contingent on suitable investment opportunities

Investment is contingent on the availability of suitable investment opportunities in migrants’ communities of origin. It is not enough that communities offer attractive opportunities for investment. In addition, those opportunities have to be suitable for the local people, that is, opportunities must have entry-level requirements (capital, labor, skills, and a general knowledge of the activity) that can be met by a significant proportion of the population. When people are confronted with new opportunities, previous experience in that field is very helpful. For example, when a commercial crop is introduced in a rural area, having previous experience in agriculture helps both to minimize the risks and uncertainties associated with starting this new activity and to increase the likelihood of succeeding at it.

The notion of suitable investment opportunities partially explains why people invest in certain sectors of the economy and, within those sectors, in certain types of businesses. At a more general level, it also partially accounts for low levels of productive investment in communities with a long-standing and well-extended migration tradition. Some researchers have argued that the low level of investment constitutes proof of migration’s failure to contribute to economic development (for a full version of this argument, see Binford 2003; for a critical response, see Cohen, Jones, and Conway 2005). Decades of migration experience may have contributed to the development of a locality by, for instance, channeling collective remittances into basic infrastructure projects. However, better investment conditions do not automatically translate into concrete investment opportunities suitable for that particular population. Investment conditions, therefore, should be clearly distinguished from investment opportunities.

At the same time, the availability of suitable investment opportunities in migrant-sending regions affects the migration process itself. In particular, when migrants have such investment opportunities in their communities
of origin, they have a greater incentive to accumulate capital and, therefore, to prolong their migratory careers. As we have seen, Lindstrom (1996) shows that Mexican migrants from economically dynamic communities tend to stay in the United States longer and invest more in productive activities compared to migrants from economically depressed communities.

**The fourth node: Investment is contingent on household arrangements**

Investment is contingent on household arrangements that support the establishment of new enterprises. Households confronted with investment opportunities that require significant amounts of capital or long waiting periods to generate a regular income usually depend on the joint efforts of household members to seize them. In a typical household arrangement, the household head continues working abroad after initiating a business in the hometown, while the wife or partner stays behind to manage the business. Another, less common, arrangement takes place when single sons or daughters invest in a business that is supervised by a close relative, usually a parent; upon return, the business is “transferred” to the owner.

In practice, the decision to invest in a new business and the rearrangement of roles within the household are deeply influenced by social norms. De Haan, for instance, points out that the impact of migration on the local economy depends on, among other variables, the “social structures and institutions allowing—in case of single male migration—women and others to pursue activities previously reserved for men and households heads” (De Haan 1999:29). In Mexico, where there is a strong machista culture, men tend to embark on investment projects with little or no consultation with their wives or partners, even though women often play a fundamental role in ensuring the success of the investment while men are abroad (Galetto 1999).18 In comparison, Gulati (1993) finds that in a rural town in southwestern India where women are strongly discouraged from working outside the domestic unit, male migrants are less inclined to start a business while they are abroad because they would have to ask a close male friend or relative to manage it. Migrants prefer to invest in a business at the end of their migrant careers, when they return to their communities of origin permanently.

Favorable household arrangements are, therefore, the household views, decisions, and practices that tend to facilitate the adoption of new investment opportunities. This node has received the least attention in the literature. Specifically, we still know very little about how households
make decisions about whether to invest in a new business (for instance, how and from whom they gather information about a new investment opportunity), and how households reconcile social, economic, and family obligations (for instance, when parents migrate to maximize their saving capacity and leave their children in the care of a relative). In sum, the examination of household arrangements forces us to consider migration-driven investments (or the lack thereof) within the households’ overall livelihood strategies.

These four nodes of interactions are highly interrelated. Migration-driven investments tend to occur when people are confronted with suitable investment opportunities in their communities of origin and when household arrangements favor their adoption. These opportunities become suitable for some people when, among other things, they can meet their capital requirements. The greater the amount of money a household member remits from, or saves in, the country of destination, the more likely the household is to meet those capital requirements and invest in an economic activity. Also, these opportunities tend to arise in localities that have a minimum level of local development.

