〈研究ノート〉

An Essay on Remittances Effects to Economic Development: A Survey

Shinji Yoshioka*

Abstract:

In economic literature, the relationship between remittances and economic development is somehow ambiguous. Some supports their positive correlation but others stress negative. This paper surveys some existing literatures on the relationship from four points of view such as brain drain or gain, business cycle, Dutch disease or exchange rate appreciation, and direct and empirical effects of remittances on economic development and growth. The relationship is still ambiguous and mixed but the effects on exchange rate should be focused on if remittances are negatively correlated with economic development. For more fruitful empirical research results, it is required to improve statistics. Among three types of inflows to developing countries such as workers' remittances, ODA, and FDI, a lot of literatures regard that FDI contains the strongest development-promoting effects. According to the conclusion of this study, workers' remittances' effects are still ambiguous. Remaining issue is to explore the differences of development-promoting effects among these three.

Keywords: Remittance, Economic Development, Brain Drain, Business Cycle, Dutch Disease, Developing Countries

JEL Classifications: F22, F24, J24, O40

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* Shinji Yoshioka, Faculty of Economics, Nagasaki University, s-ysk@nagasaki-u.ac.jp

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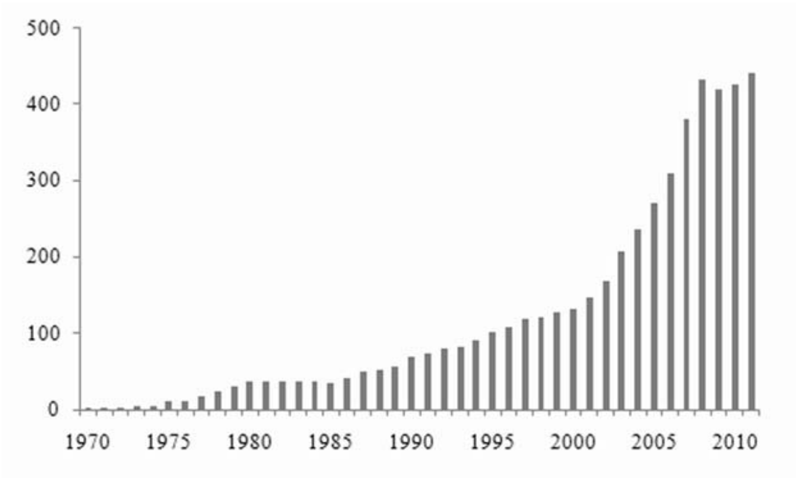
1. Introduction

In recent years, workers' remittances are increasing rapidly. In mid 1990s, they exceeded US$ 100 billion and reached at US$ 400 billion in 2008. World Bank (2009) estimates that remittances drop around seven percent in 2009 but forecasts that they will recover the upward movement in 2010. Figure 1 reports the amounts of remittances from 1970 to 2011. In recent years, the share of workers' remittances to developing countries is amounting to around 75 percent.

Figure 1: Remittances flow to developing countries (unit: billion US$)



Note: The number of 2009 is estimate and those of 2010 through 2011 are forecasts.
Source: 1970-2008: World Bank World Development Indicator
2009-2011: World Bank (2009) Table 1 p.14

From the viewpoint of the development economics, however, the evaluation of workers' remittances is somehow ambiguous. Some literature point out their positive or demand-increasing effects in recipient countries, while others stress their negative influences, including brain drain or the Dutch disease. Among these, Yoshioka and Suzuki (2009) did not find out statistically significant relationship between workers' remittances inflow and investments in developing countries, using coincident panel data analysis. This study thus surveys related literatures to investigate in workers' remittances effects on economic development in developing countries. After this introduction section, the second section focuses on brain drain or gain; the third section explores relationship between workers' remittances and business cycle; the fourth deals with effects on exchange rate, in particular, from the view point of the Dutch disease; the fifth section picks up direct effects to economic growth or investment; and, the final section concludes the paper briefly.

2. **Brain Drain or Gain**?

All of economists understand that there exists the migration in the background of workers' remittances. Hence, some literature investigates in the motivation of both migration and remittances. Lucas and Stark (1985) focus on Botswana and Funkhouser (1995) spotlights Central America such as El Salvador and Nicaragua. Funkhouser (1995) concludes that that the role of observable characteristics in explaining differences in the level of remittances, accounting for the self-selection in the decision to remit, is not large. There are many reasons to go abroad working and one of them is to remit home.

