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Why Gross National Disposable Income should substitute Gross National Income

Gianni Vaggi
(Università di Pavia)

Clara Capelli
(Università di Pavia)

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Via San Felice, 5
I-27100 Pavia
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Why Gross National Disposable Income should substitute Gross National Income*

Clara Capelli
Clara.Capelli@unipv.it

Gianni Vaggi
Gianni.Vaggi@unipv.it

Department of Economics and Management
University of Pavia

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Abstract

*The **Gross National Income** (**GNI**) is often used as an indicator for a country's living standards. Yet, it does not record unilateral transfers and notably remittances, which in the last decades have gained growing importance as a source of income for developing countries.*

***Gross National Disposable Income** (**GNDI**), includes both income and transfers and provides a much better account of people's actually available income. However GNDI is sometimes confused with the GNI and is rarely available in major reports.*

This paper fills this gap by calculating the GNDI for all the countries in the World Bank database and it discusses the use of GNDI for 27 countries amongst the world top remittance receivers. We show that GNDI is much more informative than GNI and is a much more reliable basis for policy making in developing countries.

1 INTRODUCTION

In the remote district of Cheskam - at the feet of the Himalaya in Nepal - many people receive money from their relatives working abroad. This does not make them rich, neither upgrades Nepal from its status of Low Income Country, but for sure sensibly increases their local purchasing power; in Nepal remittances approximately account for 25 per cent of the GDP, representing a phenomenon that cannot be ignored when focusing on the country's living standards.

Remittance flows into developing countries are a well-established phenomenon, which is being investigated particularly for its impact on households at the micro level. However, remittances also have very important implications at the macro level and on the profile of national accounts, a fact which has not received much attention. This paper tries to fill this gap and provides new insights in two particular areas.

First, it shows that the **Gross National Disposable Income** (**GNDI**) is a more informative indicator than the **Gross National Income** (**GNI)** to measure the standard of living of an economy and how well off the members of a country are on average.

Second, for countries where remittances play an important role, the analysis of the different components of the **Current Account Balance** is an essential element to understand the weaknesses and strengths of an economy and to design appropriate development policies. We will see that in many developing countries the current account is in a much better position than the trade account, largely because of remittances; in the case of Nepal a trade deficit of 26 per cent of the

GDP turns into a current account surplus of 3 per cent.

The **Gross National Income** (**GNI**) is often regarded as an either complementary or alternative measure with respect to the **Gross Domestic Product** (**GDP**)[1]. We will show that - contrary to a largely held view - GNI is not the most appropriate indicator for a population's monetary income. A third indicator, the **Gross National Disposable Income** (**GNDI**) proves to be more telling and useful in many fields. Let us briefly summarise the argument.

The GNI does not record the so-called unilateral transfers, most importantly remittances. Their total worldwide value in current prices has increased by seven times between 1990 and 2012(see the World Bank database) and they represent one the largest types of monetary inflows for developing countries. GNDI captures both factor incomes and unilateral transfers, which makes it a better tool to measure how well off a country's population is.

Unfortunately, the GNDI is rarely available in international reports and databases. Sometimes it is even confused with the GNI in common practice. This paper provides a first attempt to calculate GNDI for all the countries sin the World Bank database and it will discuss the differences among GDP, GNI and GNDI in 27 economies where remittances are particularly relevant.

Section 2 illustrates the concepts of GDP, GNI and GNDI, explaining their mutual relations and their differences in an open economy. **Section 3** shows some figures regarding the three indicators with respect to 27 countries where remittances play a very important role. **Section 4** presents some data on remittances, trade account and current account balance for the above 27 countries and discusses their implications. **Section 5** presents a number of fields for which

the GNDI could substitute the GNI. **Section 6** concludes with some policy recommendations.

In the **Appendix** Table A shows the value of GNDI for all the countries of the World Bank Database.

2 THE VALUE OF AN ECONOMY

The measurement of the value of an economy is a complicated issue, which basically depends on conventions, the existing statistical tools and the availability of data[2]. This paper will focus on the economic dimension of the ”standards of living”, namely what Amartya Sen classifies as opulence in the sense of ”command over a mass of commodities” (Sen 1987:14-17)[3]. We will simply consider the monetary income side of the standard of living and will follow the classifications of the System of National Accounts, issued by the United Nations in 2008 (UN 2008) and the sixth edition of the Balance of Payments Manual (IMF, 2009).

The most used indicator for the value of an economy is obviously the GDP, which identifies the value of an economy with the value of the activities that take place within its geographical borders. GDP is also used to compare the size of the economies and to evaluate their growth performance.

(a) The GNI and the mobility of factors of production

In a globalised world, where mobility of people and capital has been steadily growing, some producers may operate in an economy that is not the one where they dwell and use their incomes. As explained by the UN Systems of National

Accounts (SNA) in the 2008 handbook, "*Some of the production of a resident producer may take place abroad, while some of the production taking place within the geographical boundary of the economy may be carried out by non-resident producer units*" (UN, 2008: 105). In other words, a country's factors of production are not necessarily employed domestically, but may be hired abroad for foreign production process.

If residence does not coincide with the location of the production activity, differences arise between the income generated within an economy - the GDP - and the income actually available to the citizens of that country. Here is where the notion of Gross National Income comes in, because it is widespread view that GNI fills the gap between the income resulting from domestic production and the income actually received by a country's inhabitants.

Let us take Ireland and the Palestinian Territories. In the 1990s the Irish GNI was on average 10 per cent lower than the GDP and such difference increased to approximately 15 per cent in the 2000s, hitting 23 per cent in 2012. For this reason Sweeney questioned the usefulness of the GDP, given the weight of multinational corporation profits that were generated in Ireland, but repatriated to the head offices abroad (Sweeney 1999: 53). His claim was that the GNI[4] was a better indicator for living standards, as it measured the income generated by the resident factors of production, regardless of the country where they are employed.

An opposite case refers to the Palestinian Territories. Between the time of the Oslo accords in 1993-94 and the eruption of the Second *Intifada* in 2000 a large number of Palestinians were working in Israel. In the Occupied Palestinian Territories, the GNI was on average 15 per cent higher than the GDP[5]. Such a gap was the result of the compensations of employees hired in Israel but living in the

West Bank and Gaza.

Both examples show that the GDP does not provide a complete picture of the income actually available in a country. In Ireland, the GDP somehow ”overestimates” the income really earned by the Irish residents. On the contrary, in the Palestinian Territories it ”underestimates” the Palestinians' purchasing power.

In light of considerations of this kind, the GNI has been more and more largely used, thus giving more importance to the income generated by the resident factors of production - no matter where they earn it - than to the income generated within the economy.

For instance, GNI is now used by UNDP to build the Human Development Index (HDI). From 1990 to 2009 the HDI component of (material) living standards was measured by the GDP per capita in PPP US$. In 2010, the latter was replaced by the GNI per capita in PPP US$, namely in order to account for the differences that arise in a globalised world between the income of a country's residents and its domestic production (see Kovacevic, 2010: 14; Klugman *et al* 2011: 20).

(b) The GNDI and remittances

The GNI does not completely explain the difference between the value of production of a country and its income, as it does not include remittances. We shall see that only the GNDI does accomplish this task.

Both gross and net remittance flows have been constantly growing during all the Nineties (Kapur 2004: 4). According to the World Bank, the overall value of remittances at the world level is estimated to be 542 billion US$ in 2013 and 404 billion US$ are flowing towards developing countries (World Bank 2014b: 5). The

latter are also expected to continue to grow at 8 on average over the next three years, reaching 516 billion in 2016 (*ibid*.: 1). In 1996 overall remittances inflows to developing countries were just above 58 million US$ (de Luna Martinez 2005: Annex 2). These figures merely refer to officially recorded transactions and do not account for the informal transfers of money that seem to be as important as those formally registered[6].

Original data on remittances come from the countries' governments and there exists a huge need to improve them (World Bank 2011: 6), but it is clear that such massive inflows have a considerable impact on a country's standard of living. In the World Development Indicators reports, remittances and compensation of employees are grouped together under the label of "personal remittances" (World Bank 2014a: 93-4 and Table 6.13), *but no specific figures for the GNDI are provided*[7].