In the next section, this framework is used to analyze investment patterns in two migrant communities of Michoacán. The goal is to illustrate the type of analysis that results from examining the interactions and feedback loops among multiple sets of explanatory factors.

**Investment and Avocado Production in Two Mexican Migrant Communities: An Application of the Proposed Framework**

San Juanico and Xhániro are located in the municipality of Tingúindín, in northwestern Michoacán, Mexico. They are good cases for a comparative analysis of migration-driven investment patterns for several reasons.

First, they are similar in size and ethnic composition. In 2005, the populations of San Juanico and Xhániro were 375 and 421, respectively, and only a handful of people in each community reported that they spoke an indigenous language (INEGI 2005).

Second, San Juanico and Xhániro are located about 15 kilometers from one another, possess similar natural resource endowments, and have agriculture-based economies. Agriculture was largely a subsistence activity until the commercial production of avocados began in the mid-1960s. The
production of avocados as a commercial activity developed steadily after that. Today, both communities are part of Michoacán’s avocado-producing region, which has a highly dynamic and fast-growing economy and houses 84 percent of Mexico’s estimated 117,000 hectares planted with avocados (SIAP 2007). This region almost solely accounts for Mexico’s position as the main avocado producer in the world (FAOSTAT 2007).

Third, people from Michoacán have been migrating to the United States since the end of the 19th century (Durand 1994). As a result, international migration has become a widespread and entrenched phenomenon across the state. In 2000, 63 percent of its municipalities scored “high” or “very high” (on a scale also including “very low,” “low,” and “medium”) on the index of intensity of migration to the United States, developed by Mexico’s National Population Council (Tuirán 2002:81). The municipality of Tinguindín rated “high” on the index. Most important, labor migration to the United States started at the same time, the beginning of the Bracero Era (1942–64), in both communities.

Despite these similarities, avocado production has become a central economic activity for a large number of households in San Juanico, but not in Xhániro; while one in four households obtained a substantial share, if not all, of their income by growing avocados in San Juanico, only 1 in 10 households in Xhániro did so. The following subsections briefly explain why a significant number of households were able to accumulate capital in the United States and invested it in avocado orchards in San Juanico but only a handful of households did so in Xhániro.

San Juanico

The production of commercial avocados in the municipality of Tinguindín started in the mid-1960s, when entrepreneurs from outside the municipality came to the area to buy land to establish the first orchards. Although the average rate of return was uncertain at the time, they invested considerable amounts of capital and used the latest technology. After they obtained the first harvest and sold it locally for a good price, producing avocados rapidly became a salient investment opportunity in the area.

Growing avocados is a relatively long-term project that requires, on average, five years of continuous investment. It requires a large initial investment to establish the orchard. Capital is necessary to purchase the
land (if the household does not own a plot), to clean and prepare the site for planting, and to buy and plant the avocado trees. Subsequently, periodic investments are required to maintain the orchard. In general, it is only at the five-year mark, when the trees are in full production, that the orchard becomes self-sustaining and profitable. A significant number of San Juanico’s migrants were able to seize this investment opportunity. How is it that these migrants were able to become engaged in avocado production when most of them were experiencing serious economic deprivations?

Most producers followed a three-step strategy of migrating to the United States, accumulating capital, and establishing avocado orchards. To examine the timing of and relationship among these events, the migration prevalence ratio, that is, the proportion of the population of San Juanico that had traveled to the United States, was estimated for each year between 1950 and 2005 (for more information on how to estimate this ratio, see Massey, Goldring and Durand 1994).24 As figure 10.1 illustrates, between 1950 and 1969 the percentage of the population that migrated to

![Migration Prevalence Ratio, San Juanico and Xhániro, 1950–2005](image)

Source: Author’s analysis of Mexican Migration Project data.
the United States was low, which is common when the process of migration is in its first stages. However, this share soared during the 1970s—the migration prevalence ratio increased from 17 percent in 1969 to a peak of 38 percent in 1979. The proportion of the population with migratory experience declined slightly in the following two decades, and began to expand again in the first years of the 21st century, reaching a historically high 41 percent in 2004.25

