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MIGRATION, REMITTANCES AND DEVELOPMENT: THE CRITICAL NEXUS IN THE MIDDLE EAST AND NORTH AFRICA*

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International migration is one of the most important factors affecting economic relations between developed and developing countries in the 21st Century. At the start of the century it was estimated that about 175 million people – roughly 3 percent of the world population – lived and worked outside the country of their birth (United Nations, 2002). The international remittances sent by these migrant workers to their households back home have a large and profound impact on the developing world. According to Global Development Finance (World Bank, 2004), international worker remittances sent home by migrant workers represent the second most important source of external funding in developing countries.[i] International worker remittances now total $75 billion per year and are about twice as large as the level of official aid-related inflows to developing countries.[ii]

International migration and remittances have had a particularly large impact on the Middle East and North Africa. As oil prices increased in the late 1970s, and the economies of the Persian Gulf boomed, migrants from Egypt, Jordan and Lebanon began seeking high-paying jobs in a variety of fields in Iraq, Kuwait and Saudi Arabia. At the same time, migrants from Algeria, Morocco and Tunisia began seeking labor-intensive jobs in Western Europe. While no comprehensive figures have ever been collected on the number of migrants involved, the amount of money sent home by migrants from these countries has been substantial. Table 1 shows that international worker remittances as a share of gross domestic product (GDP) varied between 2 and 22 percent of GDP for various Middle East and North Africa countries during the period 1998 to 2003. In all likelihood these figures actually underestimate the level of remittance monies returning to Middle East and North Africa countries, because they only include those remittances which come back through official, banking channels. Many migrants, who do not trust banks, remit their money back home through informal and unrecorded means.

The purpose of this paper is to analyze the impact of international migration and remittances on the 21 countries that are included in the World Bank's definition of the Middle East and North Africa. The paper will proceed in four sections. Section A presents recent data on the levels of worker migration from the Middle East and North Africa. This section focuses on estimating the stock of emigrants from the Middle East and North Africa in various OECD countries. Section B of the paper then analyzes trends in international worker remittances received in the Middle East and North Africa over the last 15 years, 1990 to 2004. This section shows the general lack of remittance data in this region of the world: full remittance data are available for only 5 of the 21 countries in the Middle East and North Africa. Since some Middle East countries, in particular those in the Gulf Cooperation Council (GCC), also pay out worker remittances, Section C of the paper reviews trends in worker remittances paid out in the Middle East and North Africa. The final section of the paper reviews the findings of five recent papers on how international migrants spend and use their remittance earnings. This section finds that international remittances generally have a positive impact on economic development, because they tend to reduce poverty and to get invested in education, health and new entrepreneurial activities.

A. Worker Migration from the Middle East and North Africa

None of the labor-exporting countries in the Middle East and North Africa publish accurate records on the number of international worker migrants that they produce. It is therefore necessary to estimate migration stocks and flows from this region by using data collected by the main labor-receiving countries. For the purposes of this paper, the main labor-receiving countries (regions) include two: OECD (America), including United States and Canada; and OECD (Europe), excluding America and Asia.[iii] Unfortunately, no data are available on the level of worker migration to the third most important labor-receiving region in the world, the Persian Gulf. This is unfortunate because large numbers of workers from Egypt, Jordan and Yemen go to work in the Persian Gulf, specifically to the six member states of the

Gulf Cooperation Council (GCC): Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates.

There have been a wide variety of efforts to estimate the size of worker migration stocks and flows using data available in the main labor-receiving countries. One of the most recent, and comprehensive, of these estimates comes from a new data set compiled by Docquier and Marfouk (2005). Based on population census and register data from nearly every OECD country, this new data set counts as migrants the "foreign born" population living in two main labor-receiving regions: OECD (America), including United States and Canada; and OECD (Europe), excluding America and Asia. In these data, migrants are counted as all those foreign-born, working age (25 and over) individuals living in an OECD country. One noteworthy aspect of this data set is that it classifies migrants according to their level of educational attainment: low-skilled (less than 8 years of schooling); medium-skilled (9 to 12 years of schooling); and high-skilled (13 years or more of schooling). The presence of educational data in the Docquier and Marfouk (2005) data set makes it possible to pinpoint the skill level of international migrants from various Middle East and North Africa countries.

