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**AN EVALUATION OF THE BASIC
TELECOMMUNICATIONS SERVICES AGREEMENT**

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SUMMARY

This paper is an examination and evaluation of the WTO Agreement on Basic Telecommunications Services. A detailed analysis is conducted on the specific commitments scheduled by the 69 member countries of the Agreement on Basic Telecommunications Services. This paper is a quantitative assessment of the Agreement. To date, there have been no quantitative assessments of commitments made under the Agreement on Basic Telecommunications Services. A frequency measure is calculated for each of the member countries to analyse the commitments made with respect to market access and national treatment for the four modes of supply.

The average frequency measure for the 69 member countries under the full commitments method is 54.15%. Therefore, just over 45% of the basic telecommunications services market is open to free trade. The average frequency measure for the 15 countries under the partial and full commitments method is 41.36%. Therefore, approximately 58% of the basic telecommunications services market has been covered by commitments.

This paper does not find any relationship at all between GNP per capita and the level of commitments made under the Agreement on Basic Telecommunications Services. The average frequency measure for the high income countries is 62.92% with a standard deviation of 9.94. The average frequency measure for the low income countries is 71.97% with a standard deviation of 15.42. Therefore, on average, high income countries did give a higher level of commitments, but not significantly higher.

This paper has assessed the Agreement on Basic Telecommunications Services under two methods. The first method only takes account of full commitments made by member countries. The second method involved constructing a five point weighting system to the partial commitments given by the member countries. The rankings under the two methods are not significantly different however there does appear to be a widening dispersion between member countries when partial commitments are also included. This result may have implications for other studies attempting to evaluate the commitments made under the GATS.

This paper concludes that the Agreement on Basic Telecommunications Services is a success in terms of the commitments undertaken by the member countries. This paper concludes that just over 45% of the basic telecommunications services market is open to free trade. While this result compares well with other service sectors it also illustrates how far member countries are from attaining free trade in basic telecommunications services. Although much remains to be done it needs to be understood that the negotiations did not set out to achieve free trade in basic telecommunications services.

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AN EVALUATION OF THE BASIC TELECOMMUNICATIONS SERVICES AGREEMENT

1 INTRODUCTION

In a news release on 17 February 1997 Renato Ruggiero, Director-General of the WTO, congratulated member governments for their determination and foresight in bringing the negotiations on basic telecommunications services to a successful conclusion.

Was the agreement a success? Has the agreement reached its objectives? Will it be a useful agreement? What are the implications for the telecommunications sector? What does it do to bind policies? These are the questions this paper will attempt to answer.

The GATS became operational on 1 January 1995. However negotiations were largely incomplete in the key areas of basic telecommunications, financial services, maritime transport and the movement of natural persons. Negotiations on basic telecommunications services, initially due to conclude on 30 April 1996, were then suspended and were scheduled to recommence in January 1997 for completion by mid-February 1997. The WTO Agreement on Basic Telecommunications Services was entered into on 15 February 1997.

The principal impetus for examining the Agreement on Basic Telecommunications Services in this paper is that the agreement was made in isolation. The expectation is that it is not possible to make progress on single sector negotiations. The Agreement on Basic Telecommunications Services was the first sectoral agreement to conclude successfully. Negotiations in maritime services have broken down whilst negotiations in financial services concluded with an unsatisfactory result in July 1995 and have finally reached a successful conclusion in December 1997. Consequently, it is important to ascertain how an agreement was reached at all.

Trade in telecommunications can be defined as any sale of telecommunication equipment or services that crosses a national border. Trade in telecommunications services is more difficult to conceptualise than trade in telecommunications equipment. Trade in telecommunications services includes transactions that cross national borders such as telephone calls or electronic mail sent from one country to another. It also covers foreign investment such as the purchase of telephone companies by foreign investors or joint ventures between local and foreign partners to establish new telecommunications services companies.

The most dynamic component of trade in services is telecommunications. The telecommunications industry is a significant and growing sector. ITU News (1997a) reports

that the value of telecommunications trade (equipment and services combined) was worth around US\$96 billion in 1995. However, telecommunications also plays an important role for other industries as it is an essential input in all areas of the economy. Thus, telecommunications has a dual role as both a traded product and service and as a facilitator of trade in other products and services.

Global telecommunications services revenue in 1995 stood at US\$601.9 billion, approximately 2.1% of global GDP. Revenue from mobile services was estimated at about \$82 billion in 1995, nearly 14% of total revenue. Revenue from international services was \$63 billion in 1995, approximately 10% of total revenue. In fact, mobile cellular telephones average annual growth since 1990 has been more than 50% (WTO, 1997).

Technological advances such as the move from analogue to digital networks have increased the importance of telecommunications services by increasing the capacity and flexibility of telecommunications networks. In the past, telecommunications was among a group of infrastructure industries thought to need protection from competition. Telecommunications services were traditionally considered a natural monopoly. A natural monopoly can arise from economies of scale. Economies of scale exist if the marginal costs of production are less than the average costs of production over the relevant range of output. A prevalent source of economies of scale is fixed costs. Fixed costs are considered significant in telecommunications services as a result of high fixed costs of building a local network. Therefore, efficiency demanded that one producer provide services for an entire country.

There has been a general trend since the 1980s towards liberalising entry into telecommunications services markets. New technologies have greatly expanded the range of basic services. These technological changes have removed much of the theoretical rationale for the case that telecommunications is a natural monopoly. IC (1997a) reports that empirical studies of economies of scale are not conclusive. The speed and capacity of transmission and switching equipment used in telecommunications networks has increased over time and has lowered considerably the costs of providing a given level of network capacity. Transmission can also be by a number of media including coaxial cable, fibre optic cable, microwave or satellite (IC, 1997).

Examples of new telecommunications services which have facilitated the increase in trade by providing a competitive alternative to local carriers by bypassing their services are:

1. Call back services which require, for example, a customer outside Australia to call an assigned number and hang up. The caller could then receive a computer driven return call with an Australian dial tone from an Australian call back firm. The customer may then place a call to the desired destination. These calls appear as outbound Australian calls for accounting purposes.
2. Country direct services provide a customer in a foreign location with access to an Australian carrier for the purposes of placing calls to Australia or foreign destinations. These calls also appear as outbound Australian calls for accounting purposes.
3. Calling cards which are pre-paid telephone cards that are distributed abroad through multinational corporations.
4. Roaming agreements which allow cellular providers the proper licensing requirements from foreign governments in order for their customers to utilise their services when resident in foreign countries (USITC, 1997a).