The term " brain drain " appears in wide usage in late 1960s when the growth in the migration of skilled personnel from developing to developed countries accelerated. If workers' remittances are based on the brain drain and the brain drain deteriorates labor-exporting countries' productivity, workers' remittances have the negative correlation[1] with economic development. Moreover, in most destination countries, immigration policies are increasingly tilted toward the most skilled individuals.

To my best knowledge, one of the earliest studies that focuses on brain drain accompanying the migration is Grubel and Scott (1966), which employ static model in a perfectly competitive market assumption and therefore conclude laissez-passer as the policy implication. Other classical theoretical studies, including Bhagwati and Hamada (1974) and Kwok and Leland (1982), present a theoretical model and support that the migration of skilled workers is beneficial for countries of destination and harmful for those of source. After these early literatures, a lot of studies proceed to empirical analyses. In recent years, some literatures deny the brain drain effects of the migration but find out positive influences on economic development, called " brain gain. " Commander et al. (2004) summarize these arguments of both brain drain and gain. Di Maria and Stryszowski (2009) also present a theoretical model consisting of both technically- and generally-skilled migration and conclude ambiguous results.

Among empirical studies in brain drain and gain, Adams (2003) reports comprehensive empirical results, which picks up 24 labor-exporting countries, and reveals following three points:

(1) With respect to *legal* migration, international migration involves the movement of the

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1 In this context, it is noteworthy to point out that workers' remittances do not contain any negative impact on recipient countries' economy, while brain drain does.

educated.

(2) While migrants are well-educated, international migration does not tend to take a very high proportion of the best educated.

(3) For a handful of labor-exporting countries, international migration *does* cause brain drain.

Including Adams (2003), in general, a sizable number of literatures stress that the brain drain does not contribute to labor-exporting countries' economy. For example, Faini (2007) and Niimi et al. (2008) report that the brain drain of the skilled migrants remit less partly because of their origination in relatively wealthy families.[2] At the same time, some recent literatures suggest that the brain gain hypothesis will hold. For example, Frank and Owen (2009) present a conceptual framework to analyze brain drain and gain and Batista et al. (2009) conclude that a 10pp increase in the probability of own future migration improves the average probability of completing intermediate secondary schooling by 8pp, which may contributes to economic development in recipient countries. Farchy (2009) points out a significant impact of European Union accession on human capital formation indicating that the prospect of migration can indeed fuel skill formation even in the context of middle-income economies.

3. Business Cycle

Workers' remittances are often argued to have a tendency to move countercyclically with the GDP in recipient countries since migrant workers are expected to remit more during down cycles of economic activities back home. They may help smoothing short-term income disturbances, which contribute to avoid deepening a recession. On this cyclicality, World Bank (2006) indicates econometric evidences that per capita remittances respond significantly per capita income in recipient countries. Tables 1 reports the panel regression results. Kapur (2004) finds that remittances go up in response to economic downturn and points out that their effects are greatest on transient poverty, but the long-term effects on structural poverty are less clear. Yang and Choi (2007) stress that remittances sent by overseas migrants respond to rainfall-induced economic fluctuations like insurances in the Philippines.

Some empirical studies based on bilateral data also support countercyclical movements of workers' remittances. For example, see Lueth and Ruiz-Arranz (2008) and Frankel (2009). On the other hand, Sayan (2006) insists that the countercyclicality of receipts is not com-

2 On contrary, Bollard et al. (2009) point out that more educated migrants remit more using microdata analysis.

Table 1: Regression Results: Determinants of Remittances

Explanatory variables	Dependent variable: Ln (Remittances) (1)	Dependent variable: Ln (Remittances) IV[a] (2)	Dependent variable: Ln (Remittances per emigrant) (3)	Dependent variable: Ln (Remittance per capita) (4)
Dual exchange rate	−0.42	−0.18	−0.31	−0.74**
	(−1.32)	(−0.46)	(−0.90)	(−2.04)
Service fee	−0.06**	−0.12*	−0.07**	−0.04
	(−2.32)	(−1.94)	(−2.47)	(−1.00)
Exchange-rate spread	−0.04		−0.02	−0.05
	(−0.50)		(−0.26)	(−0.52)
Stock of migrant workers	0.73**	0.64		0.22**
	(7.66)	(5.41)		(2.45)
Main host per capita income	−0.10	−0.05	−0.22*	0.11
	(−0.77)	(−0.31)	(−1.75)	(0.69)
Home per capita income	−0.15	−0.17	−0.06	0.72**
	(−1.03)	(−1.00)	(0.40)	(4.35)
Income	0.31**	0.31		
	(4.05)	(3.75)		
Number of observations	104	85	104	104
R^2	0.70	0.69	0.08	0.35

