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Social Policies or Private Solidarity?

The Equalizing Role of Migration
and Remittances in El Salvador

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Abstract

This paper reviews the pattern of poverty rates and income inequality in El Salvador since the 1990s. It discusses some of the likely factors that explain the reduction in income inequality that has taken place in the country in the last decade, which paradoxically has coincided with the long period of economic stagnation that has followed dollarization since 2001. After examination of the available evidence, we conclude that this trend has been mainly due to the equalizing effect of migration and remittances (that is, a ‘private safety net’ built around solidarity within families) rather than the distributive effect of public social expenditure or other public policies.

Keywords: El Salvador, remittances, migration, inequality, poverty, labour market

JEL classification: D63, E24, I32, J61

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Acronyms

CAFTA	Central American Free Trade Agreement
EHPM	<i>Encuestas de Hogares de Propósitos Múltiples</i> (Multiple Purpose Household Surveys of El Salvador)

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1 Introduction

El Salvador has been historically characterized as a highly unequal country. As a matter of fact, it remains among the top 20 per cent of countries with the highest degree of inequality in the world. Nonetheless, when looking at its long-run trend in income inequality, there has been a noticeable improvement during the last decade. El Salvador's Gini coefficient fell from 0.551 in 2000 to 0.483 in 2009 or by 1.3 per cent per year, a long-term trend that is consistent with what has happened in about a dozen of Latin American countries. The reduction of income inequality has been accompanied by a steady decrease of poverty rates, which fell from over 60 per cent at the beginning of the 1990s to almost 30 per cent around 2006.¹

However, in contrast to the experience of other Latin American countries, the decline in income inequality in El Salvador has paradoxically coincided with a decade-long period of economic stagnation that has followed dollarization since 2001, and within a political framework dominated by right-wing governments from 1989 until 2009. This raises a number of issues about the effects of (low) growth dynamics on inequality and the role played by social policies vis-à-vis private mechanisms of solidarity such as the 'family safety nets' built around migration and remittances.

This paper reviews the pattern of income inequality in El Salvador since the 1990s and discusses some of the likely factors that explain the reduction in income inequality that has taken place in the country since the early 2000s. The trend in inequality in El Salvador is relevant for at least two reasons: because, first, income inequality has decreased precisely when the economy entered into a low-growth period; and second, this reduction has been claimed to be the result of the social policies put into effect by right-wing governments, as mentioned.

We hypothesize that the role of remittances has been crucial to the reduction of poverty rates and income inequality in El Salvador. Other causes of the reduction in poverty and inequality have been the change in demographic composition of population (more urban), an increase in the levels of education and the structural change of the economy towards services. In addition, this paper also explores the main changes in public policy that might have affected poverty and inequality.

After examination of the available evidence, we conclude that the reduction trend of poverty rates and inequality in El Salvador has been mainly due to the income equalizing effect of remittances and other private transfers, as well as the combined effect of migration and remittances on the reduction of labour income inequality. Each time a poor person leaves the country, the poverty rate mathematically drops. Since most of the Salvadorans who migrate abroad (mainly to the United States) are poor, migration by itself has contributed greatly to decreased poverty rates. Moreover, once these emigrants find a job, become economically stabilized in the country of destination and begin sending money home, their relatives also begin to escape poverty, which reinforces the meliorating effect of migration on poverty rates in the country of origin. At the same time, there is a 'first round' equalizing effect of remittances as they increase the income of many households which otherwise would be much poorer. The

¹ Poverty rates have rebounded since 2007 by about 10 percentage points due to the impact of the global crisis.

combined effect of migration and remittances has also led to an increase in the reservation wage and a decrease of the wage premium for skilled workers, which in turn is reflected in the reduction of labour income inequality as the share of skilled labour income in total labour income decreases.

On the other hand, we find that social policies, such as the expansion of government monetary transfers targeted to the poor, seem to have had a small effect so far on reducing inequality. Compared to the vast amount of remittance inflows, which go to a great extent to low-income households, the resources devoted to social policies aimed to the poor have been quite modest. Since the beginning of the 1990s, El Salvador has received more than US\$40 billion in remittances, while conditional cash transfers to the poor (a component of the *Comunidades Solidarias* programme, originally known as *Red Solidaria*) date back to 2005. During 2006-10, the whole budgetary allocation for *Comunidades Solidarias* amounted to US\$132.7 million, compared to almost US\$18 billion received in remittances in the same period.

The rest of the paper is organized into four sections. Section 2 provides an overview of the external environment and public policies during the 1990s. Section 3 examines the evolution of poverty and inequality during the last decade, while Section 4 analyses the remittances and labour market effects on inequality during the 1990s. In Section 5 we perform a decomposition analysis to investigate the contribution of different income sources to the evolution of inequality in El Salvador. Finally, Section 6 presents the main conclusions.

2 External environment and macro policies since the 1990s

2.1 Trends in the Salvadoran economy during the 1990s

The decade of the 1990s was a period of rapid changes for El Salvador: the end of the civil war, aggressive economic liberalization, boom and deceleration of economic growth and rise in remittances.

The economy of El Salvador had two different phases between 1991 and 1999. The first phase (1991-95) was one of strong recovery after the end of the internal war:² during this period the Salvadoran economy was one of the fastest growing economies in Latin America, reaching an average annual rate of 6 per cent. However, in the second phase the rate of economic growth began to decline after 1995. This was the result of a combination of several factors, such as the lack of innovation, end of the stimulus of post peace accords and a lower growth rate of exports.³

² The civil war lasted about 12 years, resulting in about 75,000 victims and other costs. During the war the economy of El Salvador between 1979 and 1989 shrank annually at a rate of 2.2 per cent (Cordova and Zéphyr 2000). The peace accords were formally signed on 16 January 1992.

³ There are also explanations that the recovery and deceleration of the Salvadoran economy were linked to post-war impulse and loss of dynamism after reconstruction, that is, the rapid growth experienced during the first half of the 1990s was mainly the result of a 'rebound effect' following the civil war (Acevedo 2003).

Table 1
Remittances, services, workers and population (1989-99)

	Circa 1989	1999
Remittances (% GDP)	3.7	10.0
Services (% GDP)	45.2	55.7
% workers in services	48.6	57.3
% urban workers in urban area	53.2	62.8
Population (% urban)	47.7	58.1

Source: Based on Cordova and Zéphyr (2000), Central Reserve Bank.

Cordova and Zéphyr (2000) identify four stylized facts in the Salvadoran economy over the period 1991-99: high post-war economic growth, increasing flows of remittances, growing importance of the services and orientation towards urban activities, whose combined effect led to an important structural transformation of the economy during the decade (Table 1).

One of the main drivers of aggregate demand was household consumption, which grew at an annual rate of 5.3 per cent during the decade (7.4 per cent during 1990-95). The rise of domestic consumption was concentrated in the non-tradable goods, and the sector composition of GDP shifted in favour of non-tradable services, especially in construction and commerce. The contribution from the non-tradable sector to the average rate of GDP growth was 63 per cent. This is explained by the decline of agriculture and rural activities (the participation of agriculture fell from 18 per cent in 1990 to 13 per cent in 1999) and the growth of services.