The primary objective of this paper is to examine and evaluate the Agreement on Basic Telecommunications Services. Chapter 2 looks at the barriers to trade in telecommunications services and summarises the commitments made under the Agreement on Basic Telecommunications Services. Chapter 3 presents the methodology used in assessing the commitments made by member countries in the Agreement on Basic Telecommunications Services and analyses the results obtained therefrom. The frequency measures obtained in this paper are compared to price measures obtained by OECD (1997). Finally, Chapter 4 presents the conclusions of the analysis.

2 BASIC TELECOMMUNICATIONS SERVICES AGREEMENT

2.1 Barriers to Trade in Telecommunications Services

Many of the regulations covering the telecommunications sector are now seen as barriers to trade in services. Growth in international investment and production have increased the demand for telecommunications services able to cross borders. As trade in telecommunications grew, a host of regulatory barriers came to light (Warren, 1995).

Table 2.1 lists some examples of market access and national treatment violations that impact upon each of the modes of supply of telecommunications services based on the Sampson and Snape (1985) specification of the modes of services trade.

Table 2.1 - Barriers to Trade in Telecommunications Services		
	Market Access	National Treatment
Cross Border Supply	Subject to commercial arrangements with licensed operators	Telecommunication price controls
Consumption Abroad	Callback not allowed	Limits on foreign currency
Commercial Presence	Restrictions on foreign equity participation	Nationality requirements for directors
Presence of Natural Persons	Immigration controls	Restrictions on living conditions

Cross Border Supply

Cross border supply is the closest that international service transactions come to the traditional conception of trade. Cross border trade involves the placement of a call in the home market and the termination of the call in a foreign market. According to ITU News (1997a) cross border provision of services is by far the most important way in which basic telecommunications services are traded as it includes international telephone calls. International telephone calls have risen from under 4 billion minutes in 1975 to over 60 billion minutes in 1995 representing a growth rate of 15% per year.

Barriers to cross border supply include restrictions on network access. Network access may be prohibited. If network access is permitted, prohibitive costs also act as an effective impediment as does anti-competitive behaviour on the part of dominant carriers such as discriminatory access and non-cost based pricing of leased telecommunications lines. Underdeveloped or unreliable telecommunications infrastructure is also a barrier to cross border supply.

Consumption Abroad

This mode of supply is not particularly important with regard to basic telecommunications services. However, examples include satellite mobile telephony, calling cards and country direct services. Restrictions on this mode of supply are rare although some carriers may not provide the necessary interconnection to make calling cards and country direct services feasible.

Commercial Presence

This mode of supply refers to investments by foreign service providers. According to ITU (1997) direct commercial presence is the second most important way in which telecommunications services are traded and opportunities for foreign investment are increasing.

Barriers to trade in respect of this mode of supply include controls on foreign direct investment and any restrictions on a firm's ability to establish a local presence such as restrictions on the provision and operation of telecommunications networks. Formal restrictions on network operation have declined around the world. Competition in long distance telecommunications network operation has been allowed in Japan, Britain, US, Canada, New Zealand and Australia (Warren, 1995).

Presence of Natural Persons

This mode of supply is not particularly important in relation to the provision of basic telecommunications services. However, telecommunications companies are increasingly interested in being able to move their personnel across borders with limited restraints. As foreign investors increasingly become involved in network development these concerns will grow.

2.2 Agreement on Basic Telecommunications Services

The Agreement on Basic Telecommunications Services is a one page document which is annexed to the Fourth Protocol of the GATS (see Snape and Bosworth (1996) for a review of the features of the GATS).

Most countries had difficulties scheduling MFN based commitments specific to financial, maritime transport and basic telecommunications services and therefore agreed to carry these negotiations forward from December 1995¹. The extension of negotiations was supported because as infrastructure service sectors they exert a strong influence on economic growth as virtually all firms rely on these sectors to conduct business.

One impediment to negotiating commitments in these sectors was the complexity and variance of government regulation in these areas (USITC, 1997b). Technological developments in telecommunications have motivated some countries to introduce competition and allow foreign ownership. Consequently, some countries have undertaken sweeping deregulation and liberalisation of telecommunications services markets while other countries have retained state owned service monopolies with exclusive control of telecommunications facilities.

On 30 April 1996, the WTO Council on Trade in Services further extended the talks to 15 February 1997 after the US indicated that current offers were not sufficiently trade liberalising. According to USITC (1997b) the US identified only 11 high quality offers. High quality offers were those that would afford firms unfettered investment rights, access to all basic telecommunications services and facilities including satellite services and facilities and pro-competitive regulatory climates by 1 January 1998².

Members (specifically, the US) sought actual liberalisation of basic telecommunications markets in that liberalising commitments should be the objective of the extended negotiations.. This constituted a fundamentally different approach to service negotiations than had occurred for other service sectors (USITC, 1997b).

On 15 February 1997 the WTO successfully concluded nearly three years of extended negotiations on market access for basic telecommunications services. The February 1997 deadline resulted in the tabling of 55 offers covering 69 governments (listed in Table 2.2). The commitments are annexed to a one page Protocol of the GATS.

¹Negotiators expressed concern that commitments scheduled on an MFN basis would disadvantage firms with origins in liberalised markets.

