USAID
FROM THE AMERICAN PEOPLE

mpi
MIGRATION POLICY INSTITUTE

Diaspora Investment in Developing and Emerging Country Capital Markets: Patterns and Prospects

By Aaron Terrazas

Diasporas & Development Policy Project

Diaspora Investment in Developing and Emerging Country Capital Markets: Patterns and Prospects

Aaron Terrazas
Migration Policy Institute

August 2010

USAID
FROM THE AMERICAN PEOPLE

mpi
MIGRATION POLICY INSTITUTE

Acknowledgments

This report has benefited from the insight of Dilip Ratha of the World Bank, Kathleen Newland of the Migration Policy Institute (MPI), Yvon Resplandy and Borany Penh of the United States Agency for International Development (USAID), Renee Gifford of The QED Group, LLC, Thomas Debass of the Overseas Private Investment Corporation (OPIC), and the participants in a roundtable on diasporas' capital market investments in their countries of origin organized by MPI and USAID on June 1, 2010. The author also thanks Lisa Dixon, April Siruno, and Michelle Mittelstadt of MPI for their assistance. MPI's work on migration and development, including this project on diaspora engagement, is supported by the John D. and Catherine T. MacArthur Foundation.

This report was made possible by the generous support of the American people through the United States Agency for International Development (USAID) under The QED Group, LLC for the Knowledge-Driven Microenterprise Development project. The contents are the responsibility of MPI and do not necessarily reflect the views of USAID or the United States government.

Cover Photo: 2010. Modified version of Xenodream Background from pluswallpapers.com, copyright permission under the General Public License
Cover Design and Typesetting: April Siruno, MPI

Suggested citation: Terrazas, Aaron. 2010. *Diaspora Investment in Developing and Emerging Country Capital Markets: Patterns and Prospects.* Washington, DC: Migration Policy Institute.

Table of Contents

Executive Summary

Financial flows from migrants and their descendants are at the heart of the relationship between migration and development. There is little doubt that remittances are a large and important intra-family financial flow that can have important effects on financial development. But it is also widely acknowledged that they represent only a fraction of the potential private financial flows originating from diasporas. Substantial evidence shows that diasporas hold substantial financial assets beyond their current income — for instance, in savings and retirement accounts, in property, debt, and equity. Remittances tap the incomes of migrants, but this report argues that the greater challenge is to mobilize the wealth of diasporas. Capital markets perform precisely this function, mobilizing savings and channeling them to productive investment.

Although circumstances across countries vary, financial markets in developing and emerging economies face several general challenges. Underdeveloped financial systems typically hinder formal savings and investment, which leads banks to prefer loans to large, safe borrowers and forces smaller, risker borrowers into informal financial markets. Attracting foreign investors into many developing and emerging economies has proven difficult (at least prior to the recent economic crisis) due to perceptions of high risk, volatile currencies, and information asymmetries. Diasporas may help overcome some of these challenges due to different perceptions of risk, informational advantages, and a bias toward home-country investments that is characteristic of most international investors.

Most policy attention to date on the interaction of diasporas and financial market development has focused on migrants' remittances. This report describes five additional vehicles that have been used to mobilize diaspora wealth via capital markets:

- Deposit accounts denominated in local and in foreign currency
- The securitization of remittance flows allowing banks to leverage remittance receipts for greater lending
- Transnational loans that allow diasporas to purchase real estate and housing in their countries of origin
- Diaspora bonds allowing governments to borrow long-term funds from diasporas
- Diaspora mutual funds which mobilize pools of individual investors for collective investments in corporate and sovereign debt and equity.

The report also explores the potential of several additional options that could be considered in the future: debt issued by subnational governments, diaspora private equity funds to couple access to financing with managerial expertise, and mechanisms to mobilize the savings of institutional investors such as the pension funds of diasporas.

Several existing United States Agency for International Development (USAID) and other US government programs could help address these challenges. And research shows that portfolio managers are the critical agents in overcoming information barriers, so countries of origin could also engage expatriates working in the international financial industry or with financial sector expertise.

I. Introduction

Recent years have witnessed a renewed interest in the complex relationship between migration and development. The role of diasporas — defined broadly to include migrants and their descendants who maintain ties with their countries of origin — has often been overlooked or is discussed only in general terms. Yet a growing body of evidence, both rigorous and anecdotal, suggests that diasporas play a critical role in supporting sustainable development by transferring resources, knowledge, and ideas back home, and in integrating their countries of origin into the global economy.[1]

Financial flows from migrants and their descendants are at the heart of the relationship between migration and development. Most policy attention to date has focused on migrants' remittances. There is little doubt that these remittances are large: to developing countries alone, they were estimated at nearly $316 billion in 2009 — lower than the $335 billion recorded in 2008 but still more than three times the $76 billion recorded a decade earlier, in 1999.[2] Despite a downturn due to the global economic crisis, remittances have proven much more stable and far less volatile than other private financial flows to developing and emerging economies.[3]

Still, it is widely acknowledged that remittances represent only a fraction of the potential private financial flows originating from diasporas. As Dilip Ratha of the World Bank highlights, *remittances tap the <u>incomes</u> of migrants, but the greater challenge is to mobilize the <u>wealth</u> of diasporas.*[4] This report explores a less understood way that diasporas contribute to development in their countries of origin — through participation in capital markets — and identifies opportunities where development policy might enhance this contribution.[5] Capital markets include any institution that matches savings and investments via markets where private- and public-sector entities are able to borrow mid- to long-term funds from multiple lenders, for instance, through stock or bond sales, or through managed funds. International investment in capital markets is known as portfolio investment, and is different from direct investment in enterprises. (The two topics are closely related, however, and direct investment in enterprises is addressed in a companion paper in this series.[6])

1 For an early discussion of the role of diasporas in development, see Kathleen Newland and Erin Patrick, *Beyond Remittances: The Role of Diaspora in Poverty Reduction in Their Countries of Origin* (Washington, DC and London: MPI and the UK Department for International Development [DFID], 2004).

2 This growth reflects both an increase in the number of migrants sending remittances, as well as improved data coverage and the transfer of substantial remittance flows from informal to formal corridors. See World Bank Development Prospects Group, Remittances Data, April 2010, http://go.worldbank.org/SSW3DDNLQ0.

3 These data include only remittances sent through formal banking challenges. Estimates taking into account informal flows may differ substantially. Dilip Ratha, Sanket Mohapatra, and Ani Silwal, *Outlook for Remittance Flows 2010–11* (Washington, DC: World Bank, April 2010). For an alternative view, see Ceyhun Bora Durdu and Serdar Sayan, "Emerging Market Business Cycles with Remittance Fluctuations," International Finance Discussion Paper No. 946, Board of Governors of the Federal Reserve System, September 2008.

4 In line with convention, *income* is the flow of money that individuals receive from labor, government transfers, intrahousehold transfers, or investments. *Wealth,* or net worth, refers to the accumulated stock of savings, real estate, retirement funds, stocks, bonds, and trust funds.

5 The terms *financial market* and *capital market* are used interchangeably throughout this paper. They include markets for loans, bonds, equity, asset-backed securities, and derivatives.

6 Hiroyuki Tanaka and Kathleen Newland, *Mobilizing Diaspora Entrepreneurs for Development* (Washington, DC: MPI and USAID, February 2010).

II. Capital Markets and Development

When they function properly, financial markets[7] efficiently mobilize savings for investment, and there is a general consensus that financial market development and economic growth influence each other positively. Effective capital markets set the stage for innovation and private-sector expansion, which in turn further the growth of these markets.[8] Importantly, the economists Thorsten Beck, Asli Demirgüç-Kunt, and Ross Levine writing for the National Bureau of Economic Research find that financial market development is "pro-poor" in that it disproportionately boosts the incomes of the poor.[9]

Global capital markets are composed of creditors (investors), debtors (debt issuers), and intermediaries who coordinate the exchanges of savers, investors, and consumers:

- *Creditors* include both private- and public-sector investors. Private investors are individuals, corporations, and institutions (e.g., pension and other funds that pool and collectively manage individual investments) that save funds in order to purchase a claim on future earnings. Public-sector investment can originate from traditional national account surpluses (i.e., when a government's expenditures are lower than its revenues) as well as from profitable publicly owned corporations and accrued revenues to sovereign wealth funds (typically funded from commodity export earnings).
- *Debtors* include both sovereign (i.e., government) and corporate borrowers who seek funds from domestic or foreign sources. Among corporate borrowers, an important distinction is between debt and equity. Debt instruments such as bonds require regular repayment of borrowed funds regardless of the borrower's economic circumstances. Historically, both governments and corporations in developing and emerging markets have been far more likely to seek debt financing from banks than from capital markets.[10] Equity relies more on risk sharing between the lender and the debtor and offers potentially large payouts during good economic times and little to no returns during bad economic times.[11] Many stocks perform poorly even during good economic times, and some do well during bad ones. Equity contracts involve substantially more risk on the part of the lender than debt contracts, are more costly for debtors to issue, and require corporations to cede partial control to shareholders.
- *Financial intermediaries* link savers with investors within and across countries.[12] The spectrum of intermediaries ranges in sophistication and scale from rotating credit associations to microfinance operators to traditional banks to brokers, hedge funds, and other financial markets, among others. Financial intermediaries offer a range of

7 The terms *financial market* and *capital market* are used interchangeably throughout this report.

8 Ralph Chami, Connel Fullenkamp, and Sunil Sharma, "A Framework for Financial Market Development," IMF Working Paper WP/09/156, International Monetary Fund, Washington, DC, July 2009.

9 Thorsten Beck, Asli Demirgüç-Kunt, and Ross Levine, "Finance, Inequality, and Poverty: Cross-Country Evidence," Cambridge, Massachusetts. National Bureau of Economic Research Working Paper 10979, December 2004.

10 Gerd Häusler, Donald J. Mathieson, and Jorge Roldos, "Trends in Developing-Country Capital Markets Around the World," in *The Future of Domestic Capital Markets in Developing Countries*, ed. Robert E. Litan, Michael Pomerleano, and V. Sundararajan (Washington, DC: The Brookings Institution, 2003), 21–44.

11 This point is taken from Peter Blair Henry and Peter Lombard Lorentzen, "Domestic Capital Market Reform and Access to Global Finance: Making Markets Work," in Litan, Pomerleano, and Sundararajan, *The Future of Domestic Capital Markets in Developing Countries,* 179–214.

12 The academic literature typically distinguishes between traditional banks, which are considered intermediaries, and financial markets, which directly link savers and investors. This report considers both traditional banks and financial markets along a spectrum of intermediaries.

investment vehicles, from rotating funds to micro- and traditional loans to equity and debt. In some instances, these intermediaries perform additional functions, such as assessing and managing the risks associated with investment (for instance, the risk that a borrower will not be able to pay back the borrowed funds or, in the case of international lending, the risk that exchange rates will change rapidly, altering the profitability of an investment) or fostering good corporate and public financial governance by actively monitoring the sustainability of borrowers' debts.[13]

The rapid growth desired (and, in some cases, experienced) by many developing and emerging economies requires high, sustained rates of investment. This investment is typically financed through a combination of domestic and foreign savings. Some developing countries are able to sustain high household savings to finance corporate and state investment domestically (e.g., China), whereas others rely on earnings largely from commodity exports (e.g., Angola) and still others rely more directly on foreign lending (e.g., Mexico and Brazil during the 1960s and 1970s and Eastern Europe during the 2000s).