Source: World Bank (2006) Table 4A.2.1 p.109

Table 2: Cross Correlations between Real GDP and Real Remittances (Rrem) at t+i (i = -1, 0, 1)

		Rrem(t-1)	Rrem(t)	Rrem(t+1)	Nature of the Co-movement
Whole sample		0.3032	-0.2696	**-0.3639***	Countercyc.: Remittances lag output
Country	**Income Group /Region**				
DZA	LMI/MENA	-0.1346	**-0.2447**	-0.0739	Acyclical
BGD	LI/SA	0.0536	**-0.4145***	-0.1329	Countercyclical and synchronous
CIV	LI/SSA	**0.2482**	0.0767	-0.0885	Acyclical
DOM	LMI/LAC	**0.2497**	0.2289	0.1109	Acyclical
IND	LI/SA	0.3747	-0.0143	**-0.3798***	Countercyc.: Remittances lag output
JAM	LMI/LAC	-0.0630	**-0.1812**	-0.0846	Acyclical
JOR	LMI/MENA	0.3689	**0.8704***	0.6472	Procyclical and synchronous
LSO	LI/SSA	0.2193	-0.0105	**-0.0434**	Acyclical
MAR	LMI/MENA	-0.1217	0.2167	**0.3832 ***	Procyclical: Remittances lag output
PAK	LI/SA	-0.0574	**-0.1539**	0.1499	Acyclical
SEN	LI/SSA	0.0881	0.0718	**0.1076**	Acyclical
TUR	LMI/ECA	**-0.0953**	-0.0450	-0.0513	Acyclical

Source: Sayan (2006) Table 2 p.11

monly observed across the investigated 12 countries. Table 2 reports regression results of Sayan (2006).

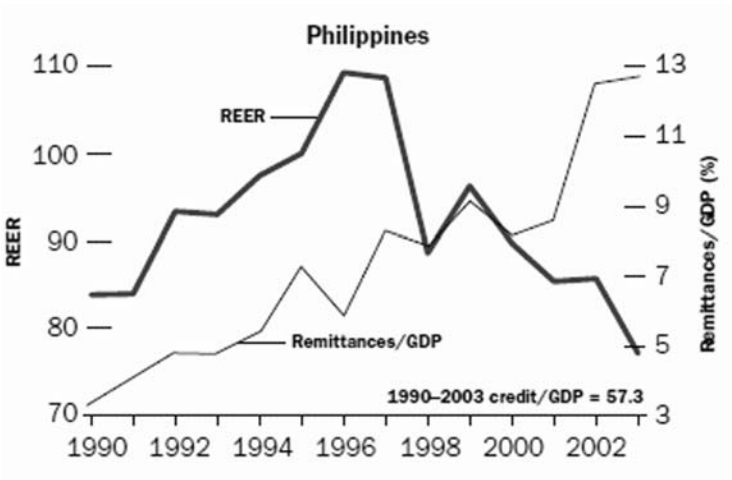
However, workers' remittances originating in brain drain and their countercyclicality do not necessarily exacerbate economic development. A deep attention must be paid for the fact that the phenomena focused on in sections 2 and 3 indicate that workers' remittances possibly contain the negative correlation with the economic development or growth in developing countries. In the following sections 4 and 5, the paper explores direct effects of workers' remittances to economic development.

4. Effects on Exchange Rate Originating in Dutch Disease

Workers' remittances as well as ODA are capital inflow to recipient countries, of course, which means that the operation of currency exchange from sending to receiving countries exists. This operation brings appreciation of local currency in recipient countries, which is regarded as a sort of the Dutch disease. The currency appreciation damages exports competitiveness in developing countries. In this Dutch disease case, workers' remittances also show negative correlation with development.