Exports recovered partially in the 1990s after a severe drop in the 1980s, but remained stable as a percentage of GDP during the decade, due to the combination of declining agricultural exports and a rise in *maquila* (free-zone produced garments), whose value added increased tenfold at 1990 constant prices (Segovia and Lardé 2002). Imports experienced rapid growth due to the increase of family remittances, exchange rate appreciation and better credit availability. Exports were affected negatively by the appreciation of the real exchange rate (Larrain 2003).

Remittances from migrants to their relatives in El Salvador rapidly increased at the beginning of the 1990s, from an average of 2.6 per cent of GDP during the 1980s, to become the largest source of foreign exchange for the economy of El Salvador, averaging 12 per cent of GDP during the 1990s (Table 2). In contrast to other flows of foreign exchange, remittances do not generate undesirable indebtedness cycles and have proven to be remarkably stable. The persistence of these flows, despite the cyclical downturns in economic activity and their effect on the appreciation of the real exchange rate, has served to cushion the economic shocks that have affected El Salvador.

The flow of remittances accelerated in the 2000s, increasing by 14.4 per cent per year from 2000 to 2006, reaching their peak as percentage of GDP (18.7 per cent). Even though their relative importance has lessened in the last few years in the wake of the global crisis, they remain a relatively stable source of foreign exchange compared to

foreign direct investment and other private capital flows, and these still form one of the pillars of macroeconomic and social stability.⁴

Table 2
Macroeconomic importance of remittances in El Salvador, 1991-2010

Year	Millions of US dollars				Remittances as % of:		
	Remittances	Exports	Imports	GDP	Exports	Imports	GDP
1991	790	725	1,516	5,311	109.0	52.1	14.9
1992	858	796	1,855	5,955	107.9	46.3	14.4
1993	864	1,032	2,145	6,938	83.7	40.3	12.5
1994	963	1,250	2,575	8,086	77.0	37.4	11.9
1995	1,061	1,652	3,329	9,501	64.2	31.9	11.2
1996	1,087	1,788	3,221	10,316	60.8	33.7	10.5
1997	1,200	2,426	3,744	11,135	49.4	32.0	10.8
1998	1,338	2,441	3,968	12,008	54.8	33.7	11.1
1999	1,374	2,510	4,095	12,465	54.7	33.6	11.0
2000	1,751	2,941	4,948	13,134	59.5	35.4	13.3
2001	1,911	2,864	5,027	13,813	66.7	38.0	13.8
2002	1,935	2,995	5,185	14,307	64.6	37.3	13.5
2003	2,105	3,128	5,754	15,047	67.3	36.6	14.0
2004	2,548	3,305	6,329	15,798	77.1	40.3	16.1
2005	3,017	3,437	6,809	17,094	87.8	44.3	17.1
2006	3,471	3,730	7,763	18,551	93.1	44.7	18.7
2007	3,695	4,015	8,821	20,105	92.0	41.9	18.4
2008	3,742	4,641	9,818	21,431	80.6	38.1	17.5
2009	3,387	3,866	7,325	20,661	87.6	46.2	16.4
2010	3,431	4,499	8,498	21,215	76.3	40.4	16.2

Source: Based on Central Reserve Bank of El Salvador and the Ministry of Finance (various years).

2.2 External and policy environment

At the beginning of the 1990s, El Salvador implemented an aggressive agenda of liberalization reforms that included privatization of public enterprises and pensions, deregulation, and trade and capital liberalization. In fact, in the Index of Economic Freedom in 2006, El Salvador still ranked second after Chile.

Trade reforms included elimination of trade restrictions, tariff exemptions and simplification of custom procedures. Tariffs were reduced from levels close to a ceiling of 290 to about 20 per cent. Furthermore, El Salvador joined the GATT in 1992 and signed free trade agreements with Mexico, Chile, Panama and the United States during the first decade of the 2000s. Also, laws for export promotion, guarantees for and promotion of foreign investment, and a decree regulating free trade zones and tax havens were passed and export taxes were eliminated.

These measures were addressed to boost the export sector. Exports benefitted from good performance of the terms of trade during 1991-95 (first phase of rapid growth in 1990s), growing at an annual rate of 17.7 per cent, with an outstanding performance of the

⁴ Remittances as percentage of GDP in El Salvador remain far above the Latin American average of about 2 per cent.

maquila sector that expanded rapidly in the 1990s to reach 3.5 per cent of GDP in 2000. In contrast, traditional agricultural exports began to fall, affected by the decline of coffee production and the disappearing of cotton.⁵

Exports began to decelerate in 1996, as a result of a deterioration of the terms of trade and appreciation of the real exchange rate. The fall in export prices had a negative effect on the value of exports, especially coffee. Also, appreciation of the real exchange rate cheapened imports, which doubled during 1991-99. The combined effect of decelerating exports and increasing imports led to a rapid increase of the trade deficit, amounting to almost 25 per cent of GDP.

In 1989 the exchange rate was unified. Foreign exchange controls were eliminated through the removal of quotas, licenses, administrative procedures and other restrictions. Capital inflows rapidly increased after the war, fuelled by higher levels of foreign aid for post-war reconstruction, repatriation of private capital flows and increasing workers' remittances (Segovia and Lardé 2002). Both private and public investment rose during the first half of the 1990s. In this context, monetary policy was oriented to neutralizing the large capital inflows. This helped to control inflation, but the sterilization policies contributed to higher interest rates and the foreign exchange inflows led to further appreciation of the real exchange rate. Banks were privatized again around 1993 after having been nationalized in the early 1980s. This also contributed to an accelerated growth of credit in the first instance, although it was followed by a tightening of monetary policy around 1995.

In the fiscal policy area, a tax reform was passed in 1990 aimed at simplifying the tax structure. Income tax was streamlined, a value added tax (VAT) was introduced in substitution of a sales tax, tariffs were significantly reduced and export and property taxes were eliminated. As a first result of the reform, the tax burden increased about one percentage point of GDP, but then remained stable around 10.2 per cent of GDP during the second half of the 1990s, one of the lowest tax/GDP ratios of the world.

Levels of public expenditure on education and health increased slightly during the decade. Public expenditure on education grew by 1 per cent of GDP and expenditure on health by 0.6 percentage points. Educational attainment improved *pari passu*. The net enrolment ratio in primary schools increased from 75.5 per cent in 1990 to 82.7 per cent in 1999. The Gini coefficient of years of education decreased from 0.573 to 0.48 between 1991 and 1999 (CEDLAS and World Bank 2011). Also, there was some progress on the health area. Infant mortality rate decreased from 54 deaths per 1000 live births in the period 1983-88 to 35 in 1993-98 while malnutrition (weight for age) was reduced from 16.1 in 1988 to 11.8 in 1993 (FESAL 1993).

2.3 Macro conditions during the 2000s

The reform efforts of the 1990s were capped by official dollarization in 2001. Authorities at the time raised high expectations about the favourable effects of such a measure on export performance, the attraction of investment, job creation and economic growth. More than a decade later, dollarization does not seem to have met these

⁵ In addition to adverse international conditions, this was, to a great extent, the result of inadequate pest controls techniques and land reform (Hausmann and Rodrik 2005).