Financial market development takes a unique path in each country, and different economies face distinct challenges. But in recent years a standard narrative has evolved to broadly outline the common challenges faced by financial markets in developing and emerging economies:[14]

- *Underdeveloped financial systems hinder savings and investment*. Informal saving is widespread due to limited access to (and, often, mistrust of) formal banking institutions; this and the predominance of cash transactions limit opportunities for households and small businesses to establish credit histories. Macroeconomic or political instability can prompt the already limited pool of formal savers to hold their savings abroad or in a foreign currency. As a result, the domestic pool of savers and the domestic market for investment are typically limited. Yet, critical mass is necessary for financial market development. Economists Robert McCauley and Eli Remolona of the Bank for International Settlements (BIS) estimate that between $100 and $200 billion of capitalization is necessary to ensure sufficient liquidity in sovereign debt markets.[15] Todd Moss, Vijaya Ramachandran, and Scott Standley of the Center for Global Development estimate that foreign institutional investors are hesitant to enter private equity markets smaller than $50 billion in size or $10 billion worth of shares traded annually, and that for the emerging market asset class, the most pressing challenge faced by African capital markets was "mostly one of size."[16]

- *Large, safe borrowers dominate formal borrowing, and smaller, riskier borrowers must resort to informal financial markets.* As a result of the limited pool of domestic savings, traditional financial intermediaries in many developing economies are highly conservative in their lending practices, and formal borrowing tends to be dominated by governments and large, safe companies. Smaller and less established firms, as well as households, must often resort to informal (and often, although not always, less efficient) lenders such as rotating

13 See the Commission on Growth and Development, The Growth Report: Strategies for Sustained Growth and Inclusive Development (Washington, DC: World Bank, 2008).

14 This section draws on Beck, Demirgüç-Kunt, and Levine, "Finance, Inequality, and Poverty."

15 Robert McCauley and Eli Remolona, "Size and Liquidity of Government Bond Markets," Bank for International Settlements Quarterly Review, November 2000.

16 Todd Moss, Vijaya Ramachandran, and Scott Standley, "Why Doesn't Africa Get More Equity Investment? Frontier Stock Markets, Firm Size, and Asset Allocation of Global Emerging Market Funds," Center for Global Development Working Paper No. 112, February 2007, www.cgdev.org/content/publications/detail/12773.

community funds.[17] In recent years, microfinance lenders have played a growing role in providing finance to small and medium-sized borrowers and households perceived as too risky by traditional lenders.

- *Substantial foreign financing is necessary to fund investment due to the small pool of domestic savings.* Another result of a limited pool of domestic savings is that it is typically necessary to attract substantial foreign capital to fund domestic investment (there are, of course, important exceptions to this generalization). The appropriate balance of foreign and domestic financing has been much considered in recent years — particularly in light of the global economic crisis.[18] External finance (i.e., foreign savings) can be highly volatile and susceptible to sudden changes in direction.[19] It often lacks long-term perspective — as illustrated by the financial crises in emerging countries over the past two decades. Overall, experts agree that financial liberalization and integration with the global economy are indispensable for economic growth and improved living standards. But, as noted by the Commission on Growth and Development, there is "no case of a sustained high investment path not backed up by high domestic savings" — i.e., domestic savings are necessary but not sufficient.[20]

- *High potential growth should attract foreign investment, but international investors have proven reluctant to invest in developing economies.* In theory, the higher potential growth rates of developing and emerging economies should attract foreign capital flows. (More recently, low interest rates in most developed economies have also spurred international investors to seek higher returns in emerging market economies.[21]) In reality, substantial barriers to cross-border capital flows exist, and private financiers are often reluctant to invest in developing countries (especially in the poorest, resource-poor economies) for a wide variety of reasons, including perceptions of risk, lack of information, and doubts about enterprise profitability

III. What Is the Role of Diasporas?

Broadly framed, developing and emerging economy capital markets face two interrelated sets of challenges: (1) mobilizing *sufficient* resources to finance development through both domestic and external pools of savings, and (2) ensuring that international investment is *sufficiently stable* to promote long-term growth. The first challenge relates to savings and assets, the second to investment.

Is there a role for migrants and diasporas in helping countries overcome these challenges? Of the substantial research on diasporas investing in their countries of origin, most focuses on direct

17 Jack Glen and Ajit Singh, "Capital Structure, Rates of Return and Financing Corporate Growth: Comparing Developed and Emerging Markets, 1994–00," ESRC Centre for Business Research, Univ. of Cambridge, Working Paper No. 265, June 2003, www.cbr.cam.ac.uk/pdf/wp265.pdf.

18 See Commission on Growth and Development, *Post-Crisis Growth in Developing Countries: A Special Report of the Commission on Growth and Development on the Implications of the 2008 Financial Crisis* (Washington, DC: World Bank, 2010). For a retrospective on the lessons from earlier financial crises in emerging market economies, see John Williamson, *Curbing the Boom-Bust Cycle: Stabilizing Capital Flows to Emerging Markets* (Washington, DC: Peterson Institute for International Economics, 2005).

19 See Carmen Reinhart and Guillermo Calvo, "When Capital Inflows Come to a Sudden Stop: Consequences and Policy Options," in *Reforming the International Monetary and Financial System*, eds. Peter Kenen and Alexandre Swoboda (Washington, DC: IMF, 2000): 175–201.

20 Commission on Growth and Development, *The Growth Report*, 54.

21 Swati R. Ghosh, "Dealing with the Challenges of Capital Inflows in the Context of Macrofinancial Links," World Bank, Economic Premise No. 19, June 2010.

investment. Portfolio investment has been less studied, along with the savings and assets of diasporas. Only recently have researchers begun to focus on the role of remittances in promoting savings, and some banks and microfinance lenders have begun to leverage remittances to expand lending in developing countries.

From the point of view of diasporas, there may be advantages to investment via capital markets. Portfolio investments are more liquid (if less visible and less personal) than enterprises or real estate — two common investments made by diasporas in their countries of origin. While property may provide psychological benefits, the flexibility and returns are often less than those of other investment vehicles, such as bonds or corporate equity. Capital market investment provides diasporas the option to invest in their country of origin through a more liquid mechanism with greater spillover benefits to the local economy.

But important questions remain — particularly in regard to implementation. Although global markets have become increasingly integrated in recent decades, substantial legal and technical barriers exist to the cross-border movement of capital and assets. Do diasporas face the same cross-border barriers to capital mobility as other investors? Are diaspora investors in a distinct class or does their behavior align with either domestic or international portfolio investors?

A. *Mobilizing Assets: Diasporas as Savers*

A robust body of literature examines the *impact of remittances on household savings* and the *use of formal banking institutions*.[22] Banks, money transfer operators, credit unions, microfinance institutions, and other private-sector actors have paid increasing attention to designing savings accounts and other banking products tailored to the needs and preferences of transnational families. Banks, governments, and community organizations have also been increasing their focus on financial education for low income households.[23] The research agenda appears to have shifted away from knowledge and toward operations and experience: it is no longer a question of *whether* remittances contribute to savings and to the use of formal banking services, but rather *how* to profitably provide financial education and banking services to low-income households (or at least how to do so without incurring a loss).

On balance, there is little doubt that remittances represent a substantial resource for development and can provide an incentive for formal banking institutions to compete for low- and middle-income clients in developing countries. Accordingly, the focus on remittance sending and receiving as an entry point for broader financial engagement is well founded. However, diasporas also hold substantial assets outside their countries of origin.

Although the question has not been studied in depth, labor migration flows likely include a society's

22 Douglas S. Massey and Emilio Parrado, "Migradollars: The Remittances and Savings of Mexican Migrants to the USA," *Population Research and Policy Review* 13, no. 1 (March 1994): 3–30; Reena Aggarwal, Asli Demirgüç-Kunt, and Maria Soledad Martinez Peria, *Do Workers' Remittances Promote Financial Development?* (Washington, DC: World Bank, 2005); Una Okonkwo Osili, "Remittances and Savings from International Migration: Theory and Evidence Using a Matched Sample," *Journal of Development Economics* 83, no. 2 (2007): 446–65; Sanjeev Gupta, Catherine Patillo, and Smita Wagh, "Impact of Remittances on Poverty and Financial Development in Sub-Saharan Africa," IMF Working Paper WP/07/38, International Monetary Fund, February 2007; Fernando Rios Avila and Eva Schlarb, "Bank Accounts and Savings — The Impact of Remittances and Migration: A Case Study of Moldova," Kiel Institute for the World Economy, Working Paper No. 448, May 2008. A distinct view argues that in countries with underdeveloped financial systems, remittances serve as a substitute for financial system development although this view is far less widespread. See Paola Guiliano and Marta Ruiz-Arranz, "Remittances, Financial Development and Growth," IZA Discussion Paper No. 2160, June 2006.

23 See, for example, the work of the Inter-American Dialogue and the Global Financial Education Program. Nancy Castillo, Landen Romei, and Manuel Orozco, *Toward Financial Independence: Financial Literacy for Remittance Senders and Recipients* (Washington, DC: Inter-American Dialogue, June 2010), www.thedialogue.org/page.cfm?pageID=32&pubID=2400 and Microfinance Opportunities and Freedom from Hunger, Global Financial Education Program, www.globalfinancialed.org/.

more prolific savers. The age range when savings rapidly increase overlaps with the demographic profile of the immigrant population in the United States (69 percent of immigrants in the United States were of working age in 2008).[24] Evidence from developed countries suggests that individual savings increase rapidly during the prime working-age years, peaking around age 40 to 50, and decline gradually thereafter; there are, of course, differences by generation and across the business cycle.[25] A more limited research base supports this notion in emerging and developing economies.[26]

Migrants in the United States admittedly face many barriers to accumulating wealth. Some are trapped in low-wage jobs due to their low level of education, limited English proficiency, or lack of legal immigration status. Although they are widely recognized as voluntary intrahousehold transfers, remittances inevitably generate extra demands on the income of the sender. Data from the first wave of the US Census Bureau's 2008 Survey of Income and Program Participation (SIPP) suggest that working-age adult immigrants are less likely to hold a wide range of formal financial assets than the native born (see Table 1). It is not clear from the data where the assets are held, which may result in underreporting of checking and savings accounts and rental property among immigrants.

Table 1. Share of Employed Adult Immigrants in the United States Who Own Various Financial Assets, 2008

	Native Born (%)	Foreign Born (%)
US government savings bond	11	3
IRA or Keogh account	25	13
401k or thrift plan	44	28
Interest-earning checking account	39	25
Savings account	58	43
Money market deposit account	15	9
Certificate of deposit	10	7
Mutual funds	13	6
Stocks	17	9
Municipal or corporate bonds	1	<1
Rental property	5	4

Note: Includes employed adults aged 18 to 65.
Source: Migration Policy Institute (MPI) analysis of US Census Bureau, 2008 Survey of Income and Program Participation, Wave 1.

24 Aaron Terrazas and Jeanne Batalova, "Frequently Requested Statistics on Immigrants and Immigration in the United States," Migration Information Source, October 2009, http://www.migrationinformation.org/USFocus/display.cfm?ID=747.

25 See Axel Börsch-Supan, ed., *Life-Cycle Savings and Public Policy: A Cross-National Study in Six Countries* (Amsterdam and Boston: Academic Books, 2003); Frederic Lambert and Matteo Pignatti, "Saving Behavior over the Life-Cycle Does Not Differ across Countries. Portfolio Choices Do," Working Paper, Banque de France, August 2008; Steffan G. Ball, *Stock Market Participation, Portfolio Choice and Pensions over the Life-Cycle* (Washington, DC: Federal Reserve Board, Finance and Economics Discussion Series, Divisions of Research and Statistics and Monetary Affairs, November 2008).

26 See, for instance, Jehad Yasin, *Demographic Structure and Private Savings: Some Evidence from Emerging Markets*, Working Paper, Department of Economics, Population Studies Center, Fort Valley State Univ., 2007.

But many migrants are also able to accumulate substantial assets. Based on data from specially designed surveys, Manuel Orozco and his colleagues at the Inter-American Dialogue estimate that even among relatively marginalized immigrant communities — for instance, those from Mexico, El Salvador, Guatemala, and Haiti — upward of 80 percent save or invest their earnings, although many do so outside formal banking institutions.[27] Still, given the large number of immigrants in the United States, many hold formal financial assets: SIPP data indicate that over 9 million employed, working-age adult immigrants hold savings accounts; around 6 million hold individual retirement accounts (IRAs) or 401k tax-deferred retirement savings accounts; nearly 2 million hold stocks or money market deposit accounts; about 1.5 million hold certificates of deposit or stocks; and less than 1 million own US government savings bonds, municipal or corporate bonds, or US government securities.[28]

The data do not distinguish among the countries of origin of these immigrants, but if the annual income of prime working-age males (18 to 55 years old) is considered as a benchmark of a household's savings and investment capacity, then migrants from several developing and emerging countries appear to hold substantial potential for diaspora-targeted savings and investment vehicles. Among prime working-age males, immigrants from 18 developing and emerging countries (including India, South Africa, Sri Lanka, Lebanon, Malaysia, Croatia, Romania, Turkey, Egypt, Pakistan, Bulgaria, the Philippines, Syria, and Nigeria[29]) have a median annual income equal to or above that of native-born prime working-age males ($40,000).

