Part 5: Regional Integration in the Caribbean: A gravity modelling approach

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"Economic and trade cooperation shall build on regional integration initiatives of ACP states, bearing in mind that regional integration is a key instrument for the integration of the ACP countries into the world economy." [Article 35(2), Cotonou Agreement]

5.1. Introduction

Existing trade relations between the European Union and the group of countries known as the African, Caribbean and Pacific countries (ACP) are highly assymetric. They are assymmetric in that the EU has for many years under the Yaounde, and subsequently the Lome conventions, granted preferential access to EU markets for the ACP countries. In turn these countries have been free to maintain their tariff regimes on exports by the EU. In terms of the EUs 'pyramid' of preferences, and in comparison, for example, to the GSP regimes offered by the EU, it is the ACP countries who have the highest degree of preferential access. However, the asymmetric relationship with the ACP countries is WTO incompatible, and under the Cotonou Agreement signed in 2000 the ACP countries and the EU are committed to negotiating WTO-compatible, symmetric Economic Partnership Agreements which are then due to come into force from January 2008.

The stated aims of the proposed EPAs are that of: fostering and supporting greater regional integration; allowing for a flexible liberalisation of trade in goods and services; the building up of institutional capacities in the ACP countries; the establishment of simple and transparent rules for business in the ACP countries; as well as the provision of development assistance by the EU. Of these aims it is clear that the one which is undoubtedly required is that concerned with the liberalisation of trade in goods. This is simply because it is the asymmetric nature of the existing arrangements with regard to trade in goods which is the source of the WTO incompatibility. If agreement on this is not achieved, and the ACP countries, or groups of ACP countries fail to sign an EPA with the EU, than the existing preferential arrangements will come to an end. The alternative for the ACP countries is then to become part of the EU's GSP (Generalised System of Preferences), and for certain of the countries part of the EBA (Everything but Arms) initiative.

An important feature of the negotiating process is that the ACP countries are not negotiating individually with the EU but are negotiating in six regional groups. These groups are: West Africa, Central Africa, East-South Africa, Southern Africa, the

Caribbean, and the Pacific (see Appendix 1 for a full list of countries in each group). The negotiation in groups is inevitably also tied into one of the key objectives of the EPA process stated above - that of the promotion of greater regional integration among groups of the ACP countries themselves. It is clear from the Cotonou agreement and from discussions with European Commission officials, that there is a strong desire to encourage further regional integration among appropriate groups of countries. The underlying motivation for this is the belief that enhanced regional integration will enable the ACP countries to become more efficient and competitive, and thus ultimately to be able to integrate more successfully into the world economy.

Hence regional integration is seen as a key step towards dealing in the first instance with any EPA induced liberalisation, and in the second instance with the challenges posed by increased globalisation. While recognising the potential importance of regional integration, the ACP countries also recognise that there are likely to be capacity problems in trying to simultaneously pursue closer regional integration as well as implementing an EPA. The ACP would thus argue that "EPAs should ... support the ACP regional integration processes/initiatives based on the principle of sequencing and not undermine them"[1]

The aim of this part of the report is to consider some of these issues in the context of the Caribbean, where there is a long history of regional integration. Specifically, the key objective of this chapter is to consider the evidence on the extent and success of regional integration in the Caribbean as well as its' evolution over the past decade. As part of this assessment, this chapter distinguishes between the OECS countries and the other CARICOM countries. The purpose of this is in order to establish whether there are substantive differences between these countries in terms of the evolution of the regional integration process. Methodologically we look at both descriptive trade statistics as well as employing the more formal gravity modelling approach.

It is also important to note that this chapter, and indeed much of this report focusses on trade in goods. We clearly recognise the importance of the service sector in the Caribbean islands, and also of trade in services. Nevertheless, much of the process of regional integration in the Caribbean has to date focussed on goods trade liberalisation,

[1] "ACP Guidelines for the Negotiations of Economic Partnership Agreements", ACP secretariat, ACP/61/056/62 Final, 2002.

and it is dealing with the asymmetry in existing goods trade relations between the EU and the ACP states which is essential for the WTO compatibility of any EPA. It is clearly important to have a clear assessment of the existing levels of regional integration in goods in order to be able to focus on future possibilities and directions for the furthering of that process.

There is a further objective of this chapter which is perhaps more methodological but of key relevance for the ACP coutries. As will be described in more detail below the formal part of our analysis is based on a gravity modelling framework. This is a framework which is being increasingly used to analyse trade flows between countries, and to analyse the possible effects of regional integration agreements on those trade flows. The methodological objective of this paper is to consider how well such a model can be used to consider trade flows between extremely small countries - such as those in the Caribbean.

The structure of the chapter is therefore as follows. Section 5.2 provides some relevant background information on the Caribbean economies and on the regional integration process in the Caribbean, as well as considering some descriptive statistics which shed light on the levels and evolution of regional trade flows in the region. In the discussion where relevant we distinguish between the OECS and the non-OECS economies. Section 5.3 then describes the formal gravity model we use to assess regional integration in the Caribbean over the period 1990-2000 and then details and discusses the results from our formal estimation procedure. Section 5.4 concludes.

5.2 The Caribbean Region

5.2.1. The Caribbean regional integration process

The Caribbean regional integration process effectivly started in the 1960s with the CARIFTA Agreement, which has evolved to what is today known as CARICOM and includes fifteen Caribbean countries. The original impetus was based on traditional customs union theory and the gains from trade, and its articulated goals, according to the official documents of the Secretariat, are to overcome the condition of underdevelopment as represented by economic weakness, underemployment, agricultural backwardness and

dependence through national and regional policies aimed at promoting social and economic development.

The main institutions of integration in the region are that of CARICOM which comprises 15 countries of varying size and GDP per capita, and the Organisation of Eastern Caribbean States (OECS)[2]. CARICOM is constituted as a customs union, but there is an agreement, signed in 1992, and currently in the process of being implemented to create a common market along the lines of the EU, known as the Caribbean Single Market and Economy (CSME). The OECS countries are part of CARICOM but within that have gone further in their degree of integration for example by adopting a single country[3]. Since its origin, CARIFTA and then CARICOM have developed diverse trade relations with other regions. CARICOM maintains non-reciprocal duty free access, *inter alia*, to the United States, under the Generalised System of Preferences (GSP), to Colombia and Venezuela through bilateral Agreements and to the European Union (EU), first under the Lome agreements and then under the Cotonou Agreement, signed in 2000. See Part 2 of this report for a more detailed discussion of the above.

A key feature of the OECS economies is that they comprise some of the very small island states in the regions. This is important because within the region there is a long standing distinction between, what are known as, the More Developed Countries (MDCs) and the Less Developed Countries (LDCs). It is important to note that classification between MDCs and LDCs does not depend on per capita income levels. The MDCs are: Barbados, Guyana, Jamaica, Suriname and Trinidad and Tobago. The remaining countries are considered as LDCs. Hence, the LDCs are those countries which are seen as being particularly vulnerable *either* due to their size, *or* due to their levels of economic development. Hence, for example, Antigua and Barbuda has one of the highest GDP per capita level in the region but is still considered an LDC. All of the OECS countries are considered as LDCs. That distinction between LDCs and MDCs is then an important feature of the regional integration process, as the LDCs have a number of possible derogations and exceptions which are formally part of the CARICOM and CSME processes. Not only are there differences within the Caribbean regional integration process

[2] CARICOM comprises: *Antigua and Barbuda, Dominica, Grenada, Montserrat, St Kitts and Nevis, Saint Lucia, St Vincent and the Grenadines,* Bahamas, Barbados, Belize, Guyana, Haiti, Jamaica, Suriname, and Trinidad and Tobago. In addition *Anguilla, British Virgin Islands,* Bermuda, Cayman Islands, Turks and Caicos Islands are associate members. The countries in italics are members of the OECS.

[3] more details on the regional integration process in the Caribbean can be found in part 2 of this report.

itself, there are also differences in the treatments of LDCs and MDCs in agreements between CARICOM and other countries such as with the Dominican Republic. In these agreements, for example, the MDCs are required to liberalise their tariffs with the partner countries, while the LDCs are not.

The region has thus already instituted a form of special and differential treatment which applies to the LDCs. This is then likely to be an important issue in the EPA negotiations where there is some debate over the nature of special and differential treatment which may be agreed upon. The Cotonou agreement itself recognises this possibility in principle[4]. However, there are potentially important differences between countries over the nature of the implementation of special and differential treatment which can take many forms. For example, the EU position is more in favour of "variable speed" in trade liberalisation. In contract many of the OECS economies themselves appear to be more in favour of introducing differentiation in which products are liberalised in order to take into account the vulnerabilities of certain countries. The position of the remaining Caribbean economies on this is less clear on this. What is clear is that the grounds for any possible SDT need to be clearly understood. This is important, if nothing else, to ensure that policy appropriately meets the needs and concerns of those countries benefitting from that differential treatment. It is also important to note that the issues surrounding special and differential treatment are important both with regard to trade in goods but also with regard to services trade. The issue of special and differential treatment and its implications are discussed more fully in Part 6 of this report.

5.2.2: Selected Economic Indicators

Tables 5.1 and 5.2. provide some comparative statistics for selected Caribbean economies with each other and with respect to selected country groupings. In table 5.1 the Caribbean economies reported on include two of the MDCs (Jamaica and Trinidad and Tobago), and three of the OECS LDCs (Dominca, St Kitts and Nevis and St. Lucia). From the table it can be readily seen that the Caribbean economies, both the MDCs and the

[4] Article 35(3) of the Cotonou agreement states that "Economic and trade cooperation shall take account of the different needs and levels of development of the ACP countries and regions. In this context, the Parties reaffirm their attachment to ensuring special and differential treatment for all ACP countries and to maintaining special treatment for ACP LDCs and to taking due account of the vulnerability of small, landlocked and island countries."

LDCs, included here are largely upper middle income countries, with the highest per capita GDP here for Trinidad and Tobago, and the lowest for Jamaica. The Jamaican per capita GDP is approximately twice that of the average for lower middle income countries. Similarly if we look at the share of trade as a percentage of GDP, and the shares of imports and exports we see that for these Caribbean economies economic structure is by and large that of middle income countries. Interestingly when looking at the Latin and Caribbean grouping, these shares are somewhat lower.

Table 5.1: Comparative Selected Economic Indicators 2003

	GNI per Capita	Goods and services		
	(US$)	X as % of GDP	M as % of GDP	Trade as % of GDP
Low Income	440	20.8	23.3	34.9
Lower middle income	1370	31.2	29.5	53.8
Upper middle income	4040	33.8	30.7	68.4
High income: non OECD	14370	78.5	69.5	-
OECD[1]	29360	22.0	22.7	-
Latin America and Caribbean	3310	24.3	21.5	42.2
Jamaica	2780	40.7	59.2	59.2
Trinidad & Tobago	7790	49.7	41.2	78.2
Dominica	3380	53.8	61.5	63.7
St Kitts & Nevis	6860	36.9	55.9	79.0
St Lucia	4040	55.7	69.3	54.9

Source: World Bank, WDI.
1: X as % of GDP, and the M as % of GDP for the OECD countries are for 2002

Table 5.2. then provides more detail for each of the Caricom economies for which data was available. Here we see that the poorest islands are Haiti and Guyana with per capita incomes of $430 and $921 respectively, and the wealthiest islands are the Bahamas and Antigua and Barbuda. There is also considerable diversity in population with St.Kitts and Nevis having a population of 38,000, and Jamaica and Haiti with populations of just over 2.5 million and 8.5 million respectively.

The second column of the table entitled “Export Herfindahl”, gives an indication of the degree of concentration of each countries’ exports[5]. The index is a summary measure which ranges from 0 to 1 and where the reciprocal of the index gives the number of equivalent sized export industries in the given country. Hence, a index equal to 0.5,

[5] See Chapter 2 for a formal definition of the Herfindahl index.

would suggest that the country has the equivalent of two equal size export industries. The number of equivalent firms is given in brackets. From the table it can therefore be seen that the exports are most concentrated in Jamaica and St. Lucia where there are approximately 3 equivalent size export industries, and exports are most diversified in Belize and Barbados. The final three columns of the table gives the share of manufacturing, agriculture and services in GDP. This table reveals the importance of services for most of the island economies, as well as the relative importance of agriculture for Guyana and Belize. Manufacturing is most significant for Trinidad and Tobago where it comprises 22.55% of GDP, and least important for Antigua and Barbuda where it amounts to just under 2.5% of GDP. An important message which emerges from this table, and which we also saw in the discussion in Chapter 2, is that the extent of the diversity across the Caribbean islands and this is true when looking at GDP, population, or economic structure.

Table 5.2: Comparative Economic Indicators for the Caribbean

	GDP/C	Export Herfindahl	Pop	Share in GDP		
	US$	(firm eq)	('000)	Ag.	Manuf.	Services
Antigua & Barbuda	10681	-	65	3.5	2.32	79.09
Bahamas	16498	0.13 (8)	308	Na	na	na
Barbados	9346	0.05 (20)	268	5.44	5.54	82.34
Belize	3308	0.03 (31)	231	24.13	13.14	55.31
Dominica	3538	0.16 (6)	71	14.64	6.5	70.64
Granada	4060	0.15 (7)	94	7.44	7.72	74.92
Guyana	921	0.19 (5)	763	46.21	3.24	26.51
Haiti	430	-	8511	18.86	16.93	52.91
Jamaica	2914	0.32 (3)	2598	7.51	15.09	58.9
St Kitts & Nevis	7270	0.41(2.4)	38	4.55	10.78	66.99
St Lucia	3815	0.32 (3)	149	10.07	6.14	73.19
St Vincent & the Gr.	3219	0.19 (5)	114	6.62	7.81	74.52
Suriname	1893	-	419	Na	na	na
Trinidad & Tobago	7346	0.13 (8)	1300	1.27	22.55	54.51

Source: World Bank, WDI.