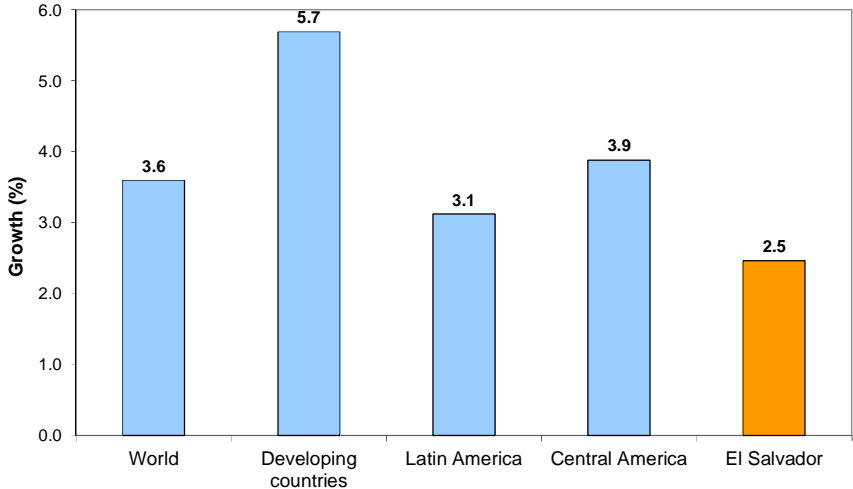
expectations (Levy-Yeyati 2011). In reality, the ten-year period of dollarization has been a decade of the lowest growth rate in El Salvador during the last 60 years for which economic data are available, excluding the civil war period in the 1980s.

The Salvadoran economy has not yet entered the path of sustained long-term high growth and is still confronted with structural fragilities which affect its competitiveness, particularly within the export sector. With the exception of the *maquila* sector, exports have shown weak performance since the second half of the 1990s, despite efforts to strengthen and diversify the export supply. So far, El Salvador has not been able to take full advantage of the trade opportunities brought by such initiatives as the free trade treaties subscribed with Mexico, Chile, Panama and Dominican Republic, and more recently the Central American Free Trade Agreement (CAFTA), which came into effect in 2006.

To a certain extent, the modest performance shown by the Salvadoran economy during the last decade can be attributable to an adverse external environment (deteriorating terms of trade due to declining coffee prices and rising oil prices, increase of international interest rates, slowdown of the US economy, Chinese competition in textiles and other manufactures, etc.). However, other countries in the region have faced the same adverse external environment and yet they have grown at higher rates than El Salvador (Zegarra, Rodríguez and Acevedo 2007). Since 1995, the Salvadoran economy has grown at a lower rate than the world economy, the developing countries, the Latin American region and its Central American neighbours (Figure 1).

After so many years of such a modest economic performance, it was not surprising that El Salvador was the Central American country hardest hit by the global crisis, and is the country that has faced more difficulties in attempts to recover from the crisis. Even though the administration which took office on 1st June 2009,⁶ amidst the worst of the crisis, has tried its best to overhaul the economy and resume growth, prospects for the near future are still sombre and estimates of growth rates remain well below those from other Central American countries.

Figure 1
Average growth rates in El Salvador compared to the world economy and different regions during 1995-2009



Source: World Development Indicators of the World Bank.

⁶ The current administration is the first centre-left government in Salvadoran history.

As a result of the deteriorating social conditions associated with long-lasting low growth, external migration accelerated during the 2000s, even though El Salvador had experienced significant flows of emigration since the 1980s, with about 90 per cent going to the United States. One of the main phenomena in El Salvador in the last 30 years has been the massive migration of Salvadorans abroad. Although other Latin American countries have also experienced migration, the impact on labour size and human capital in El Salvador has been much greater.

Estimates from the Salvadoran government indicate that 3.5 million of Salvadorans live abroad, three million of them in the United States.⁷ In view of the country's population of 6.3 million living in El Salvador, the figure of 3.5 million migrants indicates that 36 per cent of all Salvadorans (and the equivalent of 56 per cent of Salvadorans in El Salvador) live abroad. The effect of migration on demographic growth has been so strong that the annual population growth rate in El Salvador during the last decade was been 0.4 per cent, lower than the average rate of population growth of high-income countries or the Euro zone.⁸

It is also interesting to notice that most migrants are young people. According to the United States Migration Policy Institute, 80 per cent of Salvadorans in the US in 2000 were younger than 44 years old. The Central Bank of El Salvador conducted a survey in the United States during the first semester of 2004, showing similar results. This survey indicates that the average age at the time of emigration from El Salvador was 25 years and that 52.7 per cent of recent migrants were aged between 17 and 36 years old. As a collateral effect, since most of the migrants have been men, migration has been accompanied by an increasing participation of women into the labour force, particularly in the *maquila* sector.

These particularities of the country demographics need to be taken into account among the main factors that explain the Salvadoran economic performance, as massive migration has led to a stagnant labour force, severely affecting labour supply, which partially explains the low growth rates of the economy. Migration may have also negatively affected the labour force through its effect on the quality of human capital, as available evidence suggests that Salvadoran migrants tend to be more educated than non-migrants.

In addition, migration may have had an effect on economic growth via remittances and real exchange rate. The large flow of remittances from abroad has contributed to the appreciation of the real exchange rate, affecting the competitiveness of Salvadoran firms. Overall, migration would thus have negative effects on social returns to investment, generating a vicious circle. Migration leads to the decline of human capital, which affects economic growth. Also, migration increases remittances, which reduce the real exchange rate. Real appreciation reduces the competitiveness of Salvadoran traded sectors and economic growth. In turn, less economic growth leads to fewer job opportunities, which then enhance the incentives to migrate.

⁷ UNDP (2005) presents a summary of the main existing data sources on migration for El Salvador.

⁸ At first glance, it is hard to believe that population growth in El Salvador is much lower than in countries like Spain, Luxemburg, Australia, Canada, the United States, Switzerland, Norway, France, Italy, Belgium, the United Kingdom, Austria, Sweden and the Netherlands.

Not all effects of migration have been negative, though. Migration could also generate strong opportunities for development that have not been exploited by El Salvador. Remittances could be used to fund productive investments, partially compensating the negative effect on real exchange rate. Moreover, migration and remittances have led to a higher welfare state—with much lower poverty rates and income inequality—than would otherwise prevailed in El Salvador, as we attempt to show later.

3 Evolution of poverty and inequality

El Salvador has made significant progress in reducing poverty since the beginning of the 1990s (Table 3). The share of households whose income falls below the poverty line declined by almost 30 percentage points from 59.7 per cent in 1991 to 30.2 per cent in 2006, while the fraction living in extreme poverty declined by 19 percentage points from 28.6 per cent to 9.6 per cent during the period. Poverty fell fastest in the first half of the 1990s and slowed considerably after 2000 in the face of the coffee crisis, the earthquakes of 2001, and the slowdown in the global and domestic economies. Since 2006, poverty rates have increased rapidly again, amidst further deterioration of domestic economic conditions due to the impact of the global crisis.