Like all data sets on international worker migration, the Docquier and Marfouk (2005) data contain certain problems. Most notably, by focusing on information collected from census and register data, these data do not capture the very large number of illegal and irregular migrants living and working in the OECD. For example, in 2002 the stock of illegal immigrants in the United States was estimated at 9.3 million, or about 26 percent of the total stock of the "foreign-born" population in the United States (Passel, Capps, and Fix, 2004). Since it focuses on OECD countries, the Docquier and Marfouk (2005) data also do not include the large number of migrants from the Middle East and North Africa who are currently working in the Persian Gulf. In 2000 the total stock of migrants working in the six Gulf Cooperation Council (GCC) countries was estimated at 9.6 million; however, no information is available on the country of origin of these migrants. Finally, the Docquier and Marfouk (2005) data only relate to the stock of migrants, not flows of migrants. On the whole, migration flow data tend to be less reliable than stock data, because of the impossibility of evaluating return migration movements.

Given all these caveats, Table 2 presents information from the Docquier and Marfouk (2005) data on the stock of emigrants from the Middle East and North Africa currently living in the OECD (America) and the OECD (Europe). Since no information are available on the number of migrants living in the Persian Gulf, Table 2 probably grossly "undercounts" the stock of emigrants abroad for those countries that send migrants to the Persian Gulf, for example, countries like Egypt, Jordan and Yemen. Despite these data limitations, Table 2 suggests that the level of worker migration for most Middle East and North Africa countries is fairly low: only one country (Lebanon) has over 10 percent of its labor force living and working abroad. Even the two largest labor-exporting countries in North Africa – Morocco and Tunisia – have less than 8 percent of their labor force working abroad. By comparison, 15 of the 38 countries in the Latin America and Caribbean region have over 10 percent of their labor force living and working abroad.

Table 3 shows the level of education of emigrants from the Middle East and North Africa currently living in the OECD (America) and the OECD (Europe). One key point emerges here, namely, that for the three countries sending migrant workers mainly to the OECD (Europe) – Algeria, Morocco and Tunisia – the share of low-skilled migrant workers is very high. Over 70 percent of the emigrants from these three North African countries have less than 8 years of education. Worker migration from North Africa to Europe (OECD) thus appears to involve the movement of the unskilled. By contrast, worker migration from several of the Gulf Cooperation Council (GCC) countries involves the movement of the highly educated. Over 60 percent of the emigrants from Kuwait, Qatar and the United Arab Emirates have over 13 years of education. While only a tiny proportion of the labor force from these three Gulf Cooperation Council countries migrates abroad (see Table 2), those who do migrate are highly educated.

B. Trends in Worker Remittances Received in the Middle East and North Africa

Presenting accurate data on worker remittances in the Middle East and North Africa is as difficult as presenting reliable data on worker migration from this region. The most comprehensive set of data on worker remittances come from the International Monetary Fund, Balance of Payments Statistics Yearbook. However, there are at least two problems with these IMF data. First, the IMF data are supplied by central banks in the various countries and these central banks tend to use different definitions and conventions for reporting remittances. For example, worker remittances can include "workers' remittances" per se, as well as "compensation of short-term employees" and "other current transfers." Also, definitions and methodologies for reporting "workers' remittances" change, as has been the case with Lebanon recently. Moreover, while most central banks count as remittances only those monies with flow through the financial sector, some central banks attempt to include the value of cash and goods (i.e. cars) which are brought home by migrants. Table 4 presents an overview of how remittances are defined and reported in selected Middle East and North Africa countries. This table shows that the method of collecting data on "workers' remittances" varies from country to country. In particular, it is not clear to what extent several countries – such as Egypt and Morocco – count transfers from money transfer operators (i.e. Western Union) in their figures for "workers' remittances"

The second problem with the IMF data is that they only count remittance monies which enter official, banking channels; as shown in Table 4, these data do not include the large – but unknown – amount of remittance monies that is transmitted through informal and unrecorded channels. For this reason, it is likely that all IMF remittance data grossly under-estimate the actual level of total remittances (official and unrecorded) returning to each labor-exporting country.

With these caveats in mind, Table 5 reports data on trends in worker remittances for Middle East and North Africa countries over the 15-year period, 1990 to 2004. This table is based on the narrow IMF definition of "workers' remittances;" items such as "compensation of employees" and "other current transfers" are not included in this table, since they are of a more irregular, or short-term, nature.