²Countries considered by the US to have submitted high quality offers were Austria, Denmark, Finland, Germany, Luxembourg, Netherlands, Sweden, UK, Iceland, Norway and New Zealand

Table 2.2 - Members of Agreement on Basic Telecommunications Services		
Antigua and Barbuda *	Ghana	Papua New Guinea
Argentina *	Grenada	Peru
Australia	Guatemala	Philippines
Bangladesh *	Hong Kong	Poland
Belize	Hungary	Romania
Bolivia	Iceland	Senegal
Brazil *	India *	Singapore
Brunei Darussalam	Indonesia	Slovak Republic
Bulgaria	Israel	South Africa
Canada	Jamaica	Sri Lanka *
Chile	Japan	Switzerland
Colombia	Republic of Korea	Thailand
Cote D'Ivoire	Malaysia	Trinidad and Tobago
Czech Republic	Mauritius	Tunisia
Dominica	Mexico	Turkey *
Dominican Republic	Morocco	United States of America *
Ecuador	New Zealand	Venezuela
El Salvador	Norway	
European Communities	Pakistan *	

(* countries which submitted MFN Exemption Lists)

Table 2.3 - EC Member States		
Austria	Germany	Netherlands
Belgium	Greece	Portugal
Denmark	Ireland	Spain
Finland	Italy	Sweden
France	Luxembourg	United Kingdom

The world's industrialised countries all participated as did over 40 developing countries, large and small, from virtually every region of the world. The results of the telecommunications negotiations are to be extended to all WTO Members on a non-discriminatory basis through MFN treatment. However, 9 governments (members with asterisks in Table 2.2) submitted MFN exemption lists to be annexed to the Protocol. For example, the exemption by the US relates to one way satellite transmission of DTH and DBS television services and digital audio services. The exemption by Argentina applies to the supply of fixed satellite services by geostationary satellites. The Protocol was open for acceptance until 30 November 1997.

Defining Basic Telecommunications

One of the issues concerning negotiations on basic telecommunications was the problem of defining “Basic Telecommunications”. At the outset of the negotiations participants agreed to set aside national differences on how basic telecommunications might be defined domestically and to negotiate on all telecommunication services, both public and private, that involve end-to-end transmission of customer supplied information (eg simply the relay of voice or data from sender to receiver).

They also agreed that basic telecommunications services provided over network infrastructure as well as those provided through resale (over private leased circuits) would both fall within the scope of commitments. As a result, market access commitments cover not only cross border supply of telecommunications but also services provided through the establishment of foreign firms or commercial presence, including the ability to own and operate independent telecommunications network infrastructure.

Value added services were not formally part of the extended negotiations. Nevertheless, a few participants chose to include them in their offers. Value added services are already included as a result of the GATS³.

Summary of Commitments

Only the schedules themselves can provide authoritative and complete information on the basic telecommunications services included, the scope of the commitments and the degree of market access permitted. However, Table 2.4 is a summary to provide a general indication of commitments.

³Basic services entail the transmission of voice and data without change in form or content. Value added services include computer processing, electronic mail and on-line database services.

Table 2.4 - Summary of the Commitments made in respect of Basic Telecommunications	
<u>Voice Telephone Service</u> Public Voice Services by Market Segment Local Service Domestic Long Distance International Service Resale of Public Voice Telephone Access for Cellular/Mobile Telephone Markets Competition in Leased Circuit Services (the supply of transmission capacity)	47 schedules (61 governments) commit to competitive supply (defined here as permitting 2 or more suppliers) 49 schedules (63 governments) 38 schedules (52 governments) 42 schedules (56 governments) 49 schedules (63 governments) 46 schedules (60 governments) 41 schedules (55 governments)
<u>Satellite Related Communications</u> Commitments on some or all types of mobile satellite services or transport capacity Commitments on fixed satellite services or transport capacity	37 schedules (51 governments) 36 schedules (50 governments)
<u>Value Added Telecommunications Services</u> (e-mail, on-line data processing or data base retrieval)	8 governments

Compiled from information in WTO, 1997

Reference Paper

Of the 69 governments, 63 submitted schedules including commitments on regulatory discipline. Of these, 57 committed to the Reference Paper in whole or with few modifications. The successful negotiation of the Reference Paper was considered essential to give real substance to market access commitments and hence to the success of the Agreement on Basic Telecommunications Services. The main elements of the Reference Paper are as follows:

1. Competitive Safeguards

Safeguards against anti-competitive practices by monopolies or other firms with market power including cross-subsidisation, using information obtained from

competitors with anti-competitive results and not making available on a timely basis technical information about essential facilities and commercially relevant information which are necessary to provide services.

2. **Interconnection**

This applies to linking with suppliers providing public telecommunications transport networks or services. Timely and cost based interconnection is to be ensured under non-discriminatory terms, conditions, quality and rates that are transparent. There is also to be recourse to dispute settlement by an independent body.

3. **Universal Service**

Any member has the right to define the kind of universal service obligation it wishes to maintain. However, universal service requirements should be administered in a transparent, non-discriminatory manner and be not more burdensome than necessary.

4. **Public Availability of Licensing Criteria**

Where a licence is required, criteria, terms and conditions will be made publicly available and the reasons for denial of a licence will be made known to the applicant upon request.

5. **Independent Regulators**

The regulatory body is separate from and not accountable to any supplier of basic telecommunications services.

6. **Allocation and Use of Scarce Resources**

Procedures for allocation and use of scarce resources including frequencies, numbers and rights of way will be carried out in an objective, timely, transparent and non-discriminatory manner.

One of the outstanding issues of the negotiations was the accounting rate system. The accounting rate system is the usual method of terminating international traffic and by its nature involves differential rates since operators negotiate bilateral agreements on the accounting rates between the two countries. The accounting rate system itself is a barrier to

trade because new entrants are required to negotiate bilateral agreements with 200 or more countries (USITC, 1997a). The application of differential accounting rates does not give rise to action by member countries however the application of the accounting rate system is to be reviewed not later than 1 January 2000.

Scope of Agreement on Basic Telecommunications Services

Although only 69 of the 131 governments that are members of the GATS committed to the Agreement on Basic Telecommunications Services, the markets of the 69 participants accounted for more than 93% of current global telecommunications revenues in 1995 (WTO, 1997). Table 2.5 provides some other indicators of the market coverage of the Agreement on Basic Telecommunications Services.

Table 2.5 - Market Share of Participating Economies		
Indicator	Level	Share
Cellular	\$89 million	94%
Revenues	US\$602 billion	93%
Telephone Lines	693 million	82%
Population	5.7 billion	55%

Source: ITU World Telecommunication Indicators Database (1995)

Five of the participants in the negotiations, the Quad (Canada, Japan, EC and its Member States and the US) plus Australia, held the leading shares of world telecommunications revenue in 1995, together accounting for 77% of the market. Table 2.6 shows the top 20 WTO Members with respect to telecommunications revenue.