Table 3
El Salvador: percentage of households in poverty, 1991-2009

Year	Extreme poverty			Relative poverty			Total poverty		
	Urban	Rural	National	Urban	Rural	National	Urban	Rural	National
1991	23.3	33.6	28.2	30.5	32.5	31.5	53.8	66.1	59.7
1992	21.9	34.0	27.7	31.0	31.1	31.0	52.9	65.0	58.7
1993	20.8	33.8	27.0	29.6	31.5	30.5	50.5	65.3	57.5
1994	16.3	34.8	23.9	27.5	29.8	28.5	43.8	64.6	52.4
1995	12.4	26.5	18.2	27.6	31.7	29.3	40.0	58.2	47.5
1996	14.5	32.3	21.9	27.9	32.5	29.8	42.4	64.8	51.7
1997	12.0	27.9	18.5	26.7	33.7	29.6	38.7	61.6	48.1
1998	12.9	28.7	18.9	23.1	29.9	25.7	36.0	58.6	44.6
1999	10.3	27.4	16.8	22.5	28.0	24.6	32.8	55.4	41.3
2000	9.3	27.2	16.0	20.6	26.5	22.8	29.9	53.7	38.8
2001	10.2	26.1	16.1	21.0	25.5	22.7	31.3	51.6	38.8
2002	10.3	25.2	15.8	19.2	24.2	21.0	29.5	49.2	36.8
2003	9.7	22.1	14.4	20.2	24.1	21.7	30.0	46.2	36.1
2004	8.9	19.3	12.6	20.7	24.4	22.0	29.6	43.7	34.6
2005	9.7	16.9	12.3	21.3	25.5	22.8	30.9	42.4	35.2
2006	8.0	12.2	9.6	19.8	23.6	21.2	27.8	35.8	30.8
2007	7.9	16.3	10.8	22.0	27.5	23.8	29.9	43.8	34.6
2008	10.0	17.5	12.4	25.7	31.5	27.6	35.7	49.0	40.0
2009	9.2	17.5	12.0	24.1	29.0	25.8	33.3	46.5	37.8
2010	9.1	15.1	11.2	23.9	28.1	25.3	33.0	43.2	36.5

Source: EHPM, several years.

The poverty reduction from 59.7 per cent in 1991 to 41.3 per cent in 1999 was associated with a sharp fall of urban poverty (53.8 per cent to 32.8 per cent) and a moderate decline in rural poverty from 66.1 per cent to 55.4 per cent. Several factors were associated with the broad improvements in poverty during the 1990s. Economic growth was an important force for poverty reduction as many poor families were able to

share in the growth that occurred over the period. Between the 1991-2002 period, average incomes of the poor households grew by 3.1 per cent a year, not far from the nationwide average of 3.7 per cent.

Structural changes in employment and household earnings also contributed to poverty reduction over the period. Specifically, there was considerable movement of employment and diversification of household incomes out of agriculture, as the higher rates of economic growth led to an increase in real wages and an important creation of jobs in services in urban areas and non-tradable goods. The households that were able to find new, non-agricultural income sources, generally succeeded in raising their living standards, thus explaining the bigger reduction in urban poverty.

Although there has been some narrowing of income differentials across departments since the early 1990s, regional and spatial dimensions of poverty remain substantial. Recent estimates indicate that poverty in El Salvador continues to be predominantly a rural phenomenon. Roughly half of the Salvadorans living in rural areas were poor and almost a fifth of the rural population was extremely poor in 2009, compared with one-third of the urban population being poor, and only 9 per cent being extremely poor. While official figures indicate that only about 35 per cent of Salvadorans live in rural areas, 55 per cent of all poor people in 2009 were rural residents. Extreme poverty is concentrated particularly in the rural areas; nearly two-thirds of all El Salvador's extreme poor live in rural areas.

Another important factor behind the reduction in poverty has been the surge in family remittance inflows. Households that receive remittances have 50 per cent higher income levels than otherwise identical non-recipient households, even though remittances are received only by a relatively small proportion of the poorest.

Remittances reach directly about 25 per cent of Salvadoran households, who use about 80 per cent of their value to meet consumption needs. Household data suggest that the majority of direct recipients are households in the middle and upper deciles, as migration costs and barriers are daunting for the poorest. However, the importance of these flows in total income is the highest for the poor. Remittances have become a critical source of income and an important safety net for many Salvadoran families who are subjected to swings in incomes.

Remittances as a percentage of family income peaked in 2006, amounting to 9 per cent of total household income. Households on the bottom half of the income distribution received 28 per cent of total remittances. However, households in the lower deciles received a higher percentage of remittances in proportion to their income. For instance, remittances for households in the second and third deciles represented about 14 per cent of their income, while in the tenth decile remittances amounted 5.2 per cent of total household income. If one was to restrict the set of households to only those that receive remittances, their importance as a source of household income increases considerably. These payments constituted 65-70 per cent of the income of remittance-receiving households in the first to third deciles of the income distribution. Overall, remittances represented 35 per cent of total income for households that received remittances.

In recent years, as remittances inflows have declined, their share in household income has diminished but is still important. In 2009, remittances contributed 7.3 per cent of overall household income, but still amounted to one-third of the total income for

households receiving remittances. For households that received remittances and were situated in the lowest three deciles of income distribution, they contributed with about 60 per cent of their income.

4 Remittances and labour market effects on inequality during the 1990s: sum zero?

4.1 Trends in the labour market

In contrast to the steady decline of the poverty rates experienced during the 1990s, income inequality did not show a clear trend over that period. From 1991 to 1995, the Gini coefficient for per capita household income showed a slight decline, but began to gradually increase during the second half of the decade. The Gini for 1999 was 0.522, quite similar to its value of 0.5266 registered in 1991. Several factors were at play behind this result.

On the one hand, the creation and quality of jobs contributed to reduce—or at least did not worsen—inequality. As labour participation improved from 59.7 per cent to 60.3 per cent during 1991-99, the unemployment rate fell from 8.3 per cent to 6.8 per cent over the same period. The lessening of unemployment presumably had a positive effect on decreasing inequality because greater unemployment reductions were apparent in the low- to medium-educated worker groups, while unemployment rose for the high skilled labour. The quality of jobs did not deteriorate much, as the share of informal workers in the total labour force remained quite stable during 1991-99 (from 54.8 per cent to 53.9 per cent). Also, the increase in real wages during the 1990s could have contributed to decreasing inequality. It is also worth noting that the increase in labour participation to some extent was the result of the notably increase in the participation of female workforce (from 48 per cent to 55 per cent), which in turn probably also had a positive effect on equality.

In contrast, the reduction of wages in agriculture in comparison to the rest of the economy would have contributed to increased inequality. The average hourly wage in primary activities in 1991 was about 78 per cent of the average hourly wage for the whole economy but this had fallen to 50 per cent by 1999.⁹ The negative impact of this could have been worse if the proportion of workers in the primary sector had not decreased, as was observed during 1991-99 when the share of primary activities in total employment fell from 36 per cent to 22 per cent (Table 4). Simultaneously, we can observe that the fall in relative wages and employment levels in the primary sector account for the slower reduction of rural poverty and the increased gap between the mean incomes of urban to rural sector from 2.3 in 1991 to 2.8 in 1999.

Reduction of employment in the agricultural sector reinforced the migration trends to urban locations and to a great extent to other countries, mainly the United States. According to the data reported in Table 4, job creation was more intense in commerce, low-tech industry (*maquila*) and construction. Industrial jobs were created mainly in the *maquila* sector, promoting the creation of female jobs (Robertson and Trigueros 2011). According to the 1999 Household Survey, around 45 per cent of the

⁹ More than 96 per cent of the jobs in the primary sector were in agriculture during 1991-99.

women working in the industrial sector were located in *maquila*. Other important sectors absorbing female workers were hotels and restaurants and commerce.