In Table 5 it is interesting to note that most Middle East and North Africa countries – 12 of 21 countries – do not even report data on worker remittances. While some of these countries (i.e. the 6 Gulf Cooperation Council countries) probably do not receive remittances, some of them (i.e. Algeria and Iran) certainly do. At the same time, several of the countries in Table 5 (such as Lebanon and Syria) are missing remittance data for a large number of years. Clearly, there is a need to improve the reporting of worker remittances data in the Middle East and North Africa.

In Table 5 all of the countries receiving worker remittances – except Egypt – report an increase in the level of remittances received over time. Over the 15-year period 1990 to 2004 the level of worker remittances increased at an average annual rate of between 1.0 percent (Yemen) and 10.5 percent (Jordan). Worker remittances are evidently an ever-increasingly important aspect of the economies of most Middle East and North Africa countries.

C. Trends in Worker Remittances Paid Out in the Middle East and North Africa

In the Middle East the six member states of the Gulf Cooperation Council (GCC) -- Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates – pay out considerable amounts in worker remittances to migrant workers living within their borders. Table 6 shows trends in the level of worker remittances paid out by these Gulf Cooperation Council countries over the 15-year period, 1990 to 2004. In this table one country clearly dominates: Saudi Arabia. In 2004 Saudi Arabia paid out $13.5

billion in international worker remittances, or about 70 percent of total worker remittances paid out by the Gulf Cooperation Council in that year.

D. Development Impact of Worker Remittances on the Middle East and North Africa

From the standpoint of economic development, the basic question is quite clear: How are worker remittance monies spent or used? Do migrant workers channel their international remittance earnings into human and physical capital investments back home, or do they merely use these monies to purchase new "status-oriented" consumer goods for themselves and their families?

In the past, many researchers have tended to take a rather pessimistic view of how remittances are spent or used, and the impact of these monies on development. For

example, a recent review of the literature by Chami, Fullenkamp and Jahjah (2003:10-11) reported three stylized facts: first, that a "significant proportion, and often the majority," of worker remittances are spent on consumption; second, that a smaller part of remittance funds goes into saving or investment; and third, the ways in which remittances are typically saved or invested – in housing and land – are "not necessarily productive" to the economy as a whole.

Several interrelated factors seem to be responsible for this dim view of the impact of worker remittances on economic development. On a most basic level, since decisions on how to spend remittances are made by thousands (if not millions) of individual households, it is difficult to establish exactly how these monies are used. Much of the literature in this area thus tends to be anecdotal, rather than empirical. At the same time, household budget surveys, which represent the best possible source of information about how remittances are spent, are often poorly designed. Oftentimes, these household surveys ask "naïve" questions about remittance earnings were spent or used. Since remittances are fungible like any other source of income, simply asking respondents about how remittances were spent is not enough. Remittances that are not being spent directly on investment may well have freed other resources for expenditures on investment. Third, the small handful of empirically-based studies that do exist on remittances and economic development are often based on small, unrepresentative household samples. For instance, Adams (1991) study of how international remittances are used in rural Egypt is based on only 1000 households.[iv] Clearly, there is a need to extend the scope of these studies to examine the impact of remittances on economic development by using larger, nationally representative samples.

The rest of this section will examine how worker remittances are spent or used at the household level by drawing upon the results of five recent papers. Because of the dearth of work on remittances and development in the Middle East and North Africa, only one of these five papers in based on a Middle Eastern country (Egypt). However, each of these papers is based on a large, (usually) nationally-representative sample from a major labor-exporting country, and each study finds that international remittances has a positive effect on some aspect of development.

The first, and perhaps broadest, paper analyzes how worker remittances affect poverty in the developing world (Adams and Page, 2005). Using data from nationally-representative household surveys in 71 developing countries, the paper finds that international worker remittances significantly reduce the level, depth and severity of poverty in the developing world. After instrumenting for the possible endogeneity of international remittances, the paper finds that a 10 percent increase in per capita worker remittances to a labor-exporting county will, on average, lead to a 3.5 percent decline in the share of people living in poverty in that country. A similar 10 percent increase in per capita worker remittances will, on average, reduce the depth of poverty in that country by 3.9 percent. In the developing world worker remittances tend to reduce poverty because a large proportion of these income transfers go to poor households.