5.2.3: Trade Indicators

In this sub-section we examine descriptive statistical evidence on patterns of trade, and changes in those patterns of trade. The flows we look at include intra-and extra-

regional flows as both are important in assessing the level of regional integration in the Caribbean.

In Table 5.3.we examine the changing pattern of trade shares over time. The table gives the geographic distribution of CARICOM's trade, by exploring the shares of imports accounted by the main economic groups and other relevant regions from 1995 onwards. These trade shares display relative stability over the period analysed. The key series which seems to present a trend downwards is the share of Nafta in Caricom's imports, which starts with 59% of the Imports in 1995 and declines until 44% by 2002. There is a sharp fall in Nafta from 1995 to 1996 which is matched with increases in the shares of Caricom and "Others". Among the latter, Colombia and Venezuela exhibit an increased level of exports to Caricom in that year, which is likely to be explained by the trade liberalisation processes initiated in 1994 and 1993 respectively, which then required three years to become fully implemented.

Table 5.3 Caricom import shares

Shares in Caricom's Imports for a sample of 78 countries

	1995	1996	1997	1998	1999	2000	2001	2002
Nafta	*59.48%*	*50.51%*	*57.62%*	*57.54%*	*55.33%*	*53.01%*	*51.20%*	*43.87%*
EU	*13.42%*	*15.02%*	*13.11%*	*12.86%*	*11.43%*	*10.61%*	*13.26%*	*14.32%*
Caricom	*7.98%*	*10.01%*	*8.47%*	*8.42%*	*9.87%*	*10.11%*	*8.03%*	*9.33%*
Japan	*4.25%*	*4.70%*	*4.66%*	*4.95%*	*5.40%*	*4.13%*	*3.09%*	*4.75%*
Others	*3.71%*	*9.56%*	*7.07%*	*7.07%*	*8.38%*	*11.94%*	*10.53%*	*10.39%*
Mercosur	*2.16%*	*2.08%*	*1.40%*	*1.56%*	*1.26%*	*1.67%*	*2.69%*	*3.39%*
Central America	*1.22%*	*1.60%*	*1.25%*	*1.48%*	*1.92%*	*1.84%*	*4.23%*	*2.70%*
Associated States	*0.04%*	*0.01%*	*0.02%*	*0.01%*	*0.01%*	*0.01%*	*0.02%*	*0.01%*
Pacific	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.01%*	*0.00%*	*0.00%*
Sample Sub Total	*92.25%*	*93.50%*	*93.61%*	*93.90%*	*93.60%*	*93.34%*	*93.04%*	*88.77%*
Total	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*100.00%*

Source: Author's Calculations based on data from World Bank
"Associated States" stands for the countries that are Associated to Caricom but do not share the same CET.
"Mercosur" includes Argentina and Brazil
"Others" includes a group of relevant industrialised countries plus Colombia Venezuela and Ecuador.
"EU" stands for the European Union (25 countries)
"Pacific" includes the Pacific islands included in ACP

Table 5.4 provides similar information but this time broken down into individual countries as opposed to country groupings. The main panel of the table gives the changing share of imports for the top 10 exporters to the Caribbean The bottom line of the table also gives the Herfindahl index of import concentration. Analogously to the discussion earlier

this gives the degree of concentration by source for Caribbean imports[6]. Hence if the index were equal to one this would indicate that there is only one exporter to the Caribbean. The smaller the index the more diversified are Caribbean imports.

If we consider first the changing shares of individual countries some notable features emerge. First we see the declining share of the US in Caribbean imports from just under 55% in 1995, to just under 39% in 2002. The biggest increase in the share of exports going to the Caribbean is by Venezuela, who's share rises from under 2% to nearly 6% of all imports. There are also modest rises for Trinidad and Tobago, Germany, Brazil and Mexico. Interestingly we see that these 10 exporters in aggregate accounted for over 82% of all Caribbean imports in 1995, but their share declined to just over 73% by 2002. This increased diversificiation of Caribbean imports can also be seen in the last line of the table which gives the Herfindahl index. This index declined from 0.309 to 0.168. In terms of numbers of "equivalent sized" exporters, this suggests that at the beginning of the period there were just over 3 equivalent sized exporters, and by the end of the period this had risen to nearly 6.

Table 5.4 Caricom import shares by principal exporter

Shares in Caricom's Imports of Top Ten Exporters

Exporter	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
United States	*54.59%*	*45.49%*	*53.59%*	*52.66%*	*50.27%*	*48.18%*	*47.57%*	*38.84%*
United Kingdom	*5.37%*	*5.54%*	*4.62%*	*4.66%*	*4.60%*	*3.78%*	*4.71%*	*4.54%*
Trinidad and Tobago	*5.22%*	*6.78%*	*5.62%*	*5.63%*	*6.40%*	*7.10%*	*4.97%*	*6.43%*
Japan	*4.25%*	*4.70%*	*4.66%*	*4.95%*	*5.40%*	*4.13%*	*3.09%*	*4.75%*
Canada	*3.38%*	*3.21%*	*2.47%*	*2.97%*	*3.24%*	*2.66%*	*2.35%*	*2.88%*
Netherlands	*2.22%*	*2.98%*	*2.08%*	*2.05%*	*1.81%*	*1.88%*	*0.95%*	*1.18%*
Germany	*2.22%*	*2.38%*	*1.93%*	*1.52%*	*1.29%*	*1.27%*	*1.88%*	*3.46%*
Brazil	*2.01%*	*1.91%*	*1.24%*	*1.36%*	*1.11%*	*1.54%*	*2.60%*	*3.24%*
Venezuela	*1.88%*	*5.32%*	*4.06%*	*3.03%*	*4.41%*	*7.08%*	*6.45%*	*5.79%*
Mexico	*1.51%*	*1.80%*	*1.56%*	*1.92%*	*1.81%*	*2.16%*	*1.27%*	*2.15%*
Top Ten Share	***82.63%***	***80.13%***	***81.83%***	***80.73%***	***80.35%***	***79.80%***	***75.85%***	***73.27%***
HHI	*0.309*	*0.224*	*0.299*	*0.289*	*0.267*	*0.248*	*0.240*	*0.168*

Source: Own Calculations based in data from World Bank

From the preceding tables we can see that the prinipal suppliers to the Caribbean region are the United States, and the European Union. There is also quite a significant amount of intra-regional trade with the share of Caricom in intra-regional imports being just below 10% in 2002. The data also indicate that the Caribbean share has been

[6] the Herfindahl-Hirschman Index of concentration (HHI) was calculated as, $\boldsymbol{HHI = \Sigma_i s_i^2}$
Where, s_i stands for bloc j's share of imports from country i.

relatively stable in aggregate, and that the key regional supplier is Trinidad and Tobago. Finally we see that the data indicate quite a high degree of reorientation of imports away from the US largely towards new suppliers. Clearly, these tables mask important changes which may be taking place at the level of individual countries, and this issue is discussed in much more detail in Part 4 of this report. We now turn to the more formal analysis of the role of intra-regional trade in the Caribbean.

5.3. Analysing regional integration using the gravity model

A standard gravity model describes bilateral aggregate trade flows between two countries, *i* and *j*, as a function of: the levels of GDP in countries *i* and *j*, their respective populations, the distance between *i* and *j*, other geographical factors such as adjacency, cultural similarities, and preferential trading links. Gravity models have been used widely in this context (see for example Frankel, 1997; Winters & Soloaga, 2000) and at least partial theoretical justification for such models can be found in the work of Bergstrand (1985), Helpman & Krugman (1985), and Deardorff (1997). Gravity models are usually supplemented with dummy variables in order to try and capture other factors, and in particular institutional arrangements between countries which are typically expected to impact upon trade flows (eg. regional trading arrangements, or dummies to capture cultural affinities between countries such as a common language).

Hence the standard formulation for the gravity model is given by

$$Ln(X_{ij}) = \alpha_0 + \alpha_1 Ln(GDP_i) + \alpha_2 Ln(Pop_i) + \alpha_3 Ln(GDP_j) + \alpha_4 Ln(Pop_j) + \alpha_5 Ln(Dist_{ij}) + \alpha_6 PTA_{ij} + \alpha_7 Border_{ij} + \alpha_8 Language_{ij}$$

Where:

X_{ij}: Exports by country i to country j (in thousands of dollars)

GDP_k: GDP of country k, (k = i,j)

Pop_k: Population of country k (k=i,j)

$Dist_{ij}$: Distance between the respective countries.

PTA_{ij}: represents the relevant free trade agreements (EU, CEFTA, and EFTA).

$Border_{ij}$: assesses the potential role of a common border between countries

$Language_{ij}$: assesses the potential role of a common language between countries

In the work presented here we have included a number of further variables. These variables are designed to capture some specific features which may be applicable when estimating the model across a very diverse range of countries. Hence in principal the above model captures differences in size across countries with the inclusion of the GDP and the population variables. However, it may be that size impact upon trade in a non-linear fashion, and hence we have included both GDP and population squared as explanatory variables. We have also controlled for countries being either land-locked or island economies.

As is now standard in the literature we include a dummy variable for whether a country is a member of a regional integration grouping or not. As we have 95 countries in our sample, there are a number of regional integration agreements which could be included. In the base regression we include all of the regional integration dummies. However, we then explore the implications for the results of excluding some of these dummies. The reasons underlying this are discussed in more detail below.

For the Caribbean economies as we are interested in distinguishing between the OECS economies, and the remaining Caricom economies we have three separate regional dummies. First we have a dummy (dcaricom) which captures the extent to which trade between the non-OECS Caricom countries may be higher or lower. Secondly, we include a dummy which captures the extent of trade between the OECS countries themselves (doecs). And finally we include a dummy to explore how much trade there is between the OECS countries and the remaining Caricom economies (doecscaric).

In some of the regressions, we also explore the implications for the results of extending the model in the spirit of Winters and Soloaga. The extension of the gravity equation consists in incorporating a set of three dichotomic variables for each trade bloc: one capturing intra-bloc trade, a second one capturing imports by members from all countries and the third one capturing exports by bloc members to all countries. These sets of dummies can be informative of trade diversion or trade creation. Trade diversion would be identified by a falling propensity to import from all sources coupled with an increase in the overall propensity to import from members. On the other hand, trade creation would be evidenced if the increase in the overall propensity to import from members more than compensates for the decrease in the propensity to import from all sources. A negative coefficient on the dummy capturing exports by bloc members to the ROW could be an

indicator of a harmful PTA for the ROW, or, what Winters and Soloaga call *export diversion.*

Finally, we have also included variables which give the degree of specialisation in each economy, as well as the share of services as a proportion of GDP. The former is important because the extent to which countries trade is likely to be related to the degree of diversification in an economy, and the latter is important because our data is on trade in goods, yet many economies are highly specialised in services. Ideally we would wish to estimate the model therefore with data on trade in goods and services. However, bilateral data on services trade is not available and therefore the model is estimated on goods trade only. In order to try and control for the possibility that economies' may be exporting services in return for goods (and for example in the Caribbean region the export of services is indeed important) we include the share of services in GDP as an explanatory variable.

The intuition and expected sign of the key variables is discussed below:

GDP at current prices. In a Gravity equation, GDP acts as a proxy for the size of the economies both of the importer and the exporter. As these economies are bigger, there will be more trade between the two countries. Country i's potential supply of exports depends on its national product as well as country j's potential demand of imports depends on its national income. A positive sign is then expected for the coefficient on GDP of both the importer and the exporter countries. We consider data on GDP taken from World Bank, World Development Indicators.

Population. In addition to GDP, country i's supply of exports depends on the ratio of its production for export to total production. Winters and Chang (1994) claim there is a strong negative correlation between population and openness. To the extent that population is a proxy for geographical size, and the latter in turn is correlated with resource endowments, high population will make autarky more likely. It is also claimed that population proxies for size, as GDP does. If so, the coefficient on population should be positive.

Distance. This variable is capturing transport costs. Also, Loungani, Mody and Razin (2000) in UNCTAD (2003), state that "distance captures more than transport costs and that large distance may be associated with greater information and search costs". A negative sign is expected for the coefficient on this variable

Common Language. This dichotomic variable attempts to capture to what extent cultural similarities foster trade. It may also capture trade costs. The variable takes value one when both countries trading share the same language and zero if not.

Island. Two dichotomic variables were included to control for the geographical characteristics of the importing and exporting countries. If the exporting or importing country is an island, trade may be more difficult than if it is not. A negative sign is expected for the coefficient on this variable.

Trade blocs dummies: In order to analyse the effect of PTAs on the direction of trade, we followed the methodology of Soloaga and Winters (1999), who define three sets of dummy variables for each trade bloc.

Intra bloc trade dummy. This takes value one when both countries are from the bloc and zero otherwise.