Working in the United States was the central means by which individuals accumulated the capital required to produce avocados—a full 80 percent of avocado producers worked in the United States. Even more important, almost 80 percent of the hectares planted with avocado trees in 2005 were established with at least some capital earned in the United States, while almost 60 percent of the avocado hectares were established exclusively with that kind of capital. In addition, as shown in figure 10.2, both having worked in the United States and the amount of time the migrant worked abroad are clearly associated with the establishment of avocado orchards. Indeed, there is a direct relationship between the number of years in the United States and the likelihood of becoming an avocado producer. For instance, while only 30 percent of those who worked in the United States for less than five years became avocado producers, 75 percent of those who worked 15 or more years did so.

FIGURE 10.2
Share of Avocado Producers among Household Heads, San Juanico, 2005

Source: Author’s survey data.
Migrants who invested in avocado orchards continued working in the United States for long periods of time until they were able to earn a living from their orchards. The long waiting period was due not only to the nature of the economic activity, but also to the household strategies adopted to produce avocados. In effect, most producers of San Juanico could only afford to grow avocados by establishing their orchards in phases. For instance, if a producer established the orchard in three phases, he or she first planted one-third of the plot with avocado trees and waited until they started to produce fruit. Then, with the revenues obtained by selling that fruit, he planted the second third of the orchard. He repeated this procedure one more time, at which point the entire plot was covered with avocado trees. Therefore, migrants continued working abroad until the orchard was in full production or was large enough to support the family expenses and cover its own operating costs.26

To carry out this strategy, households depended heavily on the joint efforts of their members. Two types of household arrangements, each associated with a specific migration pattern and avocado production phase, were the most common. The first arrangement took place during the period in which Mexican migration to the United States was dominated by men.27 Consistent with this national trend, the prevailing pattern in San Juanico was that men migrated and the rest of the family stayed behind. Most men were engaged in seasonal migration—they usually left for the United States in March and returned to Mexico in November. Once the orchard was established, the typical arrangement was that the household head worked “in the north” for most of the year, while his wife or partner and usually an eldest son took close care of the family business.

After the 1960s, there was a major shift in the demographic composition of the migration stream from Mexico to the United States when women and children began to migrate in significant numbers. This change, which also took place in San Juanico, gave rise to a second household arrangement in which the entire family migrated to and resided in the United States while a nonimmediate family member remained in the community to manage the orchard.28 This arrangement became vital during the 1980s, when the costs of producing avocados increased significantly (particularly the cost of land) due to an unprecedented expansion of the activity. Households in which the entire family was living in the United States (and which usually had two earners) were in a much better position to accumulate the required capital to invest in avocado production. However,
the household also needed someone in the community who could look after the business. This person usually was the household head’s father or other close relative, who personally supervised and managed the orchard. When the orchard was in full production and generated a steady income, many families returned to San Juanico for good.

The time at which people started growing avocados was critical. The new commercial crop was very well received among Michoacán growers. The area planted with avocado trees grew explosively—it increased 43 times between 1960 and 1981. During the initial years, when avocado production was starting in the area and the demand for the product was beginning to develop, capital entry barriers were relatively low and, therefore, a larger share of the population could afford the costs of producing avocados. Almost two-thirds of all the orchards owned by the people of San Juanico were established between 1960 and 1989 (71 percent of them between 1969 and 1986). After that, there was a sharp decline in the establishment of new orchards in the community.29

In effect, a significant number of San Juanico residents were able to invest in commercial avocado production because they had the right resources at the right time. Two factors largely contributed to this outcome: (a) the rapid accumulation of social capital stocks within migrants’ network, and (b) the availability of high-quality, affordable land in the locality. Each is briefly explained below.

The nature of migration flows to the United States changed dramatically during the 1970s:

- The number of people who migrated to the United States for the first time was five times greater in that decade than in the 1960s
- Upon arrival in the United States, migrants overwhelmingly settled in a single area. Before 1970, San Juanico’s migrants were distributed evenly between different locations in the state of California and the city of Chicago. However, during the 1970s, 9 out of 10 new migrants arrived in Chicago
- There was a substantive change in the gender composition of migration streams. Migration shifted from being a male-dominated phenomenon to one in which women participated broadly.

