Chronic Poverty
Research Centre

Background Paper for the Chronic Poverty Report 2008-09

Growth and Chronic Poverty in Nicaragua

Steve Wiggins

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What is Chronic Poverty?

The distinguishing feature of chronic poverty is extended duration in absolute poverty.

Therefore, chronically poor people always, or usually, live below a poverty line, which is normally defined in terms of a money indicator (e.g. consumption, income, etc.), but could also be defined in terms of wider or subjective aspects of deprivation.

This is different from the transitorily poor, who move in and out of poverty, or only occasionally fall below the poverty line.

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Table of Contents

Tables

Maps

Boxes

Figures

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Map 1: Nicaragua, administrative divisions

Abbreviations

BANADES	Nacional Development Bank	Banco Nacional de Desarrollo
BCN	Central Bank of Nicaragua	Banco Central de Nicaragua
BID	Inter-American Development Bank	Banco Interamericano de Desarrollo
C$	Córdoba, nacional currency	Córdoba
CAC	Savings and Loans Co-operative	Cooperativa de Ahorros y Crédito
CAFTA	Central American Free Trade Association	Tratado de Libre Comercio Centroamérica-EEUU
CENIT	Tradable Certificate of Investment	Certificado Negociable de Inversión
ERCERP	Poverty Reduction Strategy	Estrategia Reforzada de Crecimiento Económico y Reducción de Pobreza
FCR	Rural Credit Fund	Fondo de Crédito Rural
FISE	Emergency Fund for Social Investment	Fondo de Inversión Social de Emergencia
FSLN	Sandinista Front for Nacional Liberation	Frente Sandinista de Liberación Nacional
FSLN	Sandinista Front for Nacional Liberation	Frente Sandinista de Liberación Nacional
GTZ		Cooperación Técnica Alemana
HIPC	Highly Indebted Poor Countries	Iniciativa Reforzada para Países Pobres Muy Endeudados
k	thousand	mil
LSMS **EMNV**	Living Standards Measurement Survey	Encuesta de Medición del Nivel de Vida
M	million	millón
MAGFOR	Ministry of Agricultura and Forestry	Ministerio Agropecuario y Forestal
mz	Manzana = 0.7 hectare	
PND	Nacional Development Plan	Plan Nacional de Desarrollo
PNUD		Programa de las Naciones Unidas para el Desarrollo
RPS	Social Protection Network	Red de Protección Social
UNAG	Nacional Union of Farmers and Ranchers — largely small farmers	Unión Nacional de Agricultores y Ganaderos
US$	US dollar	Dólar estadounidense

1. Summary

This background paper for the Chronic Poverty Report 2007–08 addresses three key questions:

1. Where there is sustained economic growth, how can governments ensure that markets operate in ways that include the chronically poor on beneficial terms?

2. Where there is low or no growth, how can the economy and market institutions be successfully stimulated and how can this be done in ways that enable rather than inhibit the participation of chronically poor people at good rates of return?

3. What can governments do to prevent economic stagnation and state fragility from occurring in the first place?

Of the markets, how those for labour, commodities, finance and housing, work for and against the chronically poor is of particular interest.

Available literature was reviewed, much of it drawing on the data collected in three rounds of the Livings Standards Measurement Surveys of 1993, 1998 and 2001; and some simple analyses were made of national level data on economic performance.

1.1 Economic growth

Nicaragua is a relatively small country, but one where the ratio of people to land with moderate or better potential for farming is rather low. With a population of less than 5.5 million living in a land of 121,000 km^2, and 57% of the population being urban, the average rural population density is barely 20 per km^2. The country's economic history has been one of trying to find crops that could be exported: an aim that was first realised in the late nineteenth century with the planting of coffee in the highlands. In more recent history, the economy grew rapidly in the 1950s and 1960s as Nicaragua converted its best lands into fields of cotton and cane, or pastures for beef cattle. As the fastest growing Central American economy at this time, by the turn of the 1970s it was also the region's most prosperous economy.

But the political and social context was one of great inequality between the landowners and those running the import-export houses that supported the agricultural export industry on the one hand, and the majority of the population who subsisted on small-holdings or were plain landless, in both cases often dependent on the seasonal earnings from working on the export crops harvests. The excesses of the dictatorial Somoza regime eventually provoked rebellion and in 1979 a radical alternative took power, the Sandinistas. Although committed to equality and redistribution, the attempt to control the key points in the economy and to intervene strongly in markets led to perverse incentives and resource mis-allocation: as US opposition escalated to the point of funding the Contra, and government spending on defence rose in response, the economy all but collapsed in chaos and hyperinflation. When in 1990 a new, conservative government was voted in, the first task was to stabilise the economy and deal with a mountainous external debt of more than US$11 billion.

All told, it was only in 1994 that the economy began to grow again: between 1978 and that year, GDP had fallen to 60% of the level achieved in 1977, and average per capita incomes were just 40%. Since 1994 economic growth has been modest, rarely rising above 5% a year, not enough to satisfy the job needs of a youthful population, let alone aspirations for less poverty and more prosperity. The structure of the economy has not changed very much over the last forty years: agriculture makes up 18% or so of the economy, industry another 25%, and the rest is in services.

The failure of the economy to recover its former rates of growth in the last dozen years can be attributed to failures to invest and to boost factor productivity; and the former is probably linked to relatively low rates of savings.

The external economic relations of Nicaragua are parlous. The country has been running enormous deficits on current account for more than two decades: typically the proceeds of exports cover no more than half the cost of imports. The gap has been funded in the past by debt, but today it is remittances, large amounts of aid and some foreign direct investment that balances the books. Ever since 1990 managing the massive external debt has been a national priority. Debt relief was obtained in the mid 1990s and more recently, in 1994, with HIPC debt relief. A debt that once surpassed US$11 billion is now less than US$2,500 million. Just as, however, the country has thrown off the shackles of onerous external debt, it has piled up a sizeable domestic debt that means that many of the resources liberated by HIPC are not going to poverty alleviation, but to paying off the government's internal creditors – and these are not the poor.

Nicaragua is also vulnerable to shocks: natural disasters (earthquakes, storms and hurricanes), civil strife and the marked fluctuations in commodity prices have all had significant effects on the economy.

Economic policy since 1990 has been remarkable in its allegiance to IMF advice. The Ministry of Finance and the Central Bank have strived to stabilise the economy with some success. Markets and international trade have been liberalised. The 350-plus state enterprises created by the Sandinistas have almost all been privatised. The country courts foreign investment and advertises itself as 'open for business'. But the economy has responded sluggishly to what was expected to be the conditions for a booming economy.

1.2 Poverty

Poverty is widespread. In 2001 the national poverty headcount rate was some 46%, with 15% living in extreme poverty. Rates in rural areas are higher: at 64% and 25% respectively. Poverty fell between 1993 and 2001 as a rate, but thanks to a rapid population growth of around 2.6% a year, the absolute numbers in poverty have actually risen. There has, however, been a little more success in alleviating extreme poverty and poverty in rural areas.

What marks the poor? Lack of education is repeatedly a factor. Those with more schooling have access to the better-paid jobs, and in rural Nicaragua that generally means jobs outside of farming. The very poorest tend to be illiterate, live rurally, and work as labourers in the fields of others. Poverty rates rise with remoteness and are associated with living far from a paved road, and having long walks to schools, health centres and shops.

Regionally, the chronically poor are markedly concentrated in the north and north-west of the country: largely in the mountainous interior where the poor subsist from small farms, many with difficult access to the centres of the country. Both the rates of chronic poverty and the absolute numbers are higher in these zones.

In Nicaragua, as is now recognised in other countries, poverty is for many a transitory state: there is much evidence of ‘poverty churning’. The good side is the evidence of the alacrity with which economically marginal households will change jobs and activities to survive. The down side is that the same households face a plethora of hazards – idiosyncratic, natural disasters, and economic – that can plunge them into poverty.

Poverty is closely linked to inequality. The Gini coefficient for incomes in Nicaragua in 2001 was estimated at 0.55: one of the world’s highest. There are yawning gulfs between the majority living on or close to the breadline, having few assets and little education, and the minority that owns the vast bulk of the land and other assets in the country. The efforts of the Sandinistas to redistribute wealth and opportunity have had little lasting effect.

1.3 Markets and poverty

The strategy for economic growth rests on the assumption of functioning markets, yet there is much evidence of market failure.

Land is unequally distributed, despite the redistribution of land made during the 1980s. When the new government took over in 1990 it faced a wave of claims for land rights: from those who had received land or a title to their plot during the 1980s who wanted firmer titles, from demobilised fighters seeking a farm on which to live, and from the claims to restitution of landowners expropriated in the 1980s. A programme of land titling was set up to deal with the various claims. Titling has been clarified some cases, but it is still the case that that as many as 100,000 small farmers, about half of those with less than 10 manzanas (7 hectares) of land, have no documents to back their claims.

The land market functions imperfectly. There is marked inverse ratio between farm size and gross margins per hectare, so it might be expected that land would be rented out or sold from large owners to smaller operators. While a quarter of farmers do rent land, and 10% have bought land in the last ten years; the areas tend to be very small, so much so that the net rented area may be less than 1% of all the farmed land.

Given the volume of transactions it seems unlikely that it is the costs of these that impede the market. It may be, then, that very small farmers simply dare not take the risk of operating more land — a failure of insurance markets; or that social relations govern land transfers; or that credit limitations prevent small operators from buying or even renting in land.

During the 1980s as many as 100,000 small farmers obtained **formal credit** through the nationalised banks. Subsequently, with the privatisation of banks and the liberalisation of the financial sector, very few small farmers have access to formal credit. The large majority of the poor are rationed out by administration costs, inability to provide collateral or references and generally being invisible to formal banks. In 2001 less than 10% of rural households had farm credits; and most of those came from micro-finance offered by NGOs.

While micro-finance has developed rapidly since 1990, the costs of operation and the corresponding interest rates are still high. Coverage of the poor appears to be limited. It also seems that the focus is on credit, and less on savings, insurance and other financial services. For the very poor there is evidence that access to loans may be as much a debt trap as a help.

Labour markets do not necessarily fail: but there are too few jobs for the current work force in the country, while the rapid population growth of the last few decades means that every year the labour force grows by as much as 6%. Given modest and halting economic growth in recent years, the problem of unemployment is serious and unlikely to be resolved in the near future.

In **commodity** markets, the poor face two main problems. One is that for those involved with the main export crops in production, processing and marketing, international prices are both unstable and declining in the long run. The other is sheer physical lack of access to markets: living further away from a paved road correlates with poverty. The road network has barely increased since the late 1970s.

A remarkably high proportion of Nicaraguans own their own **houses**: more than 80%. A similar proportion of houses have been built by the owners. The quality of housing, however, is poor; and there is an unmet need for 400,000 to 500,000 new homes. The main issue seems to be sheer poverty and lack of credit for housing improvements and piecemeal construction.

The extent to which the chronically poor participate in markets is mixed: to a, perhaps surprising, degree the poor are not that closely engaged in markets. Housing, food production, employment, financial services are, for the majority, arranged outside of markets. Yet significant minorities are engaged in most markets, with the marked exception of credit. The data unfortunately do not report to what extent there is unmet demand for engagement in markets.

In **summary**, the two main markets that seem to be failing the poor are those for land and for financial services. Nicaragua's financial markets fail significantly at the national level where the banks make high profits merely by channelling funds to government; but do much less well in facilitating investment in productive enterprise. At the local level the formal financial system is as good as non-existent. Consequently land and labour is less productive than it might be, for lack of small amounts of working capital. It is a fair bet that much the same applies to other small-scale businesses.

It is questionable, however, that credit will help the poor directly. Indeed Legovini's analysis is that it does not, that it is a trap. But the working hypothesis must be that better capital markets would help that fraction of Nicaraguan firms and farms operated by people of modest means who so often hire help as and when their businesses thrive, and provide employment for the working poor.

If other markets – in labour, commodities and housing – do not help the poor it is because, as markets, they reflect the existing distribution of assets and incomes and the underlying problems of overall economic performance. Unemployment, for example, results from an economy that simply has forgotten how to grow, not from any market failure. The remedies for this probably lie in capital markets and public investment in infrastructure and human capital, rather than the labour market itself. Similarly, if some commodity markets offer a rough ride owing to international factors, this reflects the failure of Nicaragua to diversify as much as it does the undesirable features of an unfair world.

1.4 Policies for poverty alleviation

The main approach to poverty reduction in Nicaragua is through economic growth, supported by social investments in health and education. The need for growth to be broad-based is recognised. To achieve this some important market failures need to be rectified, but it is not clear how this will be done. More convincing are plans to improve the business climate to attract large-scale foreign investment.

Much faith is placed on mechanisms of trickle down. Given how little of the new wealth generated in the 1950s and 1960s, when the economy grew famously quickly, ever reached the poor, this faith may be misplaced.

Specific poverty reduction measures comprise two sets. One is improving the quantity and quality of health and education, and above all the latter, given Nicaragua's very poor indicators of education. The other set are transfer programmes. The current flagship for this is the Social Protection Network (Red de Protección Social, RPS) based on the Mexican model of *Progresa/Oportunidades*, in which the transfers are conditional on children attending school and infants being checked at clinics.

At least two dilemmas confront policy-makers in Nicaragua when trying to reduce poverty. One is the extent to which radical changes can be made, including, for example, measures to increase taxation of the (very) wealthy and of large landholdings; or alternatively, whether it is better to do what is currently feasible. A second dilemma is geographical targeting: the majority of the poor are in accessible areas, but remote areas have higher incidence of poverty and programmes to reach them are more costly.

1.5 Conclusions: the original questions

What makes people poor in Nicaragua? The conditions that lead to poverty can be seen to apply in layers: from international conditions to the workings of the national economy, government policy, the way that markets work, socio-cultural matters, the effects of geography, and then the immediate factors that apply to individuals and households. Several at least of these factors interact and reinforce one another. Given the resultant complicated picture, it is perhaps not surprising how persistent poverty can be, and how difficult it is for any one set of interventions to make much of a difference.

But to return to the key question: **how can the government ensure that markets operate in ways that include the chronically poor on beneficial terms?** There are perhaps two answers to this.

One is that those people living in currently inaccessible areas need physical access to markets. Otherwise they are condemned to the limitations of very localised economies. Simple paving of rural roads and adequate maintenance are needed.

The other part of the answer concerns correcting market failures: here the single largest failing seen is that of financial services. It is easy to flag the problem, less easy to propose remedies.

Currently there are at least two controversies in Nicaragua over this. One concerns the idea of a public development bank, an idea favoured by the opposition. The government demurs, believing that banking is better left to private initiative. The other is the debate over whether there should be special regulations for non-bank financial agencies that operate micro-finance schemes. Would this help stimulate the sub-sector, or just lead to the fragmentation of the overall financial system?

Measures to correct failures in financial markets are inherently difficult to prescribe, since so much depends on finding improvements that work with local institutions and norms. Learning by trial and error, with useful lessons disseminated to others, is probably the way to go. Public action, in this case, might be to encourage experimentation – by, for example, underwriting some pilot programmes by private agencies – and to fund dissemination and training.

The other question posed is intriguing: **what can governments do to prevent economic stagnation and state fragility from occurring in the first place?** Nicaragua is unusually well placed to shed light on this, having seen between the mid-1970s and today three different political regimes, two episodes of insurrection and civil strife, and a period of dramatic economic decline that has set back average incomes several decades.

Many responses could be given to this question, but there is perhaps one constant that can be sifted from the others: the simple business of equity and fairness in society and government. Nicaragua under the Somozas was a country of economic inequality and gross discrimination in which the ruling clique made little attempt to forge one nation, preferring instead to rule the country as a personal fiefdom. In hindsight it was predictable that such an extreme regime should eventually be replaced by one of a radically different stripe: so different that the zeal to reform rapidly led to drastic policies of state control of the economy that undermined the revolution within at most a year or two of the revolutionary triumph.

The irony here is that during the almost half century that Nicaragua was ruled by the Somoza family and close allies, the economy grew strongly making the country by the late 1960s one of the most prosperous in the region; while the FSLN governments, although committed in principle to bettering the lot of the workers and peasants, were never able to engineer economic growth and ended up presiding over a dramatic economic decline that reversed the gains that the early years of the revolution conferred on the poor.

The further irony is that subsequent governments have enabled the re-emergence of a Nicaragua of great inequality: and worse, one in which the elites are frequently tempted to use their overwhelming power to extract economic advantage, with little or no regard to the fate of their fellow citizens. That makes it difficult to construct a sense of national unity; as well as undermining the incentives for entrepreneurs of all kinds, large or small, to invest in legitimate, competitive business when money can be made more easily by seeking rents (in the broad sense) not to mention outright scams. It's a sorry picture.

How to go about building a Nicaragua where there is more give and take, where there is a nationwide commitment to equal opportunities for all, and where a sense of fairness is central to executive decisions – and central to the judiciary – is the critical challenge facing the country. Not only will this take time, but the sequence of measures needed to reach this state is anything but clear.

This discussion, of course, takes us a long way from the question of making markets work for the chronically poor. But it does remind us that markets are social constructs and depend on culture and institutions to work well and fairly.

2. Introduction

2.1 Aims and methods

As aforementioned, the terms of reference pose three key questions:

1. Where there is sustained economic growth, how can governments ensure that markets operate in ways that include the chronically poor on beneficial terms?

2. Where there is low or no growth, how can the economy and market institutions be successfully stimulated and how can this be done in ways that enable rather than inhibit the participation of chronically poor people at good rates of return?

3. What can governments do to prevent economic stagnation and state fragility from occurring in the first place?

The existing literature has been reviewed, and some simple analysis of national level data on the performance of the economy carried out. Much of the recent literature on poverty in Nicaragua has been directly or indirectly the result of World Bank initiatives, especially the 2003 poverty assessment, and the databases generated by the Livings Standards Measurement Surveys (LSMS) of 1993, 1998 and 2001. While much of this work is as informative as it is rigorous, most analyses are economic, and very much within an empirical tradition that tends not to probe into matters that cannot be readily be measured and subsequently subjected to statistical analysis. Hence, for example, the social and political dimensions of poverty in Nicaragua may be mentioned, but rarely are they examined in any depth. Given the pervasive large social differences in Nicaragua, and the tensions of a fairly polarised political scene, some of the analysis seems incomplete.

Most striking of all is the relegation of history: the 1980s are generally referred to in passing as a decade of economic mismanagement and civil strife. The radical policies adopted by the FSLN to change the structures of the country and improve the lot of the poor have all but disappeared from several of the accounts read. And it is not just the 1980s that get short shrift: it is rare report that alludes to the previous, Somoza regime. Since there is almost always something to be learned from history, this report begins with brief account of the past.

2.2 The background: some history and geography

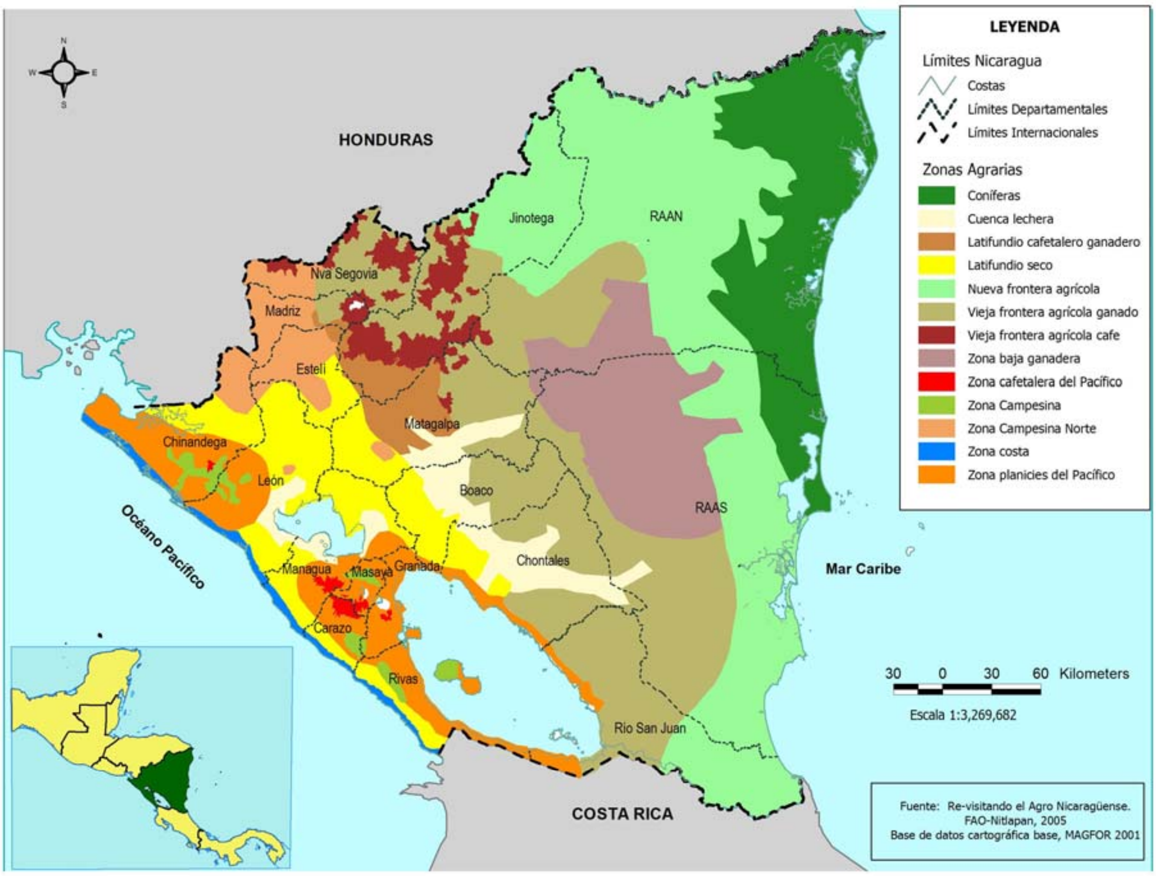
Nicaragua is endowed with considerable natural resources. Geographically it can be divided into three main zones,– see Map 2. On the eastern seaboard, where the country's main ports and the capital, Managua, lie, are the Pacific lowlands, with large areas of fertile volcanic soils where some of the most productive large farms have been established. The central belt of mountains – sometimes called the interior, sometimes the Central Region – has similarly good soils that have helped produced good quality coffee. The zone has had reasonable access to the Pacific and in parts is quite well populated. Further east the road network is little developed, settlement is less dense, and the original bush and forest have served as an agricultural pioneer or frontier. Finally, beyond the mountains the Atlantic Coast consists of humid tropical lowland that has very poor transport links to the rest of the country, and thus has remained remote. It is the least densely-settled part of Nicaragua and home to several indigenous Indian groups, most notably the Miskito, as well as English–speaking populations of African origin who see themselves as a distinct group.