The second paper uses four linked household surveys from the Philippines to analyze how exchange rate shocks during the 1997 Asian financial crisis affected the expenditure patterns of 1646 Philippine households receiving international remittances (Yang, 2004). Since the paper has panel data from before and after the 1997 crisis, it is able to analyze how different types of exchange rate shocks – positive and negative -- affected changes in the expenditure patterns of households receiving remittances. This represents a type of "natural experiment," because the size and direction of exchange rate shocks are probably uncorrelated with other household-level shocks. As shown in Table 7, the study finds that positive exchange rate shocks had no statistical effect on the level of expenditures by remittance-receiving households on food. In other words, households receiving more remittance income as a result of favorable exchange rate shocks are not "wasting" such income on increased food consumption. Rather, Table 7 shows that positive exchange rate shocks led to a statistically significant rise in remittance-household expenditures on education, and a reduction in total hours worked by male children. For example, a one-standard deviation increase in the size of the exchange rate shock led to a 0.4 percent increase in remittance-household expenditures on education in the Philippines. The paper also finds that favorable exchange rate shocks were associated with increased investment by remittance-receiving households in entrepreneurial activities, specifically transportation, communication and manufacturing enterprises. In all likelihood, households receiving more remittances as a result of positive exchange rate shocks were able to invest more in these relatively capital-intensive enterprises because they no longer faced the credit constraints that had previously hindered such investments.

The third paper expands upon the theme of worker remittances and investment in entrepreneurial activities by using a 1988 survey of 1526 Egyptians migrants who had worked abroad and then returned home (McCormick and Wahba, 2001). Since the survey includes data on the pre- and post-migration employment histories of migrants, the paper is able to examine how international migration and remittances affect the probability that a migrant will become an entrepreneur -- employer, self-employed person or business owner – upon return from working abroad.[v] The paper finds that two factors – time spent working abroad and total amount of money saved abroad – have a positive and significant effect on the likelihood of a return migrant becoming an entrepreneur. However, these two factors work differently for literate as opposed to illiterate migrants. For the 70 percent of return migrants in the Egyptian data set who are literate, the primary factor affecting the probability of becoming an entrepreneur is the amount of time spent working abroad. By contrast, for the 30 percent of return migrants in the Egyptian data set who are illiterate, the total amount of money saved abroad is the most important factor. According to the paper, illiterate Egyptian migrants may not learn many new skills working abroad, and this is the reason that savings accumulated abroad – rather than time spent abroad – is the critical factor affecting the likelihood of becoming an entrepreneur.

The fourth paper uses a nationally-representative 1997 household survey of 14,286 people (aged 6-24) to examine the impact of international remittances on school retention rates in El Salvador (Edwards and Ureta, 2003). International remittances represent a key source of household income in El Salvador: in 1997 about 15 percent of all households received international remittances. While standard economic theory suggests that the source of income should not affect how money is spent, the paper analyzes how two different types of income – income from other sources and remittance income – affect the household choice of schooling levels for children. The results suggest that the source of income <u>does</u> matter for investment in schooling: income from remittances has a much larger impact on school retention rates than income from other sources. In urban areas in El Salvador, international remittances have 10 times the size of the effect of other income on the hazard of dropping out of school. For example, in urban areas the average level of remittances lowers the hazard that a child will drop out of elementary school (grades 1-6) by 54 percent. In rural areas in El Salvador, international remittances have a smaller effect on school retention rates, but still the average level of remittances in rural areas lowers the hazard rate that a child will drop out of elementary school by 14 percent. According to the paper, one possible reason

why remittance income has a greater impact on school retention rates than income from other sources is that households may have a higher propensity to spend on education out of remittance earnings.