Bloc's imports. It takes value one when the importer is from the bloc and the exporter from the rest of the world. The coefficient on this dummy in conjunction with the one on the aforementioned variable will help to identify *'trade diversion'*. W&S observe the coefficients intra bloc and for the overall bloc imports. Trade diversion will be identified by a falling propensity to import from all sources coupled with an increase in the overall propensity to import from members. If the latter outweighs the former we also have trade creation.

Bloc's exports. It takes value one when the exporter is from the bloc and the importer from the rest of the world. According to W&S, a negative coefficient on the dummy for a given PTA's exports to non-members would indicate that, relative to the norm defined by the gravity equation, the PTA is harmful to non-member countries. They name this effect *'export diversion'*.

In terms of the regression methodology, all of the results we report on here were undertaken using OLS. Typically in gravity model estimation in the presence of zero reported trade flows in the data researchers typically employ the Tobit estimation procedure. As the trade flows are censored at zero, estimation using a Tobit model presents several advantages over OLS estimation. The advantage of Tobit estimation, among others, The advantage of Tobit estimation is that the estimated coefficients for the explanatory variables always yields positive trade flows. However, as gravity models typically work in logs, the zero reported trade flow in the data needs to be transformed

into a “small” number in order to enable the procedure to be utilised. This adjustment has some negative implications in terms of the quality of the estimates obtained using a Tobit model. Thus, in our work here instead of making these artificial adjustments to the data we have preferred to run an OLS estimation procedure but only on those observations for which a positive trade value is present in the data and excluding, then, the bilateral flows for which there was no trade in a particular year.

A second methodological issue which arises in the literature is whether in the cross section regression country specific importer and exporter fixed effects should be included. The inclusion of these fixed effects is in the spirit of Anderson and Wincoop (2001) who argue that they should be included in order to take account of relative price and trade costs differences between countries which are not otherwise captured by the model. However, used of such fixed effects can mean that any country specific variables in the model - such as GDP and population get absorbed by the fixed effects. One is then left with a reduced set of explanatory variables which is perhaps less satisfactory. We have also run the regressions with fixed effects. The results obtained are similar to those reported here, though they tend to increase the absolute magnitue of the key variables of interest her - that is the regional dummies.

Table 5.5 gives a first set of results where we have estimated the OLS version of the model for each of the eleven years of our sample. It can readily be seen that the standard gravity coefficients yield highly significant and sensible results. Hence, the coefficients on GDP are positive, highly statistically significant and typically fairly close to 1. The coefficient on distance is also negative and highly statistically significant as would be expected. The control for a common language, is also positive and statistically significant. We also controlled for whether the importing and exporting economies were islands or not (d_isl_imp and d_isl_exp), however these were not statistically significant.

It is also interesting to note that the inclusion of the degree of export specialisation (herfexprod_exp) is negative and highly statistically significant for most of the years. This suggests that that bilateral trade tends to be lower the more highly specialised is the export structure of a given economy. Similarly, we see that the share of services in GDP (shservexp) is negative and highly statistically significant for all the years of the sample. Quite sensibly this indicates that the higher the share of services in GDP the lower is the bilateral trade flow in goods, other things being equal.

Table 5.5: OLS benchmark gravity estimation

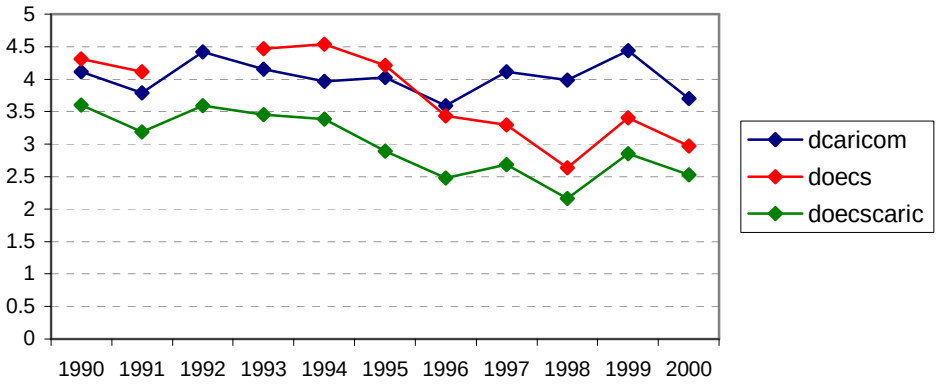
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
lgdp_imp	0.981**	0.997**	0.994**	1.048**	1.040**	1.002**	1.021**	0.918**	1.086**	0.940**	1.022**
lgdp_exp	1.198**	1.243**	1.521**	1.448**	1.277**	1.299**	1.431**	1.302**	1.255**	1.165**	1.164**
sqlgdp_imp	0.029**	0.024**	0.024**	0.011	0.013*	0.014*	0.015*	0.027**	0.011+	0.021**	0.013*
sqlgdp_exp	0.011	0.001	-0.033**	-0.016+	-0.003	-0.006	-0.011+	-0.004	0.002	0.016**	0.017**
lpop_imp	0.340	0.490	0.446	0.404	0.431	0.736*	0.529*	0.827**	0.410	1.047**	0.713**
lpop_exp	0.435	0.240	-0.259	-0.283	0.260	-0.063	-0.800**	-0.052	-0.047	0.598*	0.437+
sqlpop_imp	-0.020+	-0.023*	-0.022+	-0.017+	-0.020*	-0.028**	-0.022**	-0.031**	-0.020**	-0.036**	-0.026**
sqlpop_exp	-0.021*	-0.013	0.005	0.002	-0.013	-0.003	0.017*	-0.003	-0.003	-0.023**	-0.019*
ldistance	-1.193**	-1.310**	-1.248**	-1.284**	-1.225**	-1.268**	-1.380**	-1.387**	-1.408**	-1.368**	-1.466**
landlocked_imp	-0.001	0.168	0.123	-0.321*	-0.290*	-0.335**	-0.541**	-0.227*	-0.140	-0.183*	-0.364**
landlocked_exp	-0.334*	0.180	-0.097	-0.498**	-0.122	-0.362**	-0.234*	-0.312**	-0.268*	-0.302**	-0.328**
herfexpprod_exp	-1.510**	-1.175**	0.546	-0.539	-0.523	-0.549	-0.760**	-1.152**	-1.060**	-0.975**	-0.944**
dcaricom	4.111**	3.791**	4.417**	4.155**	3.965**	4.021**	3.589**	4.113**	3.987**	4.440**	3.697**
doecs	4.308**	4.111**	0.000	4.472**	4.533**	4.209**	3.439**	3.296**	2.635**	3.403**	2.971**
doecscaric	3.605**	3.185**	3.597**	3.454**	3.384**	2.894**	2.482**	2.683**	2.166**	2.858**	2.528**
due	-0.723**	-1.028**	-0.777**	-0.758**	-0.600**	-0.767**	-0.942**	-0.864**	-1.023**	-0.888**	-0.911**
dnafta	-0.788	-0.861	-0.603	-0.689	-0.351	-0.104	-0.284	-0.419	-0.470	-0.506	-0.756
dmercosur	-0.013	0.151	0.684**	0.546**	0.566**	0.523+	0.590**	0.554**	0.516*	0.929**	0.721**
dlaia	0.941**	0.877**	0.913**	0.800**	0.758**	0.734**	0.800**	1.054**	1.073**	1.343**	1.410**
dcacm	1.955**	1.784**	2.543**	2.226**	1.882**	1.731**	1.747**	1.870**	1.857**	1.835**	1.607**
dcer	1.211**	1.122**	1.397**	1.179**	1.377**	1.137**	0.846**	1.076**	0.856**	1.298**	1.167**
dsadc	2.109**	1.140	0.000	2.623**	4.001**	3.380**	3.789**	2.734**	3.345**	3.147**	2.855**
duemoa	1.726+	1.485*	1.902	3.170**	0.957	0.050	1.447**	1.710**	1.824**	1.395**	1.620**
dcomesa	2.214	2.180	2.344	1.517	2.139	1.409	1.398	1.812	1.688	1.087	1.623
d_isl_imp	-0.015	-0.009	0.029	0.054	-0.116	-0.071	-0.059	-0.077	-0.054	0.090	0.111
d_isl_exp	-0.154	0.004	-0.041	0.042	0.023	-0.010	0.035	0.123	0.331**	0.104	0.141
shservexp	-3.888**	-2.564**	-0.694	-1.574*	-2.505**	-1.441*	-1.333*	-1.113*	-0.839	-1.979**	-2.038**
dlang	1.069**	0.899**	0.998**	1.034**	1.032**	1.112**	1.145**	0.846**	0.896**	0.796**	0.818**
Constant	10.758**	10.547**	11.964**	13.510**	9.261**	8.892**	17.702**	8.917**	12.181**	2.006	6.956*
Observations	*2285*	*2226*	*2264*	*2924*	*3161*	*3700*	*4233*	*4242*	*4223*	*4624*	*4668*
R-squared	*0.797*	*0.804*	*0.801*	*0.791*	*0.800*	*0.797*	*0.781*	*0.782*	*0.778*	*0.778*	*0.773*

Robust p values in parentheses, + significant at 10%, * significant at 5%, ** significant at 1%

Of particular interest in the context of this paper are the coefficients capturing intra-Caricom, intra OECS and Caricom-OECS trade. These are given in the shaded portion of the table, and are presented graphically below. There are three things potentially of interest when looking at these coefficients. The first is their magnitude. To see this the appropriate procedure is to take the exponential of the dummy. Hence if we look at intra-Caricom trade flows we see that being a member of the Caricom grouping implies that trade is between 40-80 times higher, in comparison to those countries not part of any regional grouping. It is important to be extremely careful in this interpretation and one should not place too much weight on the precise multiple. Nevertheless, there is clear evidence that the propensity to trade between Caricom countries is considerably higher than that of the countries in the sample, which are included in any regional integration agreement considered here.

Of course, it is hard to attribute causality to this. Hence, it is not possible to say that this is as a result of Caricom that the trade is higher. It is equally possible that trade could have been high between these countries prior to the formation of Caricom, and that indeed the high levels of trade were instrumental in the forming of Caricom. In order to explore this question we would have to have data going back to the early 1970s in order to see if there is any change in the magnitude of this coefficient around the time of the formation of Caricom.

Figure 5.1 Caribbean regional coefficients - base experiment



The second feature which emerges from this table is that for the first part of the period, until 1995 intra-OECS trade was highly comparable to intra-Caricom trade, however that after this period there appears to be more of a divergence. Hence

by the end of the period in the year 2000, the coefficients indicate that being a member of the OECS was associated with trade being approximately 20 times higher in comparison to those countries not part of a regional grouping, whereas for the non-OECS Caricom countries, trade was in the order of being 40 times higher. Again the absolute figures should be treated carefully, but what is significant is the difference between the size of the Caricom and the OECS dummies. The third feature is that consistently throughout this period trade between the OECS countries and the other Caricom countries is lower than intra-Caricom trade, and lower than intra-OECS trade. There is also a fairly steady decline in this coefficient over the period, such that by the end of the period trade is approximately 12 times higher than for those countries not part of any regional trading arrangement. It is worth mentioning here that the descriptive statistics indicated the importance of Trinidad and Tobago in Caribbean intra-regional trade. In order to ensure that the results are not being overly influenced by this economy we have run all our regression without Trinidad and Tobago. The qualitative and quantitative results are very similar and hence are not reported here.

While these results are very interesting it is important to consider how robust they are, and hence how sensitive they might be to alternative formulations. The procedure we have adopted for the preceding regression where we include regional dummies for all the possible regional trading agreements is completely standard and commonly employed in the literature. The results then inform us of the extent to which members of given regional groupings' trade may differ from all those countries in the model who have not been assigned to any given regional agreement - we call these countries the base countries. With the proliferation of regional trading agreements a large proportion of the countries in our sample are thus included within the regional dummies. Conversely this means that there are comparatively few countries which are excluded and thus in the base. Indeed there are only five non-RTA countries which consistently appear in the base in every year. The concern then is that these results may be sensitive both to the de facto selection of the small no of countries in the base, as well as to the changing nature of the base as we do not have data for each year and country.

In order to explore this we run two further regressions where we include the Caribbean regional dummies, but exclude some of the other regional dummies. First,

we excluded the the EU and NAFTA. For this regression therefore all the EU and NAFTA countries are included in the base. We call this the "developed country base" experiment. The advantage of this regression is that the base is both larger and more consistent. A disadvantage is that in interpreting the regional dummies, the point of comparison is thus largely with more developed countries, and this may be less appropriate for the Caribbean. An alternative formulation therefore is to include the EU and NAFTA regional dummies, but to exclude all the other regional groupings. The base is again larger, but slightly less consistent as there are some holes in the data coverage for some of the countries now included in the base. We call this the "less developed country base" experiment. The implications of these two alternative formulations for our Caribbean regional dummies are given in Figures 5.2 and 5.3 (a complete set of results can be found in the Appendix to this chapter).