B. Diasporas as Investors

A distinct body of research focuses on the role of *diasporas as investors* — both directly in enterprises or indirectly as portfolio investors. Two common assumptions regarding diaspora investors merit critical consideration: (1) that diaspora investors benefit from special information regarding investment opportunities in their countries of origin, and (2) that diaspora investors accept below-market rates of return on investment due to patriotic sentiments.

First, it is often argued that diasporas have superior knowledge about investment opportunities and business practices in their countries of origin, and that these information asymmetries make diasporas open to investments that other international investors perceive as too risky — particularly in postconflict or natural-resource-poor countries (e.g., Ethiopia, Iraq, Liberia). Extensive evidence documents the role of diasporas as direct investors in small businesses in their countries of origin.[30] When diasporas invest in businesses owned and operated by others, the investment decision is often based on family or community ties rather than pure profit seeking. While a number of these businesses prove highly successful, as with domestic entrepreneurial undertakings many are ill-conceived and poorly executed. (Of course, a high business failure rate is typical of any dynamic economy: for instance, in the United States only one-third of new businesses established in 1992 were still operating a decade later.[31]) On balance, a healthy dose of skepticism is merited toward the assumption that diaspora investment is any more informed than other foreign investment — particularly since more traditional foreign investors often benefit from expert advice while diaspora investors are often (although not always) novice entrepreneurs.

27 Manuel Orozco, "Financial Access among Remittance Senders," Presentation at the Inter-American Dialogue, Washington, DC, June 14, 2010.

28 These data are based on MPI analysis of Wave 1 of the US Census Bureau's 2008 Survey of Income and Program Participation, conducted during the first four months of 2008. It includes employed working-age adults aged 18 to 65 to control for low asset holdings among youth and asset drawdown by the unemployed and retirees.

29 Data include only countries for which a sufficient sample is included in the American Community Survey.

30 Tanaka and Newland, *Mobilizing Diaspora Entrepreneurs for Development*.

31 Scott Shane, *The Illusions of Entrepreneurship: The Costly Myths that Entrepreneurs, Investors, and Policy Makers Live By* (New Haven, CT: Yale Univ. Press, 2008), 99.

While specialized knowledge is particularly important for direct investment, it plays a less important role in portfolio investment — in particular since portfolio investment is typically channeled through professional managers.[32] As a result, informational asymmetries among portfolio managers rather than among investors may be the relevant lens through which to examine diaspora investment in capital markets. To our knowledge, no existing study on the allocation of international portfolio investment examines the national origins or cultural affinities of portfolio managers.

Second, it is often argued that it may be less costly for the country-of-origin governments to borrow from diasporas since diasporas might perceive investment risk in their countries of origin differently than other investors. This difference in risk perception can lead to a "patriotic discount" on expected returns. Evidence suggests that patriotic discounts are particularly meaningful among first-generation immigrants and when the country of origin faces an external threat. This discount, however, appears to deteriorate oversucceeding generations. Evidence also suggests that diasporas are less forgiving when their countries of origin face financial challenges due to domestic mismanagement. While it is occasionally argued that encouraging diasporas to invest in their countries of origin for patriotic motives violates canon investment principles such as profit maximization, many other investors accept less-than-optimal returns for a variety of other investments such as socially responsible or progressive funds.[33]

From a policy perspective, the question of *how* diasporas invest in their countries of origin may be more relevant than *why* they invest.

Similar to other domestic investors in developing countries, diasporas tend to rely on accumulated savings (often held informally) rather than credit to finance investment. To a lesser extent, some diasporas may obtain bank credit in their country of residence to finance investment in their country of origin. Indeed, access to bank credit is often easier in the country of residence since the latter typically has more developed financial markets, and migrants often have developed credit histories while abroad. But transnational investments financed through borrowing in the country of residence require diasporas to assume currency risk (i.e., the probability that currency exchange rates will change rapidly, altering the profitability of an investment). If lending is secured in the country of origin, of course, this risk does not exist. Diaspora investment in targeted portfolio investment vehicles such as debt and equity is exceedingly rare — at least in part because of the limited number of opportunities.

Evidence on the stability of diasporas' portfolio investment is less conclusive. Such investment appears to behave similar to other sources of foreign portfolio investment, for instance, in the ways it responds to exchange-rate fluctuations and is prone to investor activism. Similar to global venture capitalists and private equity funds, diaspora investors may take a proactive approach to ensuring good corporate governance and sovereign fiscal responsibility rather than simply withdrawing from investments when challenges or strategic differences arise.

32 Assaf Razin, Efraim Sadka, and Chi-Wa Yuen, "Excessive FDI Flows under Assymetric Information," Federal Reserve Bank of San Francisco Working Paper No. 27-99, August 1999, www.frbsf.org/economics/conferences/990923/papers/razin_sadka_yuen.pdf; Juan Carlos Hatchondo, "Assymetric Information and the Lack of International Portfolio Diversification," Federal Reserve Bank of Richmond Working Paper No. 05-07, September 2007, www.richmondfed.org/publications/research/working_papers/2005/pdf/wp05-7.pdf; Wioletta Dziunda and Jordi Mondria, "Assymetric Information, Portfolio Managers and Home Bias," AFA 2010 Atlanta Meetings Paper, February 2009, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1359280&rec=1&srcabs=1344880; and Sandro C. Andrade and Vidhi Chhaochharia, "Information Immobility and Foreign Portfolio Investment," *The Review of Financial Studies* 23, no. 6 (2010): 2429–63.

33 See, for example, Alexander Kempf and Peer C. Osthoff, "The Effect of Socially Responsible Investing on Portfolio Performance," *European Financial Management* 13, no. 5 (November 2007): 908–22; Meir Statman, "Socially Responsible Mutual Funds," *Financial Analysts Journal* 56, no. 3 (May/June 2000): 30–39.

But in other respects, capital inflows from diasporas are more similar to pools of domestic capital, characterized by long-return horizons rather than a constant rush for profit expatriation. Moreover, diasporas are more likely than other investors (although perhaps less likely than direct investors) to have liabilities denominated in the developing country's domestic currency. This reduces foreign exchange risk — the risk that an investment's value will change due to changes in currency exchange rates — since diasporas will often accept repayment or returns in the domestic currency or can be easily convinced to make the initial investment in the domestic currency.

Overall there is little conclusive evidence that capital inflows from diasporas are any more or less stable or farsighted than other forms of foreign investment. The nature of such inflows depends on the structure of the investment vehicle: direct investment is typically less volatile than long-term bonds, which in turn are less volatile than short-term bonds and deposit accounts.

IV. Options and Investment Vehicles

Some indirect evidence suggests that diasporas may participate in mainstream capital markets in their countries of origin. For instance, political economist David Leblang estimates that a 1 percent increase in the migrant stock from source country A in destination country B increases portfolio investment from country B to country A by 0.2 percent — or an average of $450 in portfolio investment per migrant.[34] (Obviously, the focus on the mean obscures a polarized distribution with a large majority investing little or nothing and a small minority investing substantial amounts.) Economists Mark Grinblatt and Matti Keloharju observe that private investors in Finland prefer to hold and trade equities in firms whose chief executive officer is of similar origin, although this bias is weaker among "financially savvy institutions" than among amateur investors.[35] According to Suhas Ketkar, pricing trends in Lebanese sovereign debt suggest that the diaspora plays an important role although the country's financial institutions have not specifically targeted investment vehicles to diaspora investors.[36] But diasporas also face important barriers to direct participation in mainstream capital markets: a domestic bank account is often a prerequisite, and few investors have the capacity or expertise to individually manage a transnational portfolio.

For the most part, it is extremely difficult if not impossible, given available data, to identify mainstream capital market participation by diasporas. While it is presumably often present, it is indistinguishable from other foreign investments. Further research is clearly necessary, possibly using specially designed surveys among diaspora communities. Although diaspora-targeted investment vehicles may or may not be widespread — it is impossible to be certain — their experience is certainly more "knowable." The following section reviews several targeted investment vehicles that have been used in the recent past to mobilize diaspora wealth for investment in the country of origin including via deposit accounts, securitization of remittance flows, sovereign debt bonds, and mutual funds. Many of the experiences described draw on the pioneering work of financial economists Suhas Ketkar and Dilip Ratha in this field.

34 David Leblang, "Diaspora Bonds and Cross Border Capital," Working Paper, Department of Politics, Univ. of Virginia, March 2009.

35 Mark Grinblatt and Matti Keloharju, "How Distance, Language, and Culture Influence Stockholdings and Trades," *The Journal of Finance* 56, no. 3 (June 2001): 1053–73.

36 Suhas Ketkar, comments at USAID-MPI Roundtable on Diaspora Investment in Country of Origin Capital Markets, June 1, 2010.

A. Deposit Accounts

Among the most basic ways that diasporas contribute to capital market development in their countries of origin is through the maintenance of deposit accounts. Deposit accounts increase domestic bank assets, allowing banks to expand lending and onward investment. Diasporas maintain deposit accounts in their countries of origin when they have ongoing financial obligations in these countries (known as current liabilities) or expect to have them in the future (known as contingent liabilities). Current liabilities could include remittance obligations or property maintenance, while contingent liabilities could include future retirement plans. For instance, using data from the German Socio-Economic Panel, economists Christian Dustmann and Josep Mestres estimate that about 48 percent of immigrant households in Germany hold savings in their country of origin.[37] In many cases, diasporas also receive favorable terms and interest rates for maintaining these accounts.

Although not strictly capital market investments, deposit accounts expand bank capitalization and are often a prerequisite to direct participation in country-of-origin capital markets:

- *Expanding bank capitalization.* For most countries, reserve requirements for deposit-taking institutions (i.e., the deposits and other assets that a bank must hold per increment of lending) are set according to a complex formula outlined in the Bank for International Settlement's Basel II accords.[38] As a result, the limited pool of bank deposits — the Consultative Group to Assist the Poor (CGAP) estimates that developing-country banks hold 0.52 deposits per adult compared to 1.77 deposits per adult in developed countries — limits lending.[39]

- *Facilitating direct participation in capital markets.* The costs associated with directly marketing investment vehicles to foreign nationals (including diasporas) can be significant given regulatory requirements. The alternative of domiciling the investment vehicle in the country of origin inevitably limits the investor pool, but it also allows the borrowing entity to avoid registering the investment vehicle with securities and exchange authorities in the destination country, often a complicated and costly process.

One critical distinction is between accounts denominated in *foreign* versus *local currency*. In the former case, the bank assumes the foreign-exchange risk whereas, in the latter, the account holder assumes the risk. Foreign-currency deposit (FCD) accounts have typically been discussed in the context of macroeconomic instability when domestic savers use these accounts to maintain the real value of their savings (for instance, in Latin America during the 1980s when many countries confronted high inflation).[40] But diasporas may also use FCD accounts to hold assets in their country of origin without assuming currency risk.

Another critical distinction is between *current* and *fixed-term* deposit accounts. Current deposit accounts allow the holder to withdraw funds at any time, although there is often a minimum balance. Fixed-term deposit accounts have stricter limitations on when the principal can be withdrawn from the account but, in exchange, the holder typically receives a higher interest rate. For obvious reasons, fixed-term deposits are less volatile than current deposits.

37 For years 1992 to 1994 only. Christian Dustmann and Josep Mestres, "Savings, Asset Holdings, and Temporary Migration," Centre for Research and Analysis of Migration, Discussion Paper No. 05/10, 2010, www.econ.ucl.ac.uk/cream/pages/CDP/CDP_05_10.pdf.