The fifth paper uses data from a nationally-representative 1998/99 survey of 5998 households in urban and rural Ghana to analyze how international remittances affects the marginal spending behavior of households on consumption and investment (Adams, 2006). The paper compares the marginal budget shares of remittance-receiving and non-remittance receiving households on six consumption and investment goods: food, consumer goods/durables, housing, education, health and other (household services, transport). Table 8 presents the marginal budget shares devoted to these six consumption and investment goods. Like the study in the Philippines, the table shows that households receiving international remittances spend less at the margin on food than do households receiving no remittances. Rather than spending on consumption goods, households receiving international remittances tend to view their remittance earnings as a temporary (and possibly uncertain) stream of income. As a result, households receiving remittances in Ghana tend to spend more on investment goods – especially, education and health – than do households not receiving remittances. As shown in Table 8, at the margin, households receiving international remittances in Ghana spend 25.8 percent more on education than do households not receiving remittances. Moreover, most of these remittance-inspired increments to expenditure on education go into higher education. For example, at the university level households receiving international remittances in Ghana spend 121.7 percent more at the margin on education than do households not receiving remittances. These patterns of increased marginal spending on university education underscore the way that remittance-receiving households prefer to invest – rather than to spend – their remittance earnings. These patterns of spending also point to the manner in which remittance expenditures can help raise the level of human capital in a country as a whole.

TABLE 1. WORKER REMITTANCES RECEIVED AS SHARE OF GROSS DOMESTIC PRODUCT (GDP) IN SELECTED MIDDLE EAST, NORTH AFRICA COUNTRIES: 1998 TO 2003

	Worker Remittances Received as Share of Gross Domestic Product (GDP) (percent)
Egypt.....	3 – 4
Egypt.....	20 - 22
Egypt.....	6 – 9
Egypt.....	2
Egypt.....	4-5
Egypt.....	12-14

NOTES: Worker remittances defined following the IMF definition of "worker remittances," as listed in code 2 391 of various publications of IMF, Balance of Payments Statistics Yearbook. This definition includes the amount of migrants' earnings sent back to related persons or into personal bank accounts from the labor-receiving country to the labor-sending country. Following recent IMF conventions, this definition of worker remittances does not include "compensation of employees" or "other current transfers," which are of a more irregular nature. This definition of worker remittances also does not include the large – but unknown – amount of remittance funds that are transmitted through informal and unrecorded channels.
GDP data from World Bank, Development Data Platform.

Source: International Monetary Fund, *Balance of Payments Statistics Yearbook*; World Bank, *Development Data Platform*.

TABLE 2. STOCK OF EMIGRANTS FROM THE MIDDLE EAST, NORTH AFRICA IN OECD (AMERICA) AND OECD (EUROPE): 2000

Country	*Emigrants in OECD (America)*	*Emigrants in OECD (Europe)*	*Total Stock of Emigrants*	*Emigrants as Percent of Total Labor Force in MENA Country*
Algeria	23,818	582,941	606,759	4.5
Bahrain	--	--	--	--
Djibouti	--	--	--	--
Egypt	128,014	93,630	221,644	0.9
Iran	304,119	195,871	499,990	1.9
Iraq	91,149	134,054	225,203	2.7
Israel	102,554	31,923	134,447	4.1
Jordan	42,425	13,921	56,346	2.8
Kuwait	16,070	5,581	21,651	1.8
Lebanon	151,041	95,889	246,930	15.0
Libya	8,289	11,494	19,783	0.9
Malta	--	--	--	--
Morocco	51,713	1,042,112	1,093,825	7.6
Oman	516	658	1,174	0.1
Qatar	903	598	1,501	0.5
Saudi Arabia	11,549	4,574	16,123	0.2
Syria	61,132	49,932	111,064	1.9
Tunisia	9,841	253,762	263,603	5.4
United Arab Emirates	1,612	1,189	2,801	0.2
West Bank, Gaza	25,450	4,625	30,075	2.9
Yemen	12,309	8,276	20,585	0.4

NOTES: OECD (America) includes 2 countries: Canada and United States (no data available for Mexico). OECD (Europe) includes 18 countries: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Luxemburg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom (no data available for Greece, Iceland, Poland, Slovak Republic and Turkey). Emigrants include all working age (25 years or older) foreign-born individuals living in an OECD country.