Notwithstanding the fact that remittances are not included in the GNI, some degree of confusion exists in common practice, as the GNI is often believed to record also unilateral transfers. For example, Todaro and Smith comments on the use of the GNI to calculate the HDI as follows:

> "Gross National Income (GNI) per capita replaces Gross Domestic Product (GDP) per capita. This should be an unambiguous improvement: GNI reflects what citizens can do with income they receive, ... As trade and remittance flows have been expanding rapidly, and as aid has been better targeted to very low-income countries, this distinction has become

increasingly important." (Todaro and Smith 2011: 54)

The last sentence apparently implies that remittances and foreign aid are included in the GNI and this seems to be a rather common belief, although the Systems of National Accounts (UN 2008: 35) shows this is not the case. The famous Report by the *Commission on the Measurement of Economic Performance and Social Progress* by Stiglitz, Sen and Fitoussi makes the distinction between GNI and GNDI:

> "Although national income (NI) and national disposable income (NDI) both refer to the income of the whole economy, NDI is a more comprehensive aggregate than NI. [...] At the level of the whole economy, taxes, social security payments and so on that take place inside the country cancel out; but current transfers from and to other countries do not, and the difference between them mark the difference between NI and NDI. *Thus, NDI better measures how well off citizens are"* (Stiglitz et al., 2008, Box 1: 95 emphasis is ours).

This is a very important and enlightening statement, but then the report focuses on the notion of well-being, therefore the distinction between NI and NDI is not further discussed, not even in terms of the possible implications for people's well-being. No figures are provided, we try to fill this gap.

GNDI rarely appears in the major international reports and databases. One exception is the OECD, which calculates the GNDI together with the GDP and the

GNI for its member countries and some non-member countries, for instance China and Indonesia(see OECD Database, National Accounts Section). However, for OECD countries the differences between GDP-GNI and GNDI is not particularly significant. This paper provides a first attempt to calculate GDP, GNI and GNDI for all the countries sin the World Bank database and it focuses on 27 economies where remittances are particularly relevant.

3 GDP, GNI AND GNDI IN FIGURES

In order to analyse the differences between GDP, GNI and GNDI, it is necessary to recall some characteristics of the Balance of Payments and how different types of income flows are recorded and classified in it[8].

It is important to make clear that in the BoP the concept of ”residence” - and not ”nationality”- is the leading classification criterion. An institutional unit (i.e. a household, an enterprise, etc.) is resident in an economic territory if it has a ”predominant interest” with some location, dwelling, place of production or other premises(see UN 2008 : 487-88 and IMF 2009b : 70-75).

The current account records how income is re-distributed worldwide *via* factor incomes and unilateral transfers. In the sixth version of the IMF Balance of Payments Manual the *primary distribution of income* refers to the net remunerations of factors of production of different nationalities employed in the production processes worldwide; this phenomenon is captured by the GNI. The *secondary distribution of income* regards net unilateral transfers (mostly aid and remittances), which are recorded by the GNDI, but are not included in the GNI.

Let us examine the two accounts in more detail.

(a) The Primary Income Account and the GNI

The *Primary Income Account* records income flows between resident and non-resident institutional units for *i)* their direct contribution to the production process; *ii)* the provision of financial assets; *iii)* the renting of natural resources to institutional units in other countries.

In other words, this account records all the remunerations for the factors of production (labour, capital, and natural resources) employed in a production process that takes place in an economy that is not the one where the factors are resident.

Following the sixth edition of the IMF Balance of Payments, the primary income account includes:

- **Compensation of employees:** the remuneration in return for the labour input to the production process that comes from/goes to the rest of the world.

  A classic example are the compensations of cross-border employees, namely wages paid to workers who commute to a neighbouring country every day, as they are employed in the latter but do not dwell in it.

- **Income associated with the ownership of financial and other non-produced assets**, i.e. dividends, reinvested earnings, interests, rents. Again, the residence criterion holds and these transactions include repatriated profits, royalty interests on the exploitation of natural resources by non-resident corporations, etc..

In the case of countries with a relevant foreign debt, interest payments paid to foreign creditors appear in the primary income account; a very important item in the debt crisis following Mexico's default in 1982[9].

The *Net Primary Income* (NPI) is the balance of primary income flows recorded in the Primary Income Account. It results from the difference between the primary income receivable from non-residents and the primary income payable to non-residents[10].

$$GNI = GDP + NPI$$

(b) The Secondary Income Account and the GNDI

The *Secondary Income Account* focuses on the redistribution process that takes place worldwide after the process of production. Once the factors of production have been paid, their owners decide how to use the income, either keeping it for themselves or transferring (a part of) it to foreign non-resident institutions.

In principle, these transfers are not related to any specific contribution to the production process or to any market relationship between the sender and the recipient institutions. Sometimes they are called "unrequited transfers", namely because they do not derive from any pre-existing obligation of the sending party, nor do they determine any obligation or debt for the receiving party (IMF, 2009b:31)[11].

The Secondary Income Account includes:

- **Personal Transfers:** all current transfers in cash or in kind made or received by resident households to or from non-resident households. This source primarily regards personal remittances, namely the transfers of

money by migrant workers to their home countries.

- **Current International Cooperation:** current transfers in cash or in kind between the governments of different countries or between governments and international organisations. They range from food and emergency aid to regular contributions and salaries of resident staff.
- **Current Transfers to NPISHs:** transfers received by resident Non-Profit Institutions Serving Households (NPISH)[12] from non-resident institutional units in the form of membership dues, subscriptions, donations, etc.

Introduced for the first time by the System of National Accounts of 1993, the notion of GNDI is defined as the GNI plus Net Secondary Income (NSI), which in turn is the value of the Secondary Income Balance(see UN 2008: 35, 317 and IMF 2009b : 207, 223).

$$GNDI = GNI + NSI = GDP + (NPI + NSI)$$

The GNDI therefore measures the monetary resources that residents actually have at their disposal and that can be used for a variety of purposes: from purchases of foreign goods, to improving housing conditions, to investments in children education, to investments in small family business, to bank deposits. When the aim is to assess how well off a population is on average net secondary incomes, namely remittances, cannot be ignored because they directly influence the living standards. For some economies the difference between the GNI and the GNDI is quite significant.

Tables 1 and 2 below show the figures for GDP, GNI, and GNDI with regard to a

27 developing countries for which workers' remittances[13] are particularly important, either in absolute or relative terms. The Appendix has a Table with all the countries in the World Bank database.

All the countries in Table 1 are amongst the top receivers of remittances in absolute values in 2012; they all received an amount of remittances higher than 6 billion US$(see Table 5).

Countries are ranked with respect to their GNDI/GNI ratio. The figures for the GDP, the NPI, and the NSI are directly taken from the World Bank Database. Those for GNI and GNDI are calculated by the authors; GNI is the sum of GDP and NPI and GNDI results from the sum of GDP with both NPI and NSI[14] .

Table 1: Countries among top remittance receivers, absolute terms (millions of current US$)

Country	GDP	NPI	GNI	NSI	GNDI	GNDI/GNI
Bangladesh	116,355	-1,778	114,577 [a]	14,493	129,070	1.13
Nigeria	262,597	-22,238	240,359	21,906	262,265	1.09
Pakistan	225,143	-3,389	221,754[a]	18,447	240,201	1.08
Morocco	95,981	-2,283	93,698	7,387	101,085	1.08
Philippines	250,182	-746	249,436[a]	19,172	268,608	1.08
Egypt	262,831	-6,564	256,267	19,791	276,058	1.08
Lebanon	42,945	391	43,336	2,667	46,003	1.06
Vietnam	155,820	-6,115	149,705	8,212	157,917	1.05
India	1,858,740	-20,843	1,837,897	65,435	1,903,332	1.04
Mexico	1,178,126	-22,866	1,155,260	22,559	1,177,819	1.02
Ukraine	176,308	-2,965	173,343	2,976	176,319	1.02
Poland	489,795	-22,670	467,125	5,139	472,264	1.01
Indonesia	878,043	-25,947	852,096	4,029	856,125	1.00
China	8,227,102	-42,139	8,184,963	3,434	8,188,397	1.00

[a] For these economies, the datum on GNI as provided by the World Bank Database appears to be considerably different from the result of GDP + NPI.