Figure 5.2 Caribbean regional coefficients with Developed Country base

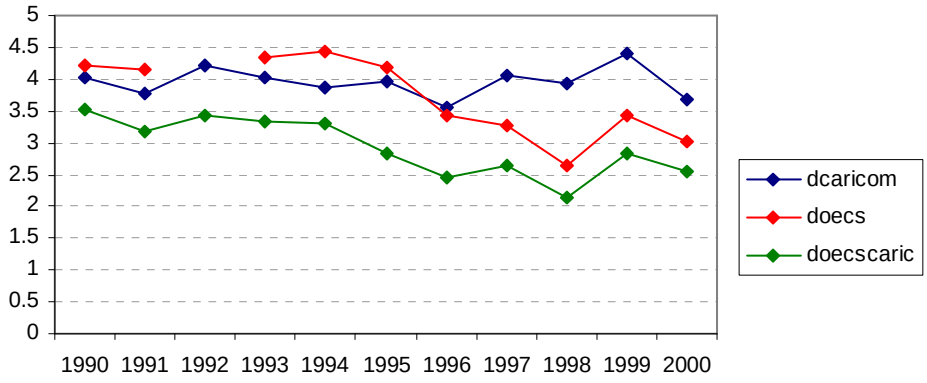
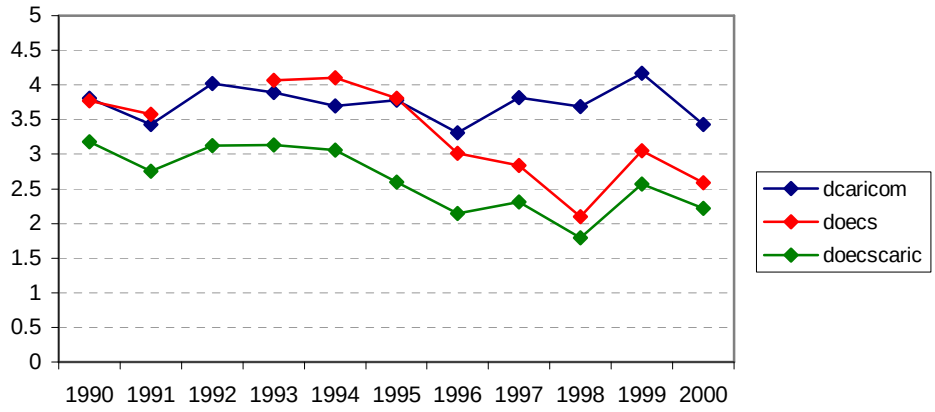


Figure 5.3 Caribbean regional coefficients with LDC base



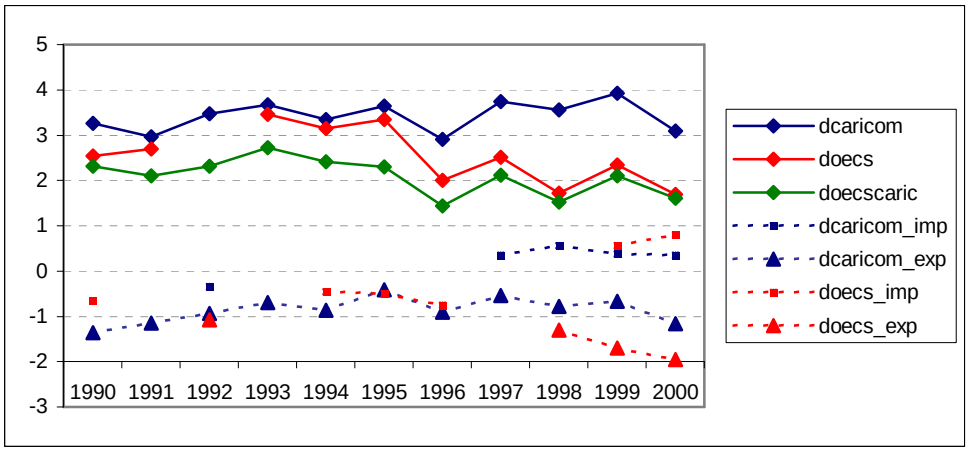
From the figures it can be seen that the overall pattern of changes is very similar to that reported in the first experiment with the relative decline in the OECS

coefficient from 1994 onwards. With the developed country base the magnitude of most of the coefficients is slightly lower in comparison to the first experiment. This decline in the coefficients is more marked with the LDC country base. There is thus some sensitivity of the results to the base, though the pattern of results is highly consistent.

These results therefore suggest that from the mid 1990s there was some reorientation of OECS countries trade away from each other. The fact that the the OECS-Caricom dummy exhibits a similar pattern to the OECS dummy suggests that this reorientation was not directed towards other Caribean country as importers, but more towards third countries. This is perhaps consistent with the signing of various free trade agreements by the Caribbean with third countries. In 1992, they signed a free trade agreement with Venezuela, which became effective on 1 January 1993. What is interesting, however, is that the same effect does not occur for the non-OECS Caribbean economies.

A way of focussing on the external trade effects, is to use the alternative specification of the gravity model suggested by Winters and Soloaga. As discussed earlier this involves adding in additional dummy variables which capture the extent to which imports to any given regional grouping, and exports by that grouping may be higher or lower. Any changes in these coefficients subsequent to any change in integration arrangements can thus be used to try and shed light for example on any trade creation or trade diversion. In the context of the Caribbean there is no direct change in intra-Caribbean trading relations but there were changes in the external trading relations. The results for the Caribbean regional dummies are given in Figure 5.4, where as before we have only given the coefficients which are statistically significant (again the full set of results can be found in the appendix to this chapter). This regression is on the LDC country base. A similar pattern of results but with larger coefficients as above was found with the DC country base.

Figure 5.4 OLS regression with the expanded set of Caribbean coefficients



The pattern of changes over time is as before, the overall magnitude of the intra-Caricom, intra-OECS, and Caricom-OECS coefficients declines. Hence for the year 2000, intra-Caricom trade is just over 20 times higher than the base, whereas intra-OECS and Caricom-OECS trade is approximately 5 times higher than that of the base countries. Turning now to the exports of the non-OECS Caricom countries we see that the coefficient is fairly stable over much of the period, but that exports are less than those of the base countries. There is some evidence of imports being slightly higher. For the OECS countries, the coefficient on extra-regional imports is rarely significant but there is some evidence of a rise in this coefficient over the time period. Hence whereas in 1990, the coefficient was negative, it is positive (though) small over the period 1999-2000. This confirms the reorientation of OECS trade patterns discussed above. With regard to extra-regional exports, again the coefficient is only significant for a few of the years, but there is evidence of a decline over 1998-2000 which is consistent with the changing pattern of preferences, for example in the EU for these countries.

We next turn to a consideration of how sensitive the results may be to the size of the countries included in the sample. Our sample includes the very large and rich countries, as well as extremely poor and small countries. The aim of this analysis is to explore the extent to which the gravity modelling framework adequately captures trading relations between very small countries. To some degree we have tried to capture this by including GDP and population squared terms in the preceding regression. In order to explore this issue we have divided our sample into quintiles

based on their levels of GDP. We have then run a series of five regression, where in each case we add in the subsequent quintile. Hence in Figure 6.5 below, the series dcaricom-1 gives the coefficients for the intra-Caricom dummy for the regression run on the first quintile, dcaricom-2 for the regression run on the first and second quintiles, and so on (see the Appendix to this chapter for the full set of results).

Figure 5.5: Intra-Caricom coefficients by quintile

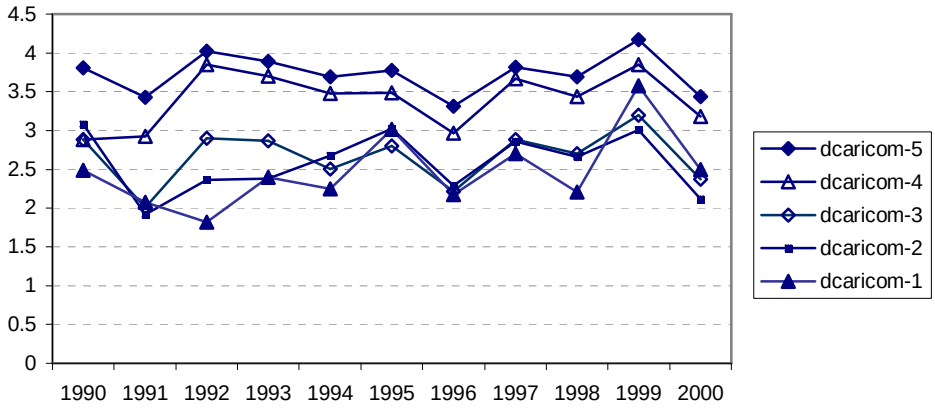


Figure 5.5 then gives the results for the intra-Caricom dummy for these five sets of regression. What is immediately apparent is that as the number of countries included increases, the regional coefficient tends to get larger. Of course by employing this procedure the composition of the countries is changing across the regressions and therefore one has to be careful with interpreting the coefficients. The list of countries appearing in each quintile is in Table A1 in the appendix). Hence in the figure, only two non-OECS Caricom countries, Guyana and Belize, appear in the first quintiles, whereas Bahamas and Barbados then appear in the second quintile, and Trinidad and Tobago in the third quintile. Nevertheless, although the magnitude of the coefficient is impacted upon the coefficients are always statistically significant and show a similar pattern over time across the regressions. Hence, in all these regressions there is clear evidence to show that being a non-OECS member of Caricom is associated with higher levels of intra-Caricom trade.

In Figure 5.6 we then give the analagous set of results but where we are focussing on the intra-OECS coefficients. Here we see quite a substantial difference as we move across the quintiles. It is important to note here that all the OECS

countries appear in the first quintile hence there are no OECS compositional shifts across the regressions. As with the Caricom coefficients with the progressive reduction of higher income countries from the sample the magnitude of the coefficient declines, as well as becoming typically less significant. Hence if we look at the fist quintile, we see little evidence that, in comparison the base, the OECS economies trade more amongst each. If anything the results suggest that in comparison to other small countries the OECS tend to trade less amongst each other. This is also true where we include the first and second quintiles.

Figure 5.6 Intra-OECS coefficients by quintile

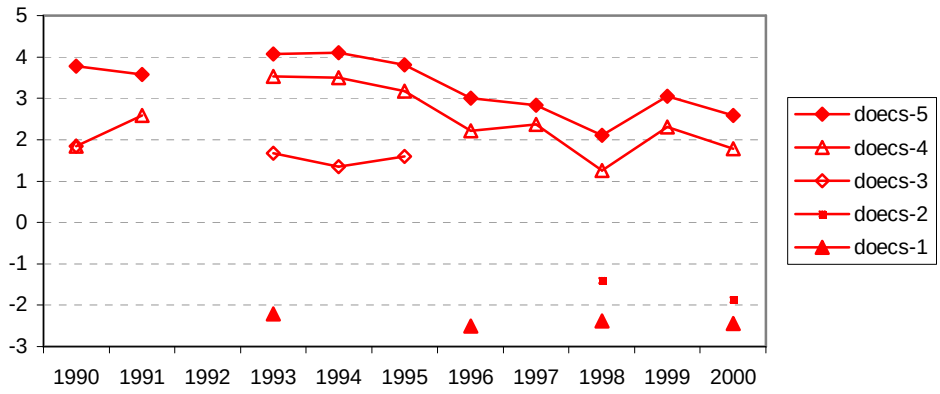
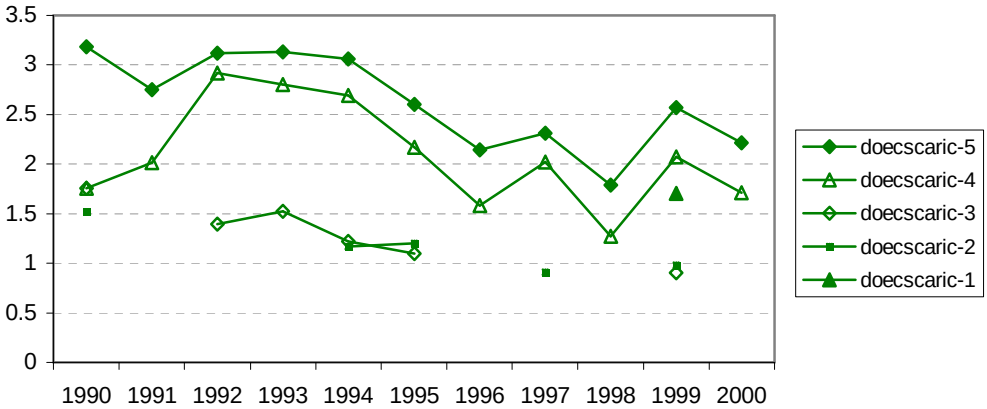


Figure 5.7 Caricom-OECS coefficients by quintile



These results suggest that we should treat with some caution the results obtained from an aggregate gravity model which includes countries of very diverse sizes. Of course in principle this country size is being captured in the model, and in our case we allow for non-linearity with the inclusion of a squared term. Nevertheless, when we break the analysis down into quintiles the picture which emerges is

somewhat different, and it is less clear that the OECS economies do trade relatively more among themselves in comparison to other small economies. This is clearly part of the agenda then for future research – both to understand this phenomenon in the context of the Caribbean better, but also methodologically to consider improved ways of handling such size issues in the context of a gravity model.