38 See www.bis.org/publ/bcbs128.htm.

39 CGAP (Consultative Group to Assist the Poor), *Financial Access 2009* (Washington, DC: CGAP, 2009).

40 See Koji Kubo, "Do Foreign Currency Deposits Promote or Deter Financial Development in Low-Income Countries? An Empirical Analysis of Cross-Country Data," Institute of Developing Economies Discussion Paper No. 87, January 2007.

In recent years a number of developing and emerging economies — including Albania, Ethiopia, India, Kenya, Nigeria, Sri Lanka, and Turkey — have liberalized their banking regulations and aimed to attract diaspora savers to FCD accounts. For instance, the Central Bank of Turkey offers foreign-currency-denominated fixed-term deposit accounts and "Super FX" accounts (similar to certificates of deposit in the United States) for Turkish passport holders residing abroad.[41] These accounts can be denominated in euros, US dollars, British pounds, or Swiss francs (Super FX accounts are only available in euros and US dollars). By the end of 2009, nonresident Turks held about $5.5 million in FCDs.[42] Similarly, in 2004 the National Bank of Ethiopia authorized the establishment of FCD accounts — in US dollars, euros, or British pounds — for members of the Ethiopian diaspora, including Ethiopian nationals residing abroad and foreign nationals of Ethiopian origin.[43]

There are fewer examples of countries that have managed to convince diasporas to hold their savings in domestic-currency-denominated accounts. (In any case, it is difficult to distinguish domestic-currency-denominated deposit accounts held by the diaspora from other deposit accounts.) India, however, provides nonresident Indians (NRIs) the option of holding their savings in foreign currency or in rupee-denominated accounts.[44] (FCD accounts available to NRIs are distinct from FCD accounts available more generally to foreigners.[45]) By March 2010 NRIs held an estimated $14.3 million in foreign-currency-denominated accounts and $33.6 million in rupee-denominated accounts.[46] Evidence from the recent global crisis suggests that nonresident Turks and Indians drew on their country-of-origin accounts as they faced financial challenges; in both cases, balances stagnated over the course of the recession after years of growth.

Finally, some emerging and developing country banks have attempted to establish a presence in countries that host their diasporas and market banking services directly to the diasporas where they reside. For instance, India's ICICI Bank reportedly maintains small retail operations in Britain and Canada.[47] According to *The Economist,* Banco do Brasil has plans to open 15 new branches in the United States to target the nearly 400,000 Brazilians estimated to reside in the country. In 2007 Minsheng Bank — a Chinese bank — reportedly bought a 10 percent stake in the San Francisco–based UCBH Holdings, which held a strong position in serving Chinese-American communities.[48] But UCBH failed in 2009, and Minsheng Bank wrote off the $130-million investment.[49] More recently, BBVA Bancomer, originally a Spanish bank that has established a deep presence throughout Latin America, has purchased several small, regional banks in areas of the United States that have attracted recent immigration flows from Mexico.

41 Central Bank of the Republic of Turkey, "FX Deposit Accounts," www.tcmb.gov.tr/iscidvz/iscidozengyeni.htm.
42 Data current as of December 31, 2009. Central Bank of the Republic of Turkey, *Balance of Payment Statistics and International Investment Position* (Ankara: Central Bank of Turkey, March 2010), www.tcmb.gov.tr/yeni/eng/.
43 National Bank of Ethiopia, "Directive No. FXD/25/2004, Amendment to Directive No. FXD/24/2004, Establishment and Operation of Foreign Currency Account for Non-Resident Ethiopians and Non-Resident Ethiopian Origin," July 12, 2004, www.mfa.gov.et/Ethiopians_Origin_Abroad/Services.php?Page=Home.htm.
44 See Muzaffar A. Chishti, *The Phenomenal Rise in Remittances to India: A Closer Look* (Washington, DC: MPI, May 2007), www.migrationpolicy.org/pubs/MigDevPB_052907.pdf.
45 Reserve Bank of India, "Features of Various Deposit Schemes Available to Non-Resident Indians," www.rbi.org.in/scripts/FAQView.aspx?Id=69.
46 Provisional data. Reserve Bank of India, "NRI Deposits — Outstandings and Inflows(+)/ Outflows(-)," *RBI Bulletin*, May 12, 2010, www.rbi.org.in/scripts/BS_ViewBulletin.aspx.
47 The information in this paragraph draws on The Economist, *A Special Report of Banking in Emerging Market Economies,* May 15, 2009.
48 Reuters, "China's Minsheng Bank to Buy into UCBH," October 8, 2007, www.reuters.com/article/idUSSHA20222420071008.
49 Dow Jones, "China Minsheng Bank 2009 Net Profit Soars 53%," April 19, 2010, http://online.wsj.com/article/BT-CO-20100419-706666.html.

B. *Securitization of Remittance Flows*

Another mechanism through which diasporas can contribute — albeit inadvertently — to broadening the assets held by domestic banks in their countries of origin is through the securitization of remittance flows. Future-flow securitization is a fairly recent financial innovation that allows credit-worthy borrowers with a record of regular receipts to access international lending at preferential interest rates.[50] (The term "future-flow securitization" refers specifically to the use of expected or future assets to secure debt.) This section summarizes the pioneering work of economists Suhas Ketkar and Dilip Rahta in this field.

Securitization is the process of taking an illiquid asset, or group of assets, and converting it into stocks, bonds, or rights to ownership (derivatives) that can be assigned value and risk, and can ultimately be traded.[51] Issuers of debt securitized by future flows can include public entities, private corporations, and banks that have some sort of periodic receivables with a proven record of stability. A wide variety of flows have been used in future-flow securitizations including residential mortgage loans, credit card vouchers, telecommunications receipts, natural resource revenues, tax liens, mutual fund fees, and workers' remittances. Ketkar and Ratha estimate that between 1992 and 2006, assets worth nearly $84 billion were securitized through 387 future-flow transactions. Mexican debt issuers accounted for nearly one-third of total future-flow securitizations between 1992 and 2006, followed by Turkey and Brazil, which together accounted for approximately one-third of all transactions. Remittances were used in a fairly small share of these transactions (2.1 percent), and $1.8 billion worth of assets were securitized.[52] Securitized transactions peaked in 2006 but have largely been at a standstill since the collapse of the US investment bank Lehman Brothers in September 2008 and the outbreak of the global financial crisis; the recovery of the market is expected to be delayed due to recent reforms to financial regulations in the United States and pending reforms in the European Union.[53]

The biggest benefits of future-flow securitization are likely to accrue when a debt transaction from a country whose investments are graded "speculative" by a ratings agency such as Standard & Poor's (S&P's) subsequently receives an investment grade rating. In at least five cases, remittance-backed securities have received better ratings from debt ratings agencies than the sovereign debt rating of the originating country: Banco Cuscatlan's (El Salvador) issue of $50 million in 1998, Banco do Brasil's (Brazil) issue of $250 million in 2002, Banco Salvadoreno's (El Salvador) issue of $25 million in 2004, Banco de Credito del Peru's (Peru) $50 million issue in 2005, and Banco Bradesco's (Brazil) $400 million issue in 2007. Ketkar and Ratha estimated an untapped potential of about $12 billion for remittance-based, future-flow securitization from countries such as Indonesia, Philippines, Vietnam, Albania, Georgia, Serbia, Montenegro, Tajikistan, Turkey, Ukraine, Brazil, Colombia, Costa Rica, El Salvador, Guatemala, Peru, Egypt, Jordan, Morocco, Yemen, Bangladesh, India, Pakistan, Sri Lanka, Nigeria, and Senegal. (The estimates were performed before the recent economic crisis.) Although the benefits of future-flow securitization of remittances to Mexico, the world's third-largest recipient of remittances, were limited in recent years due to the country's investment grade sovereign debt rating (BBB); the downgrade of Mexico's sovereign debt rating by one notch (BBB-) by Fitch Ratings in November 2009 likely enhanced the attractiveness of future-flow securitization of remittances to the country, although the rating still classified Mexico's debt as investment grade. (Other ratings agencies, such as Standard & Poor's (S&P), did not downgrade Mexico's credit rating.)

50 Akerman Senterfitt, *A Primer on Securitization* (New York: World Services Group, October 2006), www.hg.org/articles/article_1723.html.

51 Scotia Capital, *A Securitization Primer* (Toronto: Scotia Capital, June 2000).

52 Suhas Ketkar and Dilip Ratha, "Future-Flow Securitization for Development Finance," in *Innovative Financing for Development*, eds. Suhas Ketkar and Dilip Ratha (Washington, DC: World Bank, 2009), 25–57.

53 See "Earthbound," *The Economist*, March 27, 2010.

C. *Transnational Loans*

Transnational loans are generally small loans provided by banks or microfinance lenders that allow immigrants to apply for and service a loan in their countries of origin while residing abroad.[54] Financial intermediaries have experimented with transnational loans for business expansion, home improvement, home purchase, and education expenses; mortgage lending has been the most successful. Transnational loans enable migrants to provide credit to their family members back home while leveraging their credit history (established in their country of residence) and retaining ultimate control over the loan. Migrants are typically not able to use assets accumulated in their country of residence (e.g., housing) as collateral for transnational loans due to the divergence of bankruptcy laws and enforcement across countries.

A number of public and private entities have begun offering transnational loans. For instance, the Philippine government's Pag-ibig Overseas Program is a voluntary savings fund that allows overseas Filipinos to access home loans after two years of contributing to the fund. Similarly, Mexico's Sociedad Hipotecara Federal (SHF) is a government-based financial institution with a mandate to foster the development of primary and secondary mortgage markets. Through partnerships with financial intermediaries (the largest of which was Hipotecaria Su Casita, S.A.), SHF offers transnational loans to migrants in the United States denominated in pesos and either/or US dollars. Critically, migrants are not required to return to Mexico to finalize the transaction but can do so remotely through a power of attorney. Finally, since 2006, Microfinance International Corporation (MFIC), a US-based financial services corporation, has partnered with microfinance lenders and remittance transaction operators in El Salvador, Guatemala, and Bolivia to provide transnational mortgage loans to immigrants in the United States and Spain.

Between 2004 and 2008, SHF and its affiliates issued about 3,500 migrant loans. But the economic crisis in the United States — and its severe impacts on both the housing and real estate sectors and on the Mexican and US economies in general — severely weakened SHF's portfolio, forcing Su Casita to default. Still, observers note that the default of Su Casita was primarily due to weakness in the company's domestic portfolio; the performance of its international portfolio did not suffer the same degree of loss.[55] MFIC's transnational loan portfolio for El Salvador — which benefits from a partial default guarantee from the United States Agency for International Development's (USAID's) Development Credit Authority (DCA) for loans below $40,000 — is much smaller, but the default rate has not increased notably despite much tighter credit and labor markets.

D. *Diaspora Bonds*

Diaspora bonds are long-dated sovereign debt agreements that are marketed to diasporas.[56] Issuers of diaspora bonds gain access to fixed-term funding, often (although not always) at discounted interest rates. In this respect, diaspora bonds are similar to fixed-term domestic-currency deposit accounts, although they also have some unique features, described in greater detail below.

Diaspora bonds offer several potential advantages to debt issuers. Discussions of the benefits of diaspora bonds typically focus on the "patriotic discount" — that is, the difference between the market

54 The section is based on Joan Hall, *Diez años de innovación en remesas: Lecciones aprendidas y modelos para el futuro* (Washington, DC: Multilateral Investment Fund, Inter-American Development Bank, January 2010); MPI interviews with Ana Luisa Pinto, Office of Development Credit, USAID, and Diego Rios, international credit analyst, Microfinance International Corporation; and Dovelyn Agunias and Aaron Terrazas, "Leveraging Diaspora Investment for Development: Lessons from the Housing Sector," Unpublished draft, MPI, September 2008.