Table 2 provides the same kind of figures for the countries that in 2012 were among those with the highest share of remittances received as a percentage

of GDP and for all countries this is higher than 10 per cent (see Table 6). All the countries below have a population of at least 3 million people[15].

Table 2: Countries among top remittance receivers, relative terms (millions of current US$)

Country	GDP	NPI	GNI	NSI	GNDI	GNDI/GNI
Liberia	1,733	88	1,821[b]	1,218	3,039	1.67
Tajikistan	7,632	-69	7,563	3,450	11,013	1.46
Kyrgyz Rep.	6,474	-144	6,330	2,061	8,391	1.33
Haiti	7,843	69	7,912	2,390	10,302	1.30
Nepal	18,962	126	19,088	5,370	24,458	1.28
Moldova	7,252	840	8,092	1,610	9,702	1.20
Honduras	18,434	-1,275	17,159	3,235	20,394	1.19
El Salvador	23,864	-932	22,932	4,004	26,936	1.17
Bosnia Herz.	17,465	157	17,622	2,359	19,981	1.13
Jordan	31,015	-305	30,710	4,014	34,724	1.13
Senegal	14,045	-281	13,764	1,767	15,531	1.13
Georgia	15,747	-146	15,601	1,408	17,009	1.09
Armenia	9,950	629	10,579	723	11,302	1.07

[b] For this economy, the datum on GNI as provided by the World Bank Database appears to be considerably different from the result of GDP + NPI.

A few considerations emerge from the two tables. **First**, the GDP and the GNI are not markedly different but a striking difference arises in many cases between the GDP-GNI and the GNDI, particularly in the countries of Table 2. The GNDI is always much larger than then GNI, ranging from 7 per cent for Armenia to a notable 67 per cent for Liberia.

Some remarkable results emerge also in Table 1, with a 13 per cent difference between the GNDI and GNI in Bangladesh and a number of countries – i.e. Nigeria, Pakistan and the Philippines- following with a difference between 9 and 5 per cent.

For economies with a large number of migrants remittances make a large impact on the amount of income a population can actually dispose of and the GNDI is a much more appropriate indicator than the GNI of the standard of living of the people. This obviously holds for small countries in terms of either GDP or population, but the story goes also the same even for some big countries, such as the aforementioned Bangladesh, Pakistan, and Nigeria. In India GNDI exceeds GNI by 4 per cent and in Nepal, whose population is more than 27 million people, remittances represent 25 per cent of the GDP and the GNDI is 28 per cent larger than the GNI. These figures can hardly be overlooked when the aim is to assess material living standards.

Second, in both tables the Net Secondary Income in most cases offsets – and often by a significant magnitude – the Net Primary Income. This phenomenon is glaringly evident for the countries shown in Table 2, but it may be observed even in Table 1, where NPI is negative for all countries but Lebanon. In four cases – Mexico, Nigeria, Vietnam, and Ukraine – NPI and NSI are more or less alike, but with opposite signs; thus GNI is lower than the GDP, but the GNDI improves thanks to secondary transfers. Only in three cases -Poland, Indonesia, and China- the Net Primary Income is far higher than the Net Secondary Income.

This confirms that the secondary distribution of income through transfers from abroad importantly affects countries' national accounts, as it either compensates for a negative primary income balance or hugely complements the effect of a positive one.

The outflows of income that contribute to a negative NPI are usually due to dividends and distributed profits paid to foreign companies; compensation of employees do not seem to be particularly relevant (Central Bank of Nigeria, 2012;

Central Bank of Poland, 2012; Central Bank of Vietnam, 2012)[16]. Therefore, in many Middle Income Countries, particularly those that have received Foreign Direct Investments in the past, GNI is systematically lower than the GDP, contrary to a common held view.

Another important item in the Primary Income Account may also be interest payments on foreign debt. In the 1980s and 1990s, they represented a very large outflow of income for developing countries. In 2000, the interests paid by all developing countries amounted to 2 per cent of the GNI, with Latin America and Caribbean hitting 2.8 per cent (World Bank 2002 Vol. 1:222, 228).

Third, Net Secondary Income flows are much more stable than the Net Primary Income ones. Let us look at our 27 countries. In Tables 3 and 4 below, for each country the first row refers to the NPI flows and the second row to the NSI flows. The final column lists the coefficients of variation for both NPI and NSI series of all the countries considered. At the moment of writing the figures in the World Bank database are available from 2005 to 2012.

Table 3: NPI and NSI for the countries in Table 1, 2005-2012 (millions of current US$)

Country	2005	2006	2007	2008	2009	2010	2011	2012	Coeff. of Var.
Bangladesh	-793	-840	-967	-959	-1,399	-1457	-1,520	-1,814	0.29
	4,774	5,933	7,288	9,617	10,981	11,379	12,243	14,548	0.33
Nigeria	-2,991	-4,601	-11,748	-15,059	-14,403	-19,512	-22,784	-22,238	0.49
	15,152	17,798	18,545	20,398	19,362	20,781	21,809	21,906	0.11
Pakistan	-2,515	-3,131	-3,745	-4,334	-3,614	-3,187	-3,098	-3,391	0.15
	9,079	10,941	11,084	11,136	12,459	13,793	16,431	18,571	0.23
Morocco	-383	-477	-404	-522	-1,495	-1,242	-2,052	-2,283	0.65
	5,375	6,329	7,703	8,768	7,451	7,270	8,115	7,387	0.13
Philippines	-298	-1,261	-899	105	-193	505	280	-746	1.83
	11,391	13,197	14,153	15,247	16,279	16,648	18,380	19,172	0.16
Egypt	-35	783	1,388	1,289	-2,076	-5,911	-6,376	-6,564	1.52

	5,748	5,768	8,322	9,758	7,960	12,439	15,221	19,791	0.43
Lebanon	186 1,062	183 1,968	740 2,769	437 2,360	-228 1,827	-508 2,449	174 2,525	391 2,667	2.12 0.24
Vietnam	-1,205 3,380	-1,429 4,049	-2,190 6,430	-4,401 7,311	-3,028 6,448	-4,564 7,885	-5,019 8,685	-6,115 8,212	0.48 0.28
India	-6,649 23,643	-6,245 28,716	-6,515 37,438	-5,364 48,752	-7,539 48,762	-15,601 52,120	-16,043 60,2121	-20,843 65,435	0.52 0.30
Mexico	-16.021 22,137	-19,352 25,945	-22,701 26,405	-19,439 25,469	-14,296 21,593	-11,321 21,537	-19,179 22,976	-22,866 22,559	0.21 0.08
Ukraine	-985 2,845	-1,722 3,173	-659 3,539	-1,540 3,127	-2,440 2,661	-2,009 2,975	-3,796 3,708	-2,965 2,976	0.48 0.10
Poland	-7,045 1,958	-10,781 3,237	-25,030 4,194	-41,003 3,578	-20,160 2,218	-25,872 3,762	-25,671 6,159	-11,373 5,139	0.5 0.35
Indonesia	-12,926 4,792	-13,789 4,863	-15,525 5,104	-15,155 5,364	-15,140 4,576	-20,790 4,631	-26,676 4,211	-25,947 4,029	0.28 0.09
China	-16,114 2,387	-51,433 2,807	8,044 3,710	28,580 4,316	-8532 3,166	-25,899 4,069	-70,317 2,451	-42,139 3,434	1.73 0.41

Source: Authors' calculations from the World Bank Database.

First of all, the value of NSI is considerably larger than the NPI for nine of the fourteen countries examined. With the exception of Bangladesh and Pakistan, all the economies exhibit a coefficient of variation that is higher for the NPI than for the NSI. In some cases the NPI appears to be extremely volatile, with coefficient of variations higher than one (see the Philippines, Egypt, Lebanon and China). NSI is much more stable, with a coefficient of variation that is never higher than Egypt's 0.43 and it is remarkably low for some countries, notably Nigeria, Morocco, Mexico, Ukraine and Indonesia.