5.4: Summary and Conclusions

In summary then, the analysis in this part of the report has indicated that there is considerable diversity in the Caribbean region across the different economies. In the first instance this was picked up in the descriptive statistics, and confirms the analysis in the previous parts to this report. The descriptive statistics considered in Part 4 of this report also suggested that in the face of declines to external markets, the OECS economies, and St.Lucia in particular managed to maintain the real level of its' intra-regional trade flows. This might suggest that the process of Caribbean regional integration has helped to promote intra-Caricom trade for at least some of the OECS economies.

In this part of the report we have managed to focus on this issue more formally through the use of the gravity model. The disadvantage of the model is that the results are for groups of countries and the model does not generate country specific coefficients. Given the diversity in the region this is potentially significant. However, we can distinguish between different groups of countries, and hence we have explored the extent to which the intra-regional trade for the OECS economies differs to that of the remaining Caricom economies.

The evidence suggests that intra-Caricom trade for the non-OECS economies is consistently significantly higher than the base – and by a substantial amount. Hence that these countries trade substantially among themselves. There is little evidence of any big changes over the period in question (1990-2000). In one regard this is perhaps unsurprising – as there were little changes in formal barriers to trade between these countries. On the other hand the region has liberalised trade with third countries over these years, so perhaps some reorientation away from the Caribbean might have been expected. There is little evidence of this occurring. It is important also here to

underline that we are not attributing causality here. Hence, we cannot say whether it is because of the institutions of Caricom that regional trade is relatively speaking so high.

It is also important to emphasise that the analysis here is based on trade in goods. As argued and shown elsewhere in this report while goods trade is important for the region, it is the services sector and services trade which dominates many of these economies. While we have to some extent controlled for this in our regressions, we have not directly addressed the issue of bilateral services trade. This is simply because the data on this is lacking[7].

If we consider the OECS economies the picture is much more mixed. If we take the aggregate results, there is clear evidence of a decline in intra-OECS, and OECS-Caricom trade in the latter half of the time period. One possible explanation for this could be the agreements with the third countries which have served to switch sources of supply. In order to establish the extent to which this might the case it would be necessary to consider changes in the pattern of trade by source and by product group at a more detailed level. However, we have also shown that these results are sensitive to the underlying base. When we explore different formulations of the base we find that there is less clear evidence concerning the higher levels of intra-OECS and OECS-Caricom trade – indeed there is even some evidence that trade may be lower than between other similar sized countries.

What are the conclusions then that can be drawn from this? First, the preceding discussion of the evidence on the OECS would lend support to the argument that the experience of the OECS economies may be qualitatively and quantitatively different to that of the remaining Caricom economies. To the extent that this is the case this can then also be used to lend support to the argument for the differential treatment of these economies. However, as argued elsewhere in this report (see the discussion in Part 6), we would argue that one has to be extremely careful in both justifying any special and differential treatment as well as in its implementation. The key message here is that it is important to design policies which minimise

[7] Note that there is an interesting recent paper on services and service trade in the OECS, "An Assessment of Trade Performance and Competitiveness of OECS countries", Vignoles C, (2005). Report prepared for the Caribbean Regional Negotiating Machinery.

distortions and which facilitate integration into both the regional economy as well, as the wider international trading community.

Secondly, to the extent that OECS regional trade is lower it is important to understand more clearly why this might be the case. It may well be the case, for example, that the cause of this is not one which necessarily supports the case for special and differential treatment. For example one can think of three possible explanations for the above. (i) that the OECS economies due to their size and vulnerability have more difficulty in engaging in the process of regional integration. That difference in these economies is then a possible justification for special and differential treatment; (ii) that the reason for the lower levels of intra-OECS trade arise because of the existing nature of special differential treatment within Caricom which has enabled these economies to protect key industries but at the expense of long run competitiveness. This argument would then suggest that maintaining or extending special and differential treatment might only make matters worse; (iii) that intra-regional trade in goods is lower for the OECS economies because they are structurally different from the larger economies because of the greater importance in services. Hence the decline in the intra-OECS coefficient identified in the base regression could well be a reflection of the increased specialisation in services which is taking place. In that case rather than indicating a problematic feature of the OECS pattern of trade, the lower levels of manufactured goods trade are a positive indication of structural adjustment taking place in the economy.

Clearly, each of the above are possible and each of the above merit careful attention and further analysis. The point we are making here is that simply identifying that intra-OECS trade appears to be lower than that for comparable countries is not necessarily and in and of itself and indication of the negative impact of regional integration on these economies, nor necessarily an argument that can be used to justify special and differential treatment.

Secondly, it is worth considering what light this analysis might shed on the scope for further integration. Bearing in mind the caveats already expressed, gravity models typically do well at capturing the impact of regional integration agreements. Much of the process of integration in the Caribbean so far has been focussed on

shallow integration – that is on the removal of direct obstacles to trade such as tariff and non-tariff barriers[8]. The region is currently moving towards a process much more characterised by deep integration which involves both more mobility of factors of production but also dealing with for example regulatory and standards issues across countries. Current generations of gravity models do less well at directly capturing these effects – largely because there are few clearly identifiable variables which allow us to capture these effects.

Nevertheless, it is highly likely that real movement on deep integration in the region is likely to enhance the flexibility of the region to respond to the changing nature of global competition, and is more likely to encourage the exploitation of economies of scale in production, as well as to facilitate productivity improvements. All of this is likely to improve economic performance and growth and to improve the competitiveness of the region. To the extent then that there is scope for further Caribbean regional integration it is clear that this should be (a) the removal of any remaining obstacles to shallow integration; and (b) the furtherance of the process of deep integration as is currently taking place under the auspices of the Caribbean Single Market and Economy.

This in turn takes us back to the issue of services. Clearly deep integration can cover may aspects, but the likely benefits both in terms of spillover effects (externalities) and in the public good nature of many features of deep integration are likely to be extremely important for services and services trade. Given the importance of services to the region, and given the importance of deep integration for competitiveness and growth in services it is then important that these issues are addressed and furthered both in the CSME process and in the EPA negotiations. An EPA process which resulted simply in the more symmetric liberalisation of goods trade is likely to much less beneficial to the region than one which also incorporated services, and the particular needs of the region with regard to services liberalisation.

[8] Though as noted elsewhere in this report a number of both de jure and de facto barriers remain in place.

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Appendix:

Table A1: ACP-EPA Negotiating Groups

West Africa	Central Africa	East South Africa	Southern Africa	Caribbean	Pacific
Benin	Cameroon	Burundi	Angola	Antigua, Barb	Cook Is.
Burkina Faso	Centr. Africa	Comoros	Botswana	Bahamas	Fed. Micron.
Cape Verde	Chad	Congo (Dem. Rep.)	Lesotho	Barbados	Fiji
Gambia	Congo	Djibouti	Mozambique	Belize	Kiribati
Ghana	Equat. Guinea	Eritrea	Namibia	Dominica	Marshall Is.
Guinea	Gabon	Ethiopia	Swaziland	Dominican Rep.	Nauru
Guinea Biss.	S. Tome, Princ	Kenya	Tanzania	Grenada	Niue
Ivory Coast		Malawi		Guyana	Palau
Liberia		Mauritius		Haiti	Papua N. G.
Mali		Madagascar		Jamaica	Samoa
Mauritania		Rwanda		St Lucia	Solomon Is.
Niger		Seychelles		St Vincent	Tonga
Nigeria		Sudan		St. Ch. & Nevis	Tuvalu
Senegal		Uganda		Surinam	Vanuatu
Sierra Leone		Zambia		Trinidad & Tobago	
Togo		Zimbabwe			

Table A2: OLS regression with developed country base (no fixed effects)

	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
lgdp_imp	0.914	0.918	0.926	0.986	1.012	0.982	1	0.9	1.068	0.915	0.998
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
lgdp_exp	1.125	1.142	1.448	1.388	1.245	1.273	1.402	1.278	1.23	1.137	1.141
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
sqlgdp_imp	0.031	0.025	0.024	0.013	0.012	0.013	0.014	0.025	0.009	0.02	0.011
	(0.000)**	(0.001)**	(0.003)**	(0.099)+	(0.058)+	(0.044)*	(0.023)*	(0.000)**	-0.122	(0.000)**	(0.039)*
sqlgdp_exp	0.013	0.004	-0.032	-0.015	-0.003	-0.007	-0.012	-0.005	0	0.015	0.016
	-0.146	-0.587	(0.001)**	(0.087)+	-0.693	-0.282	(0.034)*	-0.355	-0.98	(0.014)*	(0.008)**
lpop_imp	0.432	0.586	0.538	0.493	0.446	0.707	0.492	0.798	0.351	1.026	0.686
	-0.235	(0.074)+	-0.145	-0.141	-0.111	(0.015)*	(0.054)+	(0.002)**	-0.22	(0.000)**	(0.004)**
lpop_exp	0.542	0.363	-0.199	-0.21	0.291	-0.065	-0.819	-0.073	-0.105	0.58	0.406
	-0.122	-0.249	-0.553	-0.496	-0.289	-0.812	(0.001)**	-0.786	-0.702	(0.016)*	(0.095)+
sqlpop_imp	-0.021	-0.024	-0.023	-0.019	-0.019	-0.027	-0.02	-0.029	-0.017	-0.034	-0.024
	(0.062)+	(0.017)*	(0.043)*	(0.069)+	(0.029)*	(0.004)**	(0.011)*	(0.000)**	(0.053)+	(0.000)**	(0.001)**
sqlpop_exp	-0.023	-0.015	0.004	0.001	-0.013	-0.002	0.018	-0.002	0	-0.022	-0.017
	(0.030)*	-0.104	-0.694	-0.951	-0.122	-0.836	(0.016)*	-0.823	-0.969	(0.003)**	(0.021)*
ldistance	-1.154	-1.211	-1.223	-1.258	-1.212	-1.24	-1.339	-1.354	-1.365	-1.318	-1.408
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
landlocked_imp	-0.065	0.112	0.077	-0.362	-0.332	-0.369	-0.573	-0.265	-0.178	-0.236	-0.407
	-0.668	-0.438	-0.648	(0.007)**	(0.008)**	(0.000)**	(0.000)**	(0.005)**	(0.065)+	(0.011)*	(0.000)**
landlocked_exp	-0.393	0.071	-0.152	-0.548	-0.165	-0.402	-0.262	-0.344	-0.291	-0.344	-0.367
	(0.018)*	-0.684	-0.32	(0.000)**	-0.19	(0.000)**	(0.015)*	(0.001)**	(0.008)**	(0.000)**	(0.000)**
herfexpprod_exp	-1.512	-1.212	0.488	-0.602	-0.569	-0.57	-0.79	-1.177	-1.1	-0.981	-0.937
	(0.003)**	(0.007)**	-0.297	-0.132	-0.142	(0.096)+	(0.007)**	(0.000)**	(0.000)**	(0.000)**	(0.001)**
dcaricom	4.019	3.779	4.215	4.037	3.872	3.956	3.551	4.051	3.923	4.392	3.675
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
doecs	4.218	4.151	0	4.348	4.445	4.173	3.433	3.273	2.642	3.432	3.018
	(0.000)**	(0.000)**	(.)	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
doecscaric	3.527	3.19	3.425	3.332	3.291	2.836	2.457	2.639	2.125	2.836	2.532
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
dsadc	1.963	1.145	0	2.462	3.876	3.295	3.733	2.648	3.224	3.064	2.801
	(0.004)**	-0.142	(.)	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
duemoa	1.464	1.183	1.521	2.876	0.728	-0.081	1.341	1.591	1.709	1.286	1.517
	-0.104	(0.065)+	-0.374	(0.000)**	-0.461	-0.906	(0.005)**	(0.000)**	(0.000)**	(0.009)**	(0.008)**
dcomesa	2.066	2.062	2.166	1.388	2.029	1.346	1.346	1.762	1.645	1.046	1.602
	(0.003)**	(0.002)**	(0.000)**	(0.008)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.013)*	(0.000)**
d_isl_imp	-0.035	-0.024	0.021	0.037	-0.126	-0.078	-0.069	-0.089	-0.076	0.076	0.094
	-0.737	-0.818	-0.835	-0.701	-0.161	-0.414	-0.44	-0.326	-0.402	-0.365	-0.29
d_isl_exp	-0.172	-0.029	-0.098	0.017	0.01	-0.029	0.017	0.107	0.312	0.089	0.124
	-0.115	-0.783	-0.364	-0.86	-0.913	-0.739	-0.841	-0.22	(0.001)**	-0.313	-0.158
shservexp	-3.838	-2.499	-0.791	-1.683	-2.564	-1.455	-1.293	-1.037	-0.698	-1.883	-2.009
	(0.000)**	(0.001)**	-0.317	(0.030)*	(0.000)**	(0.020)*	(0.022)*	(0.051)+	-0.174	(0.000)**	(0.000)**
dlang	1.204	1.056	1.163	1.164	1.137	1.208	1.232	0.945	1.008	0.907	0.936
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Constant	8.457	7.51	10.299	11.835	8.633	8.691	17.546	8.754	12.378	1.542	6.651
	(0.036)*	(0.044)*	(0.011)*	(0.001)**	(0.006)**	(0.006)**	(0.000)**	(0.004)**	(0.000)**	-0.57	(0.015)*
Observations	*2285*	*2226*	*2264*	*2924*	*3161*	*3700*	*4233*	*4242*	*4223*	*4624*	*4668*
R-squared	*0.793*	*0.799*	*0.796*	*0.787*	*0.797*	*0.795*	*0.779*	*0.779*	*0.775*	*0.775*	*0.77*