For much of the country rainfall is sufficient to raise at least one crop without irrigation in most years. The country thus has some excellent farm land and large areas of tropical forest. The country is still, despite rapid population growth during the last forty years, relatively lightly populated; a land mass of 121,000 km^2 is home to little more than 5.48 million persons (2003), at an average density of just 45 person per km^2. Given that 57% of the population is urban, the rural population density is little more than 20 persons per km^2. Population distribution is, however, very uneven. The great majority of Nicaraguans live in the Centre or Pacific, and population density thickens considerably in the areas around Managua.

Nicaragua has, since the arrival of the Spanish in the 1500s, been essentially a small and peripheral country. Until the last quarter of the nineteenth century a key economic challenge was to find products that would withstand the high costs of hauling them to ports. Few candidates were found, and for the most part the economy was one of producing for local needs in a very lightly populated territory with a correspondingly small market.

Socially marked inequalities were already in place. The Spanish invaders had divided the land into large estates with the sparse remaining indigenous population linked to these under feudal arrangements of labour service. When the conditions arrived for a more vibrant economy in the late nineteenth century, the terms of engagement were already clear. The owners of the estates controlled the land and what capital there was in the economy: they also governed. They were in prime position to benefit from the subsequent agricultural booms that exploited the possibilities that Nicaragua had to export crops to the industrialising world. The role of the rest of the population was to provide labour, and very largely unskilled labour at that. The owners were in a position to exploit their power and pay low wages: above all, they were able to resist, through brute force, any attempts to redistribute property and power.

Map 2: The agricultural zones of Nicaragua



	Conifers		Old agricultural frontier with coffee
	Dairying		Lowland cattle
			Pacific coffee zone
	Large estates with coffee and cattle		Small-holder farming
	Large estates, dry zone		Small-holder farming, North
	New agricultural frontier		Coastal zone
	Old agricultural frontier with cattle		Pacific plains

Source: Nitlapan and FAO, 2005.

The first of the commodity booms was coffee in the last quarter of the nineteenth century. Nicaragua has the kind of fertile, well watered land at altitudes that provide some cooling but little risk of frost in which coffee plants thrive. Coffee was sufficiently high value for weight to withstand the costs of transport from the highlands to the Pacific coast.

During the first three decades of the twentieth century little changed economically, but challenges to the domination of the estate-owning elites emerged – most notably in the form of the guerrilla forces of Augusto César Sandino. The US, fearing for their investments and interests occupied the country from 1912 to 1915 and again from 1926 to 1932. When they left they had trained Anastacio Somoza as head of the National Guard. Shortly after Sandino was assassinated and the Somoza family was to govern the country for almost half a century until 1979. The Somozas – father and two sons – brooked no opposition, and used the Guard to quell dissent.

After the Second World War the economy benefited from buoyant demand for farm commodities: Nicaragua seized the opportunities presented, planting large areas to cotton and sugar cane, and converting bush into cattle ranches for beef. On the basis of successive exports booms, between 1950 and 1977, the economy grew by 6.3% a year, the most dynamic and prosperous economy in Central America. Growth was however, inequitable: Somoza, family, friends, and other rich and powerful figures accumulated land. Peasants were forced off plots attractive for export crops and sent to the agricultural frontier for resettlement. The urban middle class was effectively kept quiet by jobs and rising incomes between the late 1940s and the 1970s.

The model unravelled in the 1970s. An earthquake in December 1972 hit Managua hard. Somoza and his associates were accused of having pocketed part of the humanitarian aid sent. More worrying was the decline in commodity prices seen after 1974. The economy began to stutter, unemployment rose and the middle class began to voice their discontent with the regime ever more loudly. This culminated in 1978 when Pedro Joaquín Chamorro, the editor of the main opposition newspaper, La Prensa, was gunned down. Open rebellion broke out, led by students many of them aligned with the Frente Sandinista de Liberación Nacional (FSLN). The 1978 rising was put down by the Guard with great loss of life. But the next year the FSLN launched a second and final offensive: Somoza lost his nerve and fled and on 19 July 1979 revolutionary forces entered Managua in triumph.

For a little over a decade the FSLN were able to rule Nicaragua with apparently a clean sheet and mandate to remedy the social inequities of the past. After some initial successes in literacy and basic health care, the economy proved to be undoing of the regime. By the mid 1980s the economy was in deep trouble, hit variously by falling commodity prices, the US embargo, the costs of fighting the war against the Contra counter-insurgency funded by the US, and economic mis-management of the economy.

By 1990 the population had had enough of war and economic chaos: they voted in a conservative government, approved by the US, that was capable of ending the conflict and promised economic revival. The 1990s were to see drastic measures to stabilise the macro-economy and liberalise the economy.

Since 1990 there have been three rounds of national elections bringing in governments of different political coalitions, but all of them from the right of centre. They have been effective in restoring peace to the country, and the economy has become more stable. Relations with the USA have been repaired and economic policy has strived to satisfy the requirements of the IMF and World Bank. Consequently Nicaragua has been one of the first countries to qualify for debt relief under the terms of the Highly Indebted Poor Countries (HIPC) initiative. It has also qualified for assistance from the Millennium Challenge Account.

3. Economic growth: recent performance

3.1 Gross domestic product

The evolution of the GDP of Nicaragua over the last forty years or more has seen some dramatic changes. As Figure 7 shows, the economy grew rapidly until the mid-1970s, with a rate in excess of 6% a year being typical in the 1960s, but with lesser rates of growth in the 1970s – see Figure 8. Nicaragua was the fastest growing economy in Central America, and by the mid-1960s average incomes were amongst the highest in the region reaching around US$1,500 a head – in terms of the value of the US$ in 2000.[1] Economic growth was based on successive agricultural booms, principally in cotton, sugar cane and beef cattle, in response to the buoyant international markets of the 1950s and 1960s. At that time Nicaragua had a very small population – just over 1.5 million in 1960 – and there was still plenty of good quality land in reasonably accessible zones that could be planted or sown to pasture allowing rapid agricultural growth. It was a good case of 'vent-for-surplus' as the country turned to international markets in the face of restricted local demand. The agricultural booms were accompanied by investments in agro-industry, including sugar cane mills, cotton ginneries and oil presses, and abattoirs.

But from the late 1970s, the economy plunged so that by the early 1990s the GDP stood at little more than 60% of the level reached in 1977. GDP per capita fell even more: the 1993 average was less than 40% of that achieved in 1977.

The economic decline can be divided into three periods. The first of these, the last few years of the 1970s, saw falling commodity prices, but, more importantly the economy was crippled by the uprisings of 1978 and 1979. Strife took a huge toll: GDP in 1979 was just two-thirds of the 1977 peak. Following the FSLN victory in 1979 the economy recovered a little for a few years, but to nothing like the levels seen in the mid-1970s. During the first few years of the revolutionary government, the economic strategy included state control of the key points in the economy: banks, import-export houses, and man of the export agriculture estates. Attempts were made to plan investments and to control markets: but these were undermined by fiscal and trade deficits and by flagging production levels. Inflation began to take off, parallel markets proliferated, and all kinds of distortions plagued the national economy leading to gross mis-allocation of resources. (Biondi Morra, 1993)

But from 1984 to 1990 a second phase of decline took place, marked by an increasingly chaotic economy and the costly war fought in the mountains between

[1] No allowance has been made here for purchasing power parity. Incomes become more than US$6,000 a head if this adjustment is made.

the FSLN and the Contra. The macro-economy reeled: large trade gaps emerged, fiscal deficits mounted, and the government lost control of the money supply and hyper-inflation resulted. In 1988 annual inflation reached more than 13,600%.

The final phase of decline can be seen in the early 1990s as drastic stabilisation measures were introduced to reign in the macro-economic problems. This was largely successful: by 1992 inflation was running at under 25% a year. But the deflation of aggregate demand to control inflation meant that the economy barely grew at all before 1994.

Subsequently the economy has grown again, but not rapidly: only in three years since 1990 has GDP growth exceeded 5% a year. With population growth still running at more than 2.5% a year, this means that per capita incomes have risen only modestly since 1993 – in 2003 average per capita incomes were on average just 13% more than they were in 1993.

3.2 Sector performance and the composition of GDP

The composition of GDP in the last forty years has seen the contribution of agriculture shrink from around 25% of GDP in the mid-1960s to less than 20% in recent years – see Figure 9. The relative decline of farming has not been even: as would be expected in the periods when the economy has slumped, agriculture's share of GDP has tended to rise.

The small loss of importance of agriculture has not been associated with the rise of manufacturing industry. Industry a whole has seen its share of the national cake rise from just under one quarter in the mid-1960s to over a third in the early 1980s, only to fall back again to around a quarter in recent years. The sector that has gained importance is services.

Overall, the structure of the economy has changed little over the last 40 years. Nicaragua continues to depend heavily on farming – for GDP, for exports, and for jobs. Figure 10 shows the performance of agriculture since 1961. This mirrors the national performance: rapid growth of output in the 1960s, growth but less strong to the late 1970s, and then the subsequent slump, some recovery in the early 1980s, further slump, and renewed growth from 1990 or so. The livestock index is more volatile than that for crops: hit far harder in the bad times, growing more strongly than crops otherwise.

3.2.1 Explaining growth performance

At first sight, the Nicaraguan economy seems to have recovered its characteristics and performance of the 1960s and 1970s since structural adjustment and market liberalisation after 1990. But not quite: economic growth rates in the 1990s and early 2000s have not been as dynamic as in earlier periods. Why might this be?

The World Bank (2004) commissioned a review of the determinants of growth, the results of which can be seen in Table 1.

Table 1: Nicaragua, contributions to output growth

	Output growth	Components of Growth		
		Labor	Capital	TFPG
Period	*Simple Solow Residual Method*			
1961-70	6.77%	2.16%	2.85%	1.76%
1971-80	0.35%	2.16%	1.77%	-3.58%
1981-90	-1.36%	2.00%	0.84%	-4.20%
1991-00	3.28%	2.24%	0.69%	0.35%
	Solow Residual after Accounting for Human Capital			
1961-70	6.77%	3.03%	2.85%	0.90%
1971-80	0.35%	2.52%	1.77%	-3.94%
1981-90	-1.36%	2.44%	0.84%	-4.65%
1991-00	3.28%	3.20%	0.69%	-0.62%
	Solow Residual after Controlling for Capital Utilization			
1961-70	6.77%	--	--	--
1971-80	0.35%	1.51%	1.72%	-2.87%
1981-90	-1.36%	4.10%	0.75%	-6.20%
1991-00	3.28%	3.54%	0.61%	-0.87%
Memo item:	*LAC average -- Simple Solow Residual Method*			
1961-70	5.08%	1.67%	1.94%	1.53%
1971-80	4.69%	1.80%	2.36%	0.68%
1981-90	1.21%	1.62%	0.98%	-1.31%
1991-00	3.54%	1.54%	1.32%	0.70%

Source: Loayza, Fajnzylber & Calderón (2002)

Source: World Bank, 2004

The main decade of the slump, the 1980s, were marked by a reduced contribution of capital, but above all by a massive decline in Total Factor Productivity. That was corrected in the 1990s, although the rates are still well behind those seen in the 1960s. In particular, recent growth has not seen the contribution of capital as seen in 1960s and 1970s, nor of productivity growth.

So what about capital? Figure 11 shows the record. Capital formation in recent years is comparable to anything seen in the earlier periods of growth: it is very much higher than the levels seen in the 1960s, when the economy grew much faster than in recent years. But capital may still be lacking: the data on gross capital formation includes those on aid receipts, and in the 1990s the contribution of aid to capital formation has been colossal. From 1990 to 1996 aid receipts as a fraction of gross capital have run at 100% or more, and subsequently have been worth around 50% of all capital formation. In contrast, in the 1960s, the share was one quarter or less.

Domestic savings may be a fairer picture of what is happening to private capital circuits. Here there is a distinct difference between the recent years and earlier times: in the past rates of 15% of GDP were seen, in recent years the rate has rarely risen above 10%. With so few resources being mobilised domestically, it would need considerable foreign direct investment or public spending to achieve the investment necessary to boost growth rates. Table 1 suggests that this simply is not happening and capital is a limitation.

The lack of contribution to growth from higher productivity is also worrying. This may be connected to the driver of the economy continuing to be agriculture, where much of the increase in output has been achieved by expanded the cultivated area rather than by increasing yields per hectare.

3.2.2 Trade and debt

As a small country, Nicaragua is necessarily much engaged with the international market. Trade by value has typically represented more than 60% of GDP – see Figure 12 – for most of the last forty years.

There are two important features of trade. One is that the base of exports remains narrow. Traditionally the country depended heavily on the revenues from the exports of no more than four or five agricultural commodities, including beef, coffee, cotton, and sugar. There has been some diversification, notably in exports of seafood, and the manufactured goods from the export processing zone in Managua; but it has been limited. Nicaragua remains highly vulnerable to fluctuations in commodity prices on international markets.

The terms of trade faced by Nicaragua have been in decline since the high water mark of primary commodity prices in the early 1970s – see Figure 13. The erosion of the terms of trade has been uneven, with considerable fluctuations from year to year but the overall trend is unmistakeably downwards. Most of this trend comes from the fall in value of primary commodities – see Figure 14. This shows how the unit values of four exports have fallen since the peaks of 30 years ago. The figure has a logarithmic vertical scale, so the fall in values is larger than it appears. Of particular concern is the collapse in cotton prices in the early 2000s that dealt a body blow to a crop that had once been the leading export earner. Coffee prices appear to have been particularly unstable over the last thirty years.

The other feature is the persistent heavy deficit on the current account that since 1981 has seen the value of imports of goods and services exceed the value of exports by 100% or more in most years. In earlier years the was mainly financed by concessional loans and aid; but of increasing importance are the remittances from the many Nicaraguans working in other countries. For the year 2004, the trade balance was roughly exports worth US$912M and imports worth US$2,212M; leaving the large deficit to be covered by remittances of US$810M, foreign aid of US$440M, and foreign direct investment (FDI) of US$100M (Guimarães and Avendaño, 2006). The large deficit on the current account leaves Nicaragua unusually dependent on external funding and in particular on donors.

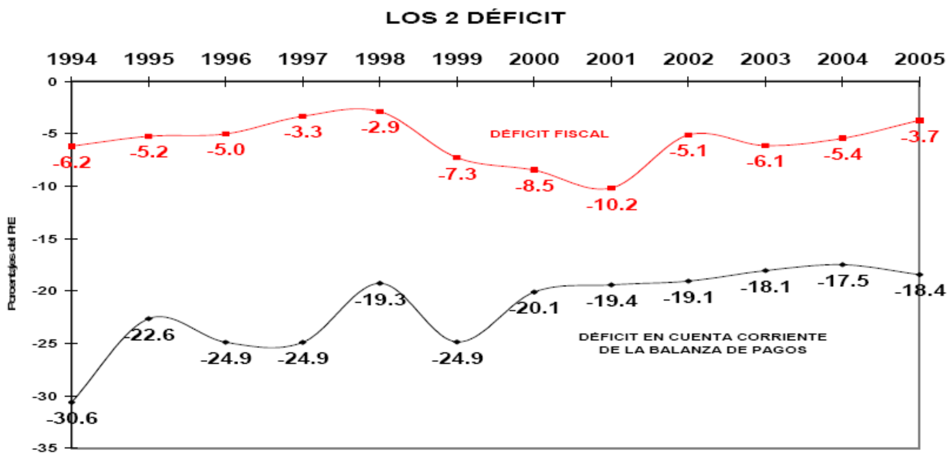
The deficits seen since the late 1970s are one reason that Nicaragua became heavily indebted – see Figure 15. Levels of debt grew steadily in the 1970s and early 1980s, but then rose steeply in the second half of the 1980s – much of the debt being piled up as Nicaragua took loans to cover the cost of imports and to finance government spending, boosted by the cost of the war. By the early 1990s the debt had reached more than US$11 billion, at that time worth more than ten times the gross national income, or more than US$2,750 for every man, woman and child in the country. Nicaragua had become one of the most heavily indebted countries in the world, the value of Nicaraguan debt being discounted massively on secondary markets.

Subsequently managing the debt and getting it reduced has been a major objective. Debt relief was granted in the mid 1990s and that almost halved the amount outstanding, but still left a debt worth almost double the gross national income. Consequently when the HIPC initiative was announced, Nicaragua was keen to take advantage. The culmination point of HIPC was reached in early 2004, reducing the debt to US$2,500M (Guimarães *et al*, 2004). Most of Nicaragua's debt is owed to multilateral organisations, donors and governments. In 2005 the debt to the World Bank was also condoned. Thanks to HIPC and other manoeuvres, Nicaragua at last pays relatively small amounts in debt servicing – for example, as little as US$27M in 2004 (Guimarães and Avendaño, 2006).

The HIPC initiative should have allowed much more public spending on development and poverty relief. But it is questionable how much the relief of debt servicing has translated into additional funds. Just as the burden of external debt has been much relieved, the internal debt has burgeoned – by IMF projections expected to reach more than 40% of GDP by 2004, or around US$1,700M. Three things have contributed to this. One, in the 1990s the government handled some claims for restitution of property nationalised during the 1980s by issuing bonds (CENIs). Two, the banking crisis of 2000-01 saw several banks liquidated, but to protect the assets of depositors, their accounts were transferred to other banks and supported by more government paper. Three, the government has been running persistent fiscal deficits that have generally been in the range of 5% to 7% – see Figure 1. In 2004, for example, the government raised revenues equivalent to 17.5% of GDP and spent an amount worth 21.2% of GDP.

Consequently the Ministry of Finance and the Central Bank have had to service the internal debt. Some 17% of public spending in 2004 went to this. Debt relief has been worth US$1,141M for 2001–05, but only US$375M had been spent on the Poverty Reduction Strategy ('ERCERP'); the rest has gone to other purposes (Guimarães and Avendaño, 2006). Most of the funds for development programmes come from the donors.

Figure 1: Nicaragua, Fiscal and Trade Deficits, 1994 to 2004



Fuente: Con base en datos del Banco Central de Nicaragua y Ministerio de Hacienda y Crédito Público.

Source: (Guimarães and Avendaño, 2006)

3.2.3 Shocks

During the last forty years or so Nicaragua has experienced a series of shocks to its economy, including natural disasters, political upheavals and warfare, and economic misfortunes – see Box 1. With a relatively small and undiversified economy, Nicaragua is vulnerable to such events. Indeed, the shocks suffered explain in large part the decline of the Nicaraguan economy seen between the late 1970s and the early 1990s.

Box 1: Shocks to the Nicaraguan economy

Dec 1972	Earthquake strikes. Heavy damage to Managua
1974–78	International prices of the main export commodities fall
1978	Popular uprising put down by the National Guard with heavy loss of life
1979	Second, successful uprising
1985–1990	War in the mountains between government and Contra forces. Major disruptions of economic activity, conscription, heavy spending on defence

1990–1994	Structural adjustment and macro-economic stabilisation entails drastic deflation of the economy
Late 1998	Hurricane Mitch devastates the country
2000–02	Cotton prices collapse to one third or less of their previous values

3.2.4 Policies for growth

During the 1950s, 1960s and 1970s the economic strategy was built around commercial farming for exports. Public policy was in the first instance to ensure a favourable business environment for investors. Under the Somozas there was little divide between the government itself and the large-scale farms, processing plants, transport companies and input dealerships – most of these belonged to the Somoza family and their cronies, and they ran the government as a personal fiefdom. The government provided a far from even playing field. It actively ensured that large-scale interests could get the land they wanted, and hire in casual labour for harvests at low wages. Small farmers without titles were moved off fertile lands in the Pacific and resettled in the interior. The National Guard made sure that any attempts to resist were futile, just as they made sure that agricultural labour was not organised to press for higher wages.

After the revolution[2] of 1979, the Sandinista governments still promoted export agriculture, but did so expecting that nationalised large estates, the former property of the Somoza clique, would be the leaders in production and productivity. Extensive controls on the markets were introduced – prices of basic goods and services were strictly controlled, and often set at subsidised rates; the banks and key enterprises were nationalised; and an effort was made to plan the economy centrally. Policy for the small-holders was ambivalent: while there was concerted attempt to boost small-holder production of food crops through a liberal distribution of credit; there was also a fear of allowing the better-off peasants – seen as kulaks – to exploit their peers, and a corresponding aim to form the peasantry into all-embracing producer co-operatives. The government was never either strong enough or ruthless enough to collectivise by force; so that while the small-holders were happy to join co-operatives for access to loans, inputs and technical assistance, rather few were prepared to go for collective cultivation.