Table 4: NPI and NSI for the countries in Table 2, 2005-2012
(millions of current US$)

Country	2005	2006	2007	2008	2009	2010	2011	2012	Coeff. of

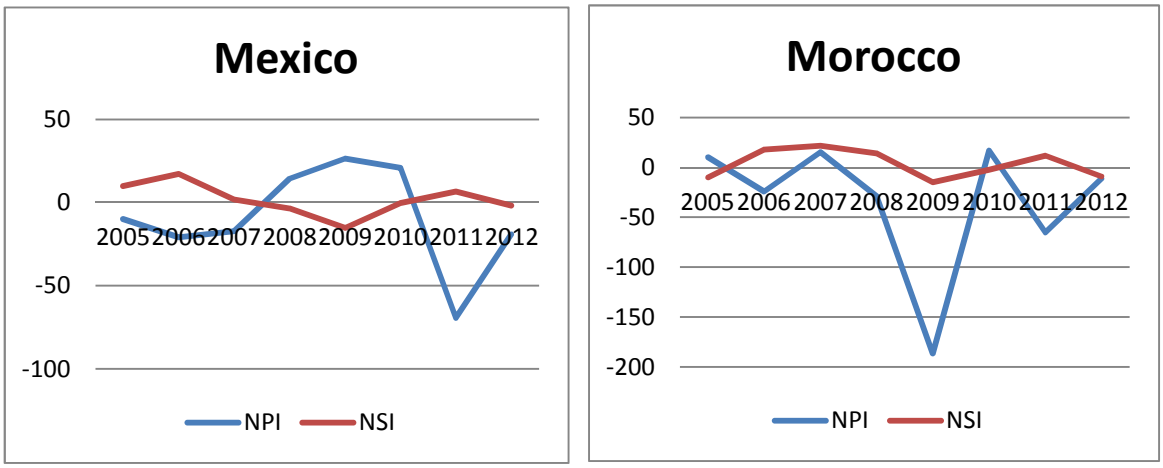
									Var.
Liberia	-146	-148	-157	-148	-1278	24	88	-	1.06
	779	1,200	1,138	1,175	1,100	958	1,218	-	0.14
Tajikistan	-40	-63	-50	-52	-71	-78	-39	-69	0.23
	449	745	1,557	2,498	1,734	2,188	2,949	3,450	0.50
Kyrgyz Rep.	-88	-48	-50	-206	-181	-305	-659	-144	0.89
	500	729	10,185	1,476	1,207	1,391	1,838	2,061	0.39
Haiti	35	6	2	5	12	22	44	69	1.83
	1,289	1,361	1,517	1,726	1,635	3,096	2,757	2,390	0.32
Nepal	48	62	136	151	157	93	147	126	0.34
	1,532	1,787	2,088	3,243	3,425	4,092	4,726	5,370	0.40
Moldova	410	402	416	604	321	504	571	840	0.30
	575	814	1,232	1,638	1,220	1,326	1,516	1,610	0.29
Honduras	-473	-536	-395	-520	-632	-727	-973	-1,275	0.40
	1,895	2,450	2,671	2,973	2,638	2,881	3,137	3,235	0.15
El Salvador	-490	-437	-456	-389	-556	-544	-655	-932	0.29
	3,035	3,472	3,746	3,747	3,441	3,599	3,841	4,004	0.08
Bosnia Herz.	469	392	506	710	679	279	152	157	0.48
	2,031	2,234	2,743	2,877	2,379	2,389	2,491	2,359	0.10
Jordan	336	453	683	695	507	-91	-179	-305	1.42
	2,616	2,940	2,862	4,063	3,778	3,822	4,866	4,014	0.20
Senegal	-89	-63	-73	-47	-169	-149	-281	-	0.61
	753	836	1,289	1,684	1,473	1,549	1,767	-	0.28
Georgia	61	162	36	-58	-41	-214	-422	-146	2.20
	359	523	688	1,060	967	1,098	1,328	1,408	0.38
Armenia	132	215	278	471	165	338	555	629	0.5
	523	693	944	1,137	813	563	722	723	0.25

Source: Authors' calculations from the World Bank Database.

We see that for all the thirteen countries NSI is much larger than NPI and the NPI series shows a much higher coefficient of variation than that that of the NSI series, with the only exception of Tajikistan and Nepal. Tajikistan has the highest coefficients of variation - 0.50 - for the NSI, whereas the others countries fall within a range from 0.08 (El Salvador) to 0.40 (Nepal). The variability of the NPI series is particularly high in Haiti and Georgia, but it exceeds 1 also in Liberia and Jordan.

The higher variability of the NPI relatively to the NSI can also be observed looking at the growth rates of the two series from 2005 to 2012. Let us take Mexico and Morocco, the growth rates of their NPI and NSI are shown in Graph 1.

Graph 1 –NPI and NSI' s growth rates for Mexico and Morocco (2005-2012, percentage changes)



Source: Authors' calculations from the World Bank Database

In both cases the percentage changes of the NSI from one year to the other fall within a smaller range of variation than those of the NPI, so that the trend exhibits a more stable and smooth path. NPI are extremely volatile, with significant spikes and even larger drops.

These figures reinforce the argument in favour of using the GNDI instead of the GNI to assess the standard of living of people in a country where remittances are relevant. The GDP accounts for the higher share of both the GNI and the GNDI and their changes over time are largely due to what happens to the GDP. However, the GNI *only* includes net primary incomes, NPI, which is usually smaller than NSI and also extremely volatile, which does not seem to fit well with the purpose of assessing the changes in the people's purchasing power.

NSI is much larger and much more stable than the NPI and helps to compensate for the NPI's higher volatility. But the GNI does not include the largest and most stable type of incomes from abroad, hence does not seem to be the most informative indicator about how living standards develop over time. On the contrary GNDI includes both the Net Primary and the Net Secondary Income and offers a more exhaustive and reliable picture about how incomes and their sources evolve along time.

These figures show that in many developing countries the GNDI provides a much more reliable assessment of the standard of living than either the GDP or the GNI and it should be directly available in international datasets and reports.

Notice that - as can be seen in the Appendix - a remarkable difference between GNDI and GNI exists in all three developing countries groups: Low, Lower-Middle and Upper-Middle Income countries- and in some High Income country too.

The next section shows broader considerations on the balance of payments for countries receiving huge inflows of remittances.

4 REMITTANCES, TRADE ACCOUNT AND CURRENT ACCOUNT BALANCE

Tables 5 and 6 show data on Remittances, Trade Balance and Current Account Balance for the 27 countries analysed in Section 3. The data on remittances are in millions of US dollars, current value in 2012. The other three columns refer to remittances, Trade Account and Current Account as shares of countries' GDP.

Table 5: Countries among top remittance receivers. Remittances, Trade Balance and Current Account Balance (2012, millions of current US$ and % GDP)

Country	Remittances	Remittances (% GDP)	Trade Balance (% GDP)	CA Balance (% GDP)
Bangladesh	14,084	12.10%	(-)8.65%	(+)2.3%
Nigeria	20,633	7.86%	(+)7.88%	(+)7.8%
Pakistan	14,007	6.22%	(-)7.59%	(-)0.9%
Morocco	6,507	6.78%	(-)15.29%	(-)10%
Philippines	24,641	9.85%	(-)4.51%	(+)2.8%
Egypt	19,236	7.31%	(-)7.69%	(-)2.7%
Lebanon	6,918	16.1%	(-)10.99%	(-)3.9%
Vietnam*	8,600	6.35%	(-)2.53%	(+)0.19%
India	68,820	3.70%	(-)7.32%	(-)4.9%
Mexico	23,365	5.84%	(-)1.21%	(-)1.2%
Ukraine	8,449	4.79%	(-)8.39%	(-)8.4%
Poland	6,935	1.42%	(-)0.15%	(-)3.7%
Indonesia	7,212	0.82%	(-)0.25%	(-)2.7%
China	39,221	0.48%	(+)2.82%	(+)2.3%

Source: Authors' calculations from the World Bank Database

For six countries, Nigeria, Mexico, Ukraine, Poland, Indonesia and China the Trade and the Current Accounts do not differ much and for only two countries the Trade Balance is positive, namely Nigeria and China.