Robust p values in parentheses, + significant at 10%, * significant at 5%, ** significant at 1%

Table A3: OLS regression with developing country base (no fixed effects)

	-1 1990	-2 1991	-3 1992	-4 1993	-5 1994	-6 1995	-7 1996	-8 1997	-9 1998	-10 1999	-11 2000
lgdp_imp	0.948	0.977	0.96	1.011	1.009	0.977	0.986	0.881	1.051	0.919	0.991
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
lgdp_exp	1.153	1.206	1.475	1.41	1.251	1.292	1.396	1.27	1.22	1.141	1.133
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
sqlgdp_imp	0.03	0.024	0.024	0.012	0.013	0.014	0.016	0.027	0.012	0.022	0.013
	(0.000)**	(0.001)**	(0.003)**	-0.117	(0.046)*	(0.031)*	(0.008)**	(0.000)**	(0.046)*	(0.000)**	(0.017)*
sqlgdp_exp	0.013	0.002	-0.032	-0.015	-0.004	-0.009	-0.011	-0.005	0.002	0.016	0.018
	-0.155	-0.798	(0.000)**	(0.069)+	-0.603	-0.192	(0.050)*	-0.408	-0.751	(0.006)**	(0.003)**
lpop_imp	0.467	0.585	0.536	0.52	0.528	0.802	0.653	0.994	0.576	1.144	0.834
	-0.202	(0.074)+	-0.152	-0.121	(0.062)+	(0.006)**	(0.011)*	(0.000)**	(0.046)*	(0.000)**	(0.000)**
lpop_exp	0.572	0.326	-0.206	-0.192	0.301	-0.073	-0.734	-0.006	0.014	0.695	0.544
	-0.1	-0.302	-0.545	-0.534	-0.273	-0.789	(0.003)**	-0.982	-0.958	(0.004)**	(0.026)*
sqlpop_imp	-0.023	-0.025	-0.024	-0.02	-0.021	-0.029	-0.025	-0.035	-0.024	-0.038	-0.028
	(0.045)*	(0.012)*	(0.041)*	(0.055)+	(0.016)*	(0.002)**	(0.002)**	(0.000)**	(0.008)**	(0.000)**	(0.000)**
sqlpop_exp	-0.024	-0.015	0.004	0	-0.013	-0.001	0.016	-0.003	-0.003	-0.026	-0.022
	(0.020)*	-0.109	-0.696	-0.993	-0.128	-0.893	(0.036)*	-0.685	-0.704	(0.001)**	(0.005)**
ldistance	-1.318	-1.433	-1.37	-1.376	-1.323	-1.369	-1.483	-1.502	-1.52	-1.465	-1.569
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
landlocked_imp	-0.029	0.136	0.073	-0.364	-0.325	-0.347	-0.554	-0.226	-0.143	-0.174	-0.354
	-0.85	-0.344	-0.666	(0.007)**	(0.010)**	(0.000)**	(0.000)**	(0.017)*	-0.14	(0.060)+	(0.000)**
landlocked_exp	-0.364	0.155	-0.155	-0.534	-0.121	-0.344	-0.206	-0.301	-0.259	-0.287	-0.306
	(0.028)*	-0.362	-0.304	(0.000)**	-0.333	(0.002)**	(0.055)+	(0.003)**	(0.018)*	(0.002)**	(0.002)**
herfexpprod_exp	-1.604	-1.285	0.526	-0.525	-0.459	-0.358	-0.773	-1.147	-1.093	-1.031	-1.037
	(0.002)**	(0.004)**	-0.26	-0.186	-0.233	-0.297	(0.008)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
dcaricom	3.804	3.426	4.02	3.889	3.693	3.778	3.313	3.813	3.69	4.171	3.433
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
doecs	3.771	3.581	0	4.064	4.108	3.81	3.009	2.833	2.1	3.051	2.584
	(0.000)**	(0.000)**	(.)	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
doecscaric	3.181	2.75	3.122	3.132	3.063	2.6	2.142	2.314	1.789	2.571	2.217
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
due	-0.888	-1.206	-0.906	-0.855	-0.701	-0.867	-1.038	-0.975	-1.131	-1.008	-1.029
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
dnafta	-0.95	-1.018	-0.758	-0.806	-0.481	-0.242	-0.41	-0.553	-0.601	-0.631	-0.864
	-0.156	-0.114	-0.228	-0.193	-0.427	-0.735	-0.602	-0.44	-0.414	-0.381	-0.256
d_isl_imp	0.01	0.021	0.071	0.073	-0.079	-0.016	-0.011	-0.018	-0.015	0.11	0.138
	-0.924	-0.84	-0.487	-0.451	-0.382	-0.865	-0.903	-0.844	-0.867	-0.186	-0.123
d_isl_exp	-0.125	0.031	-0.041	0.052	0.049	0.028	0.076	0.171	0.385	0.136	0.186
	-0.253	-0.768	-0.708	-0.594	-0.597	-0.753	-0.377	(0.049)*	(0.000)**	-0.127	(0.035)*
shservexp	-3.853	-2.549	-0.545	-1.517	-2.292	-1.164	-1.123	-0.862	-0.684	-1.926	-2.047
	(0.000)**	(0.001)**	-0.49	(0.049)*	(0.001)**	(0.063)+	(0.048)*	-0.106	-0.186	(0.000)**	(0.000)**
dlang	1.17	0.974	1.133	1.141	1.148	1.197	1.261	0.979	1.03	0.945	0.957
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Constant	9.541	10.06	11.55	12.36	8.499	8.681	16.59	7.613	10.86	1.001	5.745
	(0.020)*	(0.008)**	(0.005)**	(0.001)**	(0.007)**	(0.006)**	(0.000)**	(0.012)*	(0.001)**	-0.714	(0.036)*
Observations	2285	2226	2264	2924	3161	3700	4233	4242	4223	4624	4668
R-squared	0.793	0.801	0.795	0.787	0.795	0.793	0.777	0.777	0.774	0.775	0.769

Robust p values in parentheses, + significant at 10%, * significant at 5%, ** significant at 1%

Table A4: OLS regression with Soloaga-Winters regional dummies

	-1 1990	-2 1991	-3 1992	-4 1993	-5 1994	-6 1995	-7 1996	-8 1997	-9 1998	-10 1999	-11 2000
lgdp_imp	0.705	0.789	0.799	0.9	0.913	0.915	0.93	0.822	1.006	0.868	0.931
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
lgdp_exp	1.29	1.276	1.401	1.373	1.198	1.27	1.403	1.248	1.187	1.132	1.156
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
sqlgdp_imp	0.038	0.028	0.029	0.017	0.013	0.013	0.014	0.024	0.008	0.023	0.014
	(0.000)**	(0.000)**	(0.000)**	(0.030)*	(0.051)+	(0.042)*	(0.026)*	(0.000)**	-0.176	(0.000)**	(0.023)*
sqlgdp_exp	0.009	0.004	-0.017	-0.009	0.002	-0.008	-0.013	-0.004	0.002	0.02	0.013
	-0.313	-0.621	(0.070)+	-0.275	-0.838	-0.204	(0.028)*	-0.49	-0.786	(0.000)**	(0.029)*
lpop_imp	0.179	0.449	0.304	0.303	0.114	0.353	0.027	0.805	0.711	1.418	1.287
	-0.628	-0.189	-0.407	-0.396	-0.708	-0.298	-0.926	(0.014)*	(0.047)*	(0.000)**	(0.000)**
lpop_exp	-0.023	-0.005	-0.474	-0.254	-0.082	-0.231	-1.17	-0.35	-0.728	-0.407	-0.968
	-0.952	-0.988	-0.171	-0.434	-0.778	-0.438	(0.000)**	-0.277	(0.018)*	-0.151	(0.001)**
sqlpop_imp	-0.008	-0.015	-0.013	-0.011	-0.006	-0.013	-0.004	-0.026	-0.025	-0.044	-0.039
	-0.479	-0.141	-0.252	-0.318	-0.527	-0.213	-0.659	(0.011)*	(0.025)*	(0.000)**	(0.000)**
sqlpop_exp	-0.008	-0.007	0.011	0.003	0	0.005	0.029	0.008	0.02	0.007	0.024
	-0.45	-0.472	-0.287	-0.784	-0.964	-0.574	(0.001)**	-0.445	(0.037)*	-0.436	(0.006)**
ldistance	-1.389	-1.522	-1.415	-1.396	-1.341	-1.365	-1.475	-1.486	-1.514	-1.453	-1.56
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
landlocked_imp	-0.033	0.161	0.087	-0.363	-0.322	-0.345	-0.548	-0.239	-0.178	-0.191	-0.374
	-0.82	-0.256	-0.602	(0.006)**	(0.010)**	(0.000)**	(0.000)**	(0.012)*	(0.067)+	(0.038)*	(0.000)**
landlocked_exp	-0.386	0.16	-0.173	-0.529	-0.155	-0.363	-0.21	-0.303	-0.23	-0.28	-0.324
	(0.020)*	-0.335	-0.246	(0.000)**	-0.217	(0.001)**	(0.053)+	(0.003)**	(0.035)*	(0.003)**	(0.001)**
herfexpprod_exp	-0.618	-1.066	0.768	-0.343	-0.357	-0.271	-0.643	-1.099	-1.118	-1.054	-1.046
	-0.248	(0.018)*	-0.106	-0.396	-0.356	-0.429	(0.032)*	(0.000)**	(0.000)**	(0.000)**	(0.000)**
dcaricom	3.262	2.965	3.468	3.666	3.35	3.65	2.905	3.744	3.561	3.921	3.088
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
dcaricom_imp	-0.06	-0.044	-0.342	-0.085	-0.265	0.025	-0.188	0.355	0.565	0.385	0.352
	-0.714	-0.82	(0.048)*	-0.639	-0.11	-0.879	-0.272	(0.032)*	(0.001)**	(0.015)*	(0.069)+
dcaricom_exp	-1.362	-1.142	-0.936	-0.691	-0.871	-0.41	-0.904	-0.546	-0.784	-0.663	-1.167
	(0.000)**	(0.000)**	(0.000)**	(0.002)**	(0.000)**	(0.052)+	(0.000)**	(0.011)*	(0.000)**	(0.000)**	(0.000)**
doecs	2.535	2.695	0	3.465	3.142	3.353	2.008	2.506	1.722	2.339	1.696
	(0.000)**	(0.000)**	(.)	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
doecs_imp	-0.659	-0.197	-0.366	-0.374	-0.456	-0.496	-0.759	0.008	0.405	0.558	0.806
	(0.022)*	-0.516	-0.325	-0.214	(0.076)+	(0.057)+	(0.004)**	-0.977	-0.173	(0.044)*	(0.004)**
doecs_exp	-0.344	-0.518	-1.072	-0.057	-0.465	0.002	-0.508	-0.509	-1.299	-1.694	-1.95
	-0.413	-0.201	(0.025)*	-0.879	-0.162	-0.994	-0.114	-0.179	(0.001)**	(0.000)**	(0.000)**
doecscaric	2.309	2.097	2.32	2.73	2.412	2.3	1.445	2.119	1.523	2.108	1.612
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.002)**	(0.000)**	(0.000)**
due	-0.693	-1.102	-0.812	-0.803	-0.437	-0.622	-0.797	-0.627	-0.829	-0.948	-0.831
	(0.001)**	(0.000)**	(0.000)**	(0.000)**	(0.002)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
due_imp	1.06	1.022	0.717	0.515	0.705	0.534	0.523	0.624	0.54	0.388	0.51
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.001)**	(0.000)**
due_exp	-0.152	-0.127	0.005	0.027	0.251	0.173	0.086	0.159	0.183	-0.001	0.192
	-0.229	-0.323	-0.971	-0.799	(0.010)**	(0.054)+	-0.347	(0.077)+	(0.051)+	-0.995	(0.041)*
dnafta	-1.024	-1.104	-0.913	-1.011	-0.444	-0.212	-0.283	-0.34	-0.437	-0.777	-0.785
	-0.159	-0.121	-0.177	-0.125	-0.488	-0.77	-0.72	-0.635	-0.555	-0.306	-0.315
dnafta_imp	-0.028	-0.164	-0.211	-0.278	-0.112	-0.157	-0.083	0.008	-0.064	-0.257	-0.086
	-0.883	-0.365	-0.244	(0.073)+	-0.445	-0.281	-0.572	-0.955	-0.672	-0.11	-0.553
dnafta_exp	-0.998	-0.983	-0.936	-0.98	-0.942	-0.713	-0.463	-0.442	-0.43	-0.912	-0.82
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
d_isl_imp	0.245	0.244	0.199	0.124	0.029	0.037	0.07	0.012	-0.028	0.05	0.088
	(0.044)*	(0.040)*	(0.079)+	-0.243	-0.761	-0.714	-0.466	-0.909	-0.778	-0.585	-0.386
d_isl_exp	-0.186	0.052	-0.015	0.023	0.05	0.018	0.146	0.212	0.489	0.172	0.364
	-0.111	-0.639	-0.889	-0.824	-0.615	-0.85	-0.107	(0.024)*	(0.000)**	(0.073)+	(0.000)**
shservexp	-2.949	-2.076	-0.144	-0.655	-1.642	-0.531	-0.669	-0.466	-0.044	-1.521	-1.439
	(0.000)**	(0.007)**	-0.86	-0.408	(0.018)*	-0.412	-0.262	-0.402	-0.935	(0.003)**	(0.008)**
dlang	1.313	1.109	1.245	1.265	1.297	1.303	1.343	1.061	1.103	1.074	1.1
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Constant	15.889	13.515	15.51	13.758	14.097	12.488	24.554	10.831	14.616	7.217	13.392
	(0.000)**	(0.001)**	(0.000)**	(0.001)**	(0.000)**	(0.000)**	(0.000)**	(0.004)**	(0.000)**	(0.037)*	(0.000)**
Observations	2285	2226	2264	2924	3161	3700	4233	4242	4223	4624	4668
R-squared	0.805	0.813	0.804	0.793	0.803	0.797	0.781	0.781	0.778	0.78	0.776