The net effect of changes in the returns to human capital may have helped to improve income distribution. During 1991-95, the years of high economic growth, the returns to human capital experienced a big increase, but the gap between high- and low-educated workers narrowed over the 1996-99 period. Returns to secondary schooling fell between 1992 and 2002, whereas returns to primary education rose in the first half of the decade when the economy was growing faster and when the educational effort had not yet affected the labour market, only to fall below the initial level in the second half of the decade. Returns to higher education increased during the decade, especially for the older cohort. Based on the results from a Mincer equation, returns to higher education in El Salvador in 1998 were modest relative to many other fast-growing countries or those with higher educational attainment.

Table 4
Evolution of employment structure and labour income by sector, 1991-99

Activity	Employment structure		Wages per hour		Hours of work		Labour income	
			Average for all economy=1					
	1991	1999	1991	1999	1991	1999	1991	1999
Primary	36.0	22.2	0.78	0.50	0.97	0.90	0.69	0.44
Commerce	19.6	25.4	1.16	0.97	1.09	1.08	1.14	1.03
Industry, low-tech	12.0	13.7	1.06	0.79	0.94	0.96	0.92	0.79
Education & health	7.8	9.4	1.75	1.55	0.84	0.84	1.28	1.32
Industry, high-tech	5.3	5.1	1.41	1.06	0.99	1.01	1.25	1.11
Public administration	4.5	5.0	1.61	1.67	0.96	1.02	1.48	1.70
Construction	4.5	5.8	1.12	0.91	0.99	1.00	1.05	0.95
Domestic servants	4.1	4.9	0.27	0.48	1.33	1.27	0.32	0.58
Utilities & transport	4.0	4.8	1.78	1.27	1.07	1.12	1.67	1.40
Skilled services	2.0	3.7	2.12	1.57	0.95	1.04	1.91	1.60
Average (1991=1)	—	—	—	2.4	—	0.95	—	2.20

Source: CEDLAS and World Bank (2011).

Table 5
Average wage by level of education, 1991-99

Year	Low	Medium	High	Medium/low	High/low	High/medium
1991	0.79	1.22	2.50	1.5	3.2	2.0
1995	0.71	1.18	2.86	1.6	4.0	2.4
1996	0.69	1.28	2.88	1.8	4.2	2.2
1998	0.69	1.08	2.52	1.6	3.7	2.3
1999	0.69	1.09	2.41	1.6	3.5	2.2

Source: CEDLAS and World Bank (2011).

4.2 Decomposition of changes in inequality

Since we have no access to fully documented databases for the period prior to 1995, we estimated changes in inequality in two ways. First, we performed a decomposition exercise with data from 1994 and 1999 for only two income components (labour and non-labour income and remittances). The second approach was the calculation of changes in inequality through non-parametric microsimulations à la Paes de Barros (see Cicowiez and Sánchez 2009).

The result from the decomposition exercise shows that the non-significant change in inequality is explained by an insignificant fall in the income shares and the concentration coefficient of both income sources. The second effect was more important.

Due to lack of data for 1991, we performed a simulation exercise of the labour market structure in 1991 with data from EHMP 1999. The parameters were obtained from Segovia and Lardé (2002). Following the methodology of Ganuza, Paes de Barros and Vos (2002), we simulated the change in remittances, unemployment, employment structure (between tradables and non-tradables), wage structure and wage levels. The results suggest that overall inequality did not change, but that this was a combination of the positive effect of remittances (-0.014), lower unemployment (-0.002) and the increase in wage levels (-0.007). Simultaneously, there were negative effects from wage and employment structure (0.015 for both).

Segovia and Lardé (2002) find that if liberalization had not taken place, inequality, poverty indicators and the number of poor would have been lower because of the negative effects of wage structure derived from economic liberalization: 'This fits with which actually took place in the labour market: a decrease in real wages of unskilled workers, an increase of wages for the skilled and semi-skilled labour force, and a rise in the urban-rural and male-female wage gaps'.

Table 6
Decomposition of Gini coefficient by sources of income, 1994-99

	Sh(94)	Sh(99)	Δ sh	
Labour and non-labour income	94.9%	94.4%	-0.5%	
Remittances income	5.1%	5.6%	0.5%	
	C(94)	C(99)	Δ C	
Labour and non-labour income	0.544	0.540	-0.004	
Remittances income	0.418	0.381	-0.037	
	Δ sh*C(94)	sh(94)* Δ C	Δ sh* Δ C	
Labour and non-labour income	-0.003	-0.004	0.000	
Remittances income	0.002	-0.002	0.000	
	-0.001	-0.005	0.000	-0.006
	1994	1999	Change	
Gini	0.537	0.531	-0.006	

Source: Authors' calculations based on EHMP (1994 and 1999).

Table 7
Effects on inequality of income structure of 1991

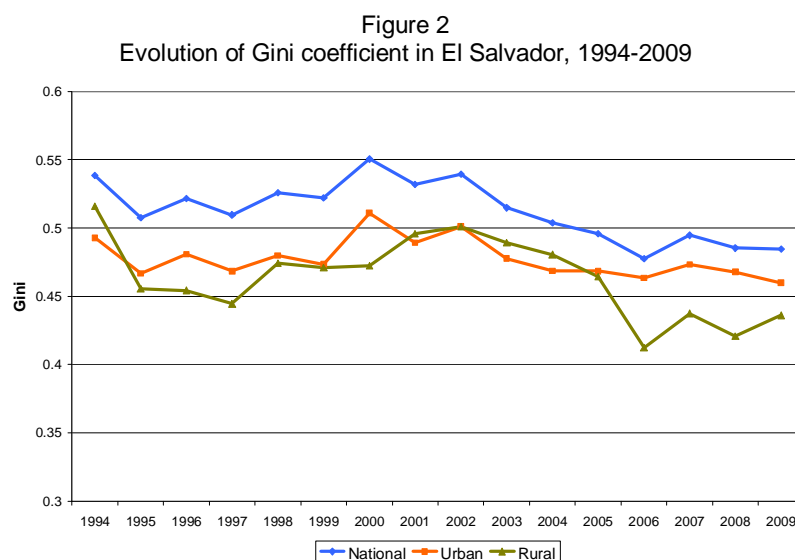
	Gini	Δ Gini 99	Δ Effects
Gini 1999	0.522		
+ r	0.536	0.014	0.014
+ r + u	0.538	0.016	0.002
+ r + u + s	0.530	0.007	-0.009
+ r + u + s + w1	0.523	0.001	-0.006
+ r + u + s + w2	0.530	0.008	0.007

Source: Authors' calculations based on EHMP (1999).