All other countries have significant trade deficits, however thanks to remittances, the current accounts are much less severe and for three countries - Bangladesh, the Philippines and Vietnam- the trade deficit becomes a current account surplus.

In Indonesia and Poland the Trade Balance shows a slight deficit and is

better than the Current Account Balance. From Table 1, we can see that this is due to large outflows of income payments, which are not offset by the inflows of unilateral transfers.

For all the countries where remittances have high weight on GDP the surpluses in secondary incomes provide a major contribution to bring down the Current Account deficits to manageable values, the only exception being Morocco with a deficit of 10%. Let us now examine the countries of Table 2.

Table 6: Countries among top remittance receivers. Remittances, Trade Balance and current Account Balance (2012, millions of current US$, % GDP)

Country	Remittances	Remittances (% GDP)	Trade Balance (% GDP)	CA Balance (% GDP)
Liberia*	360	23.4%	(-)65.84%	(-)49.1%
Tajikistan	3,625	47.5%	(-)47.55%	(-)3.2%
Kyrgyz Rep.	2,031	31.37%	(-)51.7%	(-)22.1%
Haiti	1,612	20.55%	(-)35.79%	(-)4.4%
Nepal	4,793	24.99%	(-)25.94%	(+)3%
Moldova	1,786	24.63%	(-)40.61%	(-)6.8%
Honduras	2,909	15.78%	(-)19.24%	(-)8.6%
El Salvador	3,927	16.46%	(-)18.14%	(-)5.3%
Bosnia Herz.	1,848	10.58%	(-)23.75%	(-)9.3%
Jordan	3,573	11.52%	(-)30.31%	(-)18.4%
Senegal**	1,478	11.43%	(-) 15.37%	(-)4.6%
Georgia	1,770	11.24%	(-)19.76%	(-)11.7%
Armenia	2,122	21.33%	(-)24.72%	(-)11.1%

Source: Authors' calculations from the World Bank Database.

All these countries are characterised by tremendous trade deficits, which

clearly describe how weak their economies are in the international markets. However, they also benefit from very high remittances relatively to the GDP; thus unilateral transfers from abroad not only sustain people's purchasing power, but they also contribute in a decisive way to the Balance of Payments. Apart from Nepal, all countries have Current Account deficits, but they are less outrageous than the trade ones, and only for three countries -Liberia, the Kyrgyz Republic and Jordan- the Current Account deficits are extremely high and well above 10%.

For all these countries it is thanks to a positive and large Net Secondary Income-mainly due to remittances- that the net position to abroad does not get excessively weak, despite their very poorly diversified economies and huge trade deficits.

The Current Account and the Trade Account. A few more considerations on the two accounts. The Current Account Balance (CAB) is the sum of three elements: *i)* the Trade Balance (TB), namely the difference between exports (X) and imports (M); *ii)* the Net Primary Income (NPI); *iii)* the Net Secondary Income (NSI):

$$CAB = (X-M) + NPI + NSI.$$

The CAB is commonly regarded as a very important element for the assessment of the macroeconomic conditions of a country and of its external position. Imbalances in the international position of an economy are usually related to surplus/deficits in the CAB. In particular the CAB to GDP ratio is quite often regarded as the key element to gauge the sustainability of the external

position of a country. However, for many developing countries the Current Account Balance is also greatly influenced by primary and secondary income movements. In an open developing country TB and CAB provide very different information.

The balance of the current account determines the change in the net asset position of a country with the rest of the world, whether or not it is more or less indebted than before. This is of course quite important, but we have seen that for many of our 27 countries the CAB gives a sort of rather reassuring picture of their external position, which however is largely due to Secondary Income inflows and in particular to remittances. Therefore, the Current Account provides a misleading view of these countries position in international markets. In order to assess the strength and the international competitiveness of an economy, it would be much more appropriate to take into consideration the Trade Balance rather than the CAB. Only the former balance is really informative about the ability to export and the import dependence of a country.

Let us now briefly focus on two types of income flows which are very important component of the Primary Income Account: profit repatriation and interest payments on foreign debt.

Foreign Direct Investments are a very positive type of inflow to developing countries, particularly in the 'greenfield' version. They generate new productive capacity and employment and do not create a debt position. The FDIs enter the country through the Financial Account, formerly known as Capital Account. However, over the years they might generate an outflow of funds in the form of profit repatriation through the Current Account, and in particular through the

Primary Income Account. All the countries in Table 1 but Lebanon have a negative and sometime quite large NPI; **profit repatriation** greatly contributes to this deficit and might create problems to the Balance of Payments.

Another type of outflow which may contribute to a deficit in the Primary Income Account is **interest payments on foreign debt**, a phenomenon that has characterised many developing countries in the Eighties and Nineties. During the debt crisis of those decades another concept was largely used: the so-called Non-Interest Current Account (NICA)[17], that is to say the value of the Current Account net of the payment of interests abroad:

$$NICA = (NPI + NSI) - iD$$

With D as the overall foreign debt and i as the average interest rate on it. A positive NICA is equivalent to the notion of primary surplus in the case of domestic debt. A primary surplus is regarded as an extremely important indicator for an economy, as it shows the ability of a country to sustain its budget, were it not for its pre-existing debt[18].

For many developing countries, the NICA plays exactly the same role: the overall deficit in the Current Account is reduced thanks to a positive NICA. However, as Tables 1, 2, 5 and 6 show in many countries both the trade balance and the primary income account, NPI, are in deficit, therefore the relevant contribution for a surplus in the NICA comes from the secondary income balance, NSI.

For most of 27 countries it looks as if it is thanks to the exportation of labour and to the huge inflows of remittances that they can afford to pay dividends and interests abroad. In other words: labour incomes from abroad pay the compensations for the previous importation of either physical or financial capital.

Not an ideal type of arrangement, which at the very least shows that those capital inflows have not yet generated enough additional domestic employment to prevent huge migration flows.

5 NATIONAL ACCOUNTS AND THE THREE INDICATORS

We have seen that:

1. the GDP refers to the productive strength of an economy;
2. the GNI represents the productive strength of the resident factors of production, no matter where they are employed;
3. the GNDI regards the income that is actually available to a country's resident citizens, no matter who has generated it and where.

The first three points below show why in some relevant cases the GNDI should replace the GNI. Points 4 deals with some implications for the Current Account

1. The Human Development Index (HDI). The GNI per capita in PPP is now used to assess the economic component of the HDI, however it does not include unilateral transfers, foreign aid and most importantly remittances, two items which play an important role in enhancing the standard of living in developing countries.

The GNDI includes all types of income inflows therefore it is a more useful indicator of the income available to a country's residents and should replace the GNI for building the HDI[19].

2. Income classifications for economies. The World Bank classifies the countries into four income groups, according to three thresholds that are expressed in terms of GNI per capita (World Atlas method) and updated every year to account for inflation.

The adoption of the GNDI (calculated on the basis of the World Atlas method) instead of the GNI to define the thresholds would probably lead to minor changes. However, the choice of the indicator depends on the purpose of the analysis. If the aim is to assess the standard of living of a population and its ability to consume and to save, then the GNDI per capita should be adopted. If, on the other hand, the thresholds are meant to capture to the 'strength' or 'weakness' of a country in the international economy and trade, then the GDP per capita would be a better tool.

The GNI does not look as the most insightful to evaluate a country position with respect either to the first or to the second purpose.

3. The poverty lines. Another very important threshold is the so-called international poverty line of 1.25US$ a day (currently referring to 2005 PPP prices). This concept is the basis for the First Millennium Goal, according to which the number of people living in absolute poverty should be reduced at least by 50 per cent by 2015, with respect to the 1990 situation.

The World Bank method to set the poverty line is based on households' consumption (using consumption surveys) and not on income[20]. Therefore no problem of choosing among the three indicators would arise; however, it is clear that the income actually available to the households of a country influences their expenditure pattern. Without unilateral transfers, effective consumption might be lower, therefore GNDI should also be linked to the field of poverty measurement

(see Adams and Page 2003: 2029).