Robust p values in parentheses, + significant at 10%, * significant at 5%, ** significant at 1%

Table A5: OLS regression on the first quintile

	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
lgdp_imp	3.559	7.206	0	1.63	-0.642	-2.087	-5.046	-1.689	6.545	1.041	2.671
	-0.428	-0.133	(.)	-0.781	-0.913	-0.481	(0.088)+	-0.328	(0.012)*	(0.082)+	(0.000)**
lgdp_exp	0.938	0.892	1.257	0.887	0.733	0.431	0.667	0.799	0.977	0.627	0.707
	(0.006)**	(0.005)**	(0.000)**	(0.002)**	(0.003)**	(0.059)+	(0.002)**	(0.000)**	(0.000)**	(0.001)**	(0.000)**
sqlgdp_imp	1.039	2.396	-0.139	0.182	-0.676	-1.63	-2.962	-1.942	2.714	0.032	0.468
	-0.535	-0.192	-0.898	-0.945	-0.806	-0.255	(0.042)*	(0.047)*	(0.069)+	-0.87	(0.019)*
sqlgdp_exp	0.063	0.058	0.035	0.073	0.075	0.088	0.066	0.058	0.045	0.069	0.074
	(0.074)+	(0.077)+	-0.374	(0.012)*	(0.004)**	(0.000)**	(0.004)**	(0.010)*	(0.092)+	(0.000)**	(0.000)**
lpop_imp	0	0	0	4.168	1.346	3.709	2.696	-1.669	-19.222	3.553	-4.54
	(.)	(.)	(.)	-0.843	-0.944	-0.287	-0.431	-0.541	(0.027)*	-0.173	-0.116
lpop_exp	-1.46	-0.71	-3.998	-2.227	-0.545	0.417	-1.47	-0.806	-1.23	1.509	-0.414
	-0.229	-0.586	(0.007)**	(0.040)*	-0.587	-0.711	-0.198	-0.535	-0.318	-0.123	-0.602
sqlpop_imp	0.008	0.013	-0.003	-0.176	-0.039	-0.15	-0.111	0.081	0.751	-0.14	0.183
	-0.788	-0.687	-0.843	-0.851	-0.964	-0.3	-0.434	-0.466	(0.026)*	-0.19	-0.123
sqlpop_exp	0.026	0.009	0.101	0.048	0.002	-0.02	0.035	0.013	0.026	-0.051	-0.001
	-0.465	-0.82	(0.023)*	-0.143	-0.955	-0.557	-0.311	-0.748	-0.486	(0.079)+	-0.962
ldistance	-1.898	-2.071	-1.932	-1.996	-1.812	-1.738	-2.153	-1.896	-1.975	-1.885	-2.072
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
landlocked_imp	0	0	0	-0.806	-2.029	1.598	1.784	-2.306	-7.381	0	-2.805
	(.)	(.)	(.)	-0.94	-0.851	-0.511	-0.414	(0.044)*	(0.002)**	(.)	(0.000)**
landlocked_exp	-0.584	-0.004	-1.136	-0.597	-0.359	-0.399	-0.253	-0.249	0.088	-0.345	-0.579
	-0.316	-0.994	-0.111	-0.186	-0.414	-0.29	-0.51	-0.482	-0.816	-0.34	(0.082)+
herfexpprod_exp	-4.575	-4.781	-0.525	-3.42	-2.625	-2.485	-2.872	-1.692	-2.063	-3.229	-3.04
	(0.006)**	(0.002)**	-0.788	(0.014)*	(0.007)**	(0.023)*	(0.004)**	(0.064)+	-0.115	(0.000)**	(0.000)**
dcaricom	2.687	2.339	2.107	2.58	2.435	3.202	2.35	2.814	2.374	3.608	2.523
	(0.000)**	(0.009)**	(0.006)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
doecs	-0.644	-0.315	0	-1.826	-0.681	0.02	-2.067	-1.318	-2.004	0.673	-2.039
	-0.636	-0.83	(.)	-0.122	-0.496	-0.985	(0.063)+	-0.328	(0.089)+	-0.498	(0.022)*
doecscaric	1.111	0.677	0.028	0.918	0.823	1.035	0.545	0.856	-0.314	1.826	0.441
	-0.131	-0.452	-0.98	-0.164	-0.165	-0.124	-0.409	-0.29	-0.736	(0.001)**	-0.467
dsadc	0	0	0	0	0	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)
duemoa	0	0	0	0	0	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)	(.)
dcomesa	2.523	1.604	2.423	3.045	3.774	2.735	2.321	4.158	3.999	4.356	3.458
	(0.001)**	-0.225	(0.011)*	(0.003)**	(0.000)**	(0.000)**	(0.015)*	(0.000)**	(0.000)**	(0.000)**	(0.001)**
d_isl_imp	0.135	0.668	0.396	0.145	0.094	0.195	-0.352	0.494	-0.042	0.165	0.831
	-0.794	-0.731	-0.47	-0.849	-0.902	-0.619	-0.398	-0.218	-0.936	-0.662	(0.049)*
d_isl_exp	0.445	0.405	0.565	0.831	1.02	0.61	0.718	0.572	0.55	0.457	0.51
	-0.188	-0.352	-0.252	(0.006)**	(0.000)**	(0.035)*	(0.016)*	(0.053)+	-0.116	-0.101	(0.079)+
shservexp	-9.795	-8.033	-5.881	-6.206	-7.125	-4.215	-1.694	-2.404	-2.259	-2.439	-3.778
	(0.000)**	(0.028)*	-0.14	(0.014)*	(0.001)**	(0.048)*	-0.433	-0.218	-0.237	-0.11	(0.014)*
dlang	1.18	1.01	0.61	0.507	0.71	1.02	1.052	0.874	1.243	1.085	0.911
	(0.000)**	(0.004)**	-0.197	-0.192	(0.015)*	(0.001)**	(0.000)**	(0.001)**	(0.000)**	(0.000)**	(0.002)**
Constant	40.509	34.709	57.906	20.603	18.093	-6.298	16.591	35.904	156.619	-14.209	56.603
	(0.001)**	(0.010)*	(0.000)**	-0.86	-0.863	-0.795	-0.461	(0.077)+	(0.006)**	-0.457	(0.004)**
Observations	*193*	*188*	*156*	*342*	*342*	*454*	*429*	*430*	*360*	*488*	*498*
R-squared	*0.706*	*0.642*	*0.632*	*0.612*	*0.632*	*0.588*	*0.633*	*0.629*	*0.638*	*0.639*	*0.661*

Robust p values in parentheses, + significant at 10%, * significant at 5%, ** significant at 1%

Table A6: OLS regression on quintiles 1 & 2

	-1 1990	-2 1991	-3 1992	-4 1993	-5 1994	-6 1995	-7 1996	-8 1997	-9 1998	-10 1999	-11 2000
lgdp_imp	0.949	1.086	0.9	1.149	1.1	0.989	1.071	0.996	1.022	1.048	1.218
	(0.004)**	(0.001)**	(0.003)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
lgdp_exp	0.928	1.106	1.623	1.155	1.146	1.005	1.111	1.105	0.947	0.937	0.931
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
sqlgdp_imp	0.069	0.226	0.28	0.257	0.013	-0.109	0.071	0.085	0.104	0.052	0.128
	-0.686	-0.234	-0.397	-0.111	-0.919	-0.244	-0.47	-0.411	-0.315	-0.363	(0.019)*
sqlgdp_exp	0.068	0.04	-0.016	0.039	0.029	0.041	0.028	0.016	0.037	0.039	0.045
	(0.002)**	(0.071)+	-0.568	-0.105	-0.113	(0.003)**	(0.024)*	-0.206	(0.008)**	(0.000)**	(0.000)**
lpop_imp	3.422	2.6	2.115	4.07	0.367	1.077	1.678	1.644	2.636	2.132	-0.498
	(0.082)+	-0.111	-0.169	(0.006)**	-0.752	-0.206	(0.059)+	(0.048)*	(0.030)*	(0.009)**	-0.487
lpop_exp	0.752	-0.465	-2.646	-1.546	-0.629	-0.516	-1.785	-1.217	-1.048	-0.219	-1.127
	-0.361	-0.606	(0.002)**	(0.095)+	-0.349	-0.41	(0.002)**	(0.028)*	(0.093)+	-0.694	(0.040)*
sqlpop_imp	-0.129	-0.096	-0.08	-0.155	-0.016	-0.039	-0.064	-0.062	-0.098	-0.083	0.013
	(0.063)+	(0.089)+	-0.139	(0.003)**	-0.69	-0.19	(0.038)*	(0.033)*	(0.021)*	(0.004)**	-0.602
sqlpop_exp	-0.038	0.002	0.069	0.032	0.007	0.006	0.045	0.031	0.026	0.001	0.026
	-0.118	-0.93	(0.006)**	-0.26	-0.735	-0.765	(0.010)**	(0.068)+	-0.163	-0.97	-0.128
ldistance	-1.916	-2.038	-2.141	-1.991	-1.69	-1.625	-1.821	-1.757	-1.755	-1.855	-2.021
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
landlocked_imp	0.44	0.796	0	-1.756	-0.402	-0.719	-0.854	-0.391	-0.309	0.431	-0.377
	-0.233	(0.053)+	(.)	(0.000)**	-0.24	(0.000)**	(0.000)**	(0.027)*	-0.138	(0.036)*	(0.040)*
landlocked_exp	-0.562	-0.072	-0.362	-0.407	-0.29	-0.512	-0.394	-0.534	-0.323	-0.838	-0.496
	-0.166	-0.868	-0.368	-0.249	-0.287	(0.021)*	(0.061)+	(0.005)**	-0.144	(0.000)**	(0.014)*
herfexpprod_exp	-5.759	-2.967	-1.659	-3.619	-2.539	-1.738	-1.924	-1.929	-1.714	-2.555	-2.549
	(0.000)**	(0.002)**	-0.307	(0.002)**	(0.004)**	(0.020)*	(0.001)**	(0.000)**	(0.006)**	(0.000)**	(0.000)**
dcaricom	3.396	2.178	2.794	2.639	2.928	3.26	2.62	3.143	3.018	3.317	2.418
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
doecs	1.951	0.561	0	-0.022	1.437	1.66	0.388	0.41	-0.402	0.391	-1.226
	(0.022)*	-0.566	(.)	-0.98	(0.023)*	(0.006)**	-0.514	-0.53	-0.546	-0.543	(0.030)*
doecscaric	2.049	0.689	0.95	1.054	1.583	1.665	1.153	1.392	0.507	1.408	0.233
	(0.001)**	-0.351	-0.252	(0.086)+	(0.001)**	(0.001)**	(0.020)*	(0.003)**	-0.444	(0.002)**	-0.639
dsadc	0.606	-0.091	0	0	3.916	3.395	4.203	2.59	3.084	2.94	2.697
	-0.253	-0.887	(.)	(.)	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
duemoa	1.202	1.896	4.023	4.059	1.212	0.256	1.552	1.64	1.932	1.453	1.66
	-0.249	(0.000)**	(0.000)**	(0.000)**	-0.39	-0.68	(0.002)**	(0.001)**	(0.000)**	(0.005)**	(0.002)**
dcomesa	2.575	1.58	2.532	2.302	2.575	2.325	1.793	1.754	2.254	2.149	2.241
	(0.000)**	(0.051)+	(0.000)**	(0.003)**	(0.000)**	(0.000)**	(0.003)**	(0.007)**	(0.000)**	(0.000)**	(0.000)**
d_isl_imp	0.057	0.424	0.461	-0.045	0.017	0.055	-0.081	-0.098	0.086	0.094	0.104
	-0.873	-0.339	-0.188	-0.884	-0.943	-0.791	-0.687	-0.62	-0.69	-0.637	-0.617
d_isl_exp	-0.144	0.152	0.196	0.581	0.492	0.066	0.306	0.538	0.59	0.323	0.426
	-0.556	-0.553	-0.508	(0.010)**	(0.006)**	-0.705	(0.080)+	(0.001)**	(0.001)**	(0.053)+	(0.022)*
shservexp	-9.524	-5.629	-2.651	-4.064	-4.809	-3.611	-1.815	-0.868	-0.291	-1.82	-2.135
	(0.000)**	(0.006)**	-0.292	(0.051)+	(0.002)**	(0.004)**	-0.118	-0.434	-0.788	(0.059)+	(0.046)*
dlang	1.338	1.261	1.413	0.947	1.044	1.171	1.102	0.825	0.989	0.856	1.027
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Constant	-1.148	10.702	29.606	9.822	24.08	16.333	23.279	16.848	8.263	7.598	34.837
	-0.94	-0.442	(0.019)*	-0.435	(0.016)*	(0.048)*	(0.004)**	(0.027)*	-0.412	-0.303	(0.000)**
Observations	*537*	*449*	*385*	*602*	*762*	*1088*	*1222*	*1259*	*1207*	*1257*	*1288*
R-squared	*0.694*	*0.687*	*0.668*	*0.635*	*0.665*	*0.664*	*0.65*	*0.657*	*0.647*	*0.667*	*0.652*