TABLE 2.6 - 1995 TELECOMMUNICATIONS REVENUE FOR WTO MEMBERS

Country	Revenue (millions US\$)	Share of World Total
United States	178,758.0	29.70%
European Communities	170,166.0	28.27%
Japan	93,855.0	15.59%
Australia	11,403.0	1.89%
Canada	10,689.0	1.78%
Switzerland	8,889.0	1.48%
Korea	8,728.0	1.45%
Brazil	8,622.0	1.43%
Mexico	6,509.0	1.08%
Argentina	6,009.1	1.00%
Hong Kong	5,113.0	0.85%
India	3,818.0	0.63%
South Africa	3,675.0	0.61%
Norway	3,234.0	0.54%
Indonesia	2,735.0	0.45%
Singapore	2,540.0	0.42%
Israel	2,249.0	0.37%
Poland	2,162.0	0.36%
Malaysia	2,097.5	0.35%

(Source: WTO, 1997)

One qualification to the observation of the significance of the Agreement is that revenue reported is the consequence of current policy. Liberalisation which lowered prices would be expected to increase total industry revenue, given the likelihood of an elastic demand for telecommunications services. The rate of revenue increase could be even larger in those highly protected markets not covered by the Agreement.

The EC, US and Japan ranked as the world's largest telecommunications markets in terms of global shares by all main telecommunications indicators except outgoing international traffic (where Japan ranked sixth behind Canada, Switzerland and Hong Kong) (WTO, 1997).

3 THE SCOPE AND DEPTH OF COMMITMENTS IN BASIC TELECOMMUNICATIONS SERVICES

To assess the contents of the country schedules a quantitative measure is required that allows for cross country comparisons. There have been very few systematic attempts to measure the extent of barriers to trade in services largely as a consequence of data limitations. Cross country data on the magnitude of barriers to trade in basic telecommunications services do not exist.

PECC (1996) identifies three general methods that have been used for measuring non-tariff barriers (NTBs) affecting goods trade being:

1. Frequency type measures of coverage indexes from surveys of NTBs.
2. Price impact measures that examine the impact of NTBs on domestic prices by comparing them with various reference prices.
3. Quantity impact measures which compare an estimate of trade volumes in the absence of NTBs with actual trade volumes.

Due to data limitations each of the above methods have been difficult to apply to services trade. However, the country schedules to the GATS provide the data that can be used to generate frequency type measures of barriers to trade in services and in particular, barriers to trade in basic telecommunications services. Here, frequency measures are interpreted as an approximation of the price impact measure. The more frequently observed are barriers to trade, then the more likely it is that domestic prices exceed world prices. This wedge is a consequence of a protective effect (where the gains from trade are denied) on top of which can be added an anti-competitive effect associated with the barriers to entry by new suppliers.

3.1 Methodology

The methodology used in this paper will follow that of Hoekman (1994a) and PECC (1996), whereby estimates are constructed of the relative restrictiveness across countries on the assumption that each country has revealed its policy stance in the commitments made. The abovementioned papers were concerned with evaluating the commitments in relation to all of the service sectors encompassed by the GATS. Hoekman deals with 97 member countries of the GATS whereas PECC deals with the APEC member countries. However, this paper focuses on the schedules submitted under the auspices of the Agreement on Basic Telecommunications Services.

To construct the data set, the schedules for the 69 member countries were obtained. For the purposes of evaluating the specific commitments, each member country's specific commitments were entered into a spreadsheet. Basic telecommunications services has been

disaggregated into 18 products with four possible modes of supply and commitments on both national treatment and market access; implying a total of 144 possible commitments.

Schedules were submitted by 69 countries. However, there are 55 schedules as the 15 member states of the EC had submitted one schedule. This schedule was disaggregated as there is some variation between the commitments of the various EC member states. Disaggregation was considered necessary so as to accurately reflect the level of commitments by the individual member states of the EC.

Commitments in the schedules can be classified into three categories:

1. None - implying no restrictions are applied on either market access or national treatment for a given mode of supply.
2. Unbound - implying no commitments are made on either market access or national treatment for a given mode of supply. This entry indicates that the member country maintains the right to impose additional restrictions on market access or national treatment in the future without penalty.
3. Other - restrictions are listed on either market access or national treatment for a given mode of supply.

Limitations of Methodology

Prior to discussing the results of the analysis, it is necessary to indicate the limitations of the methodology. Notwithstanding such limitations, the schedules remain the best source of data on barriers to trade in basic telecommunications services that is available.

1. The GATS is an entirely new agreement so countries did not have any precedents upon which they could rely when scheduling their commitments. This has led to idiosyncratic approaches which has made quantifying the commitments in the schedules quite difficult.
2. Unfortunately, the schedules do not reveal to what extent they imply liberalisation.

3. Where a member has entered “None” in their schedule this means there are no limitations on market access and national treatment. However, this does not necessarily mean free trade in this area as the commitments in the horizontal section need to be taken into account.
4. Some countries submitted MFN exemptions although these were not taken into account in the analysis.
5. There is some evidence that certain economies have liberal policies yet remain unbound so as to maintain a retaliatory capability in future market access negotiations. For example, Hong Kong offers one of the most open and competitive markets but market conditions are not accurately reflected in its schedule. However, a threat of future retaliation is itself an impediment and as such the data may not be too misleading.

Measuring Full Commitments to Market Access and National Treatment

The focus in this part of the analysis is on scaling the sectoral commitments of the member countries with a view to quantifying the share of the basic telecommunications services market where the binding relates to free trade.

To allow calculation of the coverage of commitments in all instances where “None” was entered in a schedule for a mode of supply (ie full market access/national treatment is provided) a “1” was entered. A zero was entered where a member lists “Unbound” for a mode of supply. The value of these indicators was chosen so as to allow aggregation across countries. Entries which fall into the “Other” category whereby specific restrictions or limitations were listed for a given mode of supply were also given a zero in this section of the analysis as the focal point is where member countries have committed to free market access and full national treatment.

The data can be presented as a series of frequency indexes to give some indication of the extent of barriers to basic telecommunications services that operate among the 69 member countries.