The story is the same for the Multidimensional Poverty Index, developed by the Oxford Poverty and Human Development Initiative (OPHI) since 2010. The three dimensions and ten indicators in the index do not include income and living standards are assessed in terms of deprivation with respect to six ”basic needs” (see Alkire *et al* 2013). However, in many Low and Middle Income economies deprivation would be higher without a (largely) positive Net Secondary Income Account, which is captured by the GNDI.

4. Remittances and the external accounts. For the Balance of Payments large net remittances represent both a blessing and a curse. First the positive side; remittances may have positive effects on both macro and micro aspects. Take the macro level first. Remittances help to ease the trade deficit, without creating new foreign debts. Remittances have been much more resilient than other financial flows following the economic crisis which started in 2007, and they play an counter-cyclical role in the recipient country (Bettin *et al*. 2013:13). Moreover, they usually increase following natural and human-made disasters and in a way improve the country macro stability, therefore her creditworthiness (Sirkeci *et al*. 2012: 2-4).

At the households' level, remittances sustain people's income easing the burden of poverty and provide a larger possibility for consumption and saving by local people. These additional funds may be employed in the education of the youngsters, in better health and diet, thus they lead to an improvement in human development. Remittances may also be used in the improvement of small agricultural and business activities[21].

However, remittances might lead to two shortcomings. First, remittances may have a negative impact at the macro level by leading to an appreciation of the exchange rate that will make the economy less competitive (Fajnzylber and Lopez 2007:12).

Second, remittances contribute to increase domestic demand, in particular domestic consumption, consequently domestic absorption, without necessarily enhancing the domestic productive capacity. In many countries with large outflows of migrants the productive structure is still very weak, with a very undiversified productive and export basis. This implies that the domestic economy cannot sustain higher consumption standards and this may easily result in an increase in imports, thus worsening the trade balance. Remittances may lead to a kind of 'Dutch Disease' phenomenon, in which thanks to some sort of outside bonanza domestic incomes are higher than the corresponding productive structure and this can lead to a surge in the prices of both tradable and non-tradable commodities.

When they enter the country remittances help to pay for the trade deficit, but they can also contribute to generate an even larger one in the future.

6 CONCLUSION

During the last twenty years, a huge process of income re-distribution has been taking place worldwide. In today's globalised world only the notion of Gross National Disposable Income, (GNDI) captures a population's purchasing power at its full extent and it is a much better indicator than the GNI to assess the income available to the residents of a country and to provide information their standard of living.

We have also seen that contrary to a common held view in developing countries GNI **is not** higher than GDP, precisely because of the large income flows to abroad, which quite often result in a negative Net Primary Income.

The GDP is the best way to account for a country's productive strength and the Trade Account provides the most informative indication of her competitiveness in the international markets. GNDI and the analysis of the Current Account and its components can provide a very useful guide for development policies.

A first set of recommendations regards the importance of a **more extensive data coverage** that should regularly include **GNDI**. This indicator provides information that are different and complementary to those involved in the GDP and should become an indicator readily available in national accounts and in international datasets.

National datasets should be adapted to the standards of the 2008 System of National Accounts and of the 2009 Balance of Payments Manual, in particular with respect to the **countries' external position**. The distinction between the *primary* and the *secondary distribution of income* helps to analyse more in detail the relation between the Trade and the Current Account Balances and to give a more precise evaluation of a country external position. As we have seen, unilateral transfers - foreign aid and remittances- are very likely to ameliorate the international position, particularly in Low Income Countries.

A second set of recommendations is more related to the role of remittances. In most developing countries a *frail productive structure* and the *labour market* represent the two major areas on which development policies

should focus. In each country the difference between GNDI and GDP-GNI shows that there are relevant financial sources which could be added to domestic savings and investments.

The analysis of the Balance of Payments carried on this paper provides additional arguments to analyze the various ways to improve the link between remittances and economic growth, a topic that has already received a lot of attention (see Katseli, Lucas and Xenogiani 2006: 25-7 and 48-ff. and Driffield, N. and Jones, C. 2013:180-ff). Remittances might increase import dependence, but policy makers should focus on how to channel remittance inflows into capital accumulation and domestic productive investment, in particular non-building investment, and try to avoid 'Dutch disease' effects.

It is very important to find policies to *foster small business and local entrepreneurship*. Remittances could be used as a sort of **collateral** to facilitate access to local credit markets and to reduce interest rates. They already play the role of **insurance** against possibly adverse business shocks: a small entrepreneur might be prepared to enlarge his business because he knows that someone abroad will help him in case the cash-flow is either smaller than expected or too much delayed.

All this requires more involvement of the **diasporas** into local productive activities. Possibilities range from multiple citizenship to partial return initiatives to the use of international currency in local transaction; from keeping accounts in foreign currency at local banks, to the coordination between the destination and the home country.

It is not easy to promote FDIs in the first place, but it may be even more complicated to convince foreign firms to reinvest profits in the local economy, thus avoiding outflows in the primary Income Account. This requires appropriate industrial and national policies; not an easy task, but these elements have been and still are part of development strategies in many Middle Income countries, particularly in Asia.

Long-term migration might be a matter of choice and of a larger set of opportunities, but in most of the 27 countries we have examined migration looks very much as a necessity, because very few options are available. Remittances are the outcome of structurally weak economies that do not generate enough jobs. However, remittances and Net Secondary Income in general may be a very important 'buffer' item in the Balance of Payments. The 'buffer' has both a time and a size component.

On the one hand, a 10 percent difference between GNDI and GNI-GDP shows that there is a very important 'buffer' item which may help to 'buy time' for the improvement of the productive capacity of a country. A positive NSI compensates for a trade deficit and negative net income flows (NPI) but above all it offers time to improve the productive structure provided that these net unilateral transfers are channelled into investments. Remittances and international aid make Balance of Payments deficits less problematic and avoid the building up of foreign debt.

On the other hand, the difference between GNDI and GNI-GDP provides an indication of the possible maximum addition to domestic productive investments. If most of secondary incomes were used to improve the economy productive capacity the investment ratio could raise by several points.

The issues of migration and of decent work have entered the post-2015

debate and appear in the preparatory documents (see World Bank 2014b: 11-12). Free movement of labour is a very important aim, but the creation of enough decent jobs is a priority in most developing economies.

ENDNOTES

[1] On the limits of the concept of GDP and on wellbeing, see the *Report of the Commission on The Measurement of Economic Performance and Social Progress* of 2008 by Stiglitz, Sen and Fitoussi and the *2013 World Happiness Report* edited by Helliwell, Layard and Sachs. On the concept of sustainable wellbeing, see Dasgupta and Duraiappah, 2012: 15, 18, 23.

[2] On problems related to the provision of proper data and indicators see Morten 2013.

[3] Pigou used "standard of living", "standard of real income", "material prosperity" as synonyms for "economic welfare", in turn defined as "*the part of social welfare that can be brought directly or indirectly into relation with the measuring rod of money*" (Pigou, 1929:11). Sen specifies that this approach also dates back to Adam Smith, who wrote at the very beginning of his *Wealth of Nations* that "*the nation will be better or worse supplied with the necessaries and conveniences for which it has occasion", thus implying a notion of standards of living as opulence or prosperity* (Smith, 1776:10).

[4] Sweeney made reference to the GNP - Gross National Product - instead of the GNI, but the two terms are intended to be considered as synonymous.

[5] Authors' calculations on the basis of the database of the Palestinian Central Bureau of Statistics, PCBS. After 2000 the difference between GDP and GNI has basically halved.

[6] Remittances are increasingly better measured and estimated with respect to the past. On the informal value transfer systems, see for instance Kapur, 2004:8 and Acosta et al 2007:44. On the transfer mechanisms of remittances and on the initiatives to improve the use of formal channels see for instance de Luna Martinez 2005: 6-ff.

[7] The same is true in other major reports, see for instance the 2012 Global Development Finance or the 2013 International Debt Statistics.