55 Alberto Barranco, "Sigue Su Casita," *El Universal*, June 17, 2010.

56 This section draws on the groundbreaking work of Suhas Ketkar and Dilip Ratha, "Development Finance via Diaspora Bonds," in Ketkar and Ratha, *Innovative Financing for Development*.

interest rate for government debt and the interest rate that diasporas are willing to accept. But as the experiences of Israel, India, and other countries illustrate, this "discount" is often small and does not always materialize. Rather, as Ketkar and Ratha point out, diaspora bonds allow governments to leverage a relatively small amount of charity from the diaspora into substantial resources for development.

Beyond the psychological benefits of "doing good," holders of diaspora bonds may believe that holding such bonds allows them some degree of policy influence back home. More importantly, the default risk normally associated with international sovereign-debt holdings may be reduced for diasporas. According to Ketkar and Ratha, "the worst-case default risk associated with diaspora bonds is that the issuing country would be unable to make debt service payments in hard currency. But the issuing country's ability to pay interest and principal in local currency terms is perceived to be much stronger, and therein lies the attractiveness of such bonds to diaspora investors."[57]

Several countries have experimented with diaspora bonds in recent years — and many more are reportedly interested in the concept:[58]

- Israel has issued bonds to the Jewish diaspora annually since 1951 through the Development Corporation to raise long-term infrastructure investment capital.
- Egypt reportedly issued bonds to Egyptian workers throughout the Middle East in the late 1970s.[59]
- India issued diaspora bonds in 1991, 1998, and in 2000 to avoid balance-of-payments crises and to shore up international confidence in India's financial system at times of financial sanctions or special needs.
- In 2007 the Government of Ghana issued a $50 million "Golden Jubilee" savings bond targeted at Ghanaians both in Ghana and in the diaspora.[60]
- Ethiopia issued the Millennium Corporate Bond in 2008 to raise capital for the state-owned Ethiopian Electric Power Corporation (EEPCO).

As Table 2 illustrates, countries' use of diaspora bonds varies widely. Israel has regularly issued diaspora bonds to finance long-term infrastructure development needs, whereas India has issued them on three occasions to fund current account imbalances at times when other international investors had lost confidence in Indian sovereign debt. Ethiopia's one experience issuing diaspora bonds is more recent and aimed to raise funds for the country's state-owned electricity corporation to expand its distribution grid. In India's case, there was little to no patriotic discount, while in Israel's case the initial, substantial discount diminished over time. Ethiopia's bond implies a substantial patriotic discount, although it is not clear the extent to which the diaspora has been willing to subscribe to these terms.[61] Initial subscriptions to Ethiopia's Millennium Bond do not appear to have met expectations. As of June 2009, EEPCO had raised about $200,000 through the bond issue, reportedly far less than

57 Ketkar and Ratha, *Innovative Financing for Development*, 72.

58 For instance, see Paul Wong, *Leveraging the Jamaican Diaspora for Development* (Washington, DC: USAID Office of Development Credit, November 2003), www.tcgillc.com/tcgidocs/Jamaica031124.pdf; George Grant, "Can a Diaspora Bond Help Grenada?" October 4, 2009, www.caribbeannetnews.com/article.php?news_id=22475.

59 J. S. Birks and C. A. Sinclair, "Human Capital on the Nile: Development and Migration in the Arab Republic of Egypt and the Democratic Republic of the Sudan," International Labor Organization, World Employment Program, Working Paper 2-26/WP 27, May 1978.

60 Ghana Ministry of Finance and Economic Planning, "Golden Jubilee Savings Bond," www.mofep.gov.gh/gj_bond.htm.

61 Minga Negash, "Ethiopian Diaspora Investment Potential and EEPCO's Millennium Bond," Working Paper, Univ. of Witwatersrand, March 2009, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1370515.

projected.[62] Israel's diaspora bonds are not strictly limited to members of the diaspora, whereas India's and Ethiopia's bonds are limited to individuals with Indian or Ethiopian ancestry.

Table 2. Comparison of Diaspora Bonds Issued by Israel, India, and Ethiopia

Israel	India	Ethiopia
▪ Annual issuance since 1951 ▪ Development-oriented borrowing ▪ Large though declining patriotic discount ▪ Fixed- and floating-rate bonds and notes ▪ Maturities from one to 20 years with bullet repayment ▪ Direct distribution by the Development Corporation for Israel (DCI) ▪ Targeted toward but not limited to diaspora ▪ Registered with US Securities and Exchange Commission ▪ Nonnegotiable	▪ Opportunistic issuance in 1991, 1998, and 2000 ▪ Balance-of-payments support ▪ Small patriotic discount, if any ▪ Fixed-rate bonds ▪ Five year with bullet maturity ▪ Distributed by the State Bank of India (SBI) in conjunction with international banks ▪ Limited to members of the diaspora (must be identified as persons of Indian origin) ▪ No SEC registration ▪ Nonnegotiable	▪ Single issue in 2008 ▪ State-owned corporate financing ▪ Large patriotic discount ▪ Fixed-rate bonds ▪ Five-, seven-, and ten-year maturities ▪ Distribution through the Commercial Bank of Ethiopia ▪ Limited to members of the Ethiopian diaspora (Ethiopian passport holders and persons able to trace origins to Ethiopia) ▪ No SEC registration ▪ Nonnegotiable ▪ Minimum $500 (or equivalent)

Source: Israel and India: Suhas Ketkar and Dilip Ratha, "Development Finance via Diaspora Bonds," in *Innovative Financing for Development*, edited by Suhas Ketkar and Dilip Ratha (Washington, DC: World Bank, 2009); Ethiopia: Commercial Bank of Ethiopia.

As Figure 1 illustrates, there were about 11.2 million immigrants in the United States from countries with a sovereign credit rating below investment grade (BB+ or lower). Over half (57 percent) were from countries with a speculative credit rating (BB+ to BB-), and about one-third (39 percent) were from countries with a "highly speculative" (B+ to B-) rating; the remaining 4 percent of immigrants were from countries that lacked a credit rating from S&P.[63] The median annual income in 2008 of employed adult immigrants from countries with a speculative grade credit rating was $29,000 (noninvestment grade, speculative) and $27,000 (highly speculative or substantial risk and countries without an S&P rating).[64]

Although immigrants from countries with speculative grade ratings appear to have low incomes compared with native-born workers and other immigrants, presumably there is still substantial

62 Muluken Yewondwossen, "Ethiopia — EEPCo and Diaspora to Bond with Agents," Nazret.com, August 3, 2009, http://nazret.com/blog/index.php?title=ethiopia_eepco_and_diaspora_to_bond_with&more=1&c=1&tb=1&pb=1.

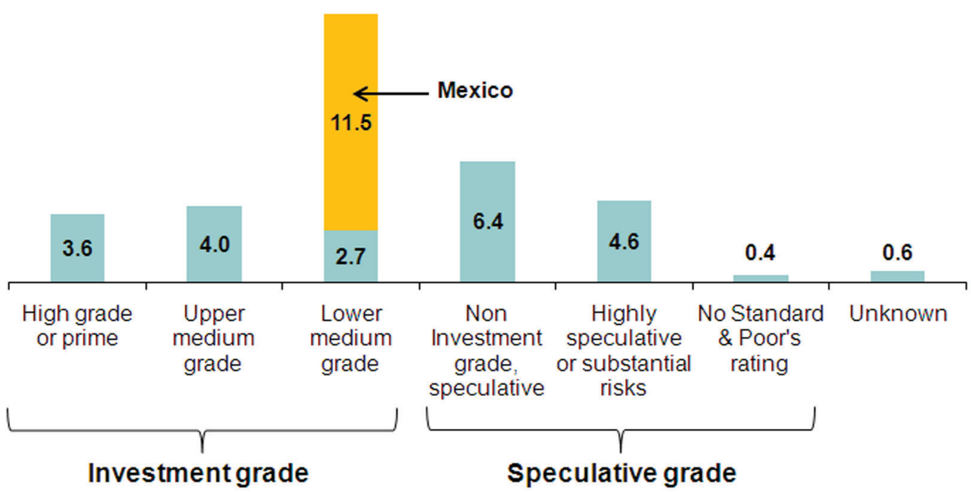
63 MPI analysis of data from the 2008 American Community Survey indexed to May 2010 Long-Term Sovereign Credit Ratings from Standard and Poor's, www.standardandpoors.com/ratings/sovereigns/ratings-list/en/us/?sectorName=Governments&subSectorCode=39&subSectorName=Sovereigns.

64 Ibid. Includes employed adults aged 18 and older in the civilian labor force.

potential for sovereign debt issues to diasporas in the United States. It is also notable, however, that several developing countries with large diasporas in the United States have not been issued S&P sovereign credit ratings (for instance, Haiti and Ethiopia).

Israel's experience is particularly instructive. Ketkar and Ratha observe that diaspora Jews have historically been extremely willing to purchase diaspora bonds when Israel has come under attack from its neighbors, but have been less forgiving when the country's financial problems are rooted in domestic economic mismanagement.[65] Similarly, in early 2010 Greece mooted the possibility of issuing dollar-denominated bonds as the country faced severe fiscal pressures — presumably targeting Greek diaspora investors in the United States as well as other international investors. In March 2010 the speaker of the Greek Parliament called on the diaspora in the United States, Latin America, Australia, and Europe to contribute to a "Greece Support Fund" to reduce the country's debt.[66] The comments on the diaspora online forums, however, suggest that many members of the Greek diaspora are receptive, but highly skeptical of such efforts given the widespread perception that Greece's economic problems are due principally to domestic economic mismanagement. As one member of the diaspora commented in an Internet forum, "If they can guarantee the money will go to the country and not some corrupt official's back pocket, I will do it."[67] The underlying lesson is clear: if developing countries wish to tap diaspora wealth, they must be prepared to demonstrate good faith in the investment and be transparent in their accounting and budget allocation practices.

Figure 1. Sovereign Credit Ratings of Origin Countries of Immigrants to the United States (millions of people)



Source: MPI indexing of May 2010 long-term S&P's sovereign credit rating (foreign) to immigrant population estimates from the 2008 American Community Survey; Steven Ruggles, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek, Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database] (Minneapolis: Univ. of Minnesota, 2010).

65 Ketkar and Ratha, *Innovative Financing for Development*, 71.

66 Greek Reporter, "Athens May Appeal to Rich Greeks Abroad," March 1, 2010, http://eu.greekreporter.com/2010/03/01/athens-proposal-of-the-president-of-the-parliament-to-create-a-support-fund-for-greece-and-from-greeks-of-the-diaspora/.

67 GreekRealm.com, posted on February 28, 2010, at 4:55 pm, www.greekrealm.com/forum/greek-current-affairs/13220-greece-urges-diaspora-help-debt.html.

E. Diaspora Mutual Funds

Mutual funds are professionally managed collective investment vehicles that allow individual investors to diversify risk by purchasing shares of a basket of investment products — typically including money market funds, sovereign and corporate bonds, and equities.[68] There is a great deal of flexibility in designing funds, which tend to target specific categories of investments or investors.

Mutual funds allow a broad range of individual investors to diversify risk and have their investments professionally managed without incurring the costs of a personal investment manager. As such, they should appeal to nonexpert diaspora investors interested in investing in their countries of origin but who lack the time and expertise to individually manage the investment. Since few developing country corporations are publicly traded and those that are listed are rarely well known, diaspora funds could also serve a price discovery function. Building upon this logic, members of the Rwandan diaspora recently worked to establish a Rwandan Diaspora Mutual Fund (RDMF). The fund has yet to be formally launched, so it is far too early to draw conclusions, but there is little doubt that it represents an innovative initiative to mobilize savings for investment in Rwanda.

RDMF is as much an initiative of the diaspora as it is an investment vehicle for the diaspora. It was the brainchild of 11 Rwandans residing in Canada, China, Ethiopia, Malaysia, the Netherlands, South Africa, the United Kingdom, and the United States. Some, though not all, have professional experience abroad in investment banking and securities law. The initiative has received moral support from the Diaspora Directorate General of the Rwandan Foreign Ministry and technical assistance from the National Bank of Rwanda (the country's central bank) and the Rwandan Capital Markets Advisory Council (the country's securities and exchange regulator).