From this point of view, Yang (2006) and Yang (2008)[3] report that the elasticity of Philippine-peso remittances with respect to the Philippine/foreign exchange rate is 0.60 and Acosta

Figure 2: Remittances and Real Effective Exchange Rate Evolution in the Philippines



Source: Acosta et al. (2009) Figure 2 p.6

3 Halikias (2009) also supports results of Yang (2008).

et al. (2009) discuss Dutch Disease phenomenon caused by workers' remittances using panel data. Furthermore, Suzuki (2007) concludes that remittances have rather strong effects to currency appreciation among other international capital flows. For example, Figure 2 is quoted from Acosta et al. (2009) depicts the share of remittances to GDP and real effective exchange rate (REER) evolution in the Philippines, which seems to have negative correlation in recent several years.

Focusing on Latin America, Lopez et al. (2007) also estimate that a doubling of the remittances to GDP ratio would lead to a real exchange rate appreciation of 5 percent. This estimate is, however, much lower than the estimate of Amuedo-Dorantes and Pozo (2004), which would be slightly above 22 percent. Table 3 quoted from Lopez et al. (2007) indicates that over 1990 and 2003 the real effective exchange rate appreciated in 11 of the 20 countries under consideration of Lopez et al. (2007) and it is apparent that the countries where it appreciated the most are Belize, Ecuador, El Salvador, Guatemala, and Haiti. Interestingly, Ecuador, El Salvador, Guatemala, and Haiti are among the top receiver countries of workers' remittances[4] in the region.

Table 3: Remittances and the Real Exchange Rate

	REER	Remittances	
	Growth	Initial	Final
Argentina	-1.6	0.7	0.5
Belize	32.6	3.4	1.7
Bolivia	-0.3	0.1	1.5
Brazil	-5.3	0.1	0.6
Chile	0.1	0.0	0.0
Colombia	0.5	1.1	4.0
Costa Rica	0.3	0.2	1.8
Dominican Republic	-0.4	5.0	12.7
Ecuador	3.0	0.5	5.7
El Salvador	3.4	7.4	16.1
Guatemala	3.3	1.6	8.7
Haiti	3.0	2.7	41.2
Honduras	1.1	2.1	12.5
Jamaica	1.0	4.4	17.7
Mexico	1.8	1.2	2.4
Nicaragua	-1.3	0.5	10.6
Panama	-1.2	0.3	0.7
Paraguay	-1.6	0.6	3.7
Peru	-0.6	0.3	1.4
Venezuela	-1.5	0.1	0.2

Source: Lopez et al. (2007) Table 1 p.7

4 The comparison is undertaken on a basis of the percentage to the GDP.

5. Effects on Economic Development and Growth

Formerly in 1990s, some studies in labor economics found that workers' remittances contain sizable effects to reduce labor force. Kozel and Alderman (1990) report that a significant negative impact of remittances on the labor force participation of males in late 1980s Pakistan. Similarly, Itzigsohn (1995) also stresses, in a sample of Caribbean Basin cities, that remittances significantly reduce the labor force participation of household heads as well as other members of remittance-receiving families. These studies reveal that workers' remittances possibly exacerbate economic development from the aspect of the labor supply. Also in recent literature, for example, Chami et al (2006) show that remittances inflows reduce labor supply using a dynamic general equilibrium model incorporating remittances. At the same time, most literatures suggest that workers' remittances deteriorate the fixed capital

Table 4: OLS and Fixed-Effects Regressions Explaining Per Capita GDP Growth as a Function of Workers' Remittances and Different Conditioning Sets

	Conditioning Sets of Variables					
	Basic Conditioning Set: Excludes Domestic Investment		Basic Conditioning Set Plus Domestic Investment		Full Conditioning Set, Including Institutional Variable	
	OLS	Fixed Effects	OLS	Fixed Effects	OLS	Fixed Effects
Sample: All Countries						
Specification:						
1. *wr* only						
wr	0.200	0.172	0.171	0.202	0.056	−0.099
	(2.50)**	(0.90)	(2.21)**	(1.09)	(0.61)	(0.48)
R^2	0.049	0.169	0.139	0.218	0.354	0.373
Observations	383	383	374	374	189	189
Countries	108	108	105	105	66	66
2. *wr* and *wr-squared*						
wr	0.125	−0.030	0.105	−0.017	−0.005	0.012
	(1.26)	(0.13)	(1.07)	(0.08)	(0.04)	(0.04)
wr-squared	−0.033	−0.073	−0.028	−0.077	−0.028	0.032
	(1.27)	(1.48)	(1.09)	(1.62)	(0.74)	(0.59)
R^2	0.051	0.175	0.139	0.226	0.352	0.375
Observations	383	383	374	374	189	189
Countries	108	108	105	105	66	66
3. *wr* and *interaction with M2-GDP*						
wr	0.798	0.550	0.570	0.423	0.039	−1.033
	(1.95)*	(0.83)	(1.45)	(0.65)	(0.08)	(1.18)
wr × *M2-GDP*	−0.176	−0.111	−0.118	−0.065	0.005	0.296
	(1.49)	(0.60)	(1.03)	(0.35)	(0.03)	(1.09)
R^2	0.052	0.170	0.176	0.218	0.350	0.379
Observations	383	383	374	374	189	189
Countries	108	108	105	105	66	66