[2] A word not used lightly. Despite many changes of regime in Latin America since the era of Independence in the first quarter of the nineteenth century, there have only been four occasions when there has been a revolution in the sense of a violent power struggle resulting in government dedicated to wide-ranging reforms: Mexico 1910, Bolivia 1952, Cuba 1958 and Nicaragua 1979.

Sandinista economic policy was unsuccessful. Within a few short years the controlled economy, facing the pressure of higher aggregate demand from well-meaning policies to raise the welfare of the workers and peasants, and falling commodity prices, was mangled by the distortions that arose as price setting was continually outflanked by accelerating inflation. The same forces undermined the state enterprises, which soon found themselves facing shortages of inputs, loss of skilled labour, declining labour productivity, and run by inexperienced managers – they were rotated frequently – who realised that they could not operate the businesses without entering the parallel markets and who often found that whatever they did, the accounts were in the red thanks to controlled prices and exchange rates. As the state enterprises recorded losses, the Central Bank expanded their credit lines, and the money supply just grew and grew. (Biondi Morra, 1990)

By 1985 the political leadership realised that a controlled economy was dysfunctional and needed reform, but it was too late. The economy was spinning out of control, while the US had embargoed trade, blocked multilateral finances, and begun to finance the Contra war. Faced by the need to spend heavily on defence, the ministry of finance never regained control of the money supply and by 1988 the country was wracked by hyper-inflation.

After the elections of 1990 the conservative coalition that took over followed IMF advice and introduced a series of tough measures to rectify the economy. Prices were liberalised, import tariffs cut, the córdoba was devalued, 350 parastatals began to be privatised, as were the state banks, and public employees were laid off in the tens of thousands. The policies for growth were based on the idea that if the macro-economy could be stabilised, and property rights assured, then by freeing the markets to transmit price signals, investment and growth would follow. The main qualification to this was the setting up of an Emergency Social Investment Fund (FISE) that initially created temporary jobs for laid-off public workers and ex-combatants.

The economic strategy has largely remained in place since 1990. They key issues addressed have been macro-economic stability, debt relief, privatisation and property rights. The last concern arises from the claims for restitution of property by those who had their farms and businesses confiscated during the 1980s, and the demands for land by unemployed ex-combatants. This demanding agenda has meant that additional policies to promote growth have been few and insignificant.

3.2.5 Discussion

Nicaragua is a small country, heavily open to the world economy, vulnerable to shocks, and highly dependent on a narrow economic base of agriculture, forestry and some mining. During the last half century it has experienced rapid economic growth followed by a deep slump and a halting recovery.

The big question about growth is why the economy has not, since stabilisation in the early 1990s, regained the stellar performance seen in the 1950s and 1960s. Is it simply that commodity prices are that much lower today than then, making investment that much less attractive? Or that the opportunities to take fertile land under forest and bush and turn it into a cotton field, sugar cane estate or a cattle ranch are fewer? Did the economic decline of the 1980s take a heavier toll on infrastructure and business confidence than the repairs of the 1990s could remedy? Or is there something more fundamental that has altered the behaviour of those with capital?

One clue may lie in the lower rates of saving in recent times compared to previous epochs: there may simply be less capital in circulation with which to invest. The World Bank makes much of the malaise in the financial system where the banks make twice the profits of their Central American counterparts by buying up government paper (World Bank, 2004). Here is a supreme irony: the former state banks that are now privatised, operating in a free financial market where they should be facilitating private investment, end up recruiting funds for the state and crowd out private investment in productive enterprise. Moreover, several of the banks reportedly focus on extending consumer credit. Any visitor to Managua will see readily that much capital has gone into buildings and shopping centres since 1990, which presumably were neither so large nor so attractive in the 1950s and 1960s.[3]

Whatever the reason, the overall economy fails to grow at a rate that would at least generate jobs and incomes commensurate with a population that is still growing at 2.6% a year. Thanks to the young profile of the population, many job entrants come onto the market every year. The minimum rate of growth to provide the jobs and meet the aspirations of people for a more prosperous future might be 5.5% a year, or 2.9% a year per capita, giving people the hope that incomes can double within 25 years. What is the potential of the economy to grow? While we do not know what this is, Asian experiences show that economies similar to Nicaragua in having unused resources to put to work can grow at rates of 7% or more for periods of more than a decade. Nicaragua itself achieved rates of over 6% a year in the 1950s and early 1960s. It is hugely frustrating that current patterns of growth are so far from that potential.

The final point to make is one that has been barely touched upon so far: inequality. Nicaragua under the Somozas was an astonishingly unequal society. Incomes and assets were heavily concentrated amongst the ruling elite, with a small middle class of professionals, and a large base of peasant farmers, landless labourers, industrial and service workers who were generally poor and had few assets. Just before the revolution, for example, it was estimated that around one third of rural households

[3] With the economy growing slowly, with widespread poverty and unemployment, who can shop in the malls, or afford expensive houses? Part of the answer may lie with remittances that allow those with family members abroad to consume beyond what their earnings in the local economy would allow.

were landless – in a country that at the time had a rural population of no more than 1.4 million people and had no less than 6 million hectares of agricultural land.

The surprise is that the revolutionary policies of the Sandinistas, including expropriation of almost all the businesses and land owned by the Somoza clique, did not result in a more fundamental redistribution of assets. Since 1990 the old inequalities of Nicaragua seem to have re-emerged more or less intact. It is almost as though gross inequality and the associated widespread poverty is seen as the natural order. This is a good point at which to turn to the central issue of this essay: poverty.

4. Poverty in Nicaragua

Chronic poverty is endemic and persistent in Nicaragua. During the last 40 years the country has seen sweeping political changes with marked differences in policies both for economic growth and for poverty reduction. Although the evidence is incomplete, poverty has remained high throughout and remains obstinately so at present.

4.1 Rates of poverty

Not much is known for sure about poverty in the 1980s: there was a survey in 1985, but Dijkstra (2000) questions the method used at a time when so many prices were distorted. Subsequently there have three rounds of household surveys, part of the Living Standards Measurement Surveys (LSMS), in 1993, 1998, and 2001 that have obtained information on incomes and consumption from a nationally representative sample of six thousand or more households.

The 1985 survey reported a national head count of 43% of the population living below a monthly income of US$60. The data for the LSMS appear in Tables 2 and 3. Box 2 reports the poverty lines used: extreme poverty is defined by the cost of meeting food requirements, overall poverty by this plus another 41–42% to cover other basic needs.

Box 2: Measuring poverty

For 1998 the extreme poverty line was determined by computing the annual cost to buy a bundle of food that provides 2,187 Kcal/day, giving a per capita annual extreme poverty line of C$2,489 or US$237. The general poverty line is the extreme poverty line plus an additional amount for the share dedicated to non-food consumption, based on that recorded for households consuming food worth C$2,489 a person, 41.1%. This gives an overall poverty line of C$4,223 (C$2,489 for food plus C$1,734 for non-food) or US$402 per year in 1998.

To generate the 2001 extreme poverty line, the cost of the same bundle of food was computed using new prices. The extreme poverty line for 2001 was C$2,691 or US$202. For the non-food items in 2001, the same amount used in the 1998 estimation is updated using the change in the consumer price index for the same period of time (42.2 percent). The general poverty line in 2001 was C$5,157 (C$2,691 for food plus C$2,466 for non-food) or US$386 per year.

The 1993 poverty lines were estimated on a similar basis of extreme poverty based on food needs, and general poverty on that plus an addition.

Source: Adapted from World Bank, 2003

The headline is that the incidence of poverty, the headcount figure, having risen from the 1985 estimate of 43% to reach 50% in 1993, fell in the next two rounds to reach 46% in 2001. An improvement, to be sure, but hardly rapid progress. Indeed, if the 1985 figure was accurate, then still 16 years later poverty had not been brought down to the previous level.

The rather disappointing progress on poverty rates is confirmed by a look at the absolute numbers living in poverty shown in Table 3. Thanks to quite rapid population growth, the numbers of the poor have actually increased by more than 250,000 persons between 1993 and 2001.

The news is a little better if only those living in extreme poverty are considered. The incidence of extreme poverty fell more rapidly than for overall poverty, so that the numbers in extreme poverty declined by more than 25,000 between 1993 and 2001.

Table 2: Nicaragua: Poverty Trends, 1993–1998–2001 (%)

	National			Urban			Rural		
Year	Incidence (b)	Change	Annual Change (c)	Incidence (b)	Change	Annual Change (c)	Incidence (b)	Change	Annual Change (c)
All Poor (a)									
1993	50.3	..	..	31.9	..	..	76.1	..	..
1998	47.9	-2.4	-1.0	30.5	-1.4	-0.9	68.5	-7.6	-2.1
2001	45.8	-2.1	-1.5	28.7	-1.8	-2.0	64.3	-4.2	-2.1
Extremely Poor									
1993	19.4	..	..	7.3	..	..	36.3	..	..
1998	17.3	-2.1	-2.3	7.6	+0.3	+0.8	28.9	-7.4	-4.5
2001	15.1	-2.2	-4.4	6.1	-1.5	-7.1	24.7	-4.2	-5.1

Source: from World Bank, 2003, based on Nicaragua LSMS, 1993, 1998, 2001. (a) "All poor" includes the extremely poor; (b) Incidence measured by the Headcount Index (Po) is the share of the population whose total consumption falls below the poverty line. (c) Annual change is calculated as the geometric mean for three and five years, respectively.

Table 3: Nicaragua: People in Poverty, 1993–1998–2001 (thousands)

Year	All Poor			Extremely Poor		
	National	Urban	Rural	National	Urban	Rural
1993	2,100.0	777.0	1,323.0	810.0	178.2	631.8

1998	2,303.4	797.4	1,506.0	834.6	199.6	635.0
2001	2,385.5	914.6	1,470.9	783.4	188.3	595.1

Source: from World Bank 2003, based on Nicaragua LSMS 1993, 1998, 2001

Poverty is more marked in rural areas. Rates of poverty are much higher in rural areas, so that despite the majority of the population being urban - 56% of the population in 2001 lived in towns and cities - there are far more poor people in rural areas than urban areas. For 2001, 61% of all the poor were found in the countryside. The rural-urban divide is even more pronounced for extreme poverty. Rural rates of extreme poverty are four times or more than those seen for urban areas; of the 783,000 persons estimated to live in extreme poverty in 2001, more than 75% were living in rural areas. This implies that poverty is not just more prevalent in rural compared to urban areas, it is deeper as well. The divide, however, is narrowing somewhat: between 1993 and 2001 there was more progress in reducing rural poverty, both overall and extreme, than urban poverty.

4.2 Determinants of poverty and poverty dynamics

Davis and Stampini (2002) were able to assemble of panel of households interviewed in 1998 and 2001, and so were able to look at both the characteristics of poor households and changes between the two dates.

One of their principal findings is that of considerable movement in and out of poverty – 'poverty churning'. As Table 4 shows, only 52% of the sample were not poor in 1998 and 2001. 13% of households exited poverty in the three years between the observations, but another 9% fell into poverty. Similar movements can be seen between categories of extreme and moderate poverty. Thanks to this churning, there were only 6% of households, and 10% of the rural sample, that remained in extreme poverty in both periods.

Table 4: Entering and exiting poverty, 1998 and 2001 panel households

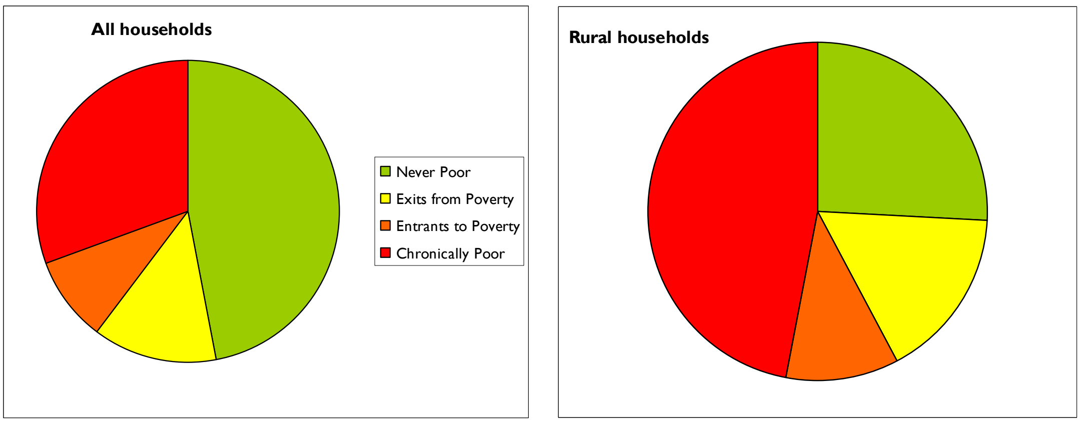
% households	total	rural	urban
Number of observations	2,800	1,273	1,527
1998			
Extreme poverty	13	22	5
Moderate poverty	27	38	18
All poverty	40	60	23

2001			
Extreme poverty	11	19	4
Moderate poverty	25	35	17
All poverty	36	54	21
Overall			
Not poor in both 1998 and 2001	52	30	70
Exiting any kind of poverty to not poor	13	17	10
Entering any kind of poverty from not poor	9	11	7
Moderate poor in both 1998 and 2001	12	17	8
Exiting extreme poverty to moderate poverty	5	9	2
Entering extreme poverty from moderate poverty	4	7	2
Extreme poor in both 1998 and 2001	6	10	2

Source: Table 4, Davis and Stampini, 2002

Figure 2 shows the changes in poverty status between 1998 and 2001, summarised for major groups of households: those not poor in 1998 and 2001, those who escaped poverty, those who sank into poverty, and those who were poor in both years.

Figure 2: Nicaragua, poverty status 1998 and 2001



Source: LSMS, 1998 and 2001, sample of 3'015 households

The observed movements were associated with people changing their main occupations or mix of occupations, and in rural areas, in changes in access to land. This confirms the vision of poverty that emerges from detailed studies of the poor in other countries and contexts: that poverty is a condition that those with marginal livelihoods may experience, rather than an enduring state associated with a particular social group, 'the poor'[4]; and those vulnerable to poverty frequently change jobs to improve their position.

Table 5: Characteristics of the rural and urban population in Nicaragua, 1998

	Nicaragua	Urban	Rural	Rural by "type"			
				Agriculture		Non-agriculture	
Expenditure and income				Worker	Self-emp.	Worker	Self-emp.
Per capita expenditure	8,257	10,656	5,073	4,271	5,115	5,174	6,156
Per capita expenditure (median)	5,226	6,919	3,691	3,307	3,506	4,452	5,026
Per capita income	8,762	11,857	4,653	2,757	4,044	6,654	5,596
Income sources: % from							
Agricultural wages	16%	4%	31%	84%	4%	7%	1%
Agricultural self-employment	10%	2%	20%	4%	86%	1%	5%
Non-agricultural wages	45%	56%	29%	6%	1%	82%	9%
Non-agricultural self-employment	23%	29%	14%	1%	2%	5%	79%
Other sources (incl. remittances)	7%	8%	6%	5%	7%	6%	6%
Characteristics of household head							
Age	45.3	45.7	44.8	43.5	46.3	42.7	48.4
Male	72.1%	65.0%	81.6%	84.9%	93.4%	76.5%	73.6%
No formal education	32%	21%	46%	57%	52%	32%	41%
Illiterate	25%	15%	38%	48%	44%	25%	32%
Years of education	4.5	5.9	2.7	1.8	2.0	3.8	3.1
Asset and land ownership							
Total land owned (mzs)	6.0	2.9	10.1	6.5	33.7	3.4	5.6
Total assets owned in C$s (median)	15,050	20,000	10,400	6,300	26,000	10,000	18,270
Value of nonagricultural	10,000	15,500	5,000	1,500	5,000	6,500	10,000

[4] A point made strongly by Bastiaensen, de Herdt and D'Exelle (2005) when examining poverty reduction in parts of the Cameroon and Nicaragua.

assets in C$s (median)							
Access to markets							
Use of credit	17.8%	22.4%	11.6%	7.1%	11.2%	14.1%	15.8%
Access to technical assistance	4.1%	1.1%	8.0%	7.8%	13.5%	6.7%	5.7%
Distribution of sample							
No. households (expanded)	774,997	442,209	332,788	56,231	113,288	90,026	73,243
Population share		57.1%	42.9%	16.9%	34.0%	27.1%	22.0%
Total population (expanded)	4,174,591						

Source: Deininger *et al* (2003), Table 1. Own computation from1998 LSMS and MAGFOR Survey.

So what makes the difference between being poor or not? Davis and Stampini (2002:9) summarise their findings for the rural poor as follows:

> *Thus, rural households escaping or exiting poverty tend to have the following characteristics — smaller family size, higher levels of education, more participation in non-agricultural wage labour and non-agricultural businesses, and less participation in farming or agricultural wage labour.*
>
> *Households in extreme poverty over the two periods have the highest family sizes, the lowest level of education, the worst dwelling characteristics, the highest dependency on farm agricultural activities and off-farm agricultural wage labour, and the least participation in non-agricultural wage labour. These are the characteristics of the chronic poor.* (paragraphing added)

The strong impression from their analysis is that in rural areas escaping poverty means getting a job off the land. It is not just those with little or no land who work mainly as farm labourers who are at high risk of poverty: some of the worst poverty seems to apply to those on very small farms who lack work off the farm other than as farm labourers. Having a small plot does not seem to help much.

Another view of farming as linked to poverty comes from the analysis of Deninger *et al* (2003) using the 1998 LSMS data plus data from a Ministry of Agriculture (MAGFOR) survey of 1995. Table 5 shows their findings.

This confirms the divide between urban and rural areas: per capita incomes are more than twice as high in urban compared to rural areas. In the rural areas as a whole, the median – a more informative measure when distributions are skewed – expenditure per capita is just C$3’691: below the poverty line for 1998 of C$4’200.

Within the rural areas, those households mainly engaged in farming are notably worse off than those with non-farm occupations, and both means and medians of income and expenditure for those in farming fall below the poverty line.

The single clearest correlate of incomes in this data set is education: while household heads in urban areas typically have nearly 6 years schooling, those in rural areas have less than 3 years. And within rural areas, those engaged in farming have the lowest average attendance at school – two years or less – and rates of illiteracy of 44% or more. Figure 3 illustrates the differences seen in education for four groups of households surveyed in both 1998 and 2001.

Figure 3: Education levels in Nicaragua, 1998 and 2001, by poverty group

Source: LSMS, 1998 and 2001, sample of 3'015 households nationwide

Note: The chronically poor are those who were poor in both 1998 and 2001

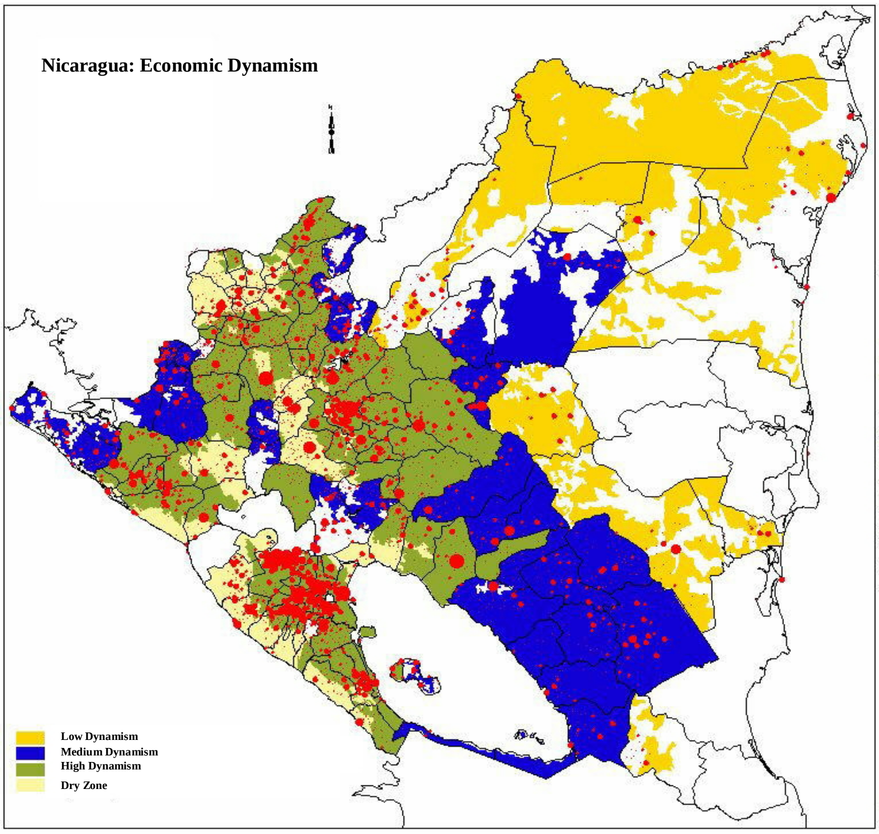
This should not be taken to imply that farming is a route to poverty: on the contrary, there are rich farmers. Davis and Stampini (2002) stress the importance of the conditions of farming: access to markets, credit, and technical assistance.