The following measure of the level of impediments was used:

$$\text{Impediments} = 100 - \left[\left(\frac{\text{number of no restrictions}}{\text{number of possible listings}} \right) \times 100 \right]$$

This measure reports the magnitude of commitments where “no restrictions” applies to both market access and national treatment for a given mode of supply and illustrates how far away members are from allowing free trade in basic telecommunications services. The higher the number, the greater the number of impediments that operate in the basic telecommunications services market. Zero implies no impediments; 100 denotes no commitments at all to market access and national treatment.

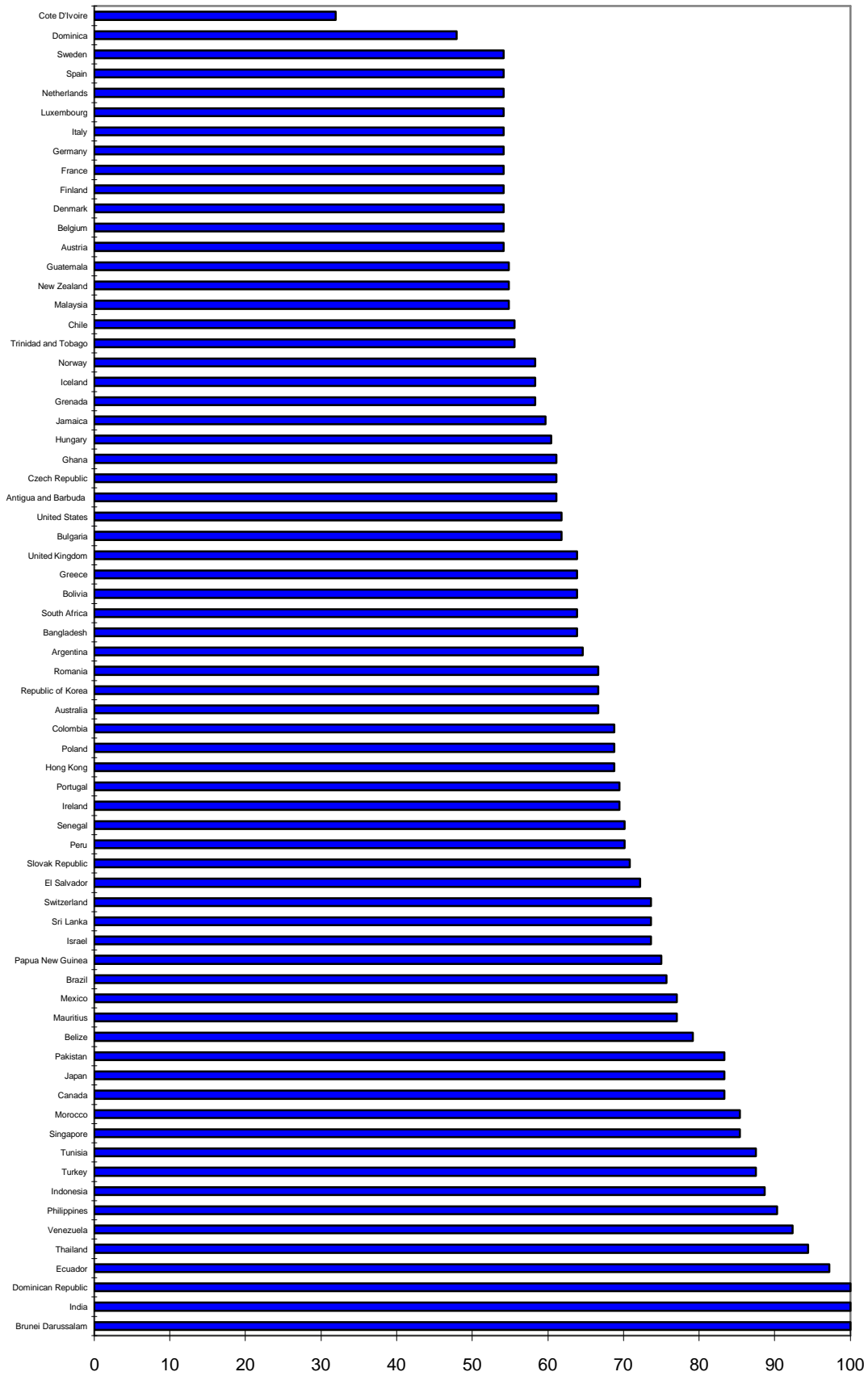
This ratio, however, can overstate the incidence of barriers because:

- (a) it does not identify cases where members give partial commitments to free market access and non-discriminatory treatment of foreign service providers and consumers; and
- (b) it assumes that there are restrictions on market access and national treatment for products for which there are no entries in the schedules.

3.2 Results of Full Commitments to Market Access and National Treatment

Figure 3.1 indicates the frequency measures by this method for each of the 69 countries (the higher the number the greater the number of impediments).

Figure 3.1 - Frequency Measures



As can be seen, there is significant variation between member countries. Under this analysis three countries scored 100%, which means they gave no commitments which do not restrict market access and national treatment. These countries were India, Dominican Republic and Brunei Darussalam. Cote D'Ivoire is an outlier with a score of 32% with the next best country being Dominica with 48%. Therefore, the frequency measures range from 100% to 32%.

The frequency measures in this analysis indicate that less than 32% of the basic telecommunications market has free market access and national treatment. It is useful to compare this figure with the results of PECC (1996) and Hoekman (1994a)⁴. Hoekman states that only 25% of services were scheduled by high income countries without listing any exceptions to national treatment or market access obligations while the figure for developing countries was 7%. In the PECC report, 22.4% of service markets within the APEC region are open to trade. Consequently, it can be concluded that the basic telecommunications market fairs reasonably well when compared with the average for the services sector as a whole.

It is generally believed that high income countries made more commitments than low income countries; that the extent of GATS commitments varies by real income levels. This is reported by Hoekman (1994a) and PECC (1996) who show a generally high correlation with income per head. They conclude that richer economies tend to have more open service sectors. Figure 3.2 shows the relationship between GNP per capita and frequency measures for the 69 countries in relation to basic telecommunications services.