Source: Chami et al. (2008) Table 7.1 p.64

formation through exchange rate appreciation caused by the Dutch disease, which is focused on at the previous section. Aggarwal et al. (2006), however, insist that remittances expand quantity of funds[5] such as bank deposits and credit, and improve quality of financial services, which may contain a positive impact on the economic development.

Among recent literature, Chami et al. (2008) and Barajas et al. (2009) focus on relationship between workers' remittances and economic development or growth from comprehensive viewpoints. Barajas et al. (2008) conclude that "*decades of private income transfers —remittances— have contributed little to economic growth in remittance-receiving economies and may have even retarded growth in some*." (Barajas et al. 2009 p.16) Neither can Chami et al (2008) find a robust and significant positive impact of remittances on growth, and often find a negative relationship between remittances and growth. Table 4 is quoted from Chami et al. (2008).

6. Conclusion

This study focuses on relationship between workers' remittances and the economic development, but the survey results obtained by both theoretical and empirical analyses appear ambiguous and mixed. The ambiguity derived from empirical studies seems to originate partly in the lack of accurate data. IMF (2009) newly introduced an appendix for remittances reflecting their importance in recent years. Table 4 is quoted from IMF (2009) and clarifies remittance items. This sort of the statistical reformation is welcome to improve related studies.

When remittances take some negative correlation with economic development and growth, some literature strongly supports that they originates in appreciation of local currencies, which may be called "Dutch disease." It is widely recognized that the international capital inflow brings appreciation of local currencies,[6] which hurts export of developing countries. On the other hand, however, FDI is supposed to promote economic development by a lot of literature, including OECD (2002) and World Bank (2005). One of the most important differences between them, of course, seems technology transfer as Findlay (1978) insists. Most economists regard that among three types of inflows to developing countries such as workers' remittances, ODA, and FDI, FDI has the strongest development-promoting

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5 Here, the word "funds" include both remittances and their fees. In addition, Shimada (2009) shows that reducing the remittance fee does not necessarily increase remittances.

6 In this context, Doucouliagos and Paldam (2009) insist that the ineffectiveness of ODA is also partly due to exchange rate appreciation caused by the Dutch disease.

Table 5: Components Required for Compiling Remittance Items and Their Source

Item	Source and description
1. Compensation of employees	Primary income account, standard component
2. Personal transfers	Secondary income account, standard component
3. Travel and transport related to employment of border, seasonal, and other short-term workers	Goods and services account, supplementary item
4. Taxes and social contributions related to employment of border, seasonal, and other short-term workers	Secondary income account, supplementary item
5. Compensation of employees less expenses related to border, seasonal, and other short-term workers	Primary income account (for compensation of employees), standard component Goods and services account (for travel and transport expenses) and secondary income account (for taxes and social contributions), supplementary items
6. Capital transfers between households	Capital account, supplementary item
7. Social benefits	Secondary income account, supplementary item
8. Current transfers to NPISHs	Secondary income account, supplementary item
9. Capital transfers to NPISHs	Capital account, supplementary item

Important relationships are:
"Net" compensation of employees (#5): #1 minus the sum of #3 and #4
Personal remittances: #2 plus #5 plus #6
Total remittances: #2 plus #5 plus #6 plus #7
Total remittances plus transfers to NPISHs: #2 plus #5 plus #6 plus #7 plus 8 plus #9.

Source: IMF (2009) Table A5.1 p.409

effects. According to the results of this survey, the effects of workers' remittances on development and growth are ambiguous and mixed while ODA is not very useful for growth as Rajan and Subramanian (2008) indicate. The issue of this difference should be explored for further studies.