[8] We adopt the classification of the sixth edition of the Balance of Payments Manual, published by the IMF in 2009. Since 2013 the World Development Indicators report makes reference to this edition of the IMF BP Manual. The previous editions of the report adopted the 1993 edition of the IMF Balance of Payments Manual.

[9] In 1999 interest payments represented 3% of the GNI of the Severely Indebted Low Income

Countries (SILIC) and 8.6% of the value of their exports (World Bank 2002 Vol. 1: 236).

[10] It is also known as Net Factor Income (NFI), an expression that was used in the earlier versions of the IMF Balance of Payments Manual and Systems of National Accounts Manual.

[11] In the fifth edition of the BoP Manual, the secondary income was labelled as ”current transfers”; the primary income was simply referred to as ”income” (see also World Bank 2012b, Table 4.17: 278).

[12] NPISH may be NGOs, charities, relief and aid organizations, trade unions, consumers' associations, religious institutions, cultural and recreational clubs, foundations.

[13] ”Remittances” here refer to what the IMF Balance of Payments Manual calls ”personal transfers”. The Manual also introduces the concept of ”personal remittances”, which is the sum of personal transfers and compensation of employees (see also World Bank 2014a: 93-4 and the notes to Table 6.13).

[14] The data for GNI in the World Bank database are slightly different from the result of GDP + NPI, which may be due to the fact that GNI also includes product taxes (less subsidies).

[15] Very small countries are not included, as for instance Gambia, Guyana, Jamaica, Kosovo, Lesotho, Samoa, Timor-Leste, Tonga, and Togo. West Bank and Gaza should also be included in Table 2, but data are not available for 2012. Finally, Bangladesh, Lebanon, and the Philippines have a share of remittances higher than 10 percent of their GDP, but they are already in Table 1.

[16] This phenomenon is consistent with the International Debt Statistics 2013 and the data on the item called 'Primary Income on FDIs', previously known as 'Profit Remittances on FDIs' (see World Bank 2014a, Table 4.17). On the implication profit repatriation and foreign exchange outflows on the Balance of Payment see Singh 2003: 209.

[17] On the importance of the NICA for developing countries, see Vaggi and Prizzon 2013 (in press).

[18] The 3% threshold for the overall budget deficit is part of the conditions of the Maastricht treaty. In most countries of the Euro zone the overall deficit is being reduced thanks to a primary surplus that (partly) compensates for large interest payments. Following the financial crisis of 2007-2008 and in particular since 2010, growing attention has arisen towards debt indicators for countries of the Euro zone (see World Bank 2013: 13-5).

[19] GDP and GNI can be measured with either the Atlas or the PPP method, for a description of the two methods see World Bank 2014a: 18 and 111. The same could be done with the GNDI.

[20] Income-based measurement methods are adopted by Sala-i-Martin (Sala-i-Martin 2006). For more information on the problems of using either consumption or income see Ravaillon 1998.

[21] See for instance the contributions of Fajnzylber, P. and Lopez, H. 2007 and Sirkeci *et al*. 2012.

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Appendix

2012 GDP, GNI, AND GNDI FOR ALL WORLD BANK COUNTRIES

Data are provided by the 2014 World Development Indicators (World Bank, 2014), which in turn uses the World Bank Database. The GNI results from the sum GDP and NPI. The GNDI is calculated summing the GDP with the NPI and the NSI.

Table A: GDP, GNI, and GNDI for all the World Bank Countries (millions current US$)

	GDP	NPI	GNI	NSI	GNDI
Afghanistan	20,469	313	20,782	362	21,144
Albania	12,648	-115	12,533	1,121	13,654
Algeria	205,788	-3,874	201,914	3,164	205,078
American Samoa	-	-	-	-	-
Andorra	-	-	-	-	-
Angola	114,147	-10,422	103,725	-1,762	101,963
Antigua and Barbuda	1,134	-42	1,092	26	1,118
Argentina	475,501	-11,504	463,997	-447	463,550
Armenia	9,950	629	10,579	723	11,302
Aruba[a]	2,584	-228	2,356	-115	2,241
Australia	1,532,407	-38,683	1,493,724	-1,426	1,492,298
Austria	394,707	128	394,835	-2,709	392,126
Azerbaijan	66,604	-4,267	62,337	-50	62,287
Bahamas, The	8,149	-263	7,886	11	7,897
Bahrain	30,362	-3,121	27,241	-2,074	25,167
Bangladesh	116,355	-1,814	114,541[b]	14,548	129,089
Barbados	4,224	-113	4,111	66	4,177
Belarus	63,267	-1,473	61,794	-3,223	58,571
Belgium	483,261	4,068	487,329	-10,085	477,244
Belize[a]	1,493	-98	1,395	84	1,479

Benin	7,557	-16	7,541	142	7,683
Bermuda	5,473	1,379	6,852	-138	6,714
Bhutan	1,779	-77	1,702	243	1,945
Bolivia	27,035	-1,629	25,406	1,266	26,672
Bosnia and Herz.	17,465	157	17,622	2,359	19,981
Botswana	14,504	-501	14,003	1,758	15,761
Brazil	2,252,664	-35,448	2,217,216	2,846	2,220,062
Brunei	16,953	-	-	-	-
Bulgaria	50,972	-1,865	49,107	2,671	51,778
Burkina Faso	10,726	-6	10,720	493	11,213
Burundi	2,472	-7	2,465	447	2,912
Cabo Verde	1,827	-60	1,767	266	2,033
Cambodia	14,038	-742	13,296	484	13,780
Cameroon	25,321	-445	24,876	263	25,139
Canada	1,779,634	-22,473	1,757,161[b]	-3,547	1,753,614
Cayman Islands	-	-	-	-	-
Central African Rep.	2,184	-	-	-	-
Chad	12,887	-	-	-	-
Channel Islands	-	-	-	-	-
Chile	269,869	-12,676	257,193	2,192	259,385
China	8,227,102	-42,139	8,184,963	3,434	8,188,397
Colombia	369,606	-15,968	353,638	4,579	358,217
Comoros	595,900	-	-	-	-
Congo, Dem. Rep.	17,203	-	-	-	-
Congo, Rep.	13,677	-	-	-	-
Costa Rica	45,103	-815	44,288	333	44,621
Cote d'Ivoire	24,680	-914	23,766	-439	23,327
Croatia	59,228	-2,033	57,195	1,485	58,680
Cuba[a]	68,233	-	-	-	-
Curacao	-	-	-	-	-
Cyprus	22,766	-588	22,178	-277	21,901

Czech Republic	196,446	-13,703	182,743	-1,039	181,704
Denmark	315,163	8,389	323,552	-5,961	317,591
Djibouti	-	-	-	-	-
Dominica	479	-17	462	16	478
Dominican Rep.	59,047	-2,212	56,835	3,373	60,208
Ecuador	84,039	-1,325	82,714	2,486	85,200
Egypt, Arab Rep.	262,831	-6,564	256,267	19,791	276,058
El Salvador	23,864	-932	22,932	4,004	26,936
Equatorial Guinea	17,697	-	-	-	-
Eritrea	3,091	-	-	-	-
Estonia	22,390	-1,266	21,124	306	21,430
Ethiopia	41,605	-97	41,508	5,248	46,756
Faeroe Islands	-	-	-	-	-
Fiji	3,907	-152	3,755	212	3,967
Finland	247,545	-362	247,183	-1,723	245,460
France	2,612,878	38,199	2,651,077	-46,416	2,604,661
French Polynesia	-	-	-	-	-
Gabon	18,377	-	-	-	-
Gambia	907	-19	888	182	1,070
Georgia	15,747	-146	15,601	1,408	17,009
Germany	3,428,130	82,763	3,510,893	-47,438	3,463,455
Ghana	40,710	-2,131	38,579	2,550	41,129
Greece	249,098	-2,048	247,050	1,872	248,922
Greenland	-	-	-	-	-
Grenada	766	-38	728	24	752
Guam	-	-	-	-	-
Guatemala	50,233	-1,298	49,935	5,645	54,580
Guinea	5,631	-122	5,509	132	5,641
Guinea Bissau	822	-2	820	60	880
Guyana	2,850	-1	2,849	419	3,268
Haiti	7,843	69	7,912	2,390	10,302
Honduras	18,434	-1,275	17,159	3,235	20,394
Hong Kong, SAR	263,259	5,605	268,864	-2,778	266,086
Hungary	124,600	-8,246	116,354	476	116,830