Source: Docquier and Marfouk (2005)

TABLE 3. EMIGRANTS FROM THE MIDDLE EAST, NORTH AFRICA TO OECD BY LEVEL OF EDUCATION: 2000 (IN PERCENT)

Country	*Low-skilled (less than 8 years of schooling)*	*Medium-skilled (9 to 12 years of schooling)*	*High-skilled (13 years and more of schooling)*	*Total*
Algeria	76.7	9.2	14.1	100.0
Bahrain	--	--	--	--
Djibouti	--	--	--	--
Egypt	18.3	22.9	58.9	100.0
Iran	17.0	24.5	58.5	100.0
Iraq	34.8	26.6	38.6	100.0
Israel	14.7	27.6	57.6	100.0
Jordan	16.4	28.0	55.6	100.0
Kuwait	11.9	20.2	67.8	100.0
Lebanon	30.4	25.1	44.5	100.0
Libya	22.9	23.0	54.1	100.0
Malta	--	--	--	--
Morocco	70.6	16.5	12.9	100.0
Oman	21.9	15.4	62.7	100.0
Qatar	15.2	15.2	69.6	100.0
Saudi Arabia	13.4	22.0	64.6	100.0
Syria	31.0	24.7	44.3	100.0
Tunisia	73.0	12.1	14.9	100.0
United Arab Emirates	16.8	15.8	67.3	100.0
West Bank, Gaza	15.8	29.1	55.0	100.0
Yemen	33.7	31.9	34.5	100.0

NOTES: OECD includes the 20 countries listed in Table 2, plus Australia, New Zealand, Japan, Republic of Korea and Democratic People's Republic of Korea. Emigrants include all working age (25 years or older) foreign-born individuals living in an OECD country.

Source: Docquier and Marfouk (2005)

TABLE 4. OVERVIEW OF DEFINITIONS OF WORKER REMITTANCES AND DATA COLLECTION METHODS IN SELECTED MIDDLE EAST AND NORTH AFRICA COUNTRIES

Remittances as included in the Balance of Payments:					*Method of Data Collection Per Country:*				
	Private current transfers	*Worker remittances*	*Migrant compensation*	*Migrant transfer*	*Banks*	*Money transfer operator*	*Post office*	*Informal*	*Remarks*
Algeria	x				x	x	x	Partly recorded	Includes also money declared at ports and airports
Egypt		x			x	Unclear	-	-	Cash transfers transmitted by migrant workers to families back home
Jordan		x			Records	Records	Records	-	
Lebanon		x			Records	Records	Records		
Morocco		x			Records	Unclear	Records	Partly recorded	Money exchanged at the border is included (partly informal)
Syria		X			x	x	-	-	

TABLE 4. OVERVIEW OF WORKER REMITTANCES DEFINITIONS (continued)

Remittances as included in the Balance of Payments:					*Method of Data Collection Per Country:*				
	Private current transfers	*Worker remittances*	*Migrant compensation*	*Migrant transfer*	*Banks*	*Money transfer operator*	*Post office*	*Informal*	*Remarks*
Tunisia		X			Records	Records	Records	Partly recorded	Imports of goods declared by Tunisian citizens. Cash exchange at border

Source: European Investment Bank (2005: Table 1.3)

TABLE 5. TRENDS IN WORKER REMITTANCES RECEIVED BY COUNTRIES IN THE MIDDLE EAST, NORTH AFRICA: 1990 TO 2004 (MILLIONS OF US DOLLARS)

	1990	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*Annual Percent Change, 1990-92 to 2002-04*
Algeria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bahrain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Djibouti	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Egypt	4284	4054	6104	5664	3672	3226	3107	3697	3370	3235	2852	2911	2893	2961	3341	(-3.70)
Iran	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iraq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Israel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jordan	499	448	844	1040	1094	1244	1544	1655	1542	1497	1660	1810	1921	1981	2058	+10.53
Kuwait	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lebanon	-	-	-	-	-	-	-	-	-	-	-	-	2544	3964	5183	-
Libya	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	37	15	3	1	5	6	7	3	2	4	1	1	1	1	1	-
Morocco	2006	1990	2170	1959	1827	1970	2165	1893	2011	1938	2161	3261	2877	3614	4221	+4.71
Oman	39	39	39	39	39	39	-	-	-	-	-	-	-	-	-	-
Qatar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syria	385	350	550	426	868	923	-	-	-	-	-	-	-	743	690	+4.33
Tunisia	551	525	531	446	629	680	736	685	718	761	796	927	1071	1250	1432	+7.33

TABLE 6. TRENDS IN WORKER REMITTANCES RECEIVED BY COUNTRIES (continued)

	1990	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*Annual Percent Change, 1990-92 to 2002-04*
United Arab Emirates	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Bank, Gaza	-	-	-	-	-	54	51	62	80	85	65	28	-	-	-	-
Yemen	1498	998	1018	1039	1059	1080	1134	1169	1202	1223	1288	1295	1294	1270	1283	+0.75

NOTES: Worker remittances reported here follow the IMF definition of "worker remittances, "as listed in code 2 391 of various publications of IMF, Balance of Payments Statistics Yearbook. This definition includes the amount of migrants' earnings sent back to related persons or into personal bank accounts from the labor-receiving country to the labor-sending country. Following recent IMF conventions, this definition of worker remittances does not include "compensation of employees" or "other current transfers," which are of a more irregular nature. This definition of worker remittances also does not include the large – but unknown – amount of remittance funds that are transmitted through informal and unrecorded channels.