⁴Care needs to be taken when comparing the results as different samples of countries were used and the other studies looked at the services sector as a whole

Figure 3.2 - Frequency Measures and GNP Per Capita

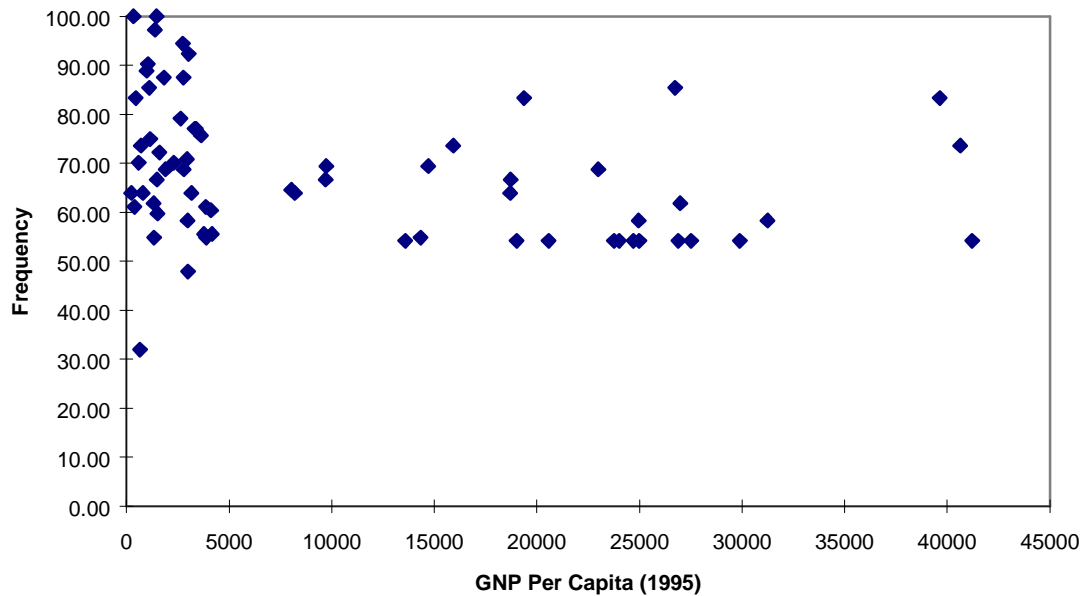


Figure 3.2 is very interesting indeed. It shows no correlation between GNP per capita and the level of commitments. It does not show a positive relationship. In fact there appears to be no relationship at all. Altinger and Enders (1996) find a low correlation coefficient of 0.12 between the number of service activities committed and the level of per capita income and suggest that the acceptance of service sector liberalisation is more closely related to a “forward looking” approach to the anticipated benefits of such reform than to the level of income.

Another interesting aspect of Figure 3.2 is that there appears to be a floor whereby countries did not give free market access or full national treatment for more than 50% of the basic telecommunications services market (excluding the outlier Cote D’Ivoire and Dominica). The floor may be an outcome of the negotiating process. A representative from New Zealand at the negotiations stated “We must know the deal between the majors: it sets the parameters for the rest of us” (Croome, 1995). This suggests that many countries followed the lead from the US and the EC when it came to what was considered a satisfactory level of commitments.

Table 3.1 indicates the frequency measures for the Top 10 and Bottom 10 countries in the group.

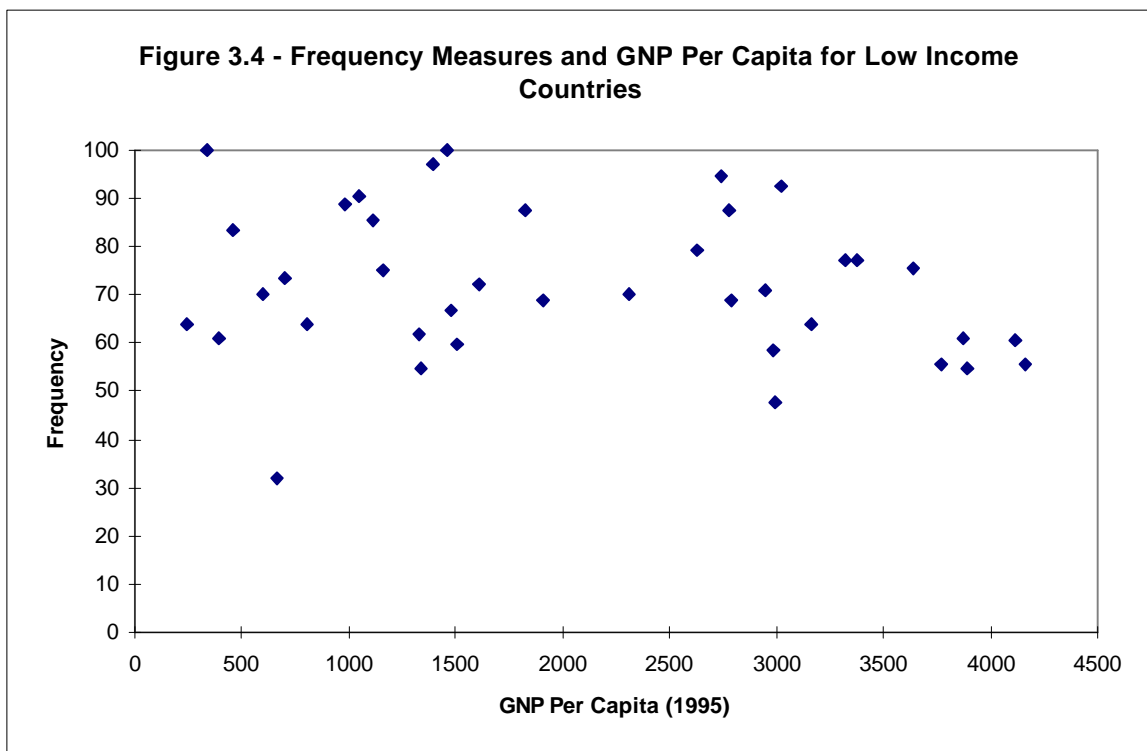
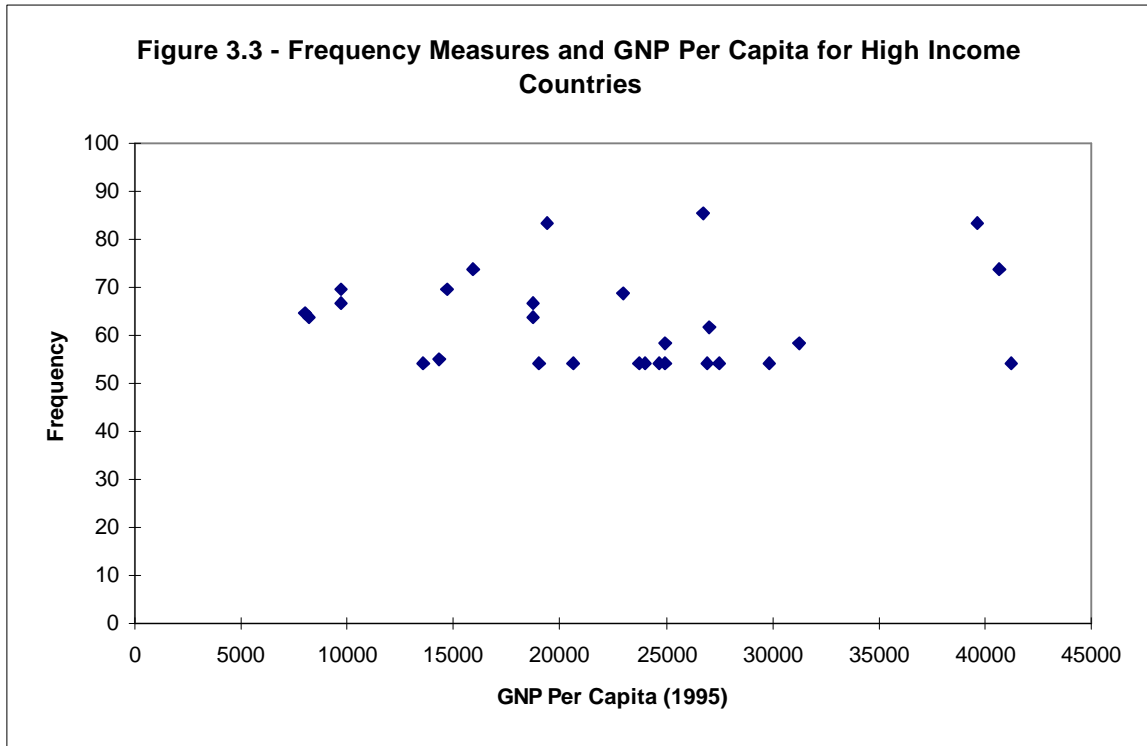
Table 3.1 - Frequency Measures for Selected Countries			
Top 10		Bottom 10	
Cote D'Ivoire	31.94%	India	100.00%
Dominica	47.91%	Dominican Republic	100.00%
EC *	54.17%	Brunei Darussalam	100.00%
Malaysia	54.86%	Ecuador	97.22%
New Zealand	54.86%	Thailand	94.44%
Guatemala	54.86%	Venezuela	92.36%
Trinidad and Tobago	55.56%	Philippines	90.28%
Chile	55.56%	Indonesia	88.89%
Grenada	58.33%	Tunisia	87.50%
Iceland	58.33%	Turkey	87.50%