A World Bank study of rural poverty (2005), also drawing on LSMS data, turns the attention to matters of geography. Living in remote locations tends to increase the likelihood of being poor. Access to paved roads, shops, schools and health centres tended to be better for the non-poor compared to the poor.

No surprises here: but then the team assessed the 'economic dynamism' of different areas based on natural resources, access to markets and infrastructure, and drought risks, to produce Map 3. It seems that economic dynamism is closely associated with proximity to the main urban centres.

Hence while physical access to markets and social facilities matters, it is only one factor.

Map 3: Zones of Economic Dynamism, All of Nicaragua



Source: World Bank, 2005

The Bank team also drew on a separate data set: the results of participatory exercises in 56 communities in eight Departments run by UNAG and its *Programa Campesino a Campesino* (*Farmer-to-Farmer*). This looked at location through the lens of social organisation and capital and allowed the identification of three types of community, see Box 3. This vision is interesting, especially since it comes from the people consulted, but what is not clear is whether the entrepreneurial communities owe their economic success to their greater social capital or vice versa.

It is not hard to imagine that social capital could be an independent variable. Enríquez (2000) studied the impacts of structural adjustment on four farming communities in two different areas in 1996–97. The four communities had fared differently under structural adjustment, but those that had prospered had managed to replace the previous support of the state in credit and technical assistance by that from NGOs.[5] The NGOs in turn had been contacted by local associations who formed a welcome conduit for NGO operations. So, social capital clearly helped in this case.

But it was not the only factor: the most prosperous of the communities produced milk and could take advantage of the opportunities to ship cheese to El Salvador. Two of the other communities had the misfortune to be engaged in cotton production, which was hit so badly in the 1990s by a falling price for cotton that the crop had all but ceased to be planted by the end of the decade.

Box 3: Social capital and resistance to crises

Communities not resistant to crisis:

Most households in these communities generally have not been able to cope with crisis. Many are located in areas with low agricultural potential and limited access to infrastructure and services. The quantity and quality of household assets in these communities are limited and education levels are low. Households live almost exclusively by production of basic grains (maize, beans) on small plots, selling their labour, and harvest/sale of firewood. The communities are in a relative state of economic stagnation and neglect. The level of social organisation is weak, and this prevents them from making progress in marketing their products or improving basic services.

Communities resisting crisis:

Most households in these communities have managed to develop some capacity to cope with crisis. That capacity is reflected in their ongoing search for alternatives to the different problems they face. Their dynamism is more closely linked to social organisation than to productive organisation. These communities have achieved a good level of development of their human and social capital, guaranteeing their progress toward ongoing economic and social initiatives. Community members have several trades or occupations (such as farmer, builder, carpenter, or owner-operator of a small business), and have diversified their income sources. Because of these diversified activities, the community can support non-agricultural employment.

[5] Not all communities benefited from the NGOs, or at least, not in production: one community received training on soil conservation and reforestation. Valuable as this may have been, it did not generate incomes.

Entrepreneurial communities thriving despite crisis:

Most households in these communities are more economically and socially dynamic than the others. This dynamism is directly related to the development of their human and social capital, which facilitates an ongoing process of social and productive innovation. These communities have developed their management and organisational capacities. Local organisations revolve around social and economic activities, such as business, micro-credit and intermediation facilities, and cooperatives. Households make intensive use of all their assets. These communities are committed to the diversification of production and income. They are successful in agricultural production and also engage in other activities, such as tourism, crafts, and trade. They look for ways to extend agricultural production during the dry season by using irrigation systems. They have the capacity to save, invest, and generate employment. They maintain relations with NGOs and local and national authorities, but also have a high degree of financial independence.

Source: World Bank, 2005

What is known about **urban poverty**? The Davis and Stampini analysis has less significant results for the urban households in the sample. Here it seems that having more education and more business assets raises incomes, as does having a smaller household size and living in Managua.

A revealing insight comes from yet more World Bank analysis (2003) of the LSMS data that decomposes the influences on poverty into changes in wealth, inequality and food prices between 1998 and 2001. The results appear in Table 6.

Table 6: Decomposing the influences on poverty reduction

Poverty Decomposition 1998-2001								
Poverty	1998	2001	Total Change	Components				
				Wealth	Food prices	Inequality	Interaction	U/R
National								
Extreme	17.3	15.1	100.0%	+7.8%	**-75.0%**	-25.0%	-7.8%	-
Overall	47.9	45.8	100.0%	+46.7%	0.0%	-153.3%	+6.7%	-
Urban								
Extreme	7.6	6.1	100.0%	+7.5%	**-72.5%**	-27.5%	+2.5%	-10.0%
Overall	30.5	28.7	100.0%	+32.0%	0.0%	-100.0%	+56.0%	+12.0%
Rural								
Extreme	28.9	24.7	100.0%	+9.3%	**-101.3%**	-33.3%	+36.0%	-10.7%
Overall	68.5	64.3	100.0%	+14.6%	0.0%	-48.8%	+85.4%	-51.2%

Source: Box 1.2 in World Bank, 2003. U/R = urban-rural ratio

This suggests that the main factor in reducing overall poverty has been the small reductions in income inequality, while those reducing extreme poverty have been movements in food prices that have made basic foods relatively cheaper.

The same analysis also highlights the parlous circumstances of youth in Nicaragua. With 21% of the population aged 15 to 24 years, 49% live in poverty and 30% in extreme poverty. Rate of unemployment (and not studying either) run at 25%. For young females, poverty and unemployment seem to be associated with high rates of teenage pregnancy, the highest in Latin America (World Bank, 2003).

4.3 The location of poverty

The World Bank study (2005) that mapped economic dynamism reported that many of the poor are located within the higher potential zones, notwithstanding the correlation of distance from the main centres and increasing rates of poverty. About half the extreme poor live within the quarter of Nicaragua that is within four hours drive of Managua. Generally, distance from Managua sees increasingly extensive land use and higher rates of poverty; but not that many poor since population density falls quickly as well.

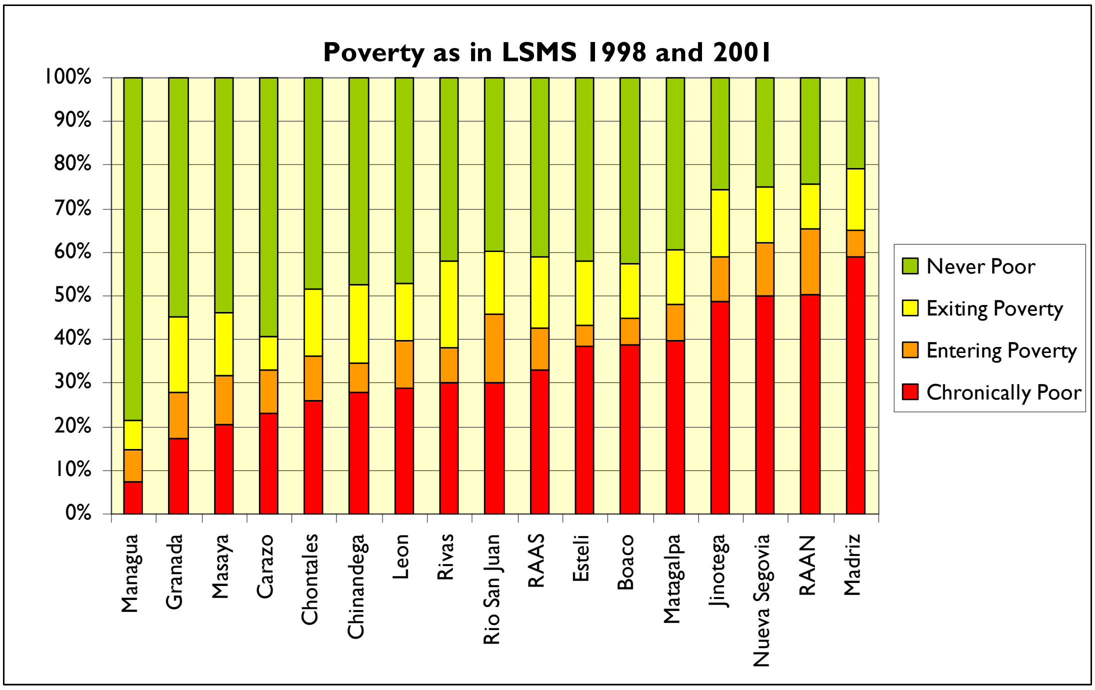
But it is possible to construct a somewhat different picture by looking at rates of chronic poverty, in terms of those households that were measured as being poor in both the 1998 and 2001 LSM surveys. As Figure 2 shows, the rates of chronic poverty by Departamento vary from less than 10% for Managua to over 50% for Madriz. Mapping these produces Map 4. The image is striking: rates of chronic poverty are notably low for the areas in and around Managua. Conversely, they are high, very high, for most of the north and west of the country, above all the mountainous north and the north-western lowlands. This does not necessarily contradict other reports: many parts of the areas in orange and red, with rates of 31% or more chronic poverty are remote and difficult to reach from the centres of the country. Their geographical disadvantage and their corresponding high rates of chronic poverty are clear.

But unlike the World Bank report of 2005, the impression from the sample of households that appeared in both the LSMS of 1998 and 2001 is that the absolute numbers of chronically poor are concentrated in the northern and north-western Departments. More than half of the chronically poor live in these areas (shaded red and orange on the Map). Managua and the three small Departments to the south of the capital (shaded in blue and green on the map) contain barely 16% of the chronically poor.

Why the apparent disparity between this interpretation and that in the World Bank report? It may lie in the definition of area: to state that half of the extreme poor live within a four-hour drive of Managua would be to capture many of the chronically poor who live in the northern departments close to the main roads going north — to Matagalpa and Jinotega, and to Estelí and El Ocotal. By and large, within the northern Departments, the main urban centres lie on or close to those roads and population density in their surrounds tends to be high.

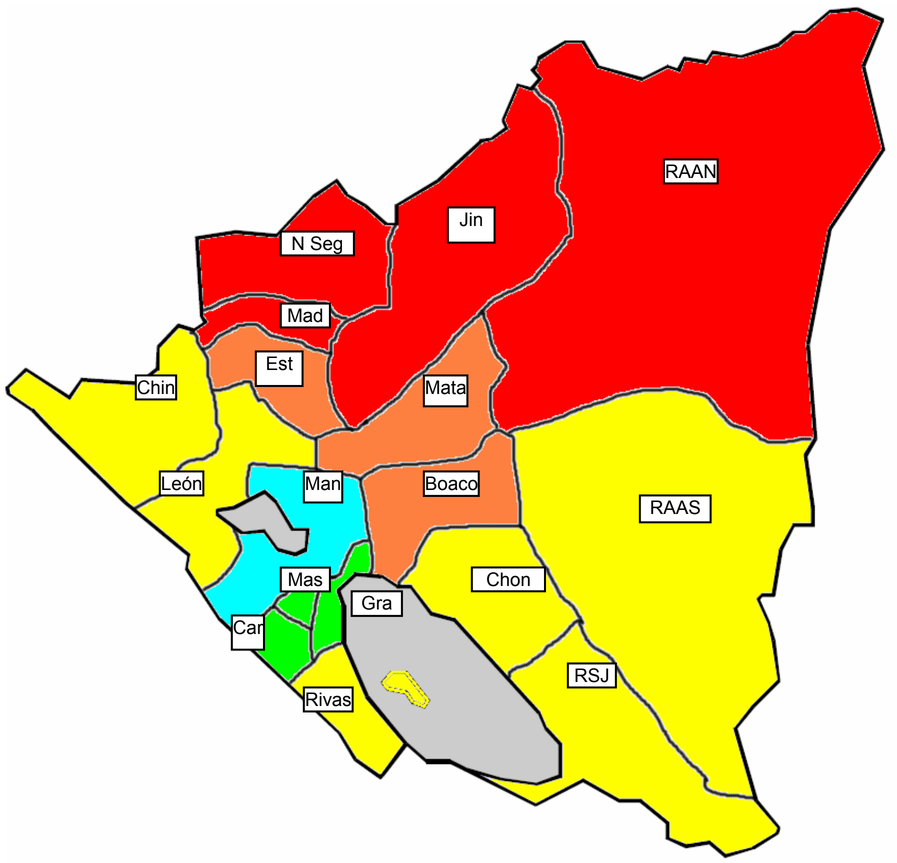
All in all, this adds a dimension to the appreciation of chronic poverty: the regional dimension is clear.

Figure 4: Nicaragua. Rates of chronic poverty in 1998-2001



Source: LSMS, 1998 and 2001, data for 3,015 households in both surveys

Map 4: Nicaragua. Rates of chronic poverty, 1998–2001



	Rate of CP, %	All CP, %	Departamentos
	<10%	6.7%	Managua
	10-25%	9.2%	Granada, Masaya, Carazo
	26 to 30%	31.8%	Chontales, Chinandega, Leon, Rivas, Rio San Juan RAAS
	31 to 40%	22.5%	Esteli, Boaco, Matagalpa
	45%>	29.8%	Jinotega, Nueva Segovia, RAAN, Madriz

4.4 Risk and vulnerability

While the upswings of poverty churning offer some hope for the poor, the downswings remind us that the poor face hazards. Box 4 sets out some of those faced.

Box 4: The main hazards faced by the poor

Idiosyncratic	Natural	Economic
Illness Accident Disability Violence Theft Addiction	Plant pests and diseases, animal ill-health Drought Floods Hurricanes and tropical storms	Falling commodity prices on international markets

Source: Largely from World Bank, 2003

Hazards may be differentiated by the speed with which they arise and the threat they imply. Some happen with little or no warning and are capable of inflicting severe damage; others arise less suddenly and give more time for adaptation. Where there is some time before the full impact of the hazard is felt, there may be more scope for mitigation.

For example, the fall of coffee prices between 1998 and 2001 by more than 60% fed through to more poverty for small farmers growing the crop. But, reports the World Bank (2003), the impacts were not as severe as might be feared given that between 1998 and 2001 almost one quarter of rural households had some involvement with coffee. For those who stayed primarily in coffee, the effects were grave: falls in consumption of 16% on average, with increased poverty and setbacks for children's education and nutrition. But only 8% of households neither entered nor left the sector. The key point seems to be mobility and the capacity to switch the focus of livelihoods. Those that could and did change escaped the worst effects; those that could or did not were hit hard. (World Bank, 2003)

Otherwise the shocks tend to result in marginal households reducing consumption and disposing of the few assets they have.

4.5 Inequality

As Table 5 shows, the median of national consumption in 1998 was C$5'226, and mean incomes were far more. Against a poverty line of C$4'222, an even distribution of incomes would have left few in poverty. In reality, fully 48% of the population were estimated to live in poverty that year.

Table 7 reports the Gini coefficients[6] calculated from the sample households in the 1998 and 2001 rounds of the LSMS. The national figures for incomes show coefficients of 53.6 and 55.1 for the two years: very high levels internationally, exceeded only by a few other Latin America countries such as Guatemala and Brazil, and by South Africa. Concentration of land and cattle is also very high.

It is surprising to see how little the redistribution undertaken by the FSLN governments of the 1980s has affected inequality. For example, the 1998 LSMS shows that two-thirds of Nicaragua's farms were under 5 manzanas, accounting for just 5% of the land: large farms of 50 manzanas or more represented just 10% of farms, but control 75% of agricultural land. This was slightly less unequal than the situation in the 1970s, but not by very much. Indeed, in this sample, 38% of rural households were landless – more or less the same fraction as before the revolution. (Corral and Reardon, 2001)

Table 7: Inequality in incomes and assets

		Gini coefficients	
		1998	2001
Consumption	National	45.2	43.1
	Urban	43.9	41.4
	Rural	37.2	34.7
Income	National	53.6	55.1
	Urban	52.6	54.3
	Rural	47.8	48.3
Total owned land	Rural	87.7	84.5
Cattle	Rural	93.2	91.8

Sources: LSMS, from World Bank, 2003, Davis and Stampini, 2002

[6] Perfect equality would give a score of 0: complete inequality would be a score of 100.

4.6 Poverty, dimensions and causes: what has not been mentioned

The conditions that create poverty are complicated and complex. There are several other issues that have not been mentioned so far, including:

- Discrimination – few mentions in the literature, with the major exception of gender, see below. Pronounced ethnic and linguistic differences arise mainly in the remote Atlantic region, where there are significant communities of indigenous people such as the Miskito, and, on the coast, settlements of English-speaking people of African origin – the descendants of escaped slaves from the Caribbean islands. To what extent poverty amongst them arises from their ethnic and linguistic characteristics, or can be attributed to the wider problems of people living in locations remote from national centres is not clear;

- Gender – females suffer marked disadvantages in access to property and in labour markets. In a macho society they are also vulnerable to male violence; and

- Disability – in the papers reviewed this issue was not raised. Most data sources for Nicaragua do not seem to record this.

An additional consideration is the effects of international conditions and relations. Nicaragua can be seen as a country chronically disadvantaged in its relations to the rest of the world: a small country that finds it difficult to define its own policies without the sanction of the Bank and the Fund, deeply indebted even if a large part of the former burden has been relieved, and dependent largely on primary exports that face fluctuating and declining prices. On the other hand, Nicaragua has had the benefit of unusually large flows of aid and is now receiving large-scale remittances. Controversy surrounds the official line on trade liberalisation and regional agreements such as CAFTA: critics argue that any arrangements that allow liberalised imports will undercut national production. Further consideration of this is beyond the scope of this essay.

In the past, analyses of poverty in Latin America emphasised the dependent nature of external relations and the role of economies as producers of primary commodities – analyses that reached their zenith with the dependency theory of development. This saw that countries on the periphery of the capitalist world economy would suffer processes of active under-development through relations with the centre. The theory was largely discredited, in part by the simple observation that some countries on the periphery have clearly been able to grow while integrating into global markets – Nicaragua's neighbour, Costa Rica would be an example – and that those countries that have tried to pursue more autarkic economic policies have generally seen their economies stagnate and decline.

5. Markets and poverty

In Nicaragua, as in so many other developing countries, the strategy for economic growth rests fairly and squarely on the functioning of markets. It is moreover generally assumed that economic growth is closely correlated with poverty reduction – at least in the views of the influential World Bank analysts and advisers (Guimarães and Avendaño, 2006). Yet there are mountains of evidence that markets, above all factor markets, fail in Nicaragua; a point that is somewhat slowly coming to be accepted by the government and its advisers. This section looks then at the evidence of market functioning, beginning with the markets for factors of production: land, capital and labour.

5.1 Land markets

The recent history of land tenure in Nicaragua is as complicated as it is politically explosive. Prior to the 1979 revolution, most of the land and especially the more fertile and accessible land was in the hands of a few landowners. In spite of the abundant resources, 37% of rural households were landless, and another 36% worked farms of 10 manzanas (7 hectares) or less.

Under the FSLN government the estates and farms belonging to Somoza and his close supporters were expropriated, thereby bringing no less than 20% of the agricultural area under state control. While the workers on those farms favoured sub-dividing them into individual plots, the government feared that this would lead to loss of production and productivity. The official view was that the large farms realised economies of scale. It was also much simpler administratively to maintain the expropriated farms as large units. So they became state farms, run by managers appointed by the ministry of agriculture.

Land policy for those parts of the country, principally the mountains of the centre and interior (where small-holdings proliferated), was to encourage the formation of production co-operatives; again in the belief that this would realise economies of scale. The peasantry were unenthusiastic.

Around 1985 the leadership became alarmed at how little support the revolution had attracted in the mountains, and consequently how much support there was for Contra forces in some areas. By this time, the FSLN had prompted the formation of a small-holders union (UNAG) that increasingly became an influential voice with views rather different to that of the ministry. Amongst other things, UNAG pressed the government to attend to long-standing dreams of secure tenancy for the many small-holders who held their plots by possession alone. This applied particularly in the more remote areas of the centre and interior where peasants had cleared bush and forest to create their farms. In the second half the 1980s, the government pushed through a crash programme of land titling for these small-holders, distributing tens of thousands of certificates.

At the same, there were protests and demonstrations by very small farmers in areas close to Managua and on the Pacific plains demanding extra land. To meet this, many state farms – that by the second half of the 1980s were operating at a loss – were divided up and distributed to the landless and near landless. In a few cases, additional land was found by expropriating the large farms of those landowners who had not left the country with Somoza.

When the new government took over in 1990 it faced a chaotic scene in land tenure. On the one hand, many former owners of expropriated lands demanded restitution of their farms: their voices carried weight since many of them were supporters of the ruling coalition, and the United States Embassy gave its firm backing to their demands (some of the claimants had been in exile in the US and had US citizenship). On the other hand, many of the demobilised ex-combatants of the government and Contra forces were also keen to get land. In addition, many of the titles issued in the 1980s were open to legal challenge, so those holding them wanted to see them given firmer backing. The result was that many plots of land had more than one claimant.

The government thus embarked on mapping, registering and titling land. Between 1995 and 2001 some 30,000 titles were emitted. This did not met demand, the programme being slowed down by political disputes and lack of funds. Administratively, the process was not easy: land records, in some cases, had been destroyed; several different government agencies had responsibility for different parts of the titling programme; and there were no time limits to lodging claims for restitution (Deininger *et al*, 2003).

But whatever the weaknesses of the programme, some progress has been made to clarify ownership and to give farmers secure titles that assure of them of possession. This should then allow land markets to function.

So what has happened? The first question concerns the degree to which farmers have secure titles. Deininger *et al*, (2003) analysed data from the 1998 LSMS, a ministry of agriculture survey for 1998–99, plus data from a similar survey in 1995.