These changes were mainly the result of the undertakings of two experienced migrants from the community who, throughout the 1970s, regularly helped other migrants get into and remain in the United States.
As a significant number of people from San Juanico found jobs and settled in Chicago, they accumulated resources, established a strong community abroad, and developed a solid social infrastructure to receive subsequent migrants and help them succeed in the new destination. Indeed, many people from San Juanico joined them there. These newly arrived migrants, in turn, accumulated resources that others in Mexico could use, maintaining and boosting the process of social capital accumulation within the network. Thus, the rapid accumulation of high volumes of social capital within the network contributes to explaining why a considerable number of residents of San Juanico were able to migrate and secure investment capital during the 1970s and 1980s.

In addition, land access was critical to investing in avocado production. In the case of San Juanico, land became particularly affordable as a result of a land dispute. At the beginning of the 1960s, a group of residents from the community initiated a formal petition for land to the Secretary of the Agrarian Reform. The piece of land they proposed to expropriate to form an *ejido* belonged to a wealthy storekeeper from the municipal seat. The filing of this petition and the constant threats of an imminent land occupation led the landowner to start selling the land that presumably would be expropriated by the state at below the market price. In addition, by the early 1970s, the first avocado producers of the municipality of Tingüindín had shown that avocado production was an economic activity worth considering. As a result, a significant share of the population of San Juanico bought land and began planting avocados.

Although growing avocados radically transformed the way people practiced agriculture—from subsistence to a market-oriented approach—it was consonant with people’s labor experience. Having agricultural experience facilitated migrants’ investment in avocado orchards in two ways:

- The migrants’ agricultural know-how provided them with many of the skills and the knowledge required to successfully carry out the new activity
- Having agricultural experience made the goal of establishing avocado orchards easy to articulate within the migrants’ worldview.

Finally, San Juanico had a basic economic infrastructure that facilitated the adoption of this economic activity. In particular, the town’s proximity to the municipal seat (it is 4 kilometers north of Tingüindín) and its location on a state highway that connects two important regional hubs in the
northwestern portion of Michoacán (Zamora in the north and Los Reyes in the south) offered great advantages, allowing residents to transport and sell the produce at a competitive price.

**Xhániro**

The residents of Xhániro did manage to grow avocados over the years, albeit to a very limited extent. In 2005, 60 percent of the households produced some avocados. However, the great majority of households (67 percent) owned less than 1 hectare. Most of these orchards were “backyard orchards” where the trees were planted close to each other and without following any neat pattern (many of them were literally in the backyard of the house). Also, their owners tended to use low levels of technology and invest few economic resources in the production of this crop. Hence, for most households, growing avocados was a very small-scale enterprise, done to supplement other sources of income.

Most households engaged in very small-scale avocado production due to their limited capacity to accumulate financial capital. If we examine the capital used for growing avocados, we find that a full 83 percent of the hectares were established exclusively with capital generated in Mexico. However, the majority of the population worked as agricultural laborers in the avocado orchards established by other producers; therefore, their saving capacity in Mexico was very limited. Only 9 percent of the total hectares of avocados owned by the people of Xhániro were established exclusively with capital generated in the United States. This raises the question of why, unlike in San Juanico, so few hectares of avocados were established with capital earned in the United States. Modest rates of migration, restricted access to U.S. labor markets, and the relatively short time migrants spent abroad, all limited migrants’ capacity to accumulate capital that could be used for avocado production. These points are briefly discussed below.

Xhániro’s residents began to migrate to the United States in the 1950s. Yet, for almost three decades the share of the population with migratory experience was negligible. The incidence of migration only began to grow in the 1980s, reaching a peak of 17 percent in 1988. The percentage of residents with migratory experience remained in the upper teens during the 1990s and the first years of the 21st century and then achieved a historic high of 23 percent in 2005 (see figure 10.1).
Thus, although migration to the United States was a relatively long-standing phenomenon, only a modest share of the population of Xháñoiro resorted to this livelihood strategy.