(* excludes Portugal, Ireland, UK and Greece)

Although the Bottom 10 countries are all low income countries, Singapore, Japan and Canada do not fare much better with 85%, 83% and 83% respectively. However, looking at the Top 10 countries a low income country (Cote D'Ivoire) is unequivocally number 1. Although there are some high income countries in the Top 10 there are more low income countries. A notable inclusion is most of the EC countries whilst a notable exclusion is the US (ranked 17th). For interest, Australia is ranked 22nd.

There appears to be more variance between the low income countries whereby some low income countries do extremely well while others barely make any commitments at all. There also appears to be much more of a bunching up among the high income countries. Figures 3.3 and 3.4 indicate the frequency measures for high income and low income countries respectively.⁵

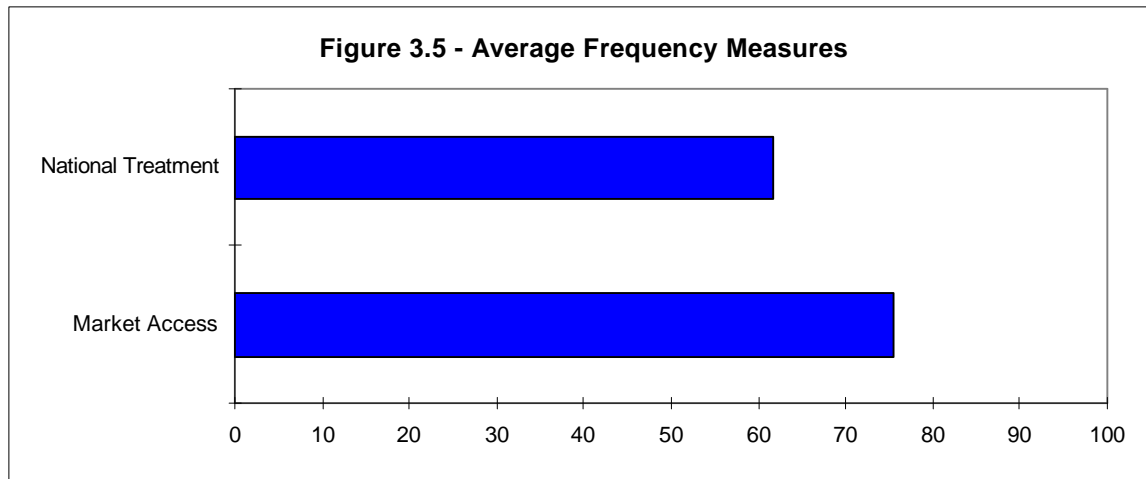
⁵Low income countries were considered to be countries with a GNP of less than \$5,000 and high income countries those with GNP over \$5,000.



The average frequency measure for the high income countries is 62.92% with a standard deviation of 9.94. The average frequency measure for the low income countries is 71.97% with a standard deviation of 15.42. Therefore, on average, high income countries did give a higher level of commitments, but not significantly higher.

Market Access and National Treatment

Figure 3.5 indicates the average frequency measures for member countries in relation to market access and national treatment.