Iceland	13,578	-1,494	12,084	-81	12,003
India	1,858,740	-20,843	1,837,897	65,435	1,903,332
Indonesia	878,043	-25,947	852,096	4,029	856,125
Iran, Islamic Rep.	552,397	-	-	-	-
Iraq	215,837	1,059	216,896	-5,112	211,784
Ireland	210,771	-39,996	170,775	-1,538	169,237
Isle of Man	-	-	-	-	-
Israel	257,621	-8,020	249,601	8,377	257,978
Italy	2,014,699	-9,798	2,004,901	-19,897	1,985,004
Jamaica	14,755	-434	14,321	2,048	16,369
Japan	5,961,065	179,191	6,140,256	-14,345	6,125,911
Jordan	31,015	-305	30,710	4,014	34,724
Kazakhstan	203,520	-28,191	175,329	-1,005	174,324
Kenya	40,697	-171	40,526	2,812	43,338
Kiribati	174,984	200	-	-	-
Korea, Dem. R.	-	-	-	-	-
Korea, Rep.	1,129,598	4,886	1,134,484	-2,764	1,131,720
Kosovo	6,445	199	6,644	1,533	8,177
Kuwait	183,242	9,192	192,434	-17,220	175,214
Kyrgyz Rep.	6,474	-144	6,330	2,061	8,391
Lao PDR	9,147	-118	9,029	252	9,281
Latvia	28,372	-502	27,870[b]	819	28,689
Lebanon	42,945	391	43,336	2,667	46,003
Lesotho	2,447	201	2,648	865	3,513
Liberia	1,733	88	1,821[b]	1,218	3,039
Libya	-	-1,932		-2,824	
Liechtenstein	-	-	-	-	-
Lithuania	42,343	-1,755	40,588	1,254	41,842
Luxembourg	55,178	-17,113	38,065	-1,147	36,918
Macao SAR	43,582	-5,819	37,763	-1,134	36,629
Macedonia, FYR	9,612	-190	9,422	2,095	11,517
Madagascar	9.,975	-	-	-	-
Malawi	4,263	-111	4,152	448	4,600
Malaysia	305,032	-11,642	293,390	-5,904	287,486
Maldives	2,222	-338	1,884	-242	1,642
Mali	10,387	-419	9,968	538	10,506

Malta	8,721	-526	8,195	82	8,277
Marshall I.	182	-	-	-	-
Mauritania	4,199	-	-	-	-
Mauritius	10,486	145	10,631	142	10,773
Mexico	1,178,126	-22,866	1,155,260	22,559	1,177,819
Micronesia F.S.	326	-	-	-	-
Moldova	7,252	840	8,092	1,610	9,702
Monaco[a]	6,074	-	-	-	-
Mongolia	10,271	-948	9,323	239	9,562
Montenegro	4,373	70	4,443	174	4,617
Morocco	95,981	-2,283	93,698	7,387	101,085
Mozambique	14,243	-13	14,230	403	14,633
Myanmar	-	-	-	-	-
Namibia	13,072	-478	12,594	1,322	13,916
Nepal	18,962	126	19,088	5,370	24,458
Netherlands	770,555	22,517	793,072	-16,160	776,912
New Caledonia	-	-	-	-	-
New Zealand	171,281	-7,653	163,628	-422	163,206
Nicaragua	10,507	-301	10,206	1,310	11,516
Niger	6,773	-47	6,726	448	7,174
Nigeria	262,597	-22,238	240,359	21,906	262,265
North. Mariana I.	-	-	-	-	-
Norway	500,029	10,679	510,708	-5,565	505,143
Oman	78,110	-4,304	73,806	-8,086	65,720
Pakistan	225,143	-3,391	221,752[b]	18,571	240,323
Palau	228	-	-	-	-
Panama	36,252	-2,656	33,596	81	33,677
Papua N.G.	15,653	-592	15,061	190	15,251
Paraguay	25,502	-1,401	24,101	759	24,860
Peru	203,790	-12,701	191,089	3,296	194,385
Philippines, The	250,182	-746	249,436[b]	19,172	268,608

Poland	489,795	-22,670	467,125	5,139	472,264
Portugal	212,273	-8,913	203,360	4,809	208,169
Puerto Rico	101,495	-	-	-	-
Qatar	192,390	-12,130	180,260	-14,481	165,779
Romania	169,396	-3,877	165,519	4,417	169,936
Russian Fed.	2,014,774	-67,661	1,947,113	-6,133	1,940,980
Rwanda	7,103	-74	7,029	722	7,751
Samoa	683	-39	644	173	817
San Marino	-	-	-	-	-
Sao Tome and P.	263	-3	260	14	274
Saudi Arabia	711,049	10,989	722,038	-30,438	691,600
Senegal	14,045	-281	13,764	1,767	15,531
Serbia	37,488	-1,034	36,454	3,775	40,229
Seychelles	1,128	-61	1,067	24	1,091
Sierra Leone	3,796	-133	3,663	236	3,899
Singapore	274,701	-3,136	271,565	-6,731	264,834
Sint Maarten	-	-	-	-	-
Slovak Republic	91,148	-2,123	89,025	-830	88,195
Slovenia	45,279	-706	44,573	26	44,599
Solomon Islands	1,008	-81	927[b]	100	1,027
Somalia	-	-	-	-	-
South Africa	384,312	-8,902	375,410	-3,801	371,609
South Sudan	10,220	-	-	-	-
Spain	1,322,964	-24,086	1,298,878	-5,275	1,293,603
Sri Lanka	59,423	-1,236	58,187	5,392	63,579
St. Kitts and N.	767	-31	736	47	783
St.Lucia	1,238	-14	1,224	18	1,242
St.Martin	-	-	-	-	-
St. Vincent	712	-12	700	7	707
Sudan	58,768	-1,605	57,163	863	58,026
Suriname	5,012	-197	4,815	73	4,888
Swaziland	3,744	-314	3,430	975	4,405

Sweden	523,942	13,151	537,093	-9,348	527,745
Switzerland	631,153	13,022	644,175	-12,743	631,432
Syrian Arab Rep.[a]	73,700	-1,514	72,186	949	73,135
Tajikistan	7,632	-69	7,563	3,450	11,013
Tanzania	28,242	-291	27,951	791	28,742
Thailand	365,965	-16,247	249,718	12,216	361,934
Timor-Leste	1,293	3,875	5,168	425	5,593
Togo	3,813	-23	3,790	356	4,146
Tonga	471	12	483	68	551
Trinidad and T.	23,320	-3,074	20,246	33	20,279
Tunisia	45,662	-1,721	43,941	2,149	46,090
Turkey	789,257	-7,157	782,100	1,383	768,717
Turkmenistan	35,164	-	-	-	-
Turks and Caicos Isl.	-	-	-	-	-
Tuvalu	39,875	-	-	-	-
Uganda	20,032	-588	19,444	1,261	20,705
Ukraine	176,308	-2,965	173,343	2,976	176,319
UAE	383,799	-	-	-	-
United Kingdom	2,475,781	3,525	2,479,306[b]	-36,291	2,443,015
United States	16,244,600	223,924	16,468,524	-129,736	16,338,788
Uruguay	49,919	-1,465	48,454	91	48,545
Uzbekistan	51,112	-	-	-	-
Vanuatu	787	-44	743	17	760
Venezuela, RB	381,286	-10,048	371,238	-978	370,260
Vietnam	155,820	-6,115	149,705	8,212	157,917
Virgin Islands	-	-	-	-	-
WB and Gaza	-	1,217	-	1,320	-
Yemen, Rep.	35,645	-2,552	33,093	2,134	35,227
Zambia	20,590	-1,125	19,465	454	19,919
Zimbabwe	9,802	-	-	-	-

[a] Data referring to 2011.

[b] For these economies, the datum on GNI as provided by the World Bank Database appears to be considerably different from the result of GDP + NPI.