The low rates of international migration were largely associated with the nature of Xháñoiro’s migrant networks in the United States—they tended to be extremely small and geographically dispersed. People summarize it well when they say “estamos todos regados,” which loosely translates as “we are all over the place.” To a great extent, this settlement pattern had to do with migrants’ great difficulty in gaining control over employment opportunities abroad. Many migrants worked either for small firms that only occasionally hired workers (family restaurants, convenience stores, landscaping businesses, and so forth), or in larger firms where employees from Xháñoiro had very little control over vacancies. Also, migrants residing in the United States tended to have sporadic interactions with people outside the circle of family and friends from their hometown. Consequently, they had very few contacts outside their workplaces they could tap into to help other people from Xháñoiro to get jobs in the United States.

In general, the few network members already in the United States had such limited resources that they could not usually provide recently arrived migrants with the minimum assistance needed to stay where they resided. When people from Xháñoiro went to one of these destinations, they typically stayed there for a few days and then moved somewhere else, leaving both the size of the network and the volume of social capital in the network unchanged. Because network resources remained very limited, when other migrants from Xháñoiro showed up at the same U.S. destination at a later time, they confronted the same adverse conditions and, like those before them, they moved someplace else. As a result, migrants from Xháñoiro went to many different destinations in the United States, reinforcing an already scattered settlement pattern.

Between 1950 and 1979, although migration flows were small, first-time migrants went to six different locations in Arizona, California, and Illinois. The destination that attracted the largest number of migrants received one-third of them. During the 1980s, half of those who left Xháñoiro for the United States arrived in Stockton, California. The remaining half, however, went to eight different localities, six of which were new destinations for Xháñoiro’s migrants. Geographic dispersion increased even more in the 1990s; about one-third of first-time migrants went to Stockton, while the rest distributed themselves evenly among eight localities, four of
which were new destinations. Between 2000 and 2005, people continued to migrate to new destinations, and over half of all locations attracted less than 12 percent of migrants each. During this period, Stockton continued to become less important, while Las Vegas, Nevada received the highest proportion of migrants, 34 percent of the total. Overall, California has been the main destination state throughout Xhániro’s migration history; within that state, only Stockton attracted a good proportion of migrants at some point, although too few to trigger a sustained settlement process.31

In most U.S. destinations people from Xhániro used to find short-term, low-paying jobs. Because they usually had access to very limited network resources (in particular, job contacts, housing, and emotional support), after a short time in the United States they tended to return to Mexico. Many of the Xhániro migrants tried their luck in “the north” a few more times; however, unable to significantly alter their labor situation, most of them returned to Xhániro permanently.

The low levels of social capital within the network directly affected migrants’ capacity to remain abroad. Most people from Xhániro had relatively short migrant careers: the average number of months that a household head with migratory experience had spent in the United States was 25 in 1970, 27 in 1990, and 38 in 2005. In comparison, a household head from San Juanico had spent, on average, 77, 123, and 127 months, respectively, in the United States in the same years.32

In addition, the rapid expansion of avocado production throughout the 1970s and early 1980s created an unprecedented demand for agricultural land in the region. A significant number of people from outside the community bought large tracts of land to establish orchards in or near the locality during those years. As time passed and the price of land soared, it became increasingly difficult for local residents to invest in commercial avocado production. Given these conditions, most migrants from Xhániro were unable to meet the minimum capital requirements for producing a significant volume of avocados—only a handful of households, some with migratory experience and some without, were able to seize this investment opportunity and earn a living from it.

Discussion: Migration and Local Development

The comparative analysis of San Juanico’s and Xhániro’s investment patterns contributes to a more nuanced understanding of several aspects
regarding the interactions between migration and development. Four comments are in order.

First, as mentioned, the more time an individual spent working abroad, the more likely he or she was to become an avocado producer. However, the direction of causality, at least at the beginning of the process, was the opposite of that reported by Lindstrom (1996). Rather than a dynamic economy creating incentives to migrate and accumulate capital, in San Juanico a stagnant economy led people to migrate in the first place. Later, when the opportunity to grow avocados emerged in the community as a result of broader agricultural changes in the region, the individuals who had been migrating for some time invested in it and continued migrating for many years.