They found that only 43% of farmers had a registered title, 10% had a reform title, 3% had some other document; and 44% had nothing on paper. By area, 78% was registered, and only 11% was without any document. So it is the large farmers who tend to have the registered titles, and the small farmers who lack any documents. Insecurity is rife amongst the small farmers: almost half have of them, as many as 1000,000, have no document — the small coffee farms being an exception.

That said, the situation is improving. Boucher *et al* (2005) were able to compare land titles in 1995 to those in 1999, using ministry surveys. They found that there had been a significant improvement in the probability of having a land title. While in 1995 the probability of having a title was between 50% and 55% for those with 10 manzanas or less, by 1999 the corresponding probabilities lay in the range 60% to 70%. Larger gains, however, were seen for farmers with more than 25 manzanas: by 1999 their probabilities were in the range 75% to 80%, from an earlier likelihood of 65% to 70%.

Has this increase in titling stimulated the land market? Before answering this question, what would we expect to see happening in the land market in any case? Deininger *et al* (2003) present compelling evidence of an inverse ratio of farm size to gross margins per unit area – see the first row of Table 8. The differences are huge: depending on the type of farm, small farms are producing from six to almost twenty times as much per manzana as the larger properties do. This takes place despite small farmers having less access to credit and technical assistance than large farmers in most cases – see Table 5 in the previous section. If, then, the economics of production suggest that small farms can generate higher gross margins, then it follows that operators of small farms should be able to offer those with large farms attractive rents to take in land under tenancy.[7] The same argument applies to land sales: the capitalised value of the small farms should be much higher than the large farms. So if the markets work there should be plenty of land moving from large to small operators.

Table 8 shows that indeed many farmers do participate in land markets: almost a quarter were renting in land, while 6% were renting out. Another 4% had sold land in the last five years, while almost 10% had bought land in that time.

But if the amounts transferred are inspected, the transfers are small: overall the net area rented in is less than one manzana. For sales, the amounts traded seem to be very small as well: the net purchased area being under 2 manzanas.

What share, then, of Nicaragua's land is rented? A rough estimate would indicate that less than 0.5% of the farm land was rented.[8]

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[7] Take, for example, the case of the maize and beans farmers. Small-holders make gross margins of C$1,100 a mz, large producers make just C$134 a mz. The small farmer should thus be willing to offer the large farmer a payment of anywhere between C$135 and C$1,099 a mz to rent the land. If the deal were struck at, say, C$500 a mz, it is easy to see that the owner would be much better off than farming the land; while the tenant would still retain a gross margin of C$600 on each rented manzana.

[8] Nicaragua in 2000 had almost 200,000 holdings with a total area of 6.25million ha. If 22.6% of farmers were renting a net area of 0.89 mz each, this would mean that the rented area was 28,'60 ha, or less than 0.5% of the farmed area. By way of comparison, Boucher *et al* (2005) make the point that the fraction of farm land operated by tenants renting in land is 41% the US, 23% in Canada, 35% in Pakistan and 41% in Bangladesh.

Table 8: Partial productivity and land market participation among agricultural producers, Nicaragua 1998

	Total	Livestock ranchers		Coffee growers		Maize and beans		Diversified farmers	
		Small	Large	Small	Large	Small	Large	Small	Large
Partial productivity measures									
Profits per mz (C$/mz; median)	735	566	89	2,132	176	1,100	134	931	47
Per capita profits (median)	656	829	3,761	2,080	6,002	553	795	439	935
Land market participation: % of farmers									
Renters	22.6%	17.4%	13.6%	17.1%	0.0%	29.0%	13.2%	26.2%	1.3%
Landless tenants	18.3%	14.1%	5.5%	1.9%	0.0%	24.4%	5.9%	23.0%	0.0%
Land acquired informally	21.5%	22.9%	2.7%	0.0%	0.0%	27.2%	5.8%	18.0%	25.8%
Renters or invaders	44.0%	40.3%	16.4%	17.1%	0.0%	56.2%	19.0%	44.2%	27.0%
Renting land out	5.8%	8.0%	9.3%	5.1%	0.0%	3.8%	10.6%	4.4%	12.9%
Net area rented in (mzs)	0.89	0.55	6.89	0.06	0.00	0.93	2.74	0.51	-0.23
Net sellers in last 5 years	3.7%	2.4%	7.7%	6.4%	7.1%	2.7%	3.8%	6.2%	1.7%
Net buyers in last 5 years	9.8%	10.0%	20.9%	28.5%	39.2%	7.9%	20.9%	6.6%	6.0%
Net purchased area (mzs)	1.82	3.30	5.59	1.07	47.20	0.40	6.60	-0.10	2.93

Source: Table 4 from Deininger *et al* (2003), their own computation from1998 LSMS and MAGFOR Survey.

Note: the dividing line between large and small properties is 5 mz for crops, 20 mz for livestock ranches. Profits have been computed as the gross value of output minus variable costs including labour valued at the going rural rate.

To make matters even more surprising, while the direction of the rental market is, as expected, from large to small; for land sales it is the reverse. Large farmers in all cases but one are more likely to have to have bought land, and in all cases the areas they have acquired have been much larger than those bought by small operators.

Regression analysis shows the only significant influence of buying in land is land size: the more you have, the more you demand. For rentals, those likely to rent out have more land, are older, more educated, and have a title deed to their land – not having a title reduces the likelihood of offering out land. Younger and less educated households were more likely to demand land to rent.

The land markets are clearly not working as actively as they should to allocate land to the more productive farmers. The only good news was that there was some evidence that the land markets were working better in 1999 compared to 1995.

Boucher *et al* (2005) reach the same conclusion, but pose the question of why the land market does not work better. They argue that the existence of so many rentals suggests that it is not the transactions costs that limit transfers. That leaves three other things to consider.

One is the intriguing possibility that the poor and marginalised simply do not demand more land than they currently rent, on the grounds that they cannot afford to take the risk of cultivating a plot larger than can be operated by household labour and that provides basic foods for the household – presumably since operating a larger farm would entail taking out working capital to hire in labour and buy inputs, while also taking on the risk of fluctuations in output markets. This would point to failures in insurance, credit, and commodity markets; about which more will be said in this section.

A second possibility is that land transfers are only partly determined by free markets. Boucher et al. report that more than half of the ‘rentals’ in their data are cases of land lending, rather than rentals. These may either be cases where land transfers take place among relatives and close friends as favours, or they may be one component of interlinked transactions between patrons and their clients, with small patches of land given as a favour but with the expectation of the client supplying the patron with labour at peak times, or some such other reciprocal favour.

In this case, it may be that land is not seen as something to be freely traded within a market ethos, but that it takes on social significance, not lightly to be transferred to others, and even then, only within social understandings that ensure that the transaction is freighted down with additional meanings. This would make sense if there were fear of expropriation: a large landowner who rented out much of his or her farm might be seen, by the very act of renting out land, to be declaring their unwillingness or incapacity to work the land themselves, and thereby leaving themselves open to land grabs, invasions and expropriation. In contrast, the benevolent local patron who gracefully awards the local unfortunates small plots for their subsistence has done nothing to undermine their social claim to ownership: on the contrary, their generosity confirms their moral claim to own land – and their entitlement to respect in local society.

A third possibility is that the markets are heavily limited by the lack of liquidity of would-be renters and purchasers. If credit markets fail, which – as will be explained below – they do, then no matter what the underlying demand for land, small operators may lack the means to rent or buy. This certainly seems to apply when buying and selling land: Table 8 shows that the net area bought in was greater for large than small farmers. Boucher *et al* confirm this: the most significant additions to land owned between 1995 and 2000 occurred for those who originally had 20 to 60 manzanas. Indeed, there had been overall a slight concentration of land amongst their sample, shown by Gini rising from 0.71 to 0.72.

A fourth possibility is that the buy-sell market is one where many of those buying do so for motives other than the ability to make money from farming: companies writing off taxable profits by buying up land; individuals seeking an estate as a weekend or holiday home, or for social status; those buying land for speculation on future values; and criminals laundering their ill-gotten gains.

It is not possible on the evidence to hand to decide which of these factors most prevents the land market from operating more in accordance with what might be expected. What is known, however, is that financial markets fail; and that plausibly this is an important hindrance to land markets, amongst other things. The discussion thus continues on this point.

5.2 Financial markets

The main and first part of this section is concerned with the market for credit in rural areas, partly because this is a reasonably well studied topic, and partly since it is may be critical constraint for some – but probably not all – of the rural poor.

During the 1980s the state banks expanded credit access to peasant farmers. From 1978 to 1988 the number of peasant farmers getting loans under the Rural Credit Programme rose from 28,000 to 80,500 – with a peak of more than 100,000 in 1980, subsequently falling to 70,000-80,000 in the following years. By 1985 peasant farmers that previously got only 4% of credit now received 31% of all loans.[9] Of the land covered by credit in 1978, 60% was sown to export crops: by 1985 their share was only 44%, as coverage of maize and beans had been increased.[10]

But the state-run credit system was dogged by low and often negative real interest rates, negligible savings, high transactions costs and low loan recovery rates. Banades, the state National Development Bank, charged small farmers and co-operatives 8-13% interest annually, and larger producers 17% – but these rates soon fell behind inflation, Banades could not attract deposits, and had to be bailed out by

[9] The state farms, on the other hand, took 40%

[10] The description of credit in the 1980s and 1990s comes largely from Jonakin andand Enríquez (1999), unless otherwise referenced.

the Central Bank. Default rates ran at 50% or more: the product of war, controlled producer prices, and a debt forgiveness in 1983 that did nothing to encourage repayments.

With the new government in 1990, financial markets were liberalised and private banks entered the scene. Banades continued to operate, but under commercial imperatives. Now it only granted loans when it could get 150% collateral and when all previous debts were cleared; while interest rates were set at market levels. These stringent conditions meant that many small farmers were excluded on the grounds that they either had no documents to their land or did not have sufficiently clear titles to allow the fields to be pledged as collateral. Banades's operations shrank: its lending covered 465,000 manzanas in 1991-92, but this soon fell to just 52,000 manzanas in 1997-98: the financial volume fell from C$296M to C$76M (1991 constant terms) over the same period. Lending for maize and beans was especially hard hit. The number of clients fell as well, with Banades increasingly using its scarce funds to finance large farmers. Indeed, in 1995 a scandal broke as it was revealed that big operators were defaulting on Banades loans worth millions of dollars but not backed by collateral.

Banades did try to attract small depositors with some success, and to restrict the maximum size of loans, but it was also hit by staff cuts and branch closures, plus rising reserve requirements by the Central Bank (BCN). By 1998 the Bank was insolvent and was closed down.

The private banks now operating made few loans to farming, and generally these were large loans to a small clientele for short periods.

What other sources of credit were available, other than the informal loans made between kith and kin, by village moneylenders and storekeepers?

Before 1979 Credit and Savings Co-operatives (CAC) operated revolving funds. They declined in the 1980s given the availability of credit from other sources, but revived in the 1990s.

In the 1990s the NGOs entered the credit markets. Their initial efforts were somewhat casual, as the NGOS used foreign donations and loans to offer credit largely on the basis of need. Recovery rates were 50% or less. Consequently the NGOs began to reform their operations as follows:

- Use of group lending for mutual accountability for debts, with local persons and committees used to screen borrowers and seek repayments. By the mid 1990s repayment rates rose to 90% or more;

- Interest rates were set at levels that ensured that capital was not eroded, with index-linked rates. In the early 2000s the World Bank (2003) reported that typical micro-finance interest rates were effectively 70% annual, at a time when inflation was single digit; and,

- Loan diversification with credit was offered to small-scale traders at higher rates than for farmers allowing cross-subsidisation and the spreading of the portfolio across loans of different redemption times.

The NGOs, however, could not take deposits. Instead, they sought contributions, 'aportes', but these only represented small amounts.

By the early 2000s the World Bank (2003) observed an 'impressive outreach by regional standards' by micro-finance agencies, with up to 95 NGOs, 178 independent financial co-operatives with two organised networks, and two specialised finance companies. In mid 2003 the Bank estimated the volume of business as around 150,000-200,000 borrowers, with 300,000 credits outstanding, at a total volume of US$60M; with savings collected of US$20M. This may be an under-estimate: in 2006 Mixmarket reported on 15 leading micro-finance entities that had 264,000 borrowers with outstanding loans of US$170M.

Costs of operations are, however, reportedly high, at 50% of loan values, compared to an international norm of 20%.

Turning to the demand side, to what extent are the rural poor able to access credit? Table 5 shows that in rural Nicaragua, less than 12% of households in 1998 reported having access to formal credit. Davis and Stampini (2002) show similar results, see Table 9: by 2001 only 10% of rural households were getting access to farm credit, and just 2% to any other kind of credit. What little credit there was for agriculture was largely coming in from the NGOs.

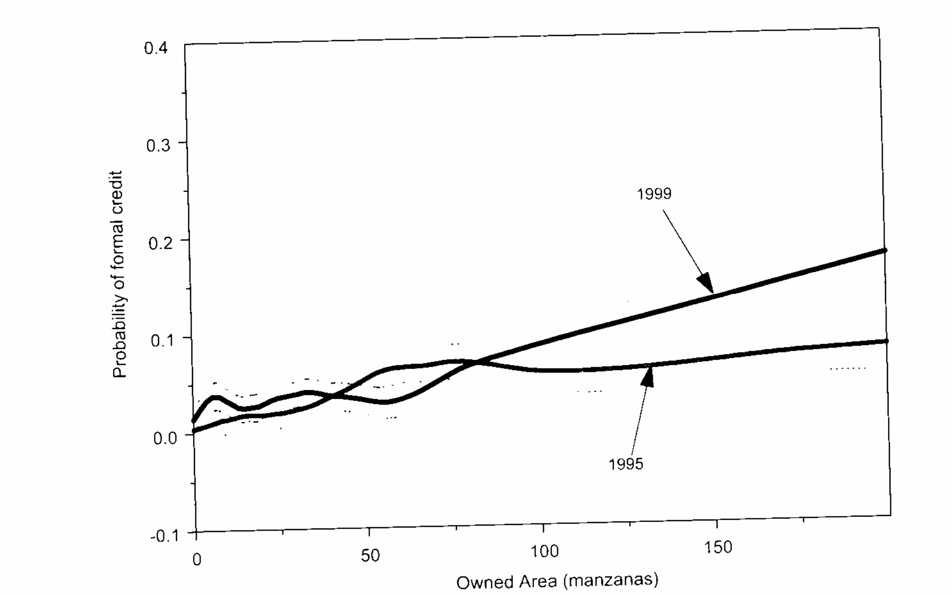
Table 9: Access to agrarian institutions in rural Nicaragua, 1998 and 2001

	1998	2001
Number of observations	1,184	1,184
Technical Assistance (TA) exists in community	.24	.26
used TA	.16	.13
provided by govt	.07	.05
provided by NGO/project	.06	.05
Credit for agriculture	.09	.10
from bank	.02	.02
from NGO/organization	.06	.08
from friend	.03	.01
Credit for non agriculture	.01	.02
Organization or project	.09	.11

Source: Table 16, Davis and Stampini, 2002

Yet another view comes from Boucher *et al* (2005): Figure 5 shows the probability of a rural household having a formal loan, by land size. The key point here is that in 1999, the chances of a small farmer having a formal loan are very low, at less than 5%. The chances rise with size of property, but until a size of 100 manzanas is reached the odds remain below 10%. Improvements in access seen between 1995 and 1999 are marginally positive for small farmers, but the largest gains are for those with 125 manzanas or more.

Figure 5: Formal loans and area owned in rural Nicaragua, 1995 and 1999



Source: Boucher *et al*, 2005, Figure 5

The same authors looked at responses to questions about credit access in 1999, see Table 10. This addresses the question of whether the low access was a matter of cost of loan, risk aversion, or simply that they were rationed for other reasons – such as administrative costs, inability to provide collateral or references, and their general unattractiveness and invisibility to bankers ('quantity').[11] For the poor, the lower two

[11] Are the poor visible? It has long been argued in radical development literature that they are not: that they pass almost unnoticed even by those running anti-poverty programmes. Evidence for this in Nicaragua comes from Bastiaensen *et al* (2005) who report on how a well-intentioned micro-finance entity, FDL, linked to socially concerned intellectuals at the Catholic University, operated in the fields of Northern Nicaragua. The local promoter faced two powerful constraints: one he had to make sure that a portfolio was in place and was viable; and two he had to make contact with local people, but in most cases did so through existing village structures – and thus straight away found it difficult to escape the local patron-client relations and political groupings. Thus in one community, the poor got no loans since they were invisible, in another the loans went to the local leadership who had ingeniously conformed

quintiles of the wealth distribution, the majority were rationed by quantity – less than a quarter were put off by the cost of loan, and a surprisingly small fraction, less than 10%, worried about the risks. The other striking observation here is the very low fractions of the rural poor obtaining formal loans: less than 2%.

Does credit matter for small farmers? Deininger *et al* (2003) looked at what determines gross margins per unit area: access to credit was a powerful and significant variable, raising returns by almost 25%. Indeed, their analysis suggests that amongst small farms there is a world of difference between the small-but-not-marginal farmer with some assets, access to (NGO) credit and technical assistance, who is able to invest in purchased inputs such as improved seed and fertiliser; and the marginal farmer hopelessly short of capital and devoid of technical assistance who is forced to work the land with old seed and not much else.

Table 10: Formal sector credit rationing mechanism in rural areas, Nicaragua 1999

Total wealth quintile	Price rationed			Non-price rationed		
	With loan (%)	Without loan (%)	Total (%)	Quantity (%)	Risk (%)	Total (%)
1	1.9	17.9	19.8	73.9	6.3	80.2
2	1.4	23.0	24.4	66.2	9.4	75.6
3	3.3	36.8	40.1	48.6	11.3	59.9
4	4.6	47.9	52.5	36.5	11.0	47.5
5	13.7	56.2	69.9	22.6	7.5	30.1
All households	5.0	36.6	41.6	49.2	9.2	58.4

Source: Boucher *et al*, 2005, Table 3

This impression is confirmed by Enríquez's micro study of four contrasting communities. As Table 11 shows, access to credit before 1990 was high in three of the four communities. By 1997 access had fallen, but unevenly so. The two communities in Matagalpa Department had more access to the (mainly NGO) loans, and it was those communities where it had been possible to increase production — and especially for those farmers who had credit.

Credit may often make a difference, but a note of caution has been sounded. Legovini is reported by the World Bank (2003) as having analysed the LSMS data sets to examine the fate of the poor who did get formal credit. Her findings are

themselves as a co-operative of small farmers, in another the poor did get loans but within the patron-client framework, and only in one community did the promoter have enough inside contacts to bypass the patrons and get directly to the target group.

fascinating: when the top decile get loans, their incomes rise; but when the poor get loans, their situation often worsens. It seems that for the poor, they use their loans for consumption and end up indebted since the credit is not used to increase income streams.[12]

Table 11: Changing access to agricultural resources and its effects on small farmers, before 1990 and 1997

Department:	Matagalpa		Leon	
Community:	Esquipulas	San Dionisio	Malpaisillo	Sta Rosa
	(N=15)	(N=15)	(N=15)	(N=15)
Land				
Owned	93.3%	93.3%	46.7%	73.3%
Purchased	57.1%	71.4%	57.1%	54.6%
Inherited	21.4%	21.4%	42.9%	54.6%
Agrarian Reform	35.7%	35.7%	28.6%	18.2%
Credit				
Before 1990 *	100.0%	91.7%	66.7%	27.3%
in 1997 **	28.6%	53.3%	6.7%	13.3%
BANADES	7.1 %	--	—	
NGO	21.4%	53.3%	6.7%	13.3%
Tech. Assist.				
Before 1990 *	83.4%	84.6%	44.4%	33.3%
In 1997 **	21.4%	46.7%	26.7%	6.7%
Changing Production Patterns				
Increased Prod, w/o Credit	28.6%	13.3%	20.0%	20.0%
Reduced Prod./Lack of credit/ debt	21.4%	6.7%	13.3%	
Increased Prod, w/ Credit	50.0%	46.7%	6.7%	--
Improvements on the Farm				
Were Possible	80.0%	66.7%	26.7%	66.7%
Purchases of Animals or Equipment	66.7%	73.3%	26.7%	40.0%
Forced Sales Animals/Equip.	6.7%	6.7%	20.0%	20.0%
Member of an Organization				
Yes	57.1%	80.0%	13.3%	73.3%

Source: Table 1, Enríquez, 2000, based on her survey data, 1997. * Denominator: number of people who were farmers prior to 1990. ** Denominator: number of people who were farmers at the time of the interview.

[12] The literature from Bangladesh on micro-credit recognises the dangers of saddling the very poor with debt. At the bottom of the heap, credit may not be the obstacle: illiteracy, poor health, gross discrimination may be more important in preventing people from earning a living.

Summarising, then, there is overwhelming evidence that access to credit for the rural poor is scant, despite the efforts of the micro-finance entities. Demand for credit exists, but it is largely unmet and not because it is too expensive or people are risk averse: they are simply rationed out. And for many of the poor, although perhaps not for some of the very poor, credit can make a big difference to their ability to work the land and, presumably, to run small businesses.

Much less is reported about other dimensions of financial markets for the poor: savings schemes, insurance, transfers of remittances, and so on. It is a fair guess that the lack of reports corresponds to a gross insufficiency of all these other services. The micro-finance data already shows a sector where loans exceed savings by a factor of perhaps three to one – the opposite of what has been seen in rural financial systems in India and Indonesia. The suspicion must be that savings vehicles are underdeveloped.