Once operational (expected in late 2010), the fund will target investors from the Rwandan diaspora as well as the "affinity diaspora" (i.e., friends and associates of Rwandans abroad and others with a personal connection to Rwanda), Rwandans residing in Rwanda, and general foreign investors. In this sense, the diaspora serves not only as an investor base, but also as (1) a conduit for technological transfer and (2) a portal opening up investment opportunities in Rwanda for the outside world. Fund shareholders will be required to maintain a Rwandan franc-denominated account with the Bank of Kigali or an account with one of the bank's foreign affiliates.[69]

The fund is designed to be accessible to small investors in Rwanda as well as in the diaspora. At the time of publication, shares are expected to be priced around 1,000 Rwandan francs (about $2) with two options: (1) a minimum initial purchase of five shares and minimum incremental purchases of three shares thereafter, or (2) a minimum initial purchase of ten shares and incremental purchases of four shares thereafter. In addition, a subscription fee of 5,000 francs (about $10) is assessed to new investors with the fund.

Another example is the proposed Liberian Diaspora Fund — a social investment fund that is owned and managed by Liberians living in the United States and which invests in small businesses in Liberia.[70] The fund focuses on six sectors: agribusiness, fisheries, natural resources, technology, infrastructure development, and health care. Three-quarters of the funding will come from members of the Liberian diaspora, with the remaining quarter coming from multilateral organizations and other social investors. In addition to providing financing, the fund will provide business training and mentoring.

---

68 This section draws on MPI interviews with Robert Kayinamura and Providence Bikumbi Newport of the Rwandan Diaspora Mutual Fund conducted in May 2010 and on Emmanuel Ngomiraronka, "Rwandan Diaspora Mutual Fund: An Investment Initiative of the Rwandan Diaspora," Presentation provided to the MPI, May 2010.

69 As of May 2010, the Bank of Kigali had correspondent banks in the European Union, the United States, Kenya, and Burundi.

70 MPI interview with Taa Wongbe, principal, Liberian Diaspora Fund, Washington, DC, July 1, 2010.

F. *Unexplored Investment Vehicles*

Portfolio investment vehicles targeted at diasporas have focused on sovereign and household debt (diaspora bonds, transnational loans), expanding bank assets (foreign and domestic currency deposits, securitization of remittance flows), and more recently corporate equity (investment funds). But other investment vehicles may also merit consideration:

Revenue bonds. The experience with diaspora bonds has focused on sovereign debt, but there may also be scope for marketing revenue bonds to diasporas. Unlike general obligation bonds, which are supported from general government or state-owned enterprise income, revenue bonds are repaid through fees from a specific project such as a toll road or bridge.

Subnational debt issues. One largely unexplored avenue for targeting diaspora investors in government debt is at the subnational level (including publicly owned utilities providers). Subnational governments account for an increasing share of public investments across the developing world.[71] For instance, state and local governments finance about half of public investments in countries such as Indonesia and Turkey.[72] In many cases, diasporas maintain strong attachments not only to their country of origin, but also to their state, region, or municipality of origin; often the most powerful bonds among diasporas are local identities — particularly in regions such as West Africa and Central Asia where sovereign states are a recent phenomenon and lack authority as identity-based institutions.

In at least one case, a subnational government has attempted to target debt issues to diaspora investors. Reportedly the government of Kerala (India) attempted to issue a subsovereign diaspora bond, but the Indian federal government did not agree to the plan.[73] Other developing countries with federal systems (e.g., Mexico, Nigeria, Sudan, Ethiopia, Bosnia, and Herzegovina) are strong candidates for subnational debt issues to diasporas.

Diaspora private-equity funds. Private equity provides a vital bridge allowing midsize companies in developing countries to grow, expand, and innovate. While small and microenterprises tend to access financing through accumulated savings or through bank or microcredit lending, and large companies (even in the developing world) are able to resort to capital markets, midsize companies often face greater challenges in securing financing for growth or expansion.[74] Their borrowing needs are typically beyond the capacity of microfinance lenders yet they often lack the established record of performance that facilitates bank credit and are too small for market listing. Private equity — which combines financial resource mobilization with the deployment of industry-specific and management expertise — is critical to growing companies.

Institutional investors. According to financial economists Cem Karacadag, V. Sundararajan, and Kimberly Elliot, one of the most important challenges facing domestic capital markets in developing countries is the need to develop an institutional investor base, including mutual and investment funds and other contractual savings institutions, such as pension funds and insurance companies.[75] As the immigrant population ages — there were 4.5 million immigrants aged 65 and older in the United States in

71 The term *subnational* refers to all levels of government and public entities below the federal or central government. It includes states, provinces, autonomous communities, counties, cities, towns, public enterprises, and school districts. Mila Freire, John Petersen, Marcela Huertas, and Miguel Valadez, eds., *Subnational Capital Markets in Developing Countries: From Theory to Practice* (Washington, DC: World Bank, 2004).

72 Otaviano Canuto and Lili Liu, “Subnational Debt Finance and the Global Financial Crisis,” World Bank, Poverty Reduction and Economic Management Network, Economic Premise, No. 13, May 2010.

73 MPI communication via e-mail with S. Irudaya Rajan, Center for Development Studies, Trivandrum, Kerala, May 2010.

74 Lael Brainard, ed., *Transforming the Development Landscape: The Role of the Private Sector* (Washington, DC: The Brookings Institution Press, 2006).

75 Cem Karachadag, V. Sundararajan, and Jennifer Elliott, “Managing Risks in Financial Market Development: The Role of Sequencing,” in Litan, Pomerleano, and Sundararajan, *The Future of Domestic Capital Markets in Developing Countries.*

2007 compared to 2.7 million in 1990 — the pool of immigrants' contractual savings held in pension funds and retirement accounts will increase.[76] These savings potentially represent a powerful pool of resources for development financing. But many institutional investors such as pension funds are prohibited by their charters from investing in sub-investment-grade debt or equity, thereby precluding many developing countries.

Corporate debt and equity. Governments have been far more active than private-sector actors in reaching out to diasporas and engaging them in the political, social, and economic life of their countries of origin.[77] The potential role of diasporas in providing finance to promising emerging and developing country corporations through capital markets has been largely overlooked. A quick examination of data on the immigrant population in the United States and from the Milkin Institute on private-sector access to capital suggest there are several countries with large (and in some cases relatively wealthy) diasporas in the United States that have underdeveloped private-sector capital markets.[78] In some of these countries high political risk or tensions between the diaspora and the country-of-origin governments may preclude collaboration (e.g., Iran, Syria) whereas others appear more promising (e.g., Cambodia, Colombia, Ecuador, Ethiopia, Jamaica, Lebanon, Ukraine, and Vietnam).

V. Conclusions and Policy Options

Capital markets in countries with different levels of development face different challenges. Can diasporas help developing and emerging countries address the twin challenges of attracting sufficient and stable access to international investment?

The potential of diasporas as portfolio investors is less studied than their potential as direct investors. Overall, *there is ample evidence that diasporas hold substantial assets that could potentially be mobilized for portfolio investment in their countries of origin.* The more pressing challenge appears to be devising and marketing investment vehicles to attract this investment, and convincing diasporas of the merits of such investment. Beyond the challenge of marketing, there is clear scope for greater international cooperation to facilitate the transnational mobilization of assets, for instance, through agreements on mutual enforcement of bankruptcy laws (which would enable banks to accept assets held abroad as collateral for lending) and harmonization and sharing of credit scores. Although these fields of cooperation are exceedingly complicated from a technical perspective and face numerous legal and political hurdles, they merit consideration as long-term objectives.

It is less clear if portfolio investment inflows from diasporas are more stable than other sources of foreign investment. It is widely accepted that diasporas may have a greater appetite for long-term investment in their countries of origin than other foreign investors. While foreign investors may perceive these investments as high risk, diasporas often view risk differently. Diasporas' perception of investment risk in their countries of origin is often attributed to superior information. But experience in the field of direct investment suggests that diasporas are not necessarily more informed about investment opportunities — particularly since they typically forego expert advice. Rather, the investment decisions

76 Aaron Terrazas, "Older Immigrants in the United States," Migration Information Source, May 2009, www.migrationinformation.org/USfocus/display.cfm?id=727.

77 For a review of government efforts to engage diasporas, see Dovelyn Agunias, ed., *Closing the Distance: How Governments Strengthen Ties with Their Diasporas* (Washington, DC: MPI, 2009).

78 James R. Barth, Tong Li, Wengling Lu, and Glenn Yago, *Capital Access Index 2009: Best Markets for Business Access to Capital* (Santa Monica, CA: Milkin Institute, 2010).

of diasporas might be better explained by "home bias" — the idea that investors are more likely to invest in companies in their home countries irrespective of the financial returns on the investment.

Both information asymmetries and home bias on the part of the investor are more important for determining direct investment decisions; by contrast, *portfolio managers are the critical actors in portfolio investment decisions*. Indeed, portfolio managers serve as critical intermediaries in promoting diaspora portfolio investment by pooling investors, allocating risk, and actively pursuing investment opportunities.

Some emerging markets — including many in Latin America and East Asia — have well-developed financial markets where diasporas might play a role by contributing to scale (i.e., investing resources), reducing volatility (i.e., investing long term), mainstreaming investments in the country among institutional investors, and expanding access to finance to traditionally excluded borrowers or borrowers in informal markets. In countries where capital markets are less developed, such as in much of Africa and Central America, diasporas might play the role of "first movers" and contribute to innovation and price discovery as well as to scale. In addition, the investment appetite of diasporas varies according to the characteristics of the diaspora. For instance, first-generation diasporas may be particularly interested in direct investment and may be more prone to patriotic discounts. But second- and higher-generation diasporas may find portfolio investment a more accessible and less time-intensive approach.

Diasporas also face many of the same barriers to investing in developing and emerging countries as other international investors. In most developing and emerging economies, capital markets are still small, lack liquidity, face high transaction costs, and suffer from a limited investor base and inadequate information. Is there a role for public policy — and more particularly, for international aid agencies such as USAID — in helping overcome these barriers? If modified or expanded, several existing initiatives within USAID and other US government agencies — such as the Overseas Private Investment Corporation (OPIC), the US Treasury Department's Office of International Affairs, and the US State Department's Office of Development Finance — appear to be particularly promising avenues for promoting diaspora portfolio investment in the countries of origin.

Reducing investment risk: the Development Credit Authority and Overseas Private Investment Corporation. International investment involves a number of risks that can inhibit opportunities for both borrowers and lenders. While diasporas may have a higher risk threshold when it comes to investing in their countries of origin than other international investors, they are also keenly aware of the liabilities involved. Similarly, banks in developing countries are often unwilling to lend to diaspora investors who may lack sufficient domestic assets or credit histories. Two US government agencies — USAID and OPIC — have the potential to support diaspora investment in their countries of origin through risk reduction: USAID by focusing on lenders in the country of origin, and OPIC by focusing on diaspora investors who are US citizens.

Since 2008 DCA has provided partial credit default guarantees to facilitate access to bank credit for Ethiopian diaspora entrepreneurs, although it does not fund loans directly. Rather, the credit guarantee allows USAID's partner banks in Ethiopia to mobilize domestically held assets and savings. (DCA guarantees can also be coupled with USAID's technical assistance to banks, discussed at length below.) DCA guarantees 50 percent of losses in the case of default. Between September 2008 and February 2010, the joint venture guaranteed 37 million birr (about $2.8 million) in loans to ten diaspora businesses, principally in services and agriculture.[79] Similarly, in El Salvador, DCA has facilitated the expansion of transnational microlending. However, since the guarantee does not enable banks to mobilize new resources — but instead to more efficiently mobilize existing resources — the program

79 Information provided to MPI by Joseph Obi, EGAT/DC relationship manager, USAID, June 2010.

clearly has limitations. Moreover, since DCA requests must originate from USAID Country Missions, they typically are not launched unless a diaspora presence is visible in the country of origin. OPIC offers discounted insurance to US companies investing overseas to protect against several common foreign investment risks, including:

- Currency risk (i.e., the possibility that an investor's ability to convert profits or capital from a local currency into US dollars may be limited)
- Political risk (i.e., the possibility that an investment will be lost due to war, revolution, insurrection, politically motivated civil strife, terrorism, or sabotage)
- Expropriation risk (i.e., the possibility that assets will be seized by a foreign government)

Insurance along similar lines and targeted to diaspora communities (as well as mainstream investors) could promote diaspora investment in the world's more dangerous or risky economies. OPIC has also established and purchased shares of funds that invest in low-income countries, which is another potential avenue for working with diasporas (for instance, through diaspora mutual funds).