References

Acosta, Pablo A., Nicole Rae Baerg, and Federico S. Mandelman (2009) "Financial Development, Remittances, and Real Exchange Rate Appreciation," *Economic Review 94(1)*, Federal Reserve Bank of Atlanta, February 2009, pp.1-12

Adams, Richard H. Jr. (2003) "International Migration, Remittances, and the Brain Drain: A Study of 24 Labor-Exporting Countries," *World Bank Policy Research Working Paper 3069*, June 2003

Aggarwal, Reena, Asli Demirguc-Kunt and Maria Soledad Martinez Peria (2006) "Do Workers' Remittances Promote Financial Development?" *World Bank Policy Research Paper 3957*, July 2006

Amuedo-Dorantes, Catalina and Susan Pozo (2004) "Workers' Remittances and the Real Exchange Rate: A Paradox of Gifts," World Development 32(8), August 2004, pp.1407-1417

Barajas, Adolfo, Ralph Chami, Connel Fullenkamp, Michael Gapen and Peter Montiel (2009) "Do Workers' Remittances Promote Economic Growth?" *IMF Working Paper WP/09/153*, July 2009

Batista, Catia, Aitor Lacuesta and Pedro C. Vicente (2009) "Testing the 'Brain Gain' Hypothesis: MIcro Evidence from Cape Verde," *IIS Discussion Paper No.282*, Institute for International Integration Studies, February 2009

Bhagwati, Jagdish N., and Koichi Hamada (1974) "The Brain Drain, International Integration of Markets for Professionals and Unemployment: A Theoretical Analysis," *Journal of Development Economics 1(1)*, April 1974, pp.19-42

Bollard, Albert, David McKenzie, Melanie Morten and Hillel Rapoport (2009) "Remittances and the Brain Drain Revisited: The microdata show that more educated migrants remit more," *Discussion Paper Series CDP No 26/09*, Centre for Research and Analysis of Migration, Department of Economics, University College London, October 2009

Chami, Ralph, Thomas F. Cosimano and Michael T. Gapen, (2006) "Beware of Emigrants Bearing Gifts: Optimal Fiscal and Monetary Policy in the Presence of Remittances," *IMF Working Paper WP/06/61*, March 2006

Chami, Ralph, Adolfo Barajas, Thomas Cosimano, Connel Fullenkamp, Michael Gapen, and Peter Montiel (2008) "Macroeconomic Consequences of Remittances," *IMF Occasional Paper No.259*, 2008

Commander, Simon, Mari Kangasniemi, and L. Alan Winters (2004) "The Brain Drain: Curse or Boon? A Survey of the Literature," Robert E. Baldwin and L. Alan Winters (eds) *Challenges to Globalization: Analyzing the Economics*, University of Chicago Press, February 2004, pp.235-278

Di Maria, Corrado and Piotr Stryszowski (2009) "Migration, human capital accumulation and economic development," *Journal of Development Economics 90(2)*, November 2009, pp.306-313

Doucouliagos, Hristos and Martin Paldam (2009) "The Aid Effectiveness Literature: The Sad Results of 40 Years of Research," *Journal of Economic Surveys 23(3)*, July 2009, pp.433-461

Faini, Riccardo (2007) "Remittances and the Brain Drain: Do more skilled migrants remit more?" *World Bank Economic Review 21(2)*, May 2007, pp.177-91

Farchy, Emily (2009) "The impact of EU accession on human capital formation: can migration fuel a brain gain?" *Policy Research Working Paper Series No.4845*, World Bank, February 2009

Findlay, Ronald (1978) "Relative Backwardness, Direct Foreign Investment, and the Transfer of Technology: a Simple Dynamic Model," *Quarterly Journal of Economics 92(1)*, February 1978, pp.1-16

Franck, Bernard and Robert F. Owen (2009) "International Human Capital Formation, Brain Drain and Brain Gain: A conceptual Framework," *hal-00421166*, Laboratoire d'Economie et de Management Nantes-Atlantique, Universite de Nantes, October 2009

Frankel, Jeffrey (2009) "Are Bilateral Remittances Countercyclical?" *CID Working Paper No.135*, Center for International Development at Harvard University, September 2009

Freund, Caroline and Nikola Spatafora (2005) "Remittances: transaction costs, determinants, and informal flows," *Policy Research Working Paper 3704*, World Bank, September 2005

Funkhouser, Edward (1995) "Remittances from International Migration: A Comparison of El Salvador and Nicaragua," *Review of Economics and Statistics 77(1)*, February 1995, pp.137-146