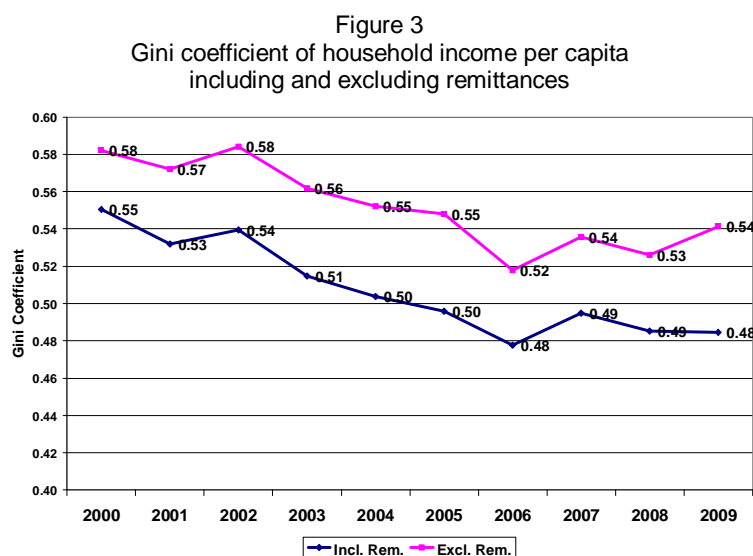
5 A closer look to the evolution of income inequality in El Salvador in the last decade

5.1 The decrease of income inequality

Figure 2 shows the data on El Salvador's Gini coefficient for total income per capita from 1994 to 2009, indicating that income inequality at the national level increased slightly during the second half of the 1990s, as was analysed above, but declined during the 2000s. The Gini coefficient went from 0.551 in 2000 to 0.485 in 2009, a reduction of 12 per cent. This reduction is similar in magnitude to those observed in Mexico and Brazil as documented by Esquivel (2010) and Paes de Barros et al. (2009). In annual terms, inequality in El Salvador has fallen at a rate of 1.3 per cent over the last decade. Figure 2 also shows the evolution of the Gini coefficients for urban and rural areas. There is some divergence in the patterns of inequality by sectors: income inequality in urban areas has declined steadily since 2000, while it has decreased more markedly in rural areas.



Source: Authors' calculations based on EHPM (various years).



Source: Authors' calculations based on EHPM (various years).

Figure 3 shows another interesting result. Comparing the Gini coefficients of income distribution with and without remittances, it shows that income distribution without remittances is more unequal (i.e., has a higher Gini coefficient) than income distribution after the inclusion of remittances, thus suggesting their equalizing contribution. It is important to note that the gap between the two Gini coefficients (with and without remittances) widened steadily over 1997-2008. This would imply that the equalizing effect of remittances not only concerns the level of effect but also that it has a dynamic effect on reducing inequality over time.

Table 8 shows the distribution of income by deciles between 2000 and 2009, as well as some other indicators of inequality such as the ratio of income of the top 10 per cent of the households to income received by the bottom 10 per cent. Other income ratios are also included, as well as the Gini coefficient. In general, these ratios follow the same pattern of inequality as indicated by the Gini coefficient. It is particularly striking how the income ratios of top-10 versus bottom-10 and top-20 versus bottom-20 have halved during the period.

Table 8
Income distribution by deciles in El Salvador, 2000-09

Deciles	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
I	0.77	0.81	0.74	0.90	0.97	1.43	1.56	1.29	1.54	1.48
II	1.94	2.09	1.95	2.18	2.53	2.39	2.72	2.72	2.71	2.71
III	2.95	3.05	3.00	3.31	3.40	3.70	3.94	3.93	3.69	3.77
IV	4.01	4.17	4.06	4.49	4.62	4.75	4.83	4.53	4.68	4.81
V	5.20	5.38	5.65	5.59	5.66	5.69	6.11	5.83	5.82	6.00
VI	6.54	6.91	6.66	7.19	7.80	7.19	7.44	7.22	7.19	7.30
VII	8.49	8.83	8.79	9.18	8.78	9.25	9.15	8.89	9.21	8.97
VIII	11.54	11.76	11.64	11.96	11.96	11.74	11.58	11.46	11.74	11.42
IX	16.25	16.89	16.66	16.74	16.80	16.45	16.08	15.88	15.86	16.11
X	42.31	40.10	40.85	38.46	37.48	37.42	36.60	38.26	37.56	37.44
	100	100	100	100	100	100	100	100	100	100
Top 10/ Bottom 10	54.6	49.3	55.4	42.9	38.6	26.3	23.4	29.7	24.4	25.4
Top 20/ Bottom 20	21.6	19.6	21.4	17.9	15.5	14.1	12.3	13.5	12.6	12.8
Top 10/ Bottom 40	4.4	4.0	4.2	3.5	3.3	3.1	2.8	3.1	3.0	2.9
Gini	0.5508	0.5321	0.5406	0.5134	0.5011	0.4937	0.4762	0.4951	0.4875	0.4832

Source: Authors' calculations based on EHPM, several years.

5.2 What are the sources of income inequality in El Salvador?

A decomposition analysis

In this section we conduct an income decomposition exercise following the approach suggested by Cornia (2011) for investigating the contribution of different income sources to the observed reduction of income inequality in El Salvador.

According to Cornia (ibid), total disposable income per capita can be decomposed into (i) labour income (including self-employment income), (ii) capital income (rents, interests, capital gains, profits and others capital incomes) and (iii) transfer income (pensions, unemployment subsidies, child allowances, targeted income subsidies, anti-poverty transfers and so on). In turn, we disaggregate labour income in 'unskilled labour income' (accruing to people with less than completed secondary education) and 'skilled labour income' (accruing to those with completed secondary education and above). Given the importance of migration and remittances for households income, we treat 'remittances income' separately.

According to this disaggregation, the income per capita of household i is equal to the sum of the wages received (domestically or abroad) for skilled and unskilled workers, plus transfers and capital income:

$$y_i = uw_i + sw_i + tr_i + k_i$$

At any point in time the Gini coefficient of the total disposable income G_t can be written as the weighted sum of the concentration coefficients or quasi-Gini (C_{it}) of these four income components (skilled and unskilled labour income, capital and transfer incomes). The weights are the shares (sh_{it}) of the four components in total income. In symbols:

$$G_t = \sum sh_{it} C_{it} / \sum sh_{it} = 1 \quad \text{and where } i = 1, \dots, 4$$

It follows that a change over time in the Gini coefficient of the total net household income per capita ($\Delta G = G_{t+1} - G_t$) can be decomposed as:

$$\Delta G = \sum \Delta sh_i C_{it} + \sum \Delta C_i sh_{it} + \sum \Delta sh_i \Delta C_i$$

which is equal to

$$\Delta G = (\Delta sh_w C_{wt} + \Delta sh_k C_{kt} + \Delta sh_{tr} C_{trt}) + (sh_{wt} \Delta C_w + sh_{kt} \Delta C_k + sh_{trt} \Delta C_{tr}) + (\Delta sh_w \Delta C_w + \Delta sh_k \Delta C_k + \Delta sh_{tr} \Delta C_{tr})$$

This implies that a fall (rise) in the Gini coefficient over time can be decomposed into:

- a) a change (Δ) over t and $t+1$ in the shares of each type of income (skilled and unskilled labour, remittances, capital, transfers) multiplied by their concentration coefficients in the base year t , C_{it} ;
- b) a change (Δ) of each of the concentration coefficients of each type of income multiplied by their income shares sh_{it} in the base year t ; and
- c) an interaction factor ($\sum \Delta sh_i \Delta C_i$) given by the product of the changes over time of the concentration coefficients by the changes over time of the income shares (in practice this term is often very small).

For the decomposition exercise, we used total income per capita unless specified otherwise. All of our estimates used information from the Multiple Purpose Household Surveys (or *Encuestas de Hogares de Propósitos Múltiples*, EHPMs according to its Spanish acronym). Databases for these surveys are available for the years 1994 to 2009, although the data are not fully comparable due to methodological changes in the households' surveys over time. Therefore, specific data-points should be taken with caution, although the general trend is quite clear from 2000 onward.