Second, local conditions may change as a result of regional transformations. Indeed, the investment conditions of a community may improve due to geographic proximity to areas that are undergoing major economic changes, such as the creation of a business district, the construction of a manufacturing plant or, in this case, the introduction of a profitable commercial crop. Thus, while the economic conditions in San Juanico and Xhániro before the mid-1960s did not favor investment in general, these economic conditions began to change when producing commercial avocados in the region became a viable and profitable way of earning a living. However, to capitalize on regional transformations and reap their benefits, communities need to have the right resources at the right time. San Juanico and Xhániro not only offered excellent conditions for producing avocados, but also had a land tenure system, the small private property that allowed people to freely buy and sell land. These two characteristics attracted many people to invest in the so-called “green gold” of Michoacán. Among such investors were many of those in San Juanico who had migratory experience.

Third, although growing avocados was not a suitable investment opportunity for most people of Xhániro, including those who had U.S. migratory experience, it was certainly suitable for other people who were able to meet this crop’s entry-level requirements. Individuals from outside the community—most of them from outside the municipality—bought large tracts of land to produce avocados. Moreover, Xhániro was one of the two localities with the highest share of large avocado orchards in the entire municipality of Tinguindín (JLSVT 2004). The production of this crop created a significant number of permanent jobs in and near the town. Workers
were needed so badly during a time when most of the tasks performed in an orchard were not yet mechanized that producers hired women to work side by side with men—a highly unusual practice in the region.

Finally, as local economic conditions change over time, so do the determinants of migration. The first generation of migrants, that is, those who migrated before the avocado era, uniformly mentioned that they left for the United States because, with the exception of a few weeks per year, there were no jobs available in the local area. The structural conditions of the municipality improved with the expansion of avocado production; its production and commercialization for the national and international markets have become Tingüindín’s main economic activity, creating hundreds of local jobs. However, despite a sustained labor demand, people from San Juanico and Xháníro have continued to migrate to the United States. Chief among the reasons for this continued migration is that the prospects for improving household living conditions are much greater in the United States than in Mexico.

**Conclusions**

This chapter discusses the standard view of the relationship between migration and development. It argues that the large variability in results reported in the literature since the mid-1990s seems to lend little empirical support to the proposition that the nature of migration is highly diverse. Rather, it shows that according to the studies examined here, the large variability in results has to do with the fact that the studies focus on several goals, include varying sets of explanatory factors, and use diverse methodologies.

In addition, the chapter contends that the variability in the results reported in the literature is less erratic than many researchers seem to suggest. An examination of studies according to their reported level of productive investment (low or high) reveals several clear trends. One of the most important is that migration-driven investments are less likely to occur in communities that have poor public services, substandard infrastructure (lack of passable roads, schools, banks, and so forth), few natural resources (in particular, agricultural land), and a rudimentary economic structure. However, the inverse conditions do not seem to be sufficient for investment to occur; in addition to a minimal infrastructure and rich
natural resources (in the case of rural areas), residents tend to invest in their communities of origin when they meet certain individual and household characteristics.

Although the identification of these trends may improve researchers’ understanding of the relationship between migration and productive investment (the aspect of development considered here), few attempts have been made to systematically analyze the multiple and dynamic interactions between these two processes. Moving toward that goal is the main contribution of this chapter, which advances a framework that examines the relationship between migration and productive investment in migrants’ communities of origin.

This framework has four main characteristics:

- It integrates a large body of findings from the literature into a consistent whole. This is particularly relevant because, as explained above, studies tend to focus on very different aspects of the relationship between migration and productive investment.
- It identifies four primary nodes of interaction: (a) the amount of money remitted or saved; (b) the availability of a minimum level of local development; (c) the presence of suitable investment opportunities; and (d) the existence of specific household arrangements. Thus, instead of pointing to isolated individual variables, this framework encompasses sets of highly interconnected variables. As a result, it is better equipped to account for the complex interactions between migration and development—an issue that most researchers acknowledge but that few have actually addressed.
- It incorporates a temporal dimension of analysis. Specifically, it suggests several feedback loops among the primary sets of variables. That is, far from assuming that variables have one-time and unidirectional effects on the outcome, it illustrates specific ways in which the primary nodes of interactions affect, and are affected by, migration-driven investments over time.
- It advances a thorough and systematic method for examining why some communities exhibit high levels of migration-driven investments while others do not. Each node suggests certain aspects that might contribute to a given outcome; they represent, so to speak, lines of inquiry. And, because they are highly interrelated, the examination of one primary node leads to the others. The comprehensive character of this
framework reveals, in turn, some of the mechanisms through which certain conditions result in certain outcomes.