Robust p values in parentheses, + significant at 10%, * significant at 5%, ** significant at 1%

Table A7: OLS regression on quintiles 1-3

	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
lgdp_imp	0.995	0.821	0.886	1.116	0.991	1.004	1	0.889	1.034	0.991	1.066
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
lgdp_exp	1.377	1.483	1.862	1.605	1.411	1.214	1.266	1.176	1.026	0.937	1.024
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
sqlgdp_imp	-0.043	0.004	0.085	-0.02	0.006	0.009	0.01	0.037	0.024	0.065	0.029
	-0.524	-0.958	-0.394	-0.751	-0.907	-0.823	-0.827	-0.391	-0.538	(0.035)*	-0.291
sqlgdp_exp	0.022	0.003	-0.041	-0.004	0.005	0.021	0.021	0.014	0.028	0.044	0.044
	-0.133	-0.846	(0.015)*	-0.798	-0.687	(0.056)+	(0.026)*	-0.172	(0.005)**	(0.000)**	(0.000)**
lpop_imp	1.166	1.408	0.611	-0.377	0.16	0.898	0.69	0.293	0.112	-0.057	-0.243
	-0.309	-0.172	-0.541	-0.683	-0.846	-0.108	-0.259	-0.592	-0.847	-0.894	-0.581
lpop_exp	-0.507	-1.116	-1.91	-1.201	-1.329	-0.73	-1.62	-0.732	-0.754	0.106	-0.37
	-0.404	(0.092)+	(0.010)*	(0.069)+	(0.008)**	-0.115	(0.000)**	(0.097)+	-0.111	-0.801	-0.385
sqlpop_imp	-0.047	-0.049	-0.025	0.012	-0.007	-0.032	-0.025	-0.008	-0.006	0.001	0.007
	-0.235	-0.167	-0.468	-0.706	-0.813	(0.085)+	-0.215	-0.648	-0.756	-0.959	-0.639
sqlpop_exp	0	0.022	0.046	0.022	0.027	0.011	0.036	0.015	0.018	-0.01	0.001
	-0.992	-0.261	(0.034)*	-0.283	(0.075)+	-0.426	(0.005)**	-0.249	-0.209	-0.413	-0.946
ldistance	-1.816	-1.955	-1.926	-1.859	-1.642	-1.578	-1.763	-1.749	-1.755	-1.767	-1.853
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
landlocked_imp	0.121	0.55	0.425	-0.772	-0.61	-0.546	-0.866	-0.514	-0.465	-0.035	-0.36
	-0.593	(0.016)*	-0.285	(0.004)**	(0.004)**	(0.000)**	(0.000)**	(0.000)**	(0.003)**	-0.813	(0.019)*
landlocked_exp	-0.351	0.364	-0.24	-0.347	-0.157	-0.483	-0.32	-0.527	-0.328	-0.665	-0.428
	-0.227	-0.262	-0.346	-0.147	-0.425	(0.004)**	(0.044)*	(0.001)**	(0.046)*	(0.000)**	(0.004)**
herfexpprod_exp	-3.045	-2.143	-0.492	-1.547	-2.052	-1.341	-1.742	-1.858	-1.838	-1.876	-2.156
	(0.000)**	(0.003)**	-0.559	(0.042)*	(0.003)**	(0.017)*	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
dcaricom	3.025	2.142	3.122	2.998	2.673	2.929	2.389	3.096	2.912	3.352	2.538
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
doecs	2.154	1.288	0	1.894	1.724	1.966	0.861	0.893	-0.056	0.728	0.162
	(0.000)**	(0.058)+	(.)	(0.002)**	(0.000)**	(0.000)**	(0.063)+	-0.106	-0.918	-0.153	-0.726
doecscaric	1.994	0.989	1.767	1.7	1.477	1.33	0.633	1.012	0.394	1.095	0.622
	(0.000)**	(0.083)+	(0.006)**	(0.000)**	(0.000)**	(0.002)**	-0.188	(0.025)*	-0.462	(0.006)**	-0.147
dsadc	0.386	-0.704	0	1.673	3.753	3.08	3.179	2.217	2.782	2.435	2.268
	-0.523	-0.284	(.)	(0.003)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
duemoa	0.86	1.17	1.756	3.035	0.443	-0.603	0.761	1.218	1.229	0.858	0.982
	-0.334	(0.068)+	-0.297	(0.000)**	-0.677	-0.373	-0.129	(0.007)**	(0.005)**	(0.069)+	(0.090)+
dcomesa	1.856	1.54	2.156	1.465	2.165	1.251	1.059	1.419	1.286	0.995	1.588
	(0.009)**	(0.025)*	(0.000)**	(0.017)*	(0.000)**	(0.003)**	(0.018)*	(0.001)**	(0.001)**	(0.041)*	(0.001)**
d_isl_imp	0.06	0.462	0.258	0.074	0.028	0.1	0.106	0.146	0.141	0.087	0.23
	-0.737	(0.029)*	-0.198	-0.644	-0.848	-0.512	-0.464	-0.323	-0.301	-0.486	(0.086)+
d_isl_exp	-0.13	0.205	0.032	0.224	0.262	0.012	0.075	0.332	0.452	0.145	0.189
	-0.467	-0.261	-0.875	-0.175	(0.061)+	-0.93	-0.564	(0.014)*	(0.001)**	-0.279	-0.177
shservexp	-7.072	-4.269	-2.45	-3.343	-4.207	-3.316	-2.807	-1.283	-0.422	-1.969	-3.569
	(0.000)**	(0.001)**	-0.106	(0.028)*	(0.000)**	(0.001)**	(0.001)**	-0.131	-0.599	(0.010)*	(0.000)**
dlang	1.489	1.43	1.33	1.354	1.316	1.375	1.334	0.984	1.066	0.959	1.13
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Constant	20.95	21.11	31.56	33.535	29.678	18.169	28.445	21.388	22.848	18.516	25.932
	(0.030)*	(0.022)*	(0.001)**	(0.000)**	(0.000)**	(0.001)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Observations	*978*	*877*	*826*	*1182*	*1397*	*1814*	*2069*	*2037*	*1992*	*2154*	*2130*
R-squared	*0.723*	*0.715*	*0.71*	*0.682*	*0.702*	*0.705*	*0.684*	*0.684*	*0.692*	*0.693*	*0.686*

Robust p values in parentheses, + significant at 10%, * significant at 5%, ** significant at 1%

Table A8: OLS regression on quintiles 1-4

	-1 1990	-2 1991	-3 1992	-4 1993	-5 1994	-6 1995	-7 1996	-8 1997	-9 1998	-10 1999	-11 2000
lgdp_imp	0.885	0.827	0.995	1.092	1.012	1.05	1.034	0.911	1.069	0.835	0.96
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
lgdp_exp	1.237	1.237	1.513	1.409	1.281	1.196	1.342	1.173	1.092	1.06	1.061
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
sqlgdp_imp	0.036	0.048	0.014	-0.004	0.013	-0.002	0.007	0.023	0.012	0.037	0.019
	-0.152	(0.044)*	-0.599	-0.885	-0.544	-0.883	-0.677	-0.141	-0.434	(0.005)**	-0.136
sqlgdp_exp	0.018	0.007	-0.029	-0.005	0.003	0.011	0.001	0.01	0.019	0.028	0.033
	-0.156	-0.534	(0.019)*	-0.669	-0.767	-0.196	-0.843	-0.182	(0.014)*	(0.000)**	(0.000)**
lpop_imp	2.465	1.253	1.008	0.175	0.702	0.741	0.817	0.978	0.43	1.458	0.695
	(0.001)**	(0.032)*	-0.134	-0.807	-0.249	-0.115	(0.057)+	(0.018)*	-0.325	(0.000)**	(0.043)*
lpop_exp	0.335	-0.267	-0.249	-0.332	-0.025	-0.041	-1.054	0.186	-0.193	0.391	0.277
	-0.517	-0.567	-0.609	-0.444	-0.95	-0.909	(0.002)**	-0.606	-0.598	-0.213	-0.395
sqlpop_imp	-0.093	-0.045	-0.04	-0.009	-0.028	-0.028	-0.032	-0.035	-0.019	-0.047	-0.022
	(0.000)**	(0.014)*	(0.069)+	-0.698	-0.167	(0.067)+	(0.022)*	(0.009)**	-0.172	(0.000)**	(0.045)*
sqlpop_exp	-0.02	0.001	0.004	0.002	-0.006	-0.005	0.024	-0.01	0.002	-0.017	-0.016
	-0.183	-0.958	-0.805	-0.91	-0.629	-0.633	(0.021)*	-0.355	-0.845	(0.068)+	-0.112
ldistance	-1.423	-1.484	-1.445	-1.457	-1.369	-1.383	-1.528	-1.53	-1.523	-1.513	-1.588
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
landlocked_imp	-0.116	0.209	0.113	-0.471	-0.313	-0.419	-0.617	-0.265	-0.223	-0.192	-0.438
	-0.545	-0.257	-0.63	(0.004)**	(0.035)*	(0.000)**	(0.000)**	(0.012)*	(0.042)*	(0.060)+	(0.000)**
landlocked_exp	-0.377	0.175	-0.175	-0.382	0.026	-0.406	-0.17	-0.336	-0.247	-0.393	-0.393
	-0.113	-0.463	-0.387	(0.026)*	-0.874	(0.003)**	-0.211	(0.009)**	(0.068)+	(0.001)**	(0.001)**
herfexpprod_exp	-2.413	-1.833	-0.048	-0.999	-0.923	-1.081	-1.155	-1.743	-1.448	-1.685	-1.447
	(0.001)**	(0.004)**	-0.941	(0.055)+	(0.073)+	(0.014)*	(0.002)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
dcaricom	3.667	3.191	4.071	3.802	3.62	3.617	3.151	3.872	3.638	4.023	3.354
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
doecs	3.749	2.996	0	3.743	3.815	3.502	2.579	2.778	1.722	2.58	2.098
	(0.000)**	(0.000)**	(.)	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
doecscaric	3.116	2.332	3.251	2.953	2.901	2.38	1.85	2.316	1.573	2.276	1.944
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.001)**	(0.000)**	(0.000)**
dsadc	1.449	0.686	0	2.16	3.642	3.146	3.432	2.395	3.011	2.755	2.546
	(0.021)*	-0.315	(.)	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
duemoa	1.209	1.21	1.485	2.942	0.679	-0.395	1.084	1.369	1.471	1.045	1.241
	-0.184	(0.047)*	-0.375	(0.000)**	-0.502	-0.563	(0.026)*	(0.002)**	(0.000)**	(0.032)*	(0.030)*
dcomesa	2.26	1.903	2.243	1.391	2.026	1.309	1.22	1.653	1.465	0.952	1.424
	(0.001)**	(0.005)**	(0.000)**	(0.008)**	(0.000)**	(0.000)**	(0.001)**	(0.000)**	(0.000)**	(0.021)*	(0.001)**
d_isl_imp	-0.167	0.133	0.004	-0.011	-0.091	-0.071	-0.051	0.009	-0.002	0.269	0.285
	-0.302	-0.435	-0.981	-0.931	-0.448	-0.58	-0.678	-0.939	-0.988	(0.012)*	(0.013)*
d_isl_exp	-0.16	0.011	-0.149	-0.021	0.064	-0.086	0.032	0.112	0.249	0.058	0.022
	-0.272	-0.94	-0.307	-0.869	-0.576	-0.414	-0.762	-0.301	(0.020)*	-0.589	-0.839
shservexp	-5.208	-2.628	-1.058	-2.097	-3.007	-2.432	-1.394	-1.147	-0.493	-2.254	-2.659
	(0.000)**	(0.010)**	-0.341	(0.052)+	(0.001)**	(0.002)**	(0.054)+	(0.091)+	-0.445	(0.000)**	(0.000)**
dlang	1.344	1.154	1.198	1.172	1.135	1.28	1.262	0.925	1.011	0.944	1.002
	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
Constant	-0.073	10.399	9.778	17.82	11.355	10.94	19.301	7.096	14.019	1.981	9.844
	-0.992	(0.083)+	-0.135	(0.005)**	(0.034)*	(0.018)*	(0.000)**	-0.107	(0.002)**	-0.588	(0.008)**
Observations	*1447*	*1402*	*1425*	*1942*	*2165*	*2625*	*3002*	*2999*	*2989*	*3256*	*3268*
R-squared	*0.733*	*0.734*	*0.737*	*0.726*	*0.734*	*0.744*	*0.72*	*0.723*	*0.729*	*0.727*	*0.72*

Robust p values in parentheses, + significant at 10%, * significant at 5%, ** significant at 1%