It should be noted that El Salvador did not have a population census from 1992 to 2007, and that population growth rates in the interim were grossly overestimated as official projections did not take into account the full magnitude of migration. When the census was conducted in 2007, it revealed that the country's population was around 1.1 million less than previous official estimates (15 per cent lower). Consequently, the labour force

was also overestimated considerably. As household surveys prior to 2007 have not yet been officially adjusted for the corresponding overestimation, it makes no sense to compare post-census figures to those of previous years. Therefore, we can only work with ratios, not with the levels, of the household survey data for those years.

Income comprises labour income and non-labour income. The former includes all the income reported as labour income in the EHPM, including labour income through self-employment and own businesses. Non-labour income includes income derived from the ownership of capital (profits, interests, rents and capital gains), which tends to be concentrated at the top of the income distribution, but it also includes private transfers (remittances), which tend to be more concentrated in the middle and lower-middle ranges of the distribution. Non-labour income also includes government transfers (pensions), which are concentrated in the middle and upper-middle ranges of the income distribution, as well as targeted government transfers (such as the conditional cash transfer programme *Comunidades Solidarias*), which are concentrated at the bottom, and non-monetary income such as the consumption of own production, which is common in poor rural areas.

The main component of income in El Salvador is labour income, which accounts for almost 80 per cent of all income, although its share has declined somewhat in the last decade (Table 9). The second largest income source is remittances, contributing 9 per cent of income. The rest of income proceeds are derived from a variety of sources including other private and public transfers and capital income. Table 10 reports the concentration indexes for the different income components. The results of our decomposition exercise are shown in Table 11. For this exercise, we compared the years 2001 and 2009.

Table 9
Income shares in total income, by source (2000-09)

Income source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Skilled	0.43	0.40	0.41	0.38	0.36	0.39	0.40	0.42	0.43	0.42
Unskilled	0.41	0.41	0.39	0.42	0.42	0.39	0.40	0.40	0.38	0.39
Capital	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Transfers	0.08	0.09	0.10	0.09	0.10	0.10	0.09	0.08	0.08	0.10
Remittances	0.06	0.08	0.08	0.09	0.09	0.10	0.09	0.09	0.09	0.08
Other	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00

Source: Authors' calculations based on EHPM, several years.

Table 10
Concentration indexes for different income components (2000-09)

Income source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Skilled labour	0.7924	0.7588	0.7667	0.7443	0.7217	0.7086	0.7163	0.7311	0.7333	0.7167
Unskilled labour	0.3205	0.3301	0.3462	0.3280	0.3188	0.3150	0.2530	0.2879	0.2393	0.2682
Capital income	0.8205	0.8187	0.6992	0.7529	0.7783	0.7200	0.7105	0.7203	0.8255	0.7353
Transfers income	0.5032	0.4928	0.4562	0.4404	0.5138	0.4371	0.4942	0.4300	0.4312	0.4198
Other income	0.4101	0.5008	0.7400	0.5514	0.6123	0.3204	0.4335	0.4189	0.5319	0.0865
Remittances	0.3467	0.4059	0.4031	0.4276	0.4140	0.4064	0.3769	0.3574	0.3577	0.3703

Source: Authors' calculations based on EHPM, several years.

The results of the decomposition exercise suggest that the main equalizing force in the last decade has been the change in labour income composition, and particularly the reduction of the concentration index of unskilled labour income. Furthermore, the share of unskilled workers' income in total income has diminished, as the result of a slight increase in the proportion of skilled workers in the labour force, despite the reduction of the labour income premium (measured as the average labour income for skilled workers relative to the average labour income for unskilled workers) over the period.

Capital income has not been an important equalizing income source, given its high concentration indexes and small share in total income. 'Other income' has smaller concentration indexes, but its share in total income is quite small, so its effect on the Gini evolution is insignificant as well.

The contribution of remittances is quite interesting. As in the case of unskilled labour income and 'other income', the remittance concentration indexes are relatively small, but positive. Therefore, the increase of remittances in total income between 2001 and 2009, multiplied by its concentration index in 2001, has had an inequality-increasing effect on the Gini. But as their concentration index decreased between 2001 and 2009, they have also had an inequality-reducing effect. When the Gini coefficient for remittances is calculated for the entire population, including those who receive no transfers, it is very high. But since remittances are heavily concentrated on the bottom half of the national income distribution, their overall effect is equalizing, which is why the Gini coefficient for income with remittances is noticeable lower than the corresponding Gini for income without them.

Arguably, remittances would have a 'first round' equalizing effect as they increase the income of poor households, but there might also be a 'second round' inequalizing effect, as the financial status of remittance-receiving households improves and they continue to climb the income distribution ladder. In fact, the perceived increase in the proportion of remittances that have gone to households in the highest deciles of income distribution over the last decade is consistent with the hypothesis of a 'second-round' effect.

In the context of the low economic growth that has prevailed in El Salvador during the last decade, there is a clear relationship between the income-equalizing effect of migration remittances, the changes in the composition of labour income, and the growth dynamics. Given the effects of migration on the growth rate of the labour force, we hypothesize that workers' migration might be a significant factor in explaining the low growth. On the other hand, low growth might also be a factor that can influence the decision to migrate because job opportunities are scarcer when domestic economy slows down.

Table 11
Results from the income decomposition exercise

Income source	Share in total income		Delta share (A)	Concentration Index		Delta CI (B)	CI*share		(A)*CI in 2001	(B)*Share in 2001	(A)*(B)
	2001	2009		2001	2009		2001	2009			
Skilled labour	0.40	0.42	0.0186	0.7588	0.7167	-0.0422	0.3028	0.2994	0.0141	-0.0168	-0.0008
Unskilled labour	0.41	0.39	-0.0290	0.3301	0.2682	-0.0619	0.1368	0.1033	-0.0096	-0.0256	0.0018
Capital income	0.02	0.01	-0.0118	0.8187	0.7353	-0.0834	0.0178	0.0073	-0.0097	-0.0018	0.0010
Transfers income	0.09	0.10	0.0182	0.4928	0.4198	-0.0729	0.0423	0.0437	0.0090	-0.0063	-0.0013
Other income	0.00	0.00	0.0014	0.5008	0.0865	-0.4142	0.0015	0.0004	0.0007	-0.0012	-0.0006
Remittances	0.08	0.08	0.0026	0.4059	0.3703	-0.0356	0.0309	0.0292	0.0010	-0.0027	-0.0001

Source: Authors' calculations based on EHPM.

Several factors are at work: first, due to the deceleration of the economy, employment generally has not kept pace with the increase in population and the demand for jobs. The Salvadoran economy needs to create about 50,000 new jobs annually in order to employ the new entrants who join the economically active population each year. However, according to census data, the creation of new jobs during the period 1992-2007 averaged less than 16,000 per year, and migration has been the factor that has kept unemployment rates below 8 per cent despite the inability of the economy to generate enough jobs.

Second, the country's relatively modest domestic economic growth has contributed to widening wage differentials with the United States job market. As is pointed out by conventional migration theories, especially in human capital models, the decision to migrate is based upon a comparison of anticipated future incomes in the sending and the receiving countries adjusted by the cost of migration.