It should be clear that this framework is, nevertheless, a first attempt to systematize the main results in the literature on the relationship between migration and productive investment. It was advanced in the hope that researchers will continue to complete, refine, and improve it in further research.

**Notes**

1. See also Rannveig Agunias (2006:43).
2. The term “productive investment” refers to investments that are made to start, expand, or operate a business that generates employment (including self-employment).
3. Reichert points out that migrants tended to invest in “economic activities that supplement, but rarely replace, migrant labor” (1981:63).
4. Adams, Jr. (1998) reports a similar finding for rural Pakistan. Using five-year panel data from 469 rural households, he finds that the availability of remittances “helps to increase investment in rural assets by raising the marginal propensity to invest for migrant households” (1998:170). The author argues that the higher propensity to invest among households receiving remittances—especially remittances from abroad—has to do with a tendency to treat such earnings as temporary shocks to income that should be invested.
5. For heuristic purposes, tables 10.1 and 10.2 list the explanatory factors according to their main level of operation or influence—national, regional, local, household, and individual.
6. As we can see from this example, table 10.1 does not show the specific value for each factor. Factors are listed in order to maximize the level of comparability across studies. The same criterion applies to table 10.2.
7. Whether the advanced explanatory factors used to account for similar outcomes are, indeed, alternative sets of factors or simply different sets of variables is discussed below.
8. Two of these studies (Arroyo Alejandro, De León Arias, and Valenzuela Varela 1991; Taylor et al. 1996) have more comprehensive goals than the one pointed out above: they focus on the conditions that tend to limit the development of migrants’ communities of origin. However, because limited investment in productive activities affects the prospects for development, they are grouped together for the sake of the argument.
9. Studies that focus on issues that rule out the possibility of including structural or individual factors as part of their explanations are not considered here.
They are Basok 2003; Lindstrom and Lauster 2001; Sofranko and Idris 1999; and Woodruff and Zenteno 2007.

10. Lindstrom finds that “[i]n communities with high levels of female economic activity [the proxy used for high/low levels of economic development], 19.1% of households used remittances to purchase productive capital, compared with only 5.5% of households in communities with low levels of female economic activity” (1996:362).

11. As discussed above, New Economics of Labor Migration rightly maintains that unless remittances are explicitly earmarked for a particular end, they are added to the pool of household incomes; consequently, in analyzing migrants’ spending decisions, researchers should take into account all income sources and assets, not remittances alone. This proposition is incorporated below. For recent publications on remittances earmarked for particular uses and their implications for development, see Grigolini (2005) and World Bank (2001).

12. Family migration increases both the size and level of integration of the “daughter” community abroad (see Galetto 2008).

13. In addition to the references listed in tables 10.1 and 10.2, see Ballard 2005; Binford 2003; Durand and Massey 1992; Lindstrom 1996; and Rapoport and Docquier 2005.

14. Avocado production is discussed in the next section.

15. In addition to the above references, other sources used here are interviews conducted by the author with Nino Andrade, an ex-municipal president of Tingüindín, Michoacán. While he was in office (2002–04), the municipality supported several “3 by 1” programs, including remodeling a church and constructing a square.

16. In effect, when people are confronted with investment opportunities similar to the type of activities in which they used to participate, they are more likely to take risks. However, Ghosh (2006:65) argues that “[g]iven the socio-cultural and educational background of the majority of migrant households in developing countries, it is not surprising that in general they feel unaccustomed and ill-equipped to be involved in risk-taking activities.”