Source: International Monetary Fund, Balance of Payments Statistics Yearbook

TABLE 7. TRENDS IN WORKER REMITTANCES PAID BY GULF COOPERATION COUNCIL (GCC) COUNTRIES: 1990 TO 2004 (MILLIONS OF US DOLLARS)

	1990	*1991*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*Annual Percent Change, 1990-92 to 2002-04*
Bahrain	251	369	335	395	431	500	559	635	725	856	1012	1287	871	1082	1120	+10.23
Kuwait	450	426	829	1229	1331	1354	1376	1375	1611	1731	1734	1784	1925	2144	2402	+11.76
Oman	884	910	1220	1423	1365	1537	1371	1501	1467	1438	1451	1532	1602	1672	1826	+4.48
Qatar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	11637	13746	13397	15717	18102	16616	15513	15339	14934	13958	15390	15120	15854	14783	13555	+1.09
United Arab Emirates	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES: Paid worker remittances reported here follow the IMF definition of "worker remittances," as listed in code 3 391 of various publications of IMF, Balance of Payments Statistics Yearbook. This definition includes the amount of migrants' earnings paid to related persons or into personal bank accounts from the labor-receiving country to the labor-sending country. Following recent IMF conventions, this definition of worker remittances does not include "compensation of employees" or "other current transfers," which are of a more irregular nature. This definition of worker remittances also does not include the large – but unknown – amount of remittance funds that are transmitted through informal and unrecorded channels.

Source: International Monetary Fund, Balance of Payments Statistics Yearbook

TABLE 8. ORDINARY LEAST SQUARES (OLS)REGRESSIONS ON IMPACT OF MIGRANT EXCHANGE RATE SHOCKS IN THE PHILIPPINES, 1997-1998

	No controls (1)	*With controls for region* urban and pre-crisis household and migrant characteristics* (2)
Panel A. Household expenditure *(household-level regressions)*		
Total household expenditures		
Food expenditures	-0.01	-0.007
	(0.036)	(0.034)
Non-food expenditures	-0.032	-0.041
	(0.057)	(0.063)
Panel B. Household educational expenditures *(household-level regressions)*		
Education expenditures		
(as fraction of initial household income)	0.016	0.026
	(0.010)	(0.013)**

Panel C. Labor supply of children aged 10-17 *(individual-level regressions)*

	Females		*Males*	
	No controls	*With controls for region* urban and pre-crisis household and migrant characteristics*	*No controls*	*With controls for region* urban and pre-crisis household and migrant characteristics*
	(1)	*(2)*	*(3)*	*(4)*
Total hours worked	-2.753	-2.14	-1.448	-3.234
	(2.044)	(2.246)	(1.711)	(1.411)**
Hours worked:				
For employer outside household	-1.276	-0.547	-0.52	-0.268
	(1.392)	(2.023)	(0.978)	(1.411)
As worker without pay in family-operated farm or business	-1.693	-1.837	-2.786	-4.942
	(0.793)**	(0.936)*	(1.297)**	(1.533)***

NOTES: Each cell of table presents coefficient estimate on exchange rate shock. Standard errors in parentheses. Number of observations for household-level regressions is 1646; number of observations for individual-level regressions is 579 (females) and 609 (males).

* Significant at the 0.10 level
** Significant at the 0.05 level
*** Significant at the 0.01 level

Source: Yang (2005: Table 4).