5.3 Labour markets

Unemployment is widespread in Nicaragua. For 2004, the overall rate of open unemployment was estimated to be 11.4% (Guimarães and Avendaño, 2006). For some groups the rate is higher: as seen youth unemployment runs at around one quarter.

Clearly the economy is not providing enough jobs. In 2000, 41% of the population were aged under 15: for the subsequent ten years as many as 135,000 persons a year[13] will reach their fifteenth birthday, many of them looking for work. Compared to an economically active population of 1,981,000 (FAOSTAT), this would be an annual increment of more than 6%. To create that many jobs a year that are decently paid represents a major challenge.

But if there is current unemployment, does this mean that labour markets fail in some way? Are workers in some way pricing themselves out of jobs? There is little or no evidence to suggest that unskilled wage rates in the large majority of jobs are held artificially high by minimum wages, union agreements, or by social conventions. Wages fell in the 1990s under the effects of structural adjustment and deflation (Dijkstra, 2000).

Table 12 reports ILO data for agricultural labour wages in the late 1990s: there is no clear trend in wage levels, but the important point is that they are low – the highest wage observed is US$50 a month, and taking 20 working days in a month, that would

[13] In 2000 the US Bureau of Census reports 713,000 in the age range 5 to 9 years, and 640,000 in the range 10 to 14 years; 1,357,000 in all. The age pyramid for Nicaragua, as would be expected in a country that has seen rapid population growth in recent decades, has a broad base and tapers rapidly.

make little more than US$2.50 for a day's work. Taking into consideration that every working adult has to support at least one dependant child or old person, these are poverty wages by any standard.

Table 12: Farm labour wage rates, late 1990s

US$ per month	1995	1996	1997	1998	1999
Field crop worker, US$	46	50	45	42	47
Plantation worker, US$	40	36	43	38	49

Source: ILO OWW database

The problem in labour markets would appear to be the simple lack of jobs. In part this reflects the combined forces of a rapid growth of the labour force and failure of the economy to grow at similar rates: but it may also reflect the lack of labour intensity of some enterprises. An example here would be the growth of the cattle industry in the 1990s, an enterprise that requires much less labour per unit area than most crops.

5.4 Commodities markets

There are perhaps two main concerns about the markets for output: price movements in international markets; and physical access.

Prices of primary commodities are notoriously volatile on world markets. Figure 14 illustrates the point. Table 13 calculates the variation in the prices received by Nicaragua for some of its principal exports over the last forty years. The coefficients of variation range from 30% to 47%. There is not much that producers and all those in the export supply chains can do about such variations, other than diversify their portfolios and make provisions for the bad years.

Table 13: Commodity price variations and trends, 1961 to 2004

Prices in US$ a tonne, constant 2000	Mean	Standard Deviation	Coefficient of Variation	Annual Slope	% slope to average
Cotton	3,623	1,714	47%	-56	-1.5%
Coffee	1,947	662	34%	-36	-1.9%
Sugar	443	209	47%	-8.9	-2.0%
Beef	3,126	936	30%	-42	-1.3%

Source: FAOSTAT on quantities exported and total revenues. Slopes derived by fitting a linear function to the data.

Equally problematical is the evidence of a long-term fall in commodity prices. The slope fitted gives a rough and ready indication of the trend: over the 44 year period examined, the equivalent annual decline has been between 1.3% and 2% a year. Although nor necessarily a very rapid decline in prices, it does indicate that unless producers can raise their productivity by these rates or more from year to year, then their margins will be cut.

The other problem encountered is that of physical access, particularly for poor people in remote areas. As previously described, one of the associations with poverty is distance from a paved road. The poor themselves are acutely aware of the problem:

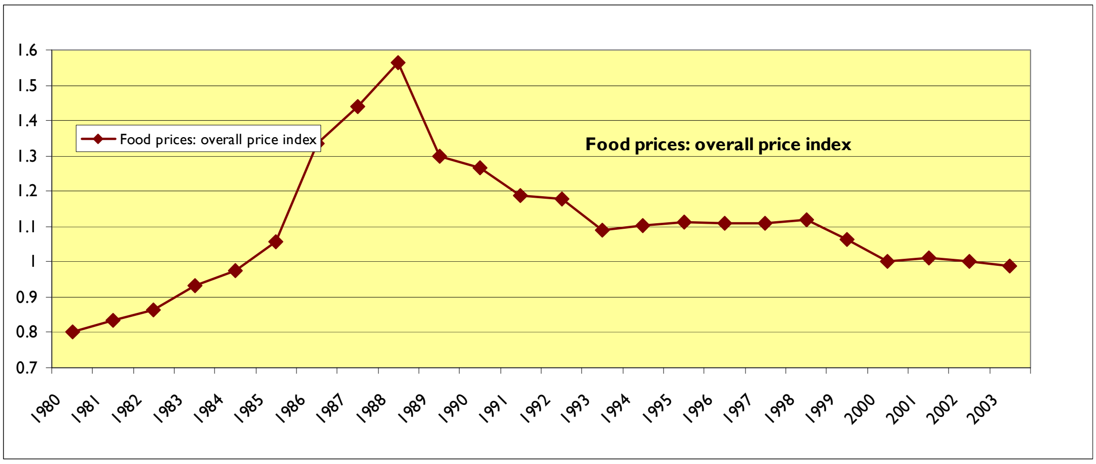
> *The extremely poor identify distance to market and lack of roads as major problems, suggesting that among these families transaction costs are the major impediment to commercializing surplus production.* (World Bank, 2003:30–31)

The World Bank (2004) remarks that Nicaragua is particularly deficient in physical infrastructure and especially in roads. Indeed, the stunning statistic is that the total length of the road network in Nicaragua apparently fell from 1976 when it was almost 18,000 km long, to just over 15,000 km in 1993 (Baumeister, 1999 quoting INEC data). It has risen again to almost 19,000 km by 1999, but the density of roads to areas was still half the average for Central America (World Bank, 2004).

What is most striking in this data is the development of the road network: the length of the network more than tripled in the 1950s, almost tripled between 1960 and 1976, and subsequently has hardly grown at all. It seems the economic tribulations of the last twenty-five years have contributed to, amongst many other things, stagnation in physical infrastructure.

As mentioned, food prices matter for the very poor. Figure 6 shows movements in the price of food relative the prices of other goods and services. The relative cost of food just about doubled in the 1980s, but has since fallen. In the decade since 1993 the cost of food fell by one tenth compared to those of other goods services: a small but valuable gain to the very poor.

Figure 6: Nicaragua, food prices relative to other prices, 1980 to 2003



Source: World Development Indicators, 2005, Food Price Index compared to Consumer Price Index

5.5 Housing markets

The state of housing in Nicaragua is predictably poor. According to the 1995 census, out of 1.26M dwellings, 800,000 are considered of poor quality; while there is a shortage of another 400-500,000 houses. (Schumann, 2004)

Table 14 reports the characteristics of housing as reported in the LSMS surveys of 1998 and 2001. By 2001 more than 43% of houses had only earth floors, almost 40% lacked piped water, more than 77% had no toilet, and 29% lacked electricity.

Table 14: Nicaragua—Basic Housing Indicators, 1998 and 2001

Predominant Housing Materials — Percent of housing with …	1998	2001
Earthen floor	47.8	43.5
Zinc roof	64.4	67.7
Cement or concrete walls	29.4	31.9
Basic Services — Percent of housing with …		
Piped water (in or near the home)	61.0	60.5
Toilet/sewerage	22.9	22.6
Electricity	68.9	71.0
Solid Waste Disposal — Percent of housing units using the following methods …		

Trash collection	31.3	32.9
Burning trash	46.4	44.5
Burying trash	3.9	2.9
Toss into field, river, etc.	15.7	17.6
Deliver to authorized collection site	2.6	1.5
Housing Tenancy — Percent of residents who …		
Own home (with or without deed)	77.9	81.4
Borrowed	7.9	3.5
Rent	4.2	3.0
Other	13.6	11.9

Source: Athens, 2004. Data from Nicaragua's National Institute of Statistics and the Census, Encuesta Nacional de Hogares sobre Medición del Nivel de Vida, 1998 and 2001. Accessed online at http://www.inec.gob.ni/estadisticas/indicadoresemnv.htm

Deficient housing correlates with poverty. There is, as Athens (2004:6) writes, a

> *… concentration of substandard housing in the Central and Atlantic zones: these zones, compared to Managua and the Pacific coast, face much higher rates of poverty (59.9 and 61.3 percent, respectively). Likewise, poor housing is concentrated in rural areas — 61.7 percent of the poor live in Nicaragua's countryside. …*
>
> *While rural residents comprise the largest part of Nicaragua's poor, population growth coupled with heavy rural to urban migration has also resulted in increased peri-urban or urban settlements where access to employment in both the formal and informal sectors is greatest (Gómez, 2000; McMichael 2000). The extreme poor are likely to squat on empty public land, parks, and along river banks.* (paragraphing added)

Low quality housing contributes to poor health, including: vector-borne and water-borne diseases; acute respiratory illnesses from indoor pollution; domestic accidents, especially when the home is a workplace; and mental stress (Athens, 2004). Housing of low quality may be more vulnerable to earthquakes and storms; while to compound this, the poor may find that the only lots available for them to build on face risks of flooding and landslides.

As far as access to housing is concerned, a remarkable statistic is the fraction of dwellings that are owned: 81%, a very high figure indeed internationally. The reasons for this can only be guessed: is it that Nicaraguans, however, poor prefer to find whatever space they can and construct their own dwellings, no matter how precarious, rather than rent a place? Athens (2004) reports Gómez's (2000) claim that 83% of the country's housing is self-constructed, another fairly remarkable characteristic. Is the rental market poorly developed and rented accommodation is simply not to be had?

Given the apparent preference for home ownership and the extraordinary high levels of self construction, it is not surprising that most houses of the poor and those of modest means are built in stages, with more rooms and facilities, higher quality roofs and floors, etc., added as and when funds permit.

Getting capital to improve houses, or even to buy one, is not easy in Nicaragua. According to Schumann (2004), there are little more than 1,500 mortgages in the whole country. The lack of title deeds does not help: only 53% of homes have a deed. In response to this, some of the micro-finance agencies now offer loans for home improvements, typically lending US$1,000 to US$1,500 over 18 to 24 months, backed by the collateral of domestic goods. This is much more in tune with the repayment capacity of the majority of Nicaraguans, than outright mortgages where the sums might have to be at least US$5,000. That said, for the chronically poor the ability to repay US$1,000 within two years may be in doubt.

5.6 The participation of the chronically poor in markets

How much do markets matter for the chronically poor? Table 15 sets out the degree of engagement of the chronically poor – as seen by those households estimated to be poor in both 1998 and 2001.

By occupation and dependence on the **labour market**, the statistics show two contrasting points. First, the chronically poor in rural areas may have less land on average than the never poor – roughly half as much – but the average is still four hectares. Many of the rural chronically poor clearly are heavily engaged in farming on their own account, most probably to produce staple foods as the first objective. Second, 41% of all chronically poor households have at least one member of the household in paid work, and in 37% of chronically poor households that work is farm labouring. So while labour markets matter for these households, by implication it seems that the majority of chronically poor households presumably do not have waged or salaried workers – that is they must be working on their own account on small farms or petty businesses; or in some cases, not working at all.[14] It would seem that the chronically poor are heterogeneous, the majority seemingly somewhat surprisingly independent of labour markets, but others engaging, with farm labouring, one of the lowest paid of all jobs to the fore.

[14] Migration is not particularly significant: less than 12% of chronically poor households report having a migrant member of the household.

Land market data indicate, for the rural households who were chronically poor, moderate engagement: around one third of rural households were renting in land at the times of the two surveys. The areas rented in were modest, an average of 4 manzanas (2.8 hectares). Thus while land markets matter for some, this again suggests that two-thirds of rural households – most of them farming – had their own land to farm, and were independent of markets.

What the statistics cannot tell is how many of these households would have liked to rent in – or possible even rent out – land, had it been possible. For most households tilling small areas, paying a rent equivalent to the gross margin that large farmers typically obtain would be an advantage, since small farmers usually realise a much larger gross margin from their fields. But an expanded scale of production brings in other considerations, including access to labour and capital to put the extra manzanas to work; and very probably the production of surplus and the need for engagement with produce markets.

Participation in produce markets shows 43% of all rural households selling crops of one kind or another. Those who had never been poor and those exiting poverty were more likely to sell crops than those entering poverty or being chronically poor. Again, the picture is ambiguous: with levels of engagement ranging from 35% to 50%, produce markets matter for many, yet are seemingly unimportant for the majority – a somewhat surprising finding.

It is striking, in addition, that participation in sales of export crops was very low — for example, just 5% of all rural households were selling coffee in 1998. Presumably the importance of agricultural exporting arises more in jobs on estates and in processing and other linked activities in the supply chains.

Table 15: Nicaragua, engagement of the poor in markets

	All	Never Poor	Exits from Poverty	Entrants to Poverty	Chronicall y Poor
All households	100%	47%	13%	9%	31%
Rural households	100%	26%	16%	11%	47%
Occupations, 1998					
Agricultural peón in household	19.0%	5.4%	26.2%	18.3%	36.7%
Worker (obrero) in household	56.2%	66.2%	60.6%	49.6%	40.8%
Financial access					
Credit, any, 1998	16.7%	23.8%	10.9%	14.0%	9.1%
Credit, bank, 1998	4.9%	8.6%	1.5%	2.9%	1.3%
Credit, bank, 2001	1.5%	2.4%	2.2%	0.4%	0.1%
Food crops					
Sold maize, 1998	9.8%	4.4%	9.4%	15.1%	16.6%
Sold maize, 2001	13.0%	5.1%	13.1%	24.5%	21.7%

Bought maize, 1998	22.9%	15.4%	15.6%	36.3%	33.6%
Bought maize, 2001	21.9%	13.2%	12.6%	35.6%	35.2%
Housing					
Owned own house, 1998	84.1%	85.4%	84.6%	83.2%	82.6%
Land rentals				Rural households only	
Rented in land, 1998	28.5%	19.5%	17.9%	37.2%	35.1%
Rented in land, 2001	26.1%	19.8%	12.5%	33.8%	32.7%
Rented out land, 1998	4.3%	5.9%	3.6%	4.8%	3.6%
Rented out land, 2001	1.5%	2.5%	0.9%	4.1%	0.5%
Area rented in, 1998, mean, mz	4.02	4.57	3.50	4.49	3.84
Area rented in, 2001, mean, mz	4.04	4.12	5.22	1.01	4.56
Access to land, 1998, mean, mz	10.38	14.31	11.96	11.23	7.47
Access to land, 2001, mean, mz	9.11	10.70	8.54	12.39	7.69
Livestock					
Cattle, 1998, mean, head	2.92	6.04	2.85	0.14	1.24
Cattle, 2001, mean, head	3.14	6.30	3.52	0.12	1.32
Crop sales					
Sales of any crops, 1998	42.6%	46.5%	50.3%	35.3%	37.0%

Source: LSMS, 1998 and 2001, from data for 3015 households that appeared in both surveys

The data on buying of **food** supplies: according to the reports, from 5% to 25% of households were buying maize in 2001. Since this data covers all households, a majority of whom were urban - of whom few were farming - these data surely cannot reflect the full numbers buying in food.

As might be imagined, engagement in **credit** markets is severely limited. In 1998, less than 10% of the chronically poor had credit of any kind, and less than 2% had a bank loans. Interestingly, across all groups access to bank loans apparently declined from 1998 to 2001. This may be associated with the banking collapses that took place in 2000-01, just before the survey.

As reported, few depend on markets for their **housing**: in 1998 – and the statistics for 2001 are very similar – 84% occupy their own houses, with few variations by poverty status.

Overall, the picture is a mixed one: perhaps to a surprising degree the poor are not that closely engaged in markets. Housing, food production, employment, financial services are, for the majority, arranged outside of markets. Yet significant minorities are engaged in most markets, with the marked exception of credit. The data unfortunately do not report to what extent there is unmet demand for engagement in markets.

5.7 Markets and poverty: discussion

Since 1950 the governments of Nicaragua have been committed to free markets, and there is no reason to suppose that this will change in the immediate future. Hence the way that markets function matters a great deal. This brief review shows that at least two key markets are not working well: land and capital.

The land market shows that while there are many transfers of land taking place, most of them involve small patches and the total amount of land transferred is small. The market, then, does little to alter operated area from that owned – and this latter is highly skewed in favour of the large landowners. There is compelling evidence that large farms are less productive per unit of land than smaller ones: it is almost certain that they are less intensive in use of labour, in a country with chronic unemployment and tens of thousands of new job seekers every year. But it is not clear exactly why land markets are not more active, as they are in other countries.

The deficiencies of the land market may be linked to the problems of the single most defective market: that for capital and financial services. Nicaragua's financial markets fail significantly at all levels. At the national level the formal banks make profits twice those of their Central American counterparts merely by channelling funds to government. They are also inclined to expand consumer credit. They do much less well in facilitating investment in productive enterprise. And at the local level, the level faced by the poor, the formal financial systems is as good as non-existent. The majority of small farmers, for example, have no access to production credits. Consequently land and labour is less productive than it might be, for lack of small amounts of working capital. It is a fair bet that much the same applies to other small-scale businesses.

It is questionable, however, that credit will help the poor directly. Indeed Legovini's analysis is that it does not, that it is a trap.[15] But the working hypothesis must be that better capital markets would help that fraction of Nicaraguan firms and farms operated by people of modest means who so often hire help as and when their businesses thrive, and provide employment for the working poor.

Little exists in the published literature on the other dimensions of financial markets: savings vehicles, insurance and effective money transfers. The last probably does work, otherwise the US$800 million or more of remittances that reaches the country every year would not make it. But for savings and insurance, the suspicion is that

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[15] No surprises here to some canny observers of the micro-finance field who doubt the premises of those who imagine that within every poor person's breast beats the heart of a Branson, ready, willing and able to make their fortunes if only given a start. And none, either, to anyone versed in the street wisdom of the English working class of my parents' and grandparents' generations, where to enter the world of pawnbroker and loan shark was to flirt with destitution.

demand for these from the poor and those of modest means is not met. The advances in micro-finance are pleasing to see, but they are largely about credit rather than a full range of financial services.

The other markets briefly reviewed here – in labour, commodities and housing – are not necessarily markets that fail the poor. If they do not help the poor it is because, as markets, they reflect the existing distribution of assets and incomes; or the underlying problems of overall economic performance. Unemployment, for example, results from an economy that simply has forgotten how to grow, not from any market failure. The remedies for this probably lie in capital markets and public investment in infrastructure and human capital, rather than the labour market itself. Similarly, if some commodities markets offer a rough ride owing to international developments, this reflects the failure of Nicaragua to diversify as much as it does the undesirable features of an unfair world.

6. Conclusion: poverty and policies in Nicaragua

6.1 Public policy for poverty alleviation

6.1.1 Current policies

As a candidate for HIPC, Nicaragua took the process of formulating a Poverty Reduction Strategy very seriously. The first PRSP, for 2001-05, ('ERCERP' in Spanish) was accepted by the IMF and World Bank in September 2001. The strategy proposed ten goals with fourteen indicators, these latter closely linked to the Millennium Development Goals. One refers to reducing the rate of poverty, while the rest of the goals, with the single exception of an environmental objective, are concerned with education, health and access to water and sanitation.

To achieve these, four pillars were proposed, thus:

- Economic growth on a broad base, with structural reform;
- More and better investment in human capital;
- Better protection of vulnerable groups; and,
- Good governance and institutional development.

It also includes three cross-cutting themes:

- Reducing ecological vulnerability;
- Providing social equity; and
- Decentralising government.

The PRSP I proposed investments in poverty reduction equivalent to 14% of GDP a year. This would be accompanied by public sector reforms, including better systems to control public expenditure, supervision and control over the banking system, and decentralisation of authority and some funding to municipalities.

The PRSP I tended to emphasise social investments, following, perhaps the simple fact that the Millennium Development Goals (MDG) are more explicit and detailed on that side than on economic growth. For economic growth, the PRSP I priorities were to generate more growth and employment in rural areas, putting underused resources, including labour, to work. To achieve this, the intent was to remove distortions to prices and costs, invest in physical infrastructure, promote technology, and invest in human capital. Coffee, tourism, textiles and clothing, and forest products were seen as sectors with good potential.

The PRSP I, however, was rapidly superseded. Within months of its publication, the new government of President Bolaños began work on a national development plan, the PND. This was eventually produced in detailed form as the National Development Plan – Operative 2005-09 (PND-O) in September 2004. It sets out three overall goals, thus:

- To generate of employment and sustainable economic growth;
- To increase exports and investments; and
- To increase incomes to reduce poverty.

To reach these, the strategy stresses private investment, and attracting foreign direct investment that not only brings capital but also expertise in organising competitive value chains linked to world markets. It also emphasises exports, given the restricted size of the domestic market. Above all, it focuses on improving competitiveness, in part through forming industrial clusters capable of generating economies of agglomeration.

This document has largely been accepted by the donors as a second round PRS, although there is a formal PRSP II, largely a re-presentation of the PND-O, published in late 2005.

In summary, then, the main approach to poverty reduction in Nicaragua is through economic growth, supported by social investments in health and education. Although the thinking recognises the desirability of growth that is broad-based, and that to achieve this, some important market failures need to be rectified, it is not clear how this is to be achieved. More convincing are the parts of the plan that deal with improving the general business environment to attract large-scale foreign investment.