17. The proposition that investment is contingent on suitable investment opportunities is fully compatible with one of the main literature findings discussed in the previous section. Indeed, previous studies show that investment tends to occur when communities have favorable investment conditions and when migrants and their households have certain characteristics.

18. This practice was fairly common among the first migrant households that invested in avocado production in San Juanico, a northwestern rural community of Michoacán, Mexico. Indeed, when avocado production was new to the area, in the mid-1960s, men invested in avocado orchards without their wives’ consent. Further, women strongly opposed it because they thought that their husbands were wasting the household savings—they did not believe that one day they could earn a living as avocado producers. Also, wives opposed
investing in avocado production because it required making huge sacrifices and postponing other basic needs. However, avocado production turned out to be a profitable activity, and a large majority of the migrants who first became avocado producers did very well. As one woman commented 30 years later, “thank God he [her husband] did not listen to me.”

19. This section draws on research conducted by the author between October 2004 and August 2005, using a combination of archival, ethnographic, and survey methods. For a full description of the data and methods used, see Galetto (2008).

20. The migration intensity index is obtained by combining four quantitative indicators; this summary measure is then transformed into the five-point ordinal scale described in the text (CONAPO 2007).


22. These entrepreneurs bought land in two specific places: between San Juanico and the municipal seat, and in Xhániro itself.

23. Considering the orchards’ average size in this avocado-producing district of Michoacán, these producers established large-sized orchards (seven or more hectares). One of them was the first to use irrigation in the municipality. Not only that, he invented a dripping irrigation system to water the trees.

24. The ratio is defined as the number of people older than 14 with international migratory experience divided by the total number of people in that age range. It can be calculated retrospectively for any year using the date of birth and the date of the first foreign trip of every community member.

25. The migration prevalence ratio was advanced to standardize the units of analysis, allowing researchers to compare communities with different socioeconomic characteristics and migration histories. Massey and his coauthors identify five stages of migration prevalence: in the first stage, 1 to 9 percent of the adult population has traveled to the United States; in the second, 10 to 19 percent; in the third, 20 to 29 percent; and in the fourth, 30 to 39 percent. The fifth stage “constitutes a situation of mass migration with overall prevalence ratios above 40 percent” (Massey, Goldring, and Durand 1994:1513).

26. The great majority of San Juanico’s orchards were small: 37.5 percent were less than 2 hectares, 35 percent were between 2 and 3.9 hectares, 10 percent were between 4 and 5.9 hectares, and 17.5 percent were six hectares or more. Although migrants weighed many factors to decide when to stop migrating (size of the family, number of dependants, total household incomes, legal status, labor opportunities in the United States, and so forth), most of them continued migrating until at least two-thirds of their orchards were in full production.

27. This period went from the late 19th century to the late 1960s (Durand 1994).

28. This arrangement coexisted with the first one.

29. Most of the hectares (65 percent) acquired between 1990 and 2005 were located outside the municipality of Tingüindín. They belonged to three producers that started growing avocados in the early time period and are today among the better-off residents of San Juanico.
30. Article 27 of the 1917 Mexican Constitution established three types of land tenure: pequeña propiedad (small private property), ejido (collective land-holding units), and tierra comunal (collective, indivisible land).

31. Most people who in 2005 were planning a trip to “the north” mentioned that they would go to Las Vegas, Nevada. And they had good reasons to choose that destination. A Mexican agronomist from a neighboring town showed up in Xhániro to recruit people for his cattle ranch near Las Vegas. He offered them employment and housing and, as a result, many people started to go there. Note that even in this case, early migrants had little to do with the settlement process in this specific U.S. destination.

32. The previous section argued that when migrants are confronted with investment opportunities in their communities of origin, they have a greater incentive to accumulate capital and, thus, to extend their migrant careers. The case of Xhániro does not contradict this general statement. In effect, most migrants from Xhániro were unable to secure “long-term” employment in the United States. Therefore, they were not in a position to choose how long they wanted to stay abroad.

33. In 2004, there were 16 packing houses for fresh fruit and one processing plant producing guacamole operating in the municipality of Tingüindín; three of these (including the processing plant) were oriented exclusively to international markets.

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