TABLE 9. MARGINAL BUDGET SHARES ON EXPENDITURE FOR NON-REMITTANCE AND REMITTANCE-RECEIVING HOUSEHOLDS, GHANA, 1998/99

Expenditure Category	*Households receiving no remittances (N=3157)*	*Households receiving internal remittances (from Ghana) (N=2139)*	*Households receiving international (from African or other countries) (N=488)*	*Percentage Change (Internal Remittances vs. No Remittances)*	*Percentage Change (International Remittances vs. No Remittances)*
Food	0.498	0.514	0.441	+3.21	(-11.45)
Consumer goods, durables	0.255	0.239	0.293	(-6.28)	+14.90
Housing	0.048	0.048	0.046	--	(-4.17)
Education	0.031	0.033	0.039	+6.45	+25.80
Health	0.020	0.024	0.026	+19.99	+29.99
Other	0.148	0.142	0.155	(-4.06)	+4.73
	1.000	1.000	1.000		

NOTES: Some figures do not sum to unity because of rounding. All expenditure categories defined in Adams (2006: Table 4).

Source: Adams (2006: Table 8)

NOTES

[i] Foreign direct investment (FDI) is the most important source of external funding for developing countries. In 2003 the developing world as a whole received about $130 billion in FDI, and about $75 billion in international worker remittances.

[ii] In this paper international worker remittances are defined as "worker remittances," as listed (code 2 391) in annual publications of the IMF, Balance of Payments Statistics Yearbook. Following recent IMF conventions, international worker remittances in this paper do not include items like "compensation of employees" or "other current transfers," which are of a more irregular, or short-term, nature. Also, this definition of international worker remittances does not include the large – but unknown – amount of remittance monies that is transmitted through informal and unrecorded channels.

[iii] For the purposes of this study, OECD (Europe) includes 18 countries: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Luxemburg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom. No migration data are available for Greece, Iceland, Poland, Slovak Republic and Turkey.

[iv] In rural Egypt Adams (1991) found that international migrants had a high marginal propensity to invest in two kinds of physical assets: land and housing.

[v] For a similar study on how international migration affects the employment patterns of return migrants in Tunisia, see Mesnard (2004).

REFERENCES

Adams, Jr., Richard (1991). *The Effects of International Remittances on Poverty, Inequality and Development in Rural Egypt.* Research Report 86. Washington, DC: International Food Policy Research Institute.

Adams, Jr., Richard (2006). Remittances, Consumption and Investment in Ghana. Unpublished manuscript. Washington, DC: World Bank.

Adams, Richard and John Page (2005). Do International Migration and Remittances Reduce Poverty in Developing Countries? *World Development* (Montreal, Canada), vol. 33 (October): pp.1645-1669.

Chami, Ralph, Connel Fullenkamp and Samir Jahjah (2003). *Are Immigrant Remittance Flows a Source of Capital for Development?* International Monetary Fund Working Paper 03/189. Washington, DC: International Monetary Fund.

Docquier, Frederic and Abdeslam Marfouk (2005). International Migration by Education Attainment, 1990-2000 data set.

Edwards, Alejandra and Manuelita Ureta (2003). International Migration, Remittances and Schooling: Evidence from El Salvador. *Journal of Development Economics* (Cambridge, Massachusetts), vol. 72 (December), pp. 429-461.

European Investment Bank (2005). *Study on Improving the Efficiency of Workers' Remittances in Mediterranean Countries.* Rotterdam, Netherlands.

International Monetary Fund (IMF) (Various issues). *Balance of Payments Statistics Yearbook*. Washington, DC.

McCormick, Barry and Jackline Wahba (2001). Overseas Work Experience, Savings and Entrepreneurship Amongst Return Migrants to LDCs. *Scottish Journal of Political Economy* (Oxford, England), vol. 48 (May), pp. 164-178.

Mesnard, Alice (2004). Temporary migration and capital market imperfections. *Oxford Economic Papers* (Oxford, England), vol. 56 (April), pp. 242-262.

Passel, Jeffrey, Randy Capps and Michael Fix (2004). Undocumented Immigrants: Facts and Figures. Unpublished manuscript. Washington, DC: Urban Institute.
United Nations, Department of Economic and Social Affairs (2002). *International Migration Report 2002*. New York: United Nations.
World Bank. 2005. Development Data Platform data set. Washington, DC.
World Bank. 2004. *Global Development Finance*. Washington, DC.
Yang, Dean (2004). International Migration, Human Capital and Entrepreneurship: Evidence from Philippine Migrants' Exchange Rate Shocks. Unpublished manuscript. University of Michigan, Ann Arbor, MI, USA.