As a plan for poverty reduction, much faith is placed on mechanisms of trickle down. Given how little of the new wealth generated in the 1950s and 1960s, when the economy grew famously quickly, ever reached the poor, this faith may be misplaced.

Specific poverty reduction measures comprise two sets. One is improving the quantity and quality of health and education, and above all the latter, given Nicaragua's very poor indicators of education.

The other set are transfer programmes. The current flagship for this is the Social Protection Network (Red de Protección Social, RPS) based on the Mexican model of ***Progresa/Oportunidades***. It consists of monthly cash payments to the carers of children living in deep poverty, conditional – and strictly so – on all children going to primary school and under-fives attending regular clinics to monitor their health and growth. The initial assessment of the pilot experience for this is highly positive: the clients are meeting the conditions, and the programme was having impacts on infant health and child schooling (Vermehren, 2002). The programme by 2005 had been expanded to reach more than 28,000 households, representing 3% of the national population, in nine municipalities.

Box 5: Programming MCA monies — a guide to current priorities?

In June 2005 the government was granted US$175M from the Millennium Challenge Account. It is instructive to see what has been planned for these funds.

Interestingly, the decision has been taken to spend all the funds in just two Departments, Chinandega and León – lands that lie on the Pacific coast where neither the poverty rate nor the absolute numbers of poor are above average. The justification is that of the resource potential and the proximity to markets in El Salvador and Honduras. Investing here, it is hoped, will create a 'motor' for the economic take off of the western areas of the country.

Within these two Departments, three main programmes will be implemented:

- Strengthening property titles, and in particular land titles;
- Road improvements to increase access to markets and social services; and,
- Raising rural productivity, through provision of business services, direct support to small farmers to increase adoption of more productive techniques, and reforestation and small-scale irrigation works in the drier zones.

Source: SECEP, 2005, Programa Cuenta Reto del Milenio – www.cuentadelmilenio.org.ni/info.html

6.1.2 Potential policies

What policies might be considered in Nicaragua? Davis and Stampini (2002) set out the issues and proposed policies from their analysis of rural poverty as shown in Box 5. They emphasise three points. One is education, a point echoed by the World Bank (2004): there simply has to be an improvement on the low levels of schooling of the current generations of adults by future generations.

A second point is the value of small-holder development. This is, however, quite a challenge. Finding ways to overcome the failures in markets, above all capital markets, is anything but straightforward. If small-holder agricultural development makes sense, then so too must stimulating small-scale businesses in the non-farm economy – where similar challenges of overcoming market failures arise.

The third area they flag concerns transfers, such as the conditional transfers of the RPS.

The World Bank's review of poverty (2003) makes similar points, but adds to this list the need to invest in physical infrastructure – roads, electricity, water and sanitation.

Reducing poverty in Nicaragua presents several dilemmas.

One concerns the degree to which the more fundamental problems are attacked, as opposed to trying to make smaller reforms: the former would have more impact, but simply may be infeasible; while the latter at least offer some hope of improvements, however marginal. Most of the analyses made by the World Bank and their technical advisers tend to be cautious proposals, the kind that the Bank can suggest with reasonable expectation that they will be acted upon – spend more on rural access roads, expand the RPS, etc.

More radical but potentially more effective are policies that tackle the gross inequities of the Nicaragua economy and society. This need not be anything as conflictive as mass land redistribution. Take the tax system, for example. Currently the country runs a fiscal deficit, and internal debt servicing consumes 17% of all public spending. Does the deficit arise from wild government spending? No, government spends less than 22% of GDP. The problem lies with taxes: just 17.5% of GDP. (Guimarães and Avendaño, 2006, reporting on 2004) Given the wealth of the upper strata of Nicaraguan society, the scope for raising the tax take should be considerable. If there were to be increased taxes, then a prime candidate would be land holdings. If the analysis by Deininger and colleagues (2003) is correct, then taxing land – setting a threshold of perhaps 50 manzanas to simplify administration and exempt the poor – would kill two birds with one stone. It would raise more revenue, and encourage landowners to put their land to productive use, or sell it someone else who can. Presumably, however, measures such as this are pretty much unthinkable when the rich and landowning classes have so much political clout.

A more technical dilemma concerns the geographical targeting of poverty programmes. Rates of poverty are higher in remote areas, but the absolute number of poor persons is higher in more accessible areas that overall have lower rates of poverty. Geographical targeting simplifies programming, but risks missing the bulk of the poor. Reaching the accessible poor, on the other hand, may be easier but what then happens to those in remote areas?

Answering the initial questions

What makes people poor in Nicaragua? Figure 16 sets out some of the main factors cited in the literature. The conditions that lead to poverty can be seen to apply in layers: from international conditions to the workings of the national economy, government policy, the way that markets work, socio-cultural matters, the effects of geography, and then the immediate factors that apply to individuals and households. Several at least of these factors interact and reinforce one another. Given the resultant complicated picture, it is perhaps not surprising how persistent poverty can be, and how difficult it is for any one set of interventions to make much of a difference.

But to return to the first (and effectively the second) of the original questions: **how can the government ensure that markets operate in ways that include the chronically poor on beneficial terms?** There are perhaps two answers to this.

One is that those people living in currently inaccessible areas need physical access to markets. Otherwise they are condemned to the limitations of very localised economies. The Bank (2004) analysis here stresses the need for improved rural access roads and proposes paving 2,500 km with locally-made paving stones (‘adoquines’); and for adequate maintenance.

The other part of the answer concerns correcting market failures: here the single largest failing seen is that of financial services. It is easy to flag the problem, less easy to propose remedies.

Currently there are at least two controversies in Nicaragua over this. One concerns the idea of a public development bank, an idea favoured by the opposition. Others, and the government, demur, believing that banking is better left to private initiative. The other is the debate over whether there should be special regulations for non-bank financial agencies that operate micro-finance schemes. Would this help stimulate the sub-sector, or just lead to fragmentation of the overall financial system?

Measures to correct failures in financial markets are inherently difficult to prescribe, since so much depends on finding improvements that work with local institutions and norms. Learning by trial and error, with useful lessons disseminated to others, is probably the way to go. Public action, in this case, might be to encourage experimentation – by, for example, underwriting some pilot programmes by private agencies – and fund dissemination and training.

The third question is intriguing: **what can governments do to prevent economic stagnation and state fragility from occurring in the first place?** Nicaragua is unusually well placed to shed light on this, having seen between the mid-1970s and today three different political regimes, and having experienced two episodes of insurrection and civil strife, and a period of dramatic economic decline that has set back average incomes several decades.

Many responses could be given to this question, but there is perhaps one constant that can be sifted from the others: the simple business of equity and fairness in society and government. Nicaragua under the Somozas was a country of economic inequality and gross discrimination in which the ruling clique made little attempt to forge one nation, preferring instead the rule the country as a personal fiefdom. It was predictable in hindsight that such an extreme regime should eventually be replaced by one of a radically different stripe: so different that the zeal to reform rapidly led to drastic policies of state control of the economy that undermined the revolution within at most a year or two of the revolutionary triumph (see Biondi Morra, 1993). Indeed, although the question of what would have become of revolutionary Nicaragua had it not faced the implacable hostility of the United States is one that can never be resolved, it has been argued that the mistakes had been made long before the US threw its full weight behind the counter-revolution. Perhaps the answer is that the counter-revolution ensured that by the time the government tried to modify its earlier economic strategy, it was too late and it simply never had the time and space to make the changes.

The irony here is that during the almost half century that Nicaragua was ruled by the Somoza family and close allies, the economy grew strongly making the country by the late 1960s one of the most prosperous in the region; while the FSLN governments, although committed in principle to bettering the lot of the workers and peasants, were never able to engineer economic growth and ended up presiding over a dramatic economic decline that reversed the gains that the early years of the revolution conferred on the poor.

The further irony is that subsequent governments have enabled, whether by design or not, the re-emergence of a Nicaragua of great inequality: and worse, one in which the elites are frequently tempted to use their overwhelming power to extract economic advantage, with little or no regard to the fate of their fellow citizens. That makes it difficult to construct a sense of national unity; as well as undermining the incentives for entrepreneurs of all kinds, large or small, to invest in legitimate, competitive business when money can be made more easily by seeking rents (in the broad sense) not to mention outright scams. It’s a sorry picture.

How to go about building a Nicaragua where there is more give and take, where there is nationwide commitment to ensuring equal opportunities, and where a sense of fairness is central to executive decisions – and, of course, above all, central to the life of the judiciary – is the critical challenge facing the country. Not only will this take time, but the sequence of measures needed to reach this state is anything but clear.

This discussion, of course, takes us a long way from the questions of making markets work for the chronically poor. But it does remind us that markets are social constructs and depend on culture and institutions to work well and fairly. For some this truism may be as tedious as it is unhelpful, but it nevertheless remains true.

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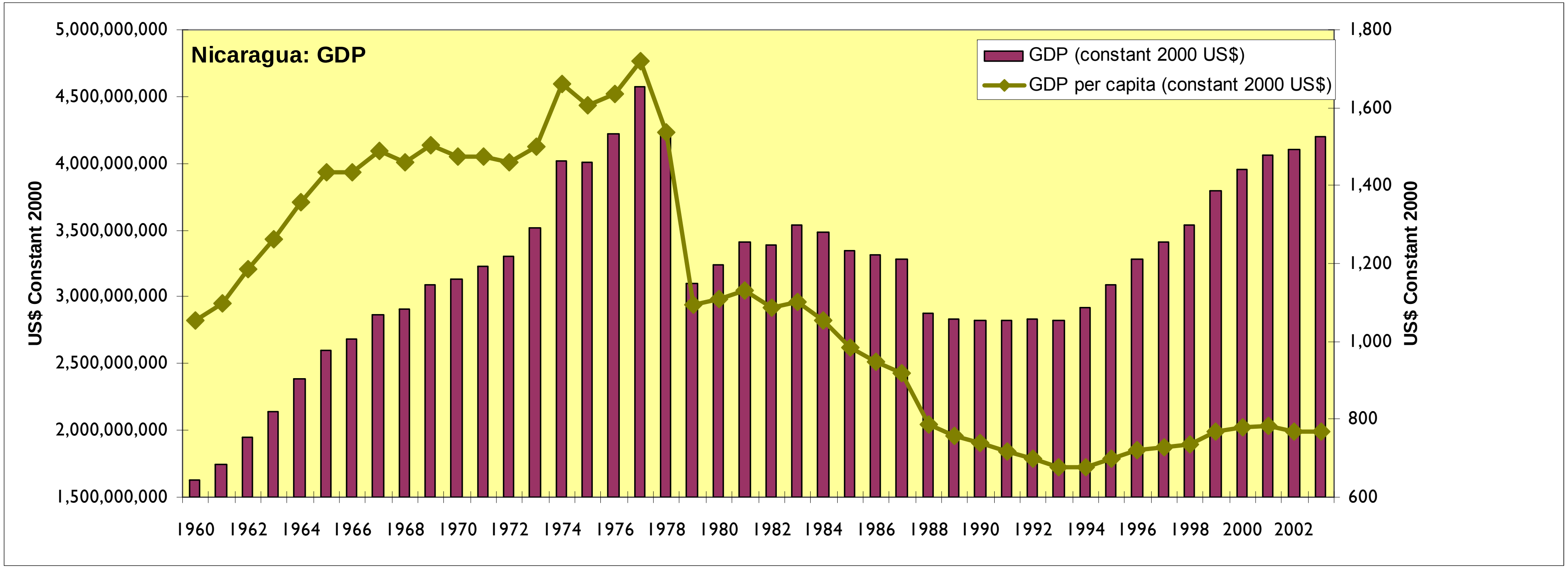
Figure 7: Nicaragua: GDP, 1960 to 2003



Source: World Development Indicators 2005, World Bank

Figure 8: Nicaragua: GDP growth rates 1961 to 2003 Source: World Development Indicators 2005, World Bank

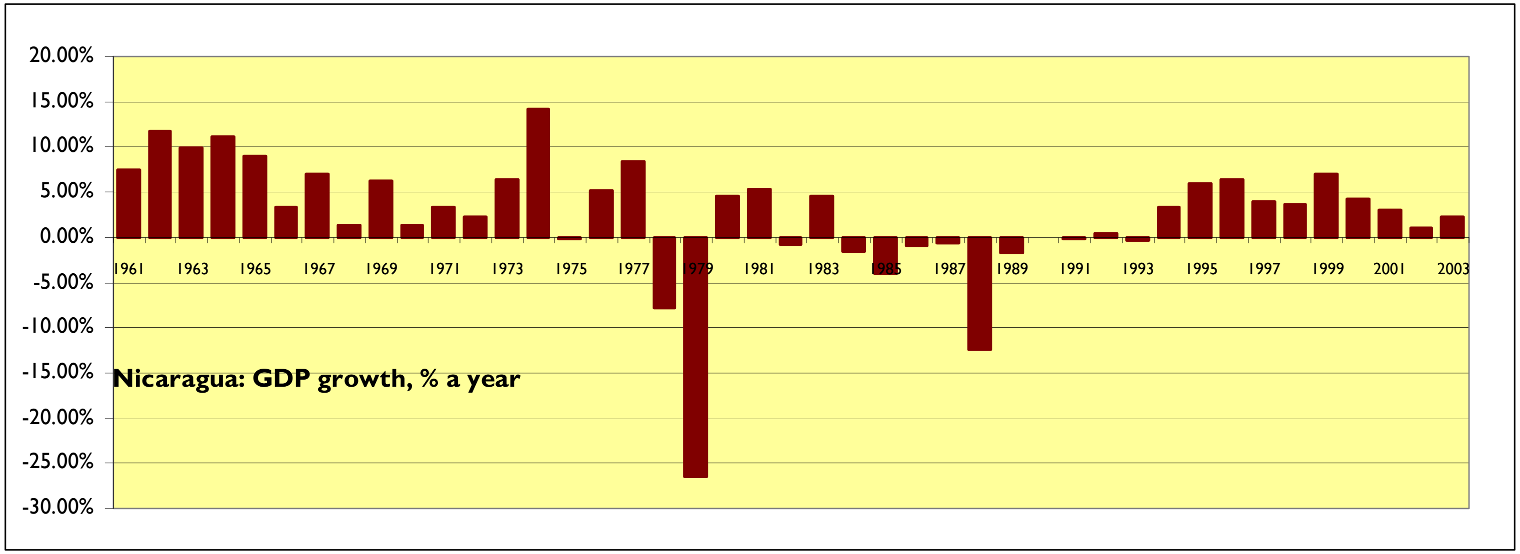


Figure 9: Nicaragua, Composition of GDP, 1965 to 2003 Source: World Development Indicators 2005, World Bank

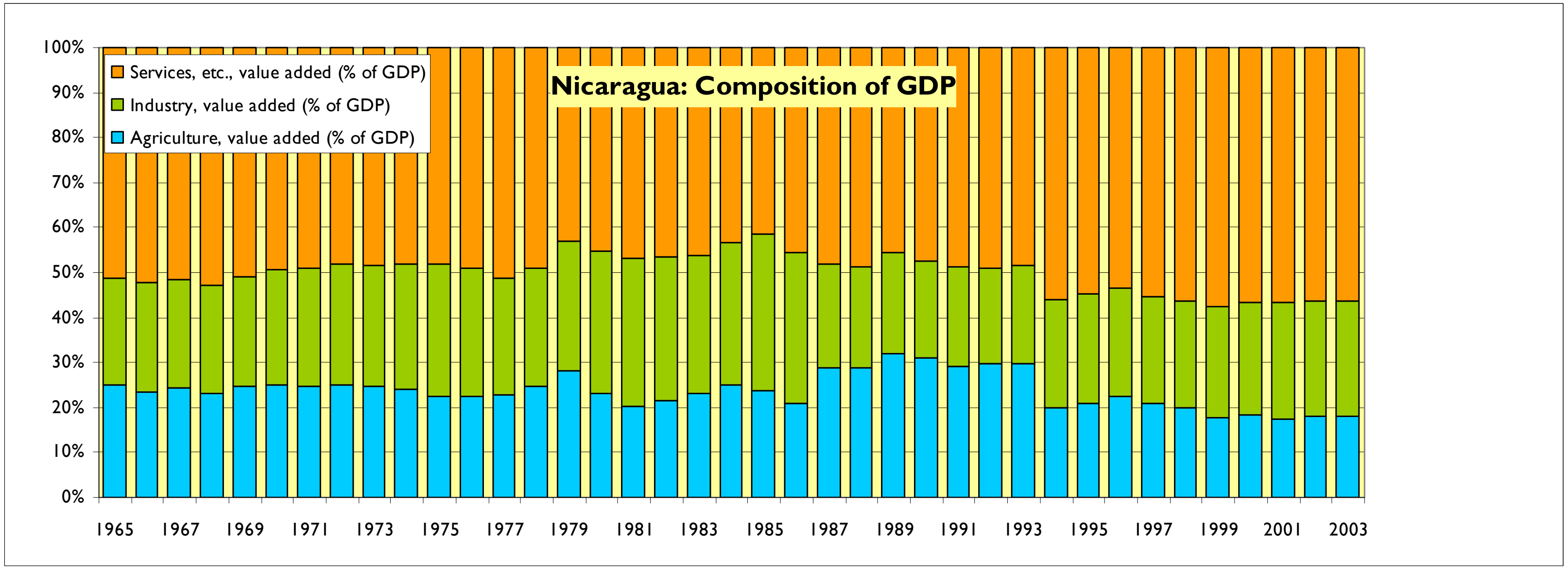
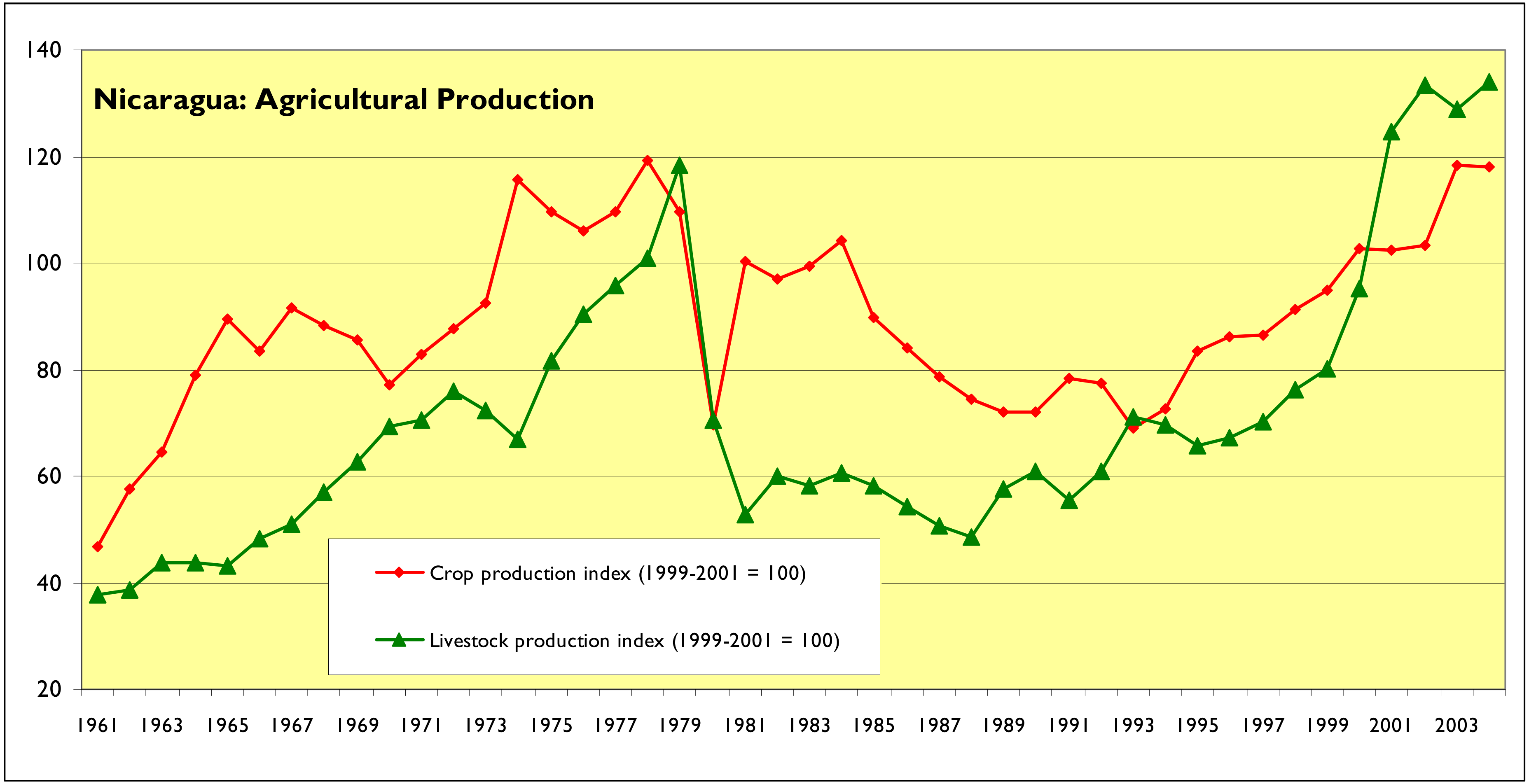
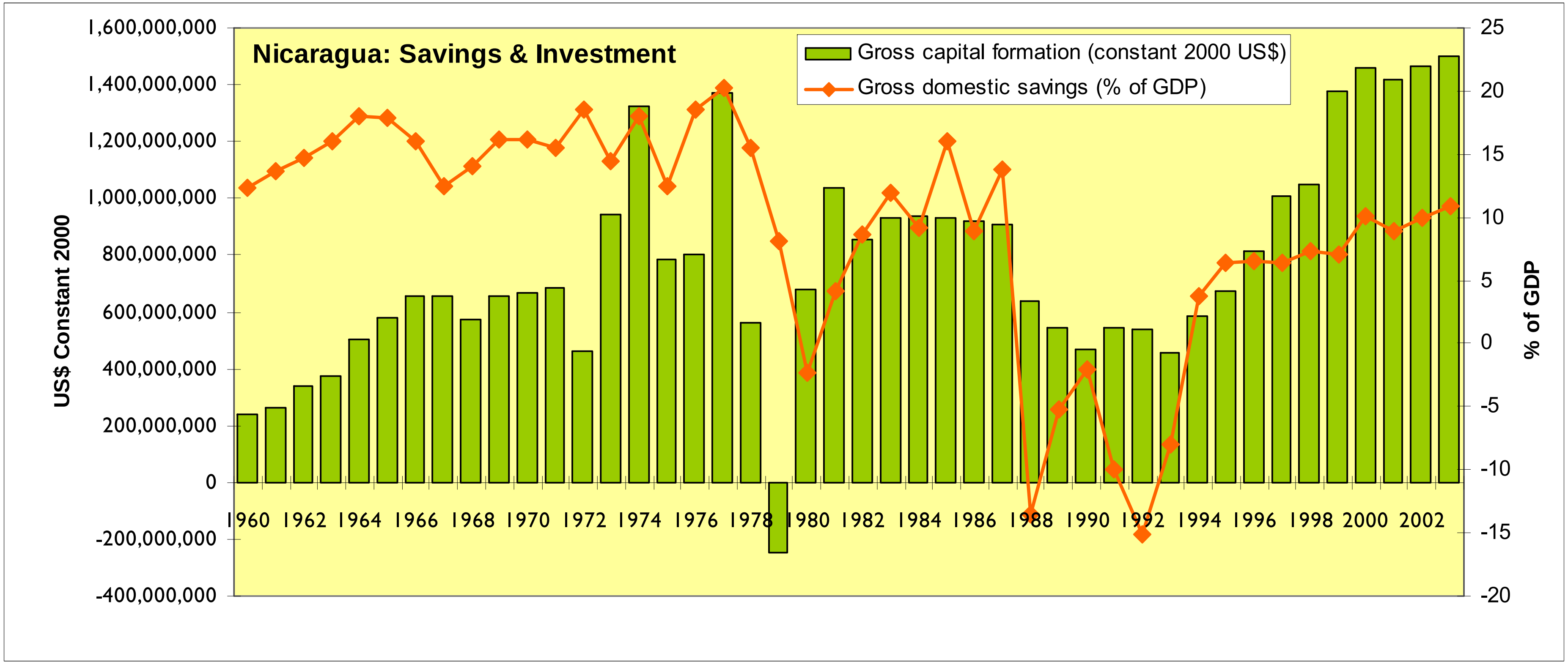