Third, the educational base of the labour force has improved over the years (although not dramatically) but the proportion of skilled labour is higher among migrants than among those staying in El Salvador. Survey data from the central bank indicate that Salvadoran migrants who send remittances back home to their families have an average of 9.2 year of schooling, compared to national average of the 5.6 years (Garcia and Palacios 2005). Furthermore, 27 per cent of migrants leave the country after completing their bachelor's degree (12 years of schooling). The survey also indicates that migrants in the post-2000 years had an average of 9.9 years of schooling, compared to 8.8 years prior to 2000. In particular, the share of migrants with the highest education (13 years or more) has more than doubled (9.3 per cent prior to 2000 to 19.2 per cent thereafter), which indicates that current Salvadoran migrants have better skills. Migrants on average also tend to have better entrepreneurial skills than the non-migrating population. Migrants also tend to be less risk-averse than those who decide not to migrate. Therefore, migration may have reduced entrepreneurial talent in El Salvador, reducing the possibilities of innovation.

Fourth, remittances inflows have grown significantly, a reflection of the increase in the stock of Salvadorans abroad and their shift towards more highly skilled jobs. Since remittances may be interpreted as an indicator of the financial success of those who emigrated, they may encourage potential emigrants to emigrate.

Fifth, the large existing network of Salvadorans in the US facilitates job placement. Also, remittances relax the 'budget constraint' faced by many who wish to migrate. Remittances provide support in covering the high initial costs of migration, which are often prohibitive for unskilled migrants with low income and limited access to credit markets. Thus, workers' remittances can be an important source for financing migration and may trigger additional outflows, thereby strengthening the migration chain.

Arguably, these outflows of workers over the years, which include a higher proportion of skilled labour, have affected productivity and output levels of the Salvadoran economy. To the extent that remittances income reduces recipients' need to work, this may have a negative impact on overall economic activity. The combined effect of higher remittances and more people leaving El Salvador has greatly contributed to increasing the reservation wage and to reducing the labour income premium. It has also been reflected in the reduction of the urban-rural wage ratio (Table 12).

Table 12
Labour income premium by region and gender, and urban-rural labour income ratio

Year	National	Urban	Rural	Male	Female	Urban-rural labour income ratio
1998	2.68	2.29	2.14	2.99	2.31	2.23
1999	2.65	2.24	2.18	2.90	2.40	2.30
2000	2.76	2.34	2.15	3.02	2.48	2.38
2001	2.61	2.23	2.22	2.80	2.42	2.24
2002	2.62	2.23	2.18	2.98	2.23	2.30
2003	2.37	2.06	2.03	2.57	2.15	2.04
2004	2.23	1.97	1.96	2.41	2.03	1.90
2005	2.34	2.07	2.27	2.45	2.26	1.85
2006	2.35	2.18	1.70	2.50	2.19	1.88
2007	2.32	2.13	1.80	2.47	2.17	1.93
2008	2.47	2.29	1.84	2.66	2.24	1.95
2009	2.34	2.17	1.81	2.47	2.20	1.88

Source: Authors' calculations based on household surveys.

On the other hand, some positive 'externalities' of migration and remittances may affect economic performance. For instance, remittances may help to offset some of the output and other losses that might be associated with the loss of skilled workers. They may also have a positive indirect effect on the educational status of the migrants' relatives, as remittances are largely used by relatives to fund schooling. Cox and Ureta (2003) find some evidence that remittance income significantly lowers the risk of a child never enrolling in school or dropping out. Acosta's (2006) estimates confirm the positive effects of remittances on the education of recipients' children between 11-14 years, whereas this is not the case for boys aged 15-17 years old. Acosta also notes that remittances can substitute for child labour (which is associated with higher school dropout rates), confirming positive effects of remittances on enrolment.

Also, the networks established by emigrants can promote resource transfers in other ways, contribute to widening the market for Salvadoran exports in the US (as anticipated under CAFTA) or even enhance some productive investments in El Salvador. To some extent, the economic impact of remittances is likely to depend on the propensity of recipient households to consume or invest. Remittances that are invested in productive activities will contribute directly to output growth, but even remittances that are consumed will generate positive multiplier effects.

Previous administrations in El Salvador have often pretended that the sharp reduction in poverty rates and income inequality described above has been the result of good public policies. However, as our analysis shows, this pretence lacks solid basis. Furthermore, when remittances flows are compared to public resources devoted to social development, the limited role of public policies vis-à-vis the equalizing effect of migration-remittances on income distribution and social disparities is clear. Remittances constitute two or even three times (for certain years) the amount of public social development resources (Table 13), even when the entire public budget allocated to social expenditures is taken into account. At some point in time, remittances have represented more than four times the central government's combined budgets for education and health. When a comparison is made between the net 'family subsidy' from remittances and the tiny conditional cash transfers to poor households from

Comunidades Solidarias, the contrast is even starker. It is clear that El Salvador would be a much poorer country with much higher levels of inequality without migration and remittances.

Table 13
Comparison of remittances, social expenditures and conditional cash transfers, 2001-10

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
	Millions of dollars									
Public expenditure on: 1/										
Social Development	992.1	1,084.6	1,091.7	1,176.0	1,363.9	1,097.6	1,206.3	1,407.9	1,644.2	1,623.2
Education	472.3	468.8	466.3	463.6	501.3	526.1	575.2	632.2	756.2	687.8
Health	209.8	217.9	226.0	233.5	273.9	313.7	343.3	365.3	422.4	443.0
Anti poverty program 2/						12.8	13.7	19.6	37.0	49.6
Remittances	1,911	1,935	2,105	2,548	3,017	3,471	3,695	3,742	3,387	3,431
GDP	13,813	14,307	15,047	15,798	17,094	18,551	20,105	21,431	20,661	21,215
	Remittances as a ratio over:									
Social Development	1.9	1.8	1.9	2.2	2.2	3.2	3.1	2.7	2.1	2.1
Education	4.0	4.1	4.5	5.5	6.0	6.6	6.4	5.9	4.5	5.0
Health	9.1	8.9	9.3	10.9	11.0	11.1	10.8	10.2	8.0	7.7
Anti poverty program						271.2	269.7	190.9	91.5	69.2
As % of GDP	13.8	13.5	14.0	16.1	17.7	18.7	18.4	17.5	16.4	16.2

Note: 1/ Central government expenditure
2/ *Comunidades Solidarias* programme

Source: Central Bank of El Salvador and the Ministry of Finance (various years).

6 Conclusions

In this paper we have reviewed the pattern of poverty and income inequality in El Salvador since the 1990s. Using nationally representative information from household surveys we have shown that there has been a noticeable reduction in El Salvador's income inequality since 2000.

Using a Gini decomposition analysis by income source we conclude that remittances and other private transfers have played an important role in this equalizing process. Remittances have been a national, inequality-reducing source of income in El Salvador in the last decade, as they have contributed to the improvement of household income in the bottom half of the income distribution. This fact, together with the reduction in the gap between skilled and unskilled labour income, seems to be the main explanatory factor of the reduction in inequality observed in El Salvador. The income-reducing effect of social policies, on the contrary, seems to have been quite modest. Thus, the reduction of poverty and inequality would have been mainly the result of a private safety net built on solidarity within families, rather than the effect of distributive public policies.

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