Grubel, Herbert and Anthony Scott (1966) "The international flow of human capital," *American Economic Review 56(2)*, May 1966, pp.268-74

Halikias, Ioannis (2009) "Workers' Remittances and External Equilibrium: An Application to the Philippines," Conference Paper No.5, *BSP International Research Conference on Remittances* "The Macroeconomic Consequences of Remittances: Implications for Monetary and Financial Policies in Asia," March 30-31, 2009, Mandaluyong City, Philippines

IMF (2009) *Balance of Payments and International Investment Position Manual, Sixth Edition (BPM6)*, International Monetary Fund, June 2009

Itzigsohn, Jose (1995) " Migrant Remittances, Labor Markets, and Household Strategies: A Comparative Analysis of Low-Income Household Strategies in the Caribbean Basin, " *Social Forces 74(2)*, 1995, pp. 633-55

Kapur, Devesh (2004) " Remittances: The New Development Mantra? " *G-24 Discussion Paper Series No.29*, UNCTAD, April 2004

Kozel, Valerie and Harold Alderman (1990) " Factors Determining Work Participation and Labour Supply Decisions in Pakistan's Urban Areas, " *Pakistan Development Review 29(1)*, Spring 1990, pp.1-18

Kwok, Viem and Hayne E. Leland (1982) " An economic model of brain drain, " *American Economic Review 72 (1)*, March 1982, pp.91-100

Lopez, Humberto, Luis Molina and Maurizio Bussolo (2007) " Remittances and the real exchange rate, " *Policy Research Working Paper 4213*, World Bank, April 2007

Lucas, Robert E.B. and Oded Stark (1985) " Motivations to Remit: Evidence from Botswana, " *Journal of Political Economy 93(5)*, October 1985, pp.901-918

Lueth, Erik and Marta Ruiz-Arranz (2008) " Determinants of Bilateral Remittance Flows, " *B.E. Journal of Macroeconomics 8(1)*, October 2008

Niimi, Yoko, Caglar Ozden, and Maurice Schiff (2008) " Remittances and the Brain Drain: Skilled Migrants do remit less, " *IZA Discussion Paper No.3393*, Institute for the Study of Labor, March 2008

OECD (2002) *Foreign Direct Investment for Development: Maximising Benefits, Minimising Costs*, Organisation for Economic Co-operation and Development, 2002

Rajan, Raghuram G. and Arvind Subramanian (2008) " Aid and Growth: What Does the Cross-Country Evidence Really Show? " Review of Economics and Statistics 90(4), November 2008, pp.643-665

Sayan, Serdar (2006) " Business Cycles and Workers' Remittances: How Do Migrant Workers Respond to Cyclical Movements of GDP at Home? " *IMF Working Paper WP/06/52*, February 2006

Shimada, Akira (2009) " The Transfer of the Remittance Fee from the Migrant to the Household, " *Discussion Paper Series DP2009-11*, Faculty of Economics, Nagasaki University, July 2009

Suzuki, Susumu (2008) " The impact of capital inflows including foreign aid on the real exchange rates in developing countries: the panel data evidence, " *Journal of JBIC Institute 37*, August 2008, pp.215-244 [in Japanese]

World Bank (2005) *World Development Report 2005*, World Bank, 2005

World Bank (2006) *Global Economic Prospect 2006*, World Bank, 2006

World Bank (2009) " Migration and Development Brief No.11, " Migration and Remittances Team, Development Prospects Group, World Bank, 2009
http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1110315015165/MigrationAndDevelopmentBrief11.pdf [accessed on December 10, 2009]

Yang, Dean (2006) " Why Do Immigrants Return To Poor Countries? Evidence from Philippine Migrants' Responses to Exchange Rate Shocks, " *Review of Economics and Statistics 88(4)*, November 2006, pp. 715-735

Yang, Dean and HwaJung Choi (2007) " Are Remittances Insurance? Evidence from Rainfall Shocks in the Philippines, " *World Bank Economic Review 21(2)*, May 2007, pp.219-48

Yang, Dean (2008) " International migration, remittances, and household investment: Evidence from Philippine migrants' exchange rate shocks, " *Economic Journal 118(528)*, April 2008, pp.591-630

Yoshioka, Shinji and Susumu Suzuki (2009) " Financial Resources for Investment in Developing Countries: Does Development Aid Contribute to Investment? " *mimeo*, December 2009