Figure 10: Nicaragua, agricultural production, 1961 to 2003



Source: World Development Indicators 2005, World Bank

Figure 11: Nicaragua, savings and investment, 1960 to 2003



Source: World Development Indicators 2005, World Bank

Figure 12: Nicaragua, Value of Exports and Imports, 1960 to 2003

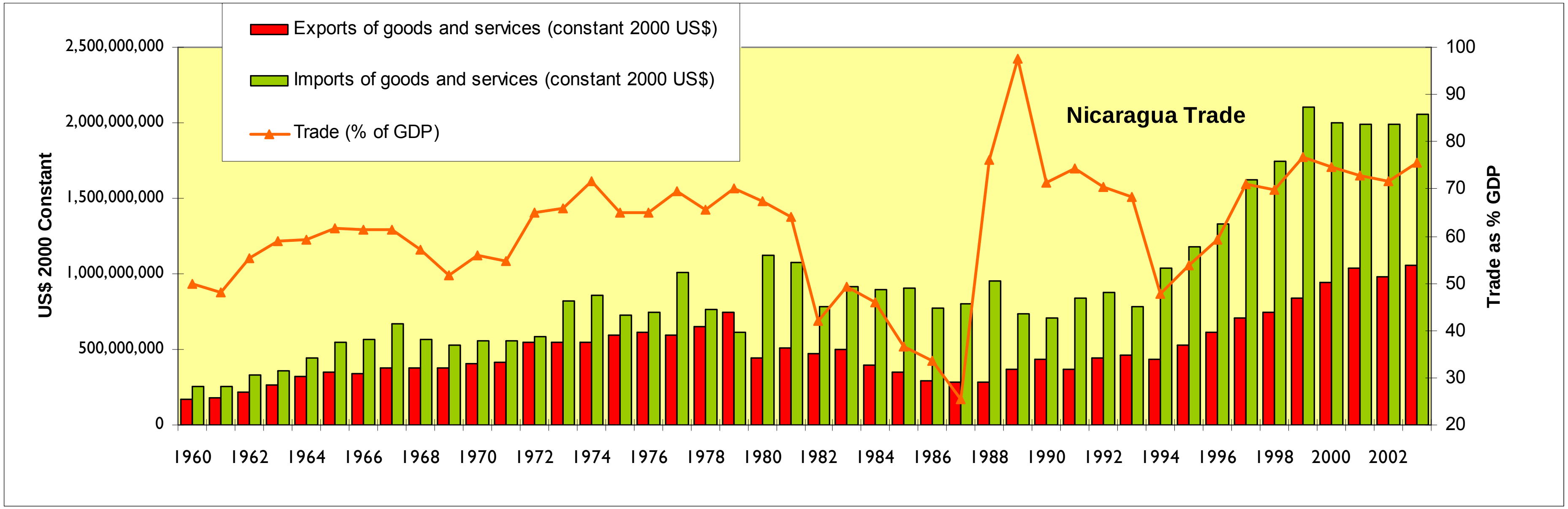


Figure 13: Nicaragua, Net Barter Terms of Trade, 1980 to 2002 Source: World Development Indicators 2005, World Bank

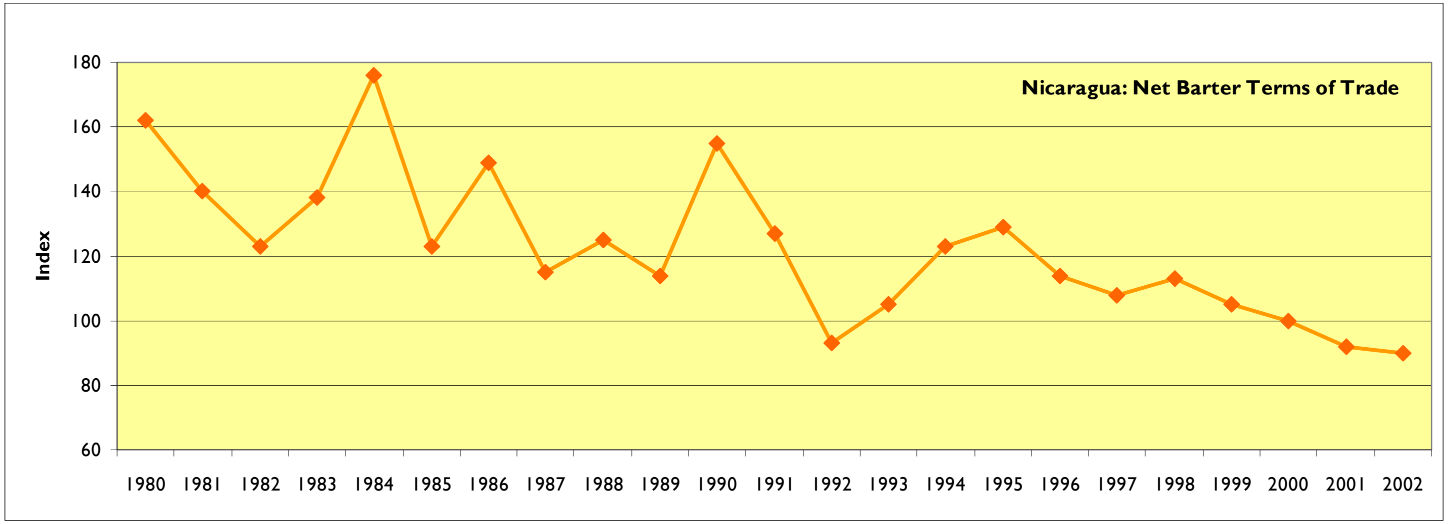
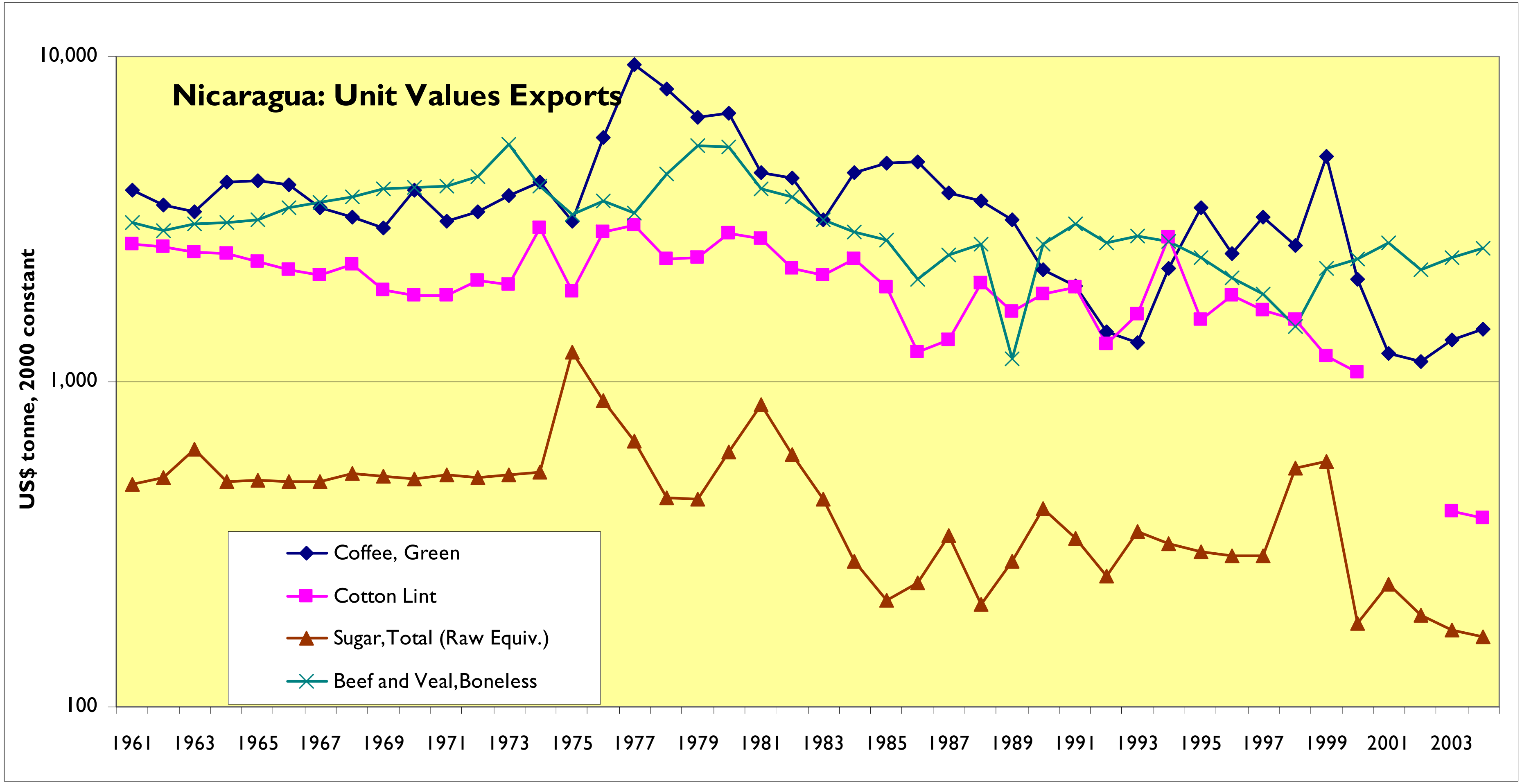
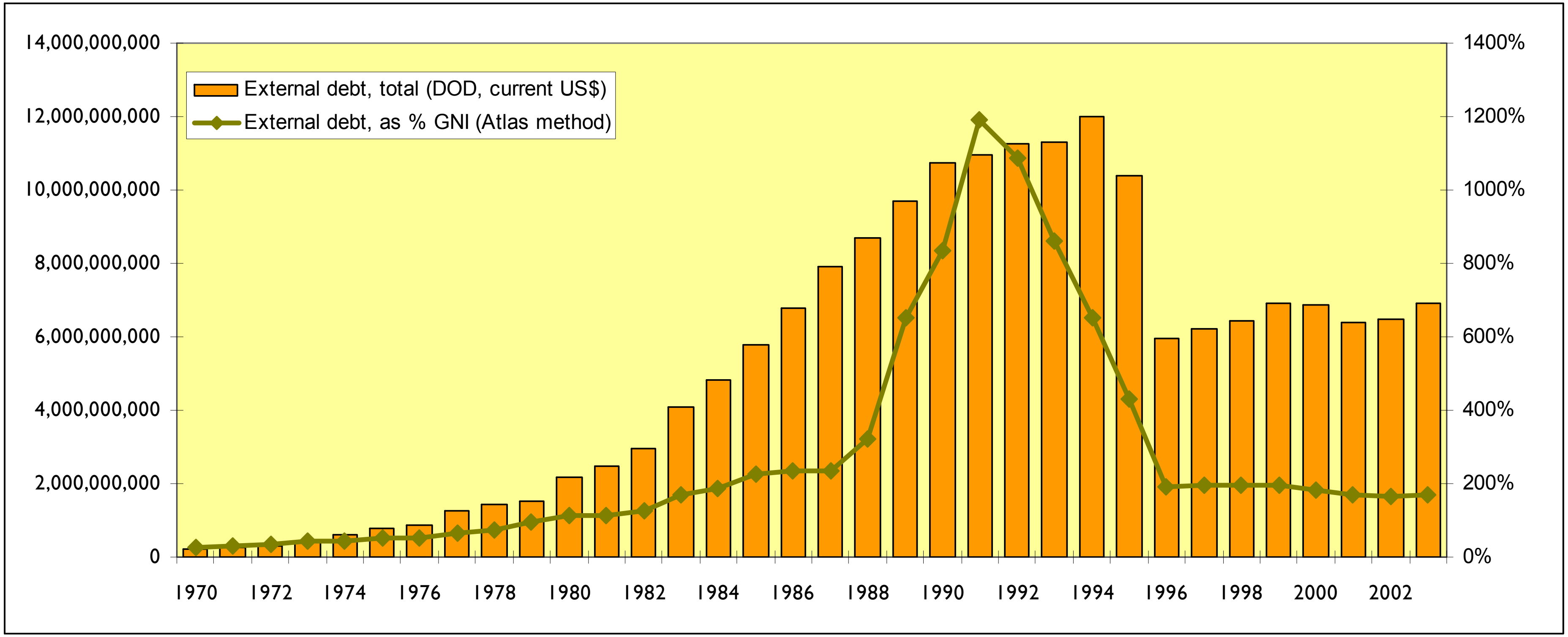


Figure 14: Nicaragua, Unit Values of Agricultural Exports, 1961 to 2003



Source: FAOSTAT data on quantity and value of exports by item, with prices then adjusted by a US$ deflator to express values in constant 2000 US$.

Figure 15: Nicaragua, External Debt, 1970 to 2003



Source: World Development Indicators 2005, World Bank

Figure 16: Factors leading to poverty in Nicaragua

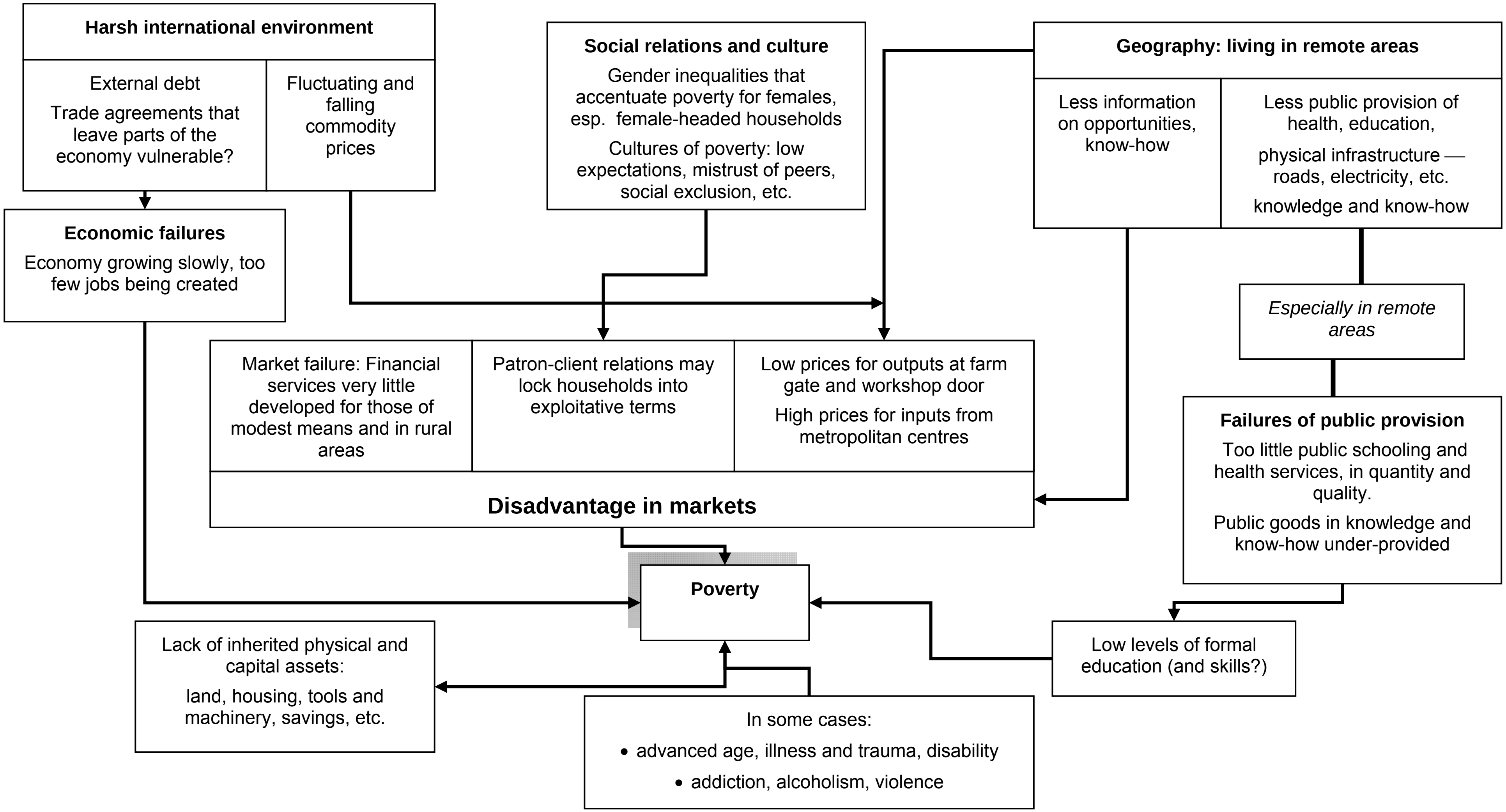


Table 16: A Matrix of policies to alleviate rural poverty in Nicaragua

	RURAL POOR		minifundia/rural landless/agricultural wage labourers small producers	Small producers	Medium producers	Large producers
	PROSPERITY STRATEGIES		non agricultural self employment (including migration) Non-farm wage labour, including migration For a few with potential, farming Direct cash transfers		For those with potential, farming For those without potential, off-farm activities	
Policy Instrument	Asset Accumulation	Education	Develop non-farm alternatives	Develop non-farm alternatives, improve farm productivity		
		Land (owned and rental)	Agriculture as subsistence, risk-averse strategy	Enable small-scale, economically viable activities	Enable commercial farming, including exports	
		Cattle	Livestock used for saving and risk			
		Small business	Essential for female-headed households, and as non-farm alternative		NA	
		Physical capital	Agriculture as subsistence, risk-averse strategy	Enable small-scale, economically viable activities	Enable commercial farming, including exports	
	Agrarian institutions	Formal rainfall or crop insurance				
		Producer organisation	Facilitate access to institutions, markets and economies of scale			
		Credit	Micro-credit		Enable commercial farming, including exports	
		Market information	NA	NA		

		Extension/TA	Agriculture as subsistence, risk-averse strategy	Enable small-scale, economically viable activities	
	Population	Family planning	Permit households to plan family size		NA
	Social protection	Cash transfers (include RPS)	Foment households human capital development and reduce consumption poverty directly		
		Old age pensions	With RPS, not necessary		
	Regional planning	Economic clusters	Develop non-farm alternatives	Develop non-farm alternatives, enable commercial farming	Enable commercial farming and vertical integration
	Infrastructure	Roads, electricity, water, sanitation	Improve productivity and access to input and output markets and jobs		Improve productivity and access to input and output markets, and so enable commercial farming

Source: adapted from Davis and Stampini, 2002