Providing technical assistance: Volunteers for Economic Growth Alliance and the Government Debt Issuance and Management Technical Assistance Program. Although many developing countries are deeply interested in mobilizing diaspora wealth — for instance, through issuing diaspora bonds, expanding transnational loans, and establishing diaspora mutual funds — many of these efforts have been stymied by the technical complexity of accessing international capital markets. Suhas Ketkar and Dilip Ratha (2009) estimate that the fees involved in issuing a diaspora bond (with US registration through the Securities and Exchange Commission) can exceed $500,000, placing these tools beyond the means of most small and midsize economies.

Multilateral agencies — such as the World Bank, International Monetary Fund, and Bank for International Settlements — may be best placed to provide direct advice on technical questions. But there is also a role for US government agencies such as the US Treasury Department's Office of Technical Assistance, which oversees a Government Debt Issuance and Management Technical Assistance Program (GDIM) and which could help developing-country governments register and issue sovereign debt bonds to their diasporas in the United States.[80]

Diasporas may also provide technical assistance to their countries of origin. About 606,000 immigrants in the United States work in finance-related occupations and nearly three-quarters are from developing and emerging economies (see Figure 2).[81] If the second-generation, native-born US citizens with immigrant parents are included, the figure is likely to be much higher. Previous research in this series has explored the variety of avenues through which diasporas volunteer in their countries of origin and the benefits of institutional support for these efforts; the potential of diaspora financial service volunteers clearly merits further exploration. [82] For instance, as described in this report, members of the Rwandan diaspora — including several with expertise in the international financial industry — volunteered time to set up a Rwandan Diaspora Mutual Fund. USAID's Volunteers for Economic Growth Alliance (VEGA) provides an existing framework to mobilize skilled volunteers for such efforts.[83] Research suggests that the characteristics and interest of portfolio managers are a key determinant of portfolio allocation, so courting diasporas with financial sector expertise through programs such as VEGA would likely have longer-term spillover effects as well.

80 See http://treasuryota.us/index.php?option=com_content&task=view&id=30&Itemid=71.
81 MPI analysis of data from the 2008 American Community Survey.
82 See Aaron Terrazas, *Volunteering in the Diaspora: Motivations, Mechanics, Impacts, and Policy Options* (Washington, DC: MPI and USAID, March 2010).
83 See www.vegaalliance.org/.

Establishing trust: global development alliances. Many diasporas are eager to contribute to development efforts in their countries of origin but are deeply skeptical of both risky investment proposals and the honesty of institutions back home. As the former chairman of Pakistan's Securities and Exchange Commission observed, in public perception, financial markets in many developing countries are "run by brokers for brokers."[84] Diasporas often share this sentiment. Governments and corporations that aim to attract diaspora investments must have a credible need for foreign investment — and critically — a plan to put the investment to productive use. Partnerships with USAID under the aegis of a global development alliance could lend credibility to specific ventures that demonstrate sound accounting practices, corporate governance, and transparency in decisionmaking.

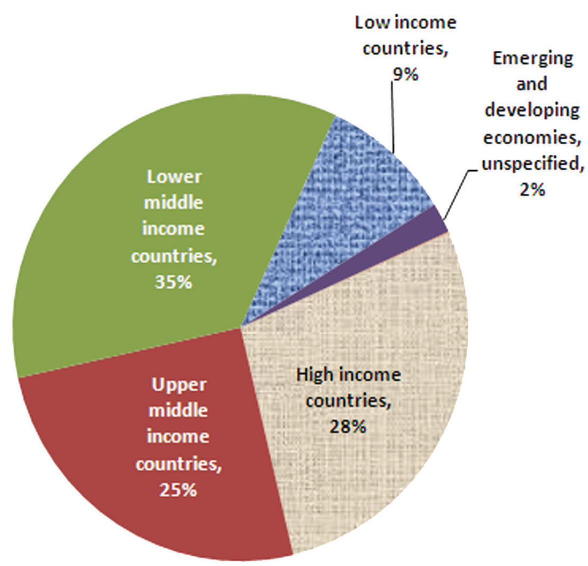
Bridging information gaps: private investment needs assessments. USAID Country Missions reportedly maintain lists of private investment opportunities. These lists could be disseminated to diaspora communities through partnerships with the country-of-origin consular networks or USAID headquarters, through online platforms such as Kiva or Global Giving, or directly to diaspora investment funds where they exist. Where developing countries maintain strong, independent, and credible diaspora affairs agencies, these institutions could also perform similar functions in collaboration with USAID.

Figure 2. Immigrants Employed in Finance Occupations, 2008

Number employed (thousands)

Financial managers	127
Cost estimators	11
Accountants and auditors	329
Appraisers and assessors of real estate	5
Budget analysts	7
Credit analysts	4
Financial analysts	14
Personal financial advisors	39
Insurance underwriters	6
Financial examiners	1
Loan counselors and officers	34
Tax examiners, collectors, and revenue agents	6
Tax preparers	12
Financial specialists, all others	8
Actuaries	4

Countries of origin, income group



Note: Includes employed immigrants aged 18 and older.
Source: MPI analysis of the 2008 American Community Survey data. Steven Ruggles, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek, Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database] (Minneapolis: Univ. of Minnesota, 2010).

84 Cited in Litan, Pomerleano, and Sundrararajan, *The Future of Domestic Capital Markets in Developing Countries*, (Washington, DC: The Brookings Institute, 2003).

The above represent targeted opportunities to expand diaspora participation in the country-of-origin capital markets through existing initiatives rather than more ambitious schemes, although there is clearly merit in the latter as well. On balance, the ongoing global financial crisis has prompted policymakers to reevaluate longstanding assumptions regarding capital flows to emerging and developing countries, which have proven remarkably stable — particularly relative to the financial turmoil of several developed countries.[85] Indeed, a number of developing countries are now concerned about a surfeit of foreign capital rather than a scarcity.[86] In the broader perspective, the assets and investments of diasporas are likely to be small and marginal relative to the wider array of international investors. This is particularly true for the large and open emerging economies that are also associated with large or powerful diasporas — notably China, India, and Mexico. But for the capital markets of smaller or riskier countries outside the limelight of (or even shunned by) international financial markets, there is clearly a larger potential role for diasporas. US government agencies — including USAID, OPIC, and the Treasury Department — are well equipped to facilitate diaspora portfolio investment.

Works Cited

Aggarwal, Reena, Asli Demirgüç-Kunt, and Maria Soledad Martinez Peria. 2005. *Do Workers' Remittances Promote Financial Development?* Washington, DC: World Bank.

Agunias, Dovelyn, ed. 2009. *Closing the Distance: How Governments Strengthen Ties with Their Diasporas*. Washington, DC: Migration Policy Institute (MPI).

Agunias, Dovelyn, and Aaron Terrazas. 2008. "Leveraging Diaspora Investment for Development: Lessons from the Housing Sector." Unpublished draft, Migration Policy Institute, September.

Andrade, Sandro C., and Vidhi Chhaochharia. 2010. "Information Immobility and Foreign Portfolio Investment." *The Review of Financial Studies* 23 (6): 2429–63.

Ball, Steffan G. 2008. *Stock Market Participation, Portfolio Choice and Pensions over the Life-Cycle*. Washington, DC: Federal Reserve Board, Finance and Economics Discussion Series, Divisions of Research and Statistics and Monetary Affairs, November.

Barranco, Alberto. 2010. "Sigue Su Casita." *El Universal*, June 17.

Barth, James R., Tong Li, Wenling Lu, and Glenn Yago. 2010. *Capital Access Index 2009: Best Markets for Business Access to Capital*. Santa Monica, CA: Milken Institute.

Beck, Thorsten, Asli Demirgüç-Kunt, and Ross Levine. 2004. "Finance, Inequality, and Poverty: Cross-Country Evidence." National Bureau of Economic Research, Working Paper 10979, December. Cambridge, Massachusetts.

Bhattacharya, Amar, John Williamson, Arturo Porzecanski, and Uri Dadush. 2010. "Managing Capital Flows in the Aftermath of the Global Crisis." Presentations, Carnegie Endowment for International Peace, International Economics Program, May 26. Washington, DC. www.carnegieendowment.org/events/?fa=eventDetail&id=2914/.

Birks, J. S., and C. A. Sinclair. 1978. "Human Capital on the Nile: Development and Migration in the Arab Republic of Egypt and the Democratic Republic of the Sudan." International Labor Organization, World Employment Program, Working Paper 2-26/WP 27, May. Geneva.

Carnegie Endowment for International Peace. 2009. "Capital Flows to Emerging Markets Resurgent." *International Economic Bulletin*, November 9–13. www.carnegieendowment.org/publications/index.cfm?fa=view&id=24116.

Central Bank of the Republic of Turkey. "FX Deposit Accounts." www.tcmb.gov.tr/iscidvz/iscidozengyeni.htm.

———. 2010. *Balance of Payment Statistics and International Investment Position.* Ankara: Central Bank of Turkey, March. www.tcmb.gov.tr/yeni/eng/.

CGAP (Consultative Group to Assist the Poor). 2009. *Financial Access* 2009. Washington, DC: CGAP.

Börsch-Supan, Axel, ed. 2003. *Life-Cycle Savings and Public Policy: A Cross-National Study in Six Countries*. Amsterdam and Boston: Academic Books.

Brainard, Lael, ed. 2006. *Transforming the Development Landscape: The Role of the Private Sector*. Washington, DC: The Brookings Institution Press.

Canuto, Otaviano, and Lili Liu. 2010. "Subnational Debt Finance and the Global Financial Crisis." World Bank Poverty Reduction and Economic Management Network, Economic Premise, No. 13, May. Washington, D.C.

Carnegie Endowment for International Peace. 2009. “Capital Flows to Emerging Markets Resurgent.” *International Economic Bulletin*, November 9–13.
www.carnegieendowment.org/publications/index.cfm?fa=view&id=24116.

Castillo, Nancy, Landen Romei, and Manuel Orozco. 2010. *Toward Financial Independence: Financial Literacy for Remittance Senders and Recipients*. Washington, DC: Inter-American Dialogue, June.
www.thedialogue.org/page.cfm?pageID=32&pubID=2400.

Chami, Ralph, Connel Fullenkamp, and Sunil Sharma. 2009. A Framework for Financial Market Development. IMF Working Paper WP/09/156, International Monetary Fund, Washington, DC, July.

Chishti, Muzaffar A. 2007. *The Phenomenal Rise in Remittances to India: A Closer Look*. Washington, DC: MPI.
http://www.migrationpolicy.org/pubs/MigDevPB_052907.pdf

Commission on Growth and Development. 2008. *The Growth Report: Strategies for Sustained Growth and Inclusive Development*. Washington, DC: World Bank.

———. 2010. *Post-Crisis Growth in Developing Countries: A Special Report of the Commission on Growth and Development on the Implications of the 2008 Financial Crisis*. Washington, DC: World Bank.

Dow Jones. 2010. “China Minsheng Bank 2009 Net Profit Soars 53%.” April 19.
http://online.wsj.com/article/BT-CO-20100419-706666.html.

Durdu, Ceyhun Bora, and Serdar Sayan. 2008. “Emerging Market Business Cycles with Remittance Fluctuations.” International Finance Discussion Paper No. 946, Board of Governors of the Federal Reserve System, September. Washington, D.C.

Dustmann, Christian, and Josep Mestres. 2010. “Savings, Asset Holdings, and Temporary Migration.” Center for Research and Analysis of Migration, Discussion Paper No. 05/10.
www.econ.ucl.ac.uk/cream/pages/CDP/CDP_05_10.pdf.

Dziunda, Wioletta, and Jordi Mondria. 2009. “Assymetric Information, Portfolio Managers and Home Bias.” AFA 2010 Atlanta Meeting Paper, February.
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1359280&rec=1&srcabs=1344880.

The Economist. 2010. “Earthbound.” March 27.

———. 2010. *A Special Report on Banking in Emerging Market Economies*. May 15.

Freire, Mila, John Petersen, Marcela Huertas, and Miguel Valadez, eds. 2004. Subnational *Capital Markets in Developing Countries: From Theory to Practice*. Washington, DC: World Bank.

Ghana Ministry of Finance and Economic Planning. “Golden Jubilee Savings Bond.” www.mofep.gov.gh/gj_bond.htm.

Ghosh, Swati R. 2010. “Dealing with the Challenges of Capital Inflows in the Context of Macrofinancial Links.” World Bank Economic Premise No. 19, June.Washington, D.C.

Glen, Jack, and Ajit Singh. 2003. “Capital Structure, Rates of Return and Financing Corporate Growth: Comparing Developed and Emerging Markets, 1994–00.” ESRC Centre for Business Research, Univ. of Cambridge Working Paper No. 265, June.

Grant, George. 2009. “Can a Diaspora Bond Help Grenada?” October 4.
http://www.caribbeannetnews.com/article.php?news_id=22475.

Greek Reporter. 2010. “Athens May Appeal to Rich Greeks Abroad.” March 1.
http://eu.greekreporter.com/2010/03/01/athens-proposal-of-the-president-of-the-parliament-to-create-a-support-fund-for-greece-and-from-greeks-of-the-diaspora/.

Grinblatt, Mark, and Matti Keloharju. 2001. “How Distance, Language, and Culture Influence Stockholdings and Trades.” *The Journal of Finance* 56, no. 3 (June): 1053–73.

Guiliano, Paola, and Marta Ruiz-Arranz. 2006. "Remittances, Financial Development and Growth." IZA Discussion Paper No. 2160, June. Berlin.

Gupta, Sanjeev, Catherine Pattillo, and Smith Wagh. 2007. "Impact of Remittances on Poverty and Financial Development in Sub-Saharan Africa." IMF Working Paper WP/07/38, International Monetary Fund, Washington, DC, February.

Hall, Joan. 2010. *Diez años de innovación en remesas: Lecciones aprendidas y modelos para el futuro.* Washington, DC: Multilateral Investment Fund, Inter-American Development Bank, January.

Hatchondo, Juan Carlos. 2007. "Assymetric Information and the Lack of International Portfolio Diversification." Federal Reserve Bank of Richmond Working Paper No. 05-07, September. http://www.richmondfed.org/publications/research/working_papers/2005/pdf/wp05-7.pdf.

Häusler, Gerd, Donald J. Mathieson, and Jorge Roldos. 2003. "Trends in Developing-Country Capital Markets Around the World." In *The Future of Domestic Capital Markets in Developing Countries*, eds. Robert E. Litan, Michael Pomerleano, and V. Sundararajan. Washington, DC: The Brookings Institution, 21–44.

Institute of International Finance. 2010. *Capital Flows to Emerging Market Economies*. Washington, DC: Institute of International Finance, January.

Karachadag, Cem, V. Sundararajan, and Jennifer Elliott. 2003. "Managing Risks in Financial Market Development: The Role of Sequencing." In *The Future of Domestic Capital Markets in Developing Countries*, eds. Robert E. Litan, Michael Pomerleano, and V. Sundararajan. Washington, DC: Brookings Institution.

Kaul, Inge, and Pedro Conceição, eds. 2006. *The New Public Finance: Responding to Global Challenges*. New York and Oxford: Oxford Univ. Press.

Kempf, Alexander, and Peer C. Osthoff. 2007. "The Effect of Socially Responsible Investing on Portfolio Performance." E*uropean Financial Managemen*t 13, No. 5 (November): 908–22.

Ketkar, Suhas, and Dilip Ratha, eds. 2009. *Innovative Financing for Development*. Washington, DC: World Bank.

Kubo, Koji. 2007. "Do Foreign Currency Deposits Promote or Deter Financial Development in Low-Income Countries? An Empirical Analysis of Cross-Country Data." Institute for Development Studies Discussion Paper No. 87, January. London.

Lambert, Frederic, and Matteo Pignatti. 2008. "Saving Behavior over the Life-Cycle Does Not Differ across Countries. Portfolio Choices Do." Working Paper, Banque de France, August. Paris.

Leblang, David. 2009. "Diaspora Bonds and Cross Border Capital." Working Paper, Univ. of Virginia, Department of Politics.

Litan, Robert E., Michael Pomerleano, and V. Sundararajan. 2003. *The Future of Domestic Capital Markets in Developing Countries*. Washington, DC: The Brookings Institution.

Massey, Douglas S., and Emilio Parrado. 1994. "Migradollars: The Remittances and Savings of Mexican Migrants to the USA." *Population Research and Policy Review* 13, No. 1 (March): pp. 3-30.

McCauley, Robert, and Eli Remolona. 2000. "Size and Liquidity of Government Bond Markets." *Bank for International Settlements Quarterly Review*, November. Basel.

Moss, Todd, Vijaya Ramachandran, and Scott Standley. 2007. "Why Doesn't Africa Get More Equity Investment? Fronteir Stock Markets, Firm Size, and Asset Allocation of Global Emerging Market Funds." Center for Global Development Working Paper No. 112, February. Washington, DC. www.cgdev.org/content/publications/detail/12773.

National Bank of Ethiopia. 2004. "Directive No. FXD/25/2004, Amendment to Directive No. FXD/24/2004, Establishment and Operation of Foreign Currency Account for Non-Resident Ethiopians and Non-Resident Ethiopian Origin." July 12. www.mfa.gov.et/Ethiopians_Origin_Abroad/Services.php?Page=Home.htm.

Negash, Minga. 2009. "Ethiopian Diaspora Investment Potential and EEPCO's Millennium Bond." Working Paper, Univ. of Witwatersrand, March. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1370515.

Newland, Kathleen, and Erin Patrick. 2004. *Beyond Remittances: The Role of Diaspora in Poverty Reduction in Their Countries of Origin*. Washington, DC and London: MPI and the UK Department for International Development (DFID).

Ngomiraronka, Emmanuel. 2010. "Rwandan Diaspora Mutual Fund: An Investment Initiative of the Rwandan Diaspora." Presentation provided to the MPI, May. Kigali.

Orozco, Manuel. 2010. "Financial Access among Remittance Senders." Presentation at the Inter-American Dialogue, Washington, DC, June 14.

Osili, Una Okonkwo. 2007. "Remittances and Savings from International Migration: Theory and Evidence Using a Matched Sample." *Journal of Development Economics* 83 (2): 446–65.

Ratha, Dilip, Sanket Mohapatra, and Ani Silwal. 2010. *Outlook for Remittance Flows 2010–11*. Washington, DC: World Bank.

Razin, Assaf, Efraim Sadka, and Chi-Wa Yuen. 1999. "Excessive FDI Flows under Assymetric Information." Federal Reserve Bank of San Francisco Working Paper No. 27-99, August. www.frbsf.org/economics/conferences/990923/papers/razin_sadka_yuen.pdf.

Reinhart, Carmen, and Guillermo Calvo. 2000. "When Capital Inflows Come to a Sudden Stop: Consequences and Policy Options." In *Reforming the International Monetary and Financial System*, eds. Peter Kenen and Alexandre Swoboda. Washington, DC: IMF.

Reserve Bank of India. "Features of Various Deposit Schemes Available to Non-Resident Indians." www.rbi.org.in/scripts/FAQView.aspx?Id=69.

———. 2010. "NRI Deposits — Outstandings and Inflows(+)/Outflows(-)." RBI Bulletin, May 12. www.rbi.org.in/scripts/BS_ViewBulletin.aspx.

Reuters. 2007. "China's Minsheng Bank to buy into UCBH." October 8. www.reuters.com/article/idUSSHA20222420071008.

Rios Avila, Fernando, and Eva Schlarb. 2008. "Back Accounts and Savings — The Impact of Remittances and Migration: A Case Study of Moldova." Kiel Institute for the World Economy Working Paper No. 448, May. Kiel, Germany.

Ruggles, Steven, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek. 2010. *Integrated Public Use Microdata Series: Version 5.0* [Machine-readable database]. Minneapolis: Univ. of Minnesota.

Scotia Capital. 2000. *A Securitization Primer.* Toronto: Scotia Capital. www.securitization.net/pdf/lin_primer.pdf.

Senterfitt, Akerman. 2006. *A Primer on Securitization*. New York: World Services Group, October. www.hg.org/articles/article_1723.html.

Shane, Scott. 2008. *The Illusions of Entrepreneurship: The Costly Myths that Entrepreneurs, Investors, and Policy Makers Live By.* New Haven, CT: Yale University Press, 99.

Statman, Meir. 2000. "Socially Responsible Mutual Funds." *Financial Analysts Journal* 56, No. 3 (May/June): 30–39.

Tanaka, Hiroyuki, and Kathleen Newland. 2010. *Mobilizing Diaspora Entrepreneurs for Development.* Washington, DC: MPI and USAID, February.

Terrazas, Aaron. 2009. "Older Immigrants in the United States." *Migration Information Source*, May. www.migrationinformation.org/USfocus/display.cfm?id=727.

———. 2010. *Volunteering in the Diaspora: Motivations, Mechanics, Impacts and Policy Options.* Washington, DC: MPI and USAID, March.

Terrazas, Aaron, and Jeanne Batalova. 2009. "Frequently Requested Statistics on Immigrants and Immigration in the United States." *Migration Information Source*, October. www.migrationinformation.org/USFocus/display.cfm?ID=747.

Williamson, John. 2005. *Curbing the Boom-Bust Cycle: Stabilizing Capital Flows to Emerging Markets.* Washington, DC: Peterson Institute for International Economics.

Wong, Paul. 2003. "Leveraging the Jamaican Diaspora for Development." Washington, DC: USAID Office of Development Credit, November. www.tcgillc.com/tcgidocs/Jamaica031124.pdf.

Yasin, Jehad. 2007. "Demographic Structure and Private Savings: Some Evidence from Emerging Markets." Working Paper, Department of Economics, Population Studies Center, Fort Valley State Univ.

Yewondwossen, Muluken. 2009. "Ethiopia — EEPCo and Diaspora to Bond with Agents." Nazret.com, August 3. http://nazret.com/blog/index.php?title=ethiopia_eepco_and_diaspora_to_bond_with&more=1&c=1&tb=1&pb=1.

About the Author

Aaron Terrazas is a Policy Analyst at the Migration Policy Institute, where he focuses on the linkages between migration and development in migrants' countries of origin, the role of immigrants in the workforce, and more recently, how immigrants have fared over the economic crisis.

Mr. Terrazas studied international affairs at the Edmund Walsh School of Foreign Service at Georgetown University and at the Institut d'Etudes Politiques in Paris. He has completed additional post-graduate coursework in econometrics and advanced mathematics. His recent publications include *Recovering from the Recession: Immigrants in the Transatlantic Economy* (co-authored), *The Binational Option: Addressing America's Chronic Shortage of English as a Second Language Instructors* (co-authored), *Immigrants and the Current Economic Crisis: Research Evidence, Policy Challenges, and the Implications* (co-authored), *and Learning by Doing: Experiences of Circular Migration* (co-authored). He is a frequent contributor to the *Migration Information Source.*

The Migration Policy Institute is a nonprofit, nonpartisan think tank dedicated to the study of the movement of people worldwide. MPI provides analysis, development, and evaluation of migration and refugee policies at the local, national, and international levels. It aims to meet the rising demand for pragmatic and thoughtful responses to the challenges and opportunities that large-scale migration, whether voluntary or forced, presents to communities and institutions in an increasingly integrated world.

www.migrationpolicy.org

1400 16th Street NW
Suite 300
Washington, DC 20036

Tel: 001 202-266-1940
Fax: 001 202-266-1900