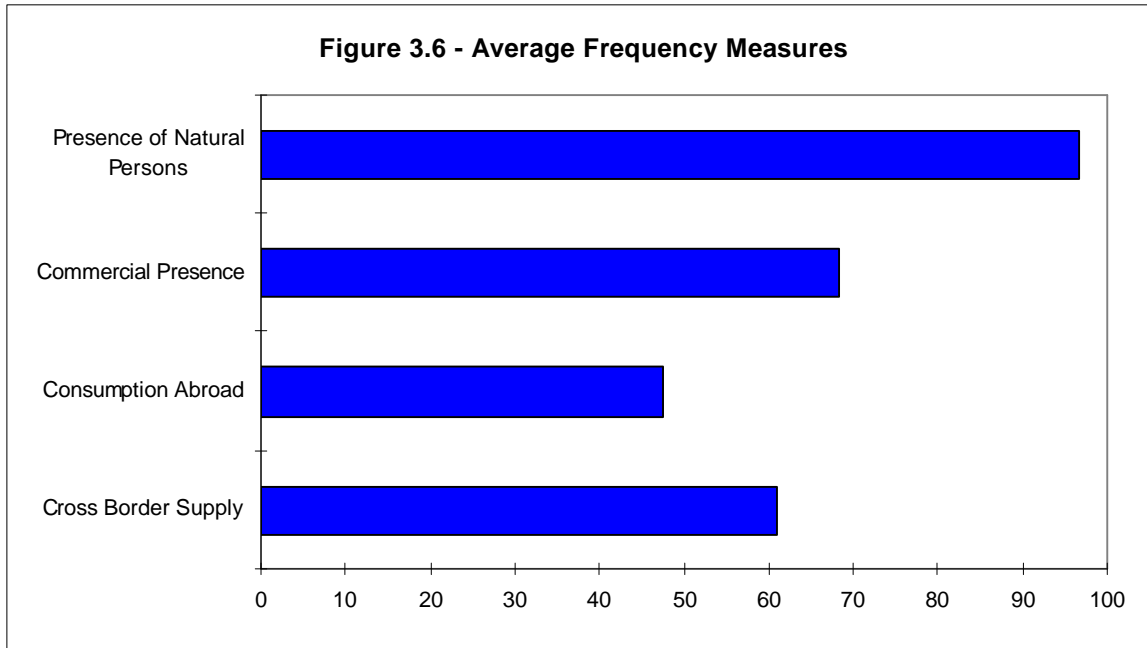


There are more restrictions on market access than national treatment. All countries have given more or equal commitments in respect of national treatment than market access except for Indonesia and New Zealand. Australia has given the same number of commitments for both. The only differences between the countries comprising the EC are with respect to market access. The fact that there are more restrictions on market access than national treatment, on average, implies that member countries are more likely to hinder foreign service providers trying to get into their market than to discriminate against foreign service providers once they have entered the market.

Modes of Supply

The most dramatic differences appear in relation to the alternative modes of service supply. Figure 3.6 indicates the average frequency measures for member countries in relation to each of the four modes of supply.

The average frequency measure for the member countries for cross border supply is 61.11% and is the second least restricted mode of supply. Therefore, only 38.89% of the basic telecommunications services market is open in respect of this mode of supply. Consumption abroad is the least restricted mode of supply. The average frequency measure for the member countries is 47.62%.



The average frequency measure for the member countries in respect of commercial presence is 68.4%. Therefore, only 31.6% of all basic telecommunications services are open in respect of this mode of supply. This suggests that there are a great many opportunities for foreign investment that have not yet been realised. According to ITU (1997) the main risk for countries which have not yet made commitments to liberalise their markets is that these nations are sending the message to potential investors that their money is not welcome. It is increasingly clear that countries are now in competition with each other for foreign investment especially as numerous privatisations of public telecommunications operators are expected to occur in the next few years. In particular, mobile communications has seen spectacular growth in many countries as governments have permitted the licensing of additional operators and the introduction of new services.

Presence of natural persons is the most constrained mode of supply. The average frequency measure for the member countries is 96.66%. In fact, the only countries that gave any commitments at all with respect to market access were Cote D'Ivoire and Trinidad and Tobago. Commitments with respect to national treatment under this mode of supply is marginally better with five countries making commitments being Cote D'Ivoire, Trinidad and Tobago, Grenada, Dominica and Bangladesh. These are all low income countries. The limited number of commitments reflects the importance of horizontal commitments in relation to immigration policies.

While cross border supply and commercial presence are by far the most important modes of supply and the percentage of telecommunication services trade generated from consumption abroad or the movement of personnel is currently small, ITU (1997) indicates that these modes of supply are growing, as customers take up new service options such as calling cards and mobile roaming and as telecommunications consultancy activities increase.

Products

The next step is to look at the particular products in the basic telecommunications services market for which the member countries have made commitments to examine whether the results could be biased by product classification. There are 18 products being:

1. Voice Telephone Services;
2. Packet Switched Data Transmission Services.
3. Circuit Switched Data Transmission Services.
4. Telex Services;
5. Telegraph Services;
6. Facsimile Services;
7. Private Leased Circuit Services;
8. Analogue/Digital Cellular/Mobile Telephone Services;
9. Mobile Data Services;
10. Paging Services;
11. Personal Communication Services;
12. Satellite Based Mobile Services;
13. Fixed Satellite Services;
14. VSAT Services;
15. Gateway Transmission Services;
16. Teleconferencing;
17. Video Transport;
18. Trunked Radio System Services.

Figure 3.7 indicates the frequency measures of all member countries by product.

In the schedules submitted by the member countries the first 7 products were generally listed from (a) to (g) and the other products were listed under (o) for “other”. As can be seen

from Figure 3.7 the first 11 products are relatively more open whilst a low level of commitments has been made in respect of the other products.

Having 18 products listed biases the analysis towards the products in the “other” category and may result in a downward bias on the level of commitments. In further analysis, only the first 11 products listed above will be used. This list of products includes the growth area of mobile services but excludes other products which are considered to be niche markets and may not be important in some countries due to geographical reasons.

Figure 3.8 indicates the frequency measures for the member countries with respect to the first 11 products.

For comparison with the previous analysis, 54% of the basic telecommunications market is impeded under this method. Therefore, 46% of the basic telecommunications market has free market access and full national treatment compared with only 32% when all 18 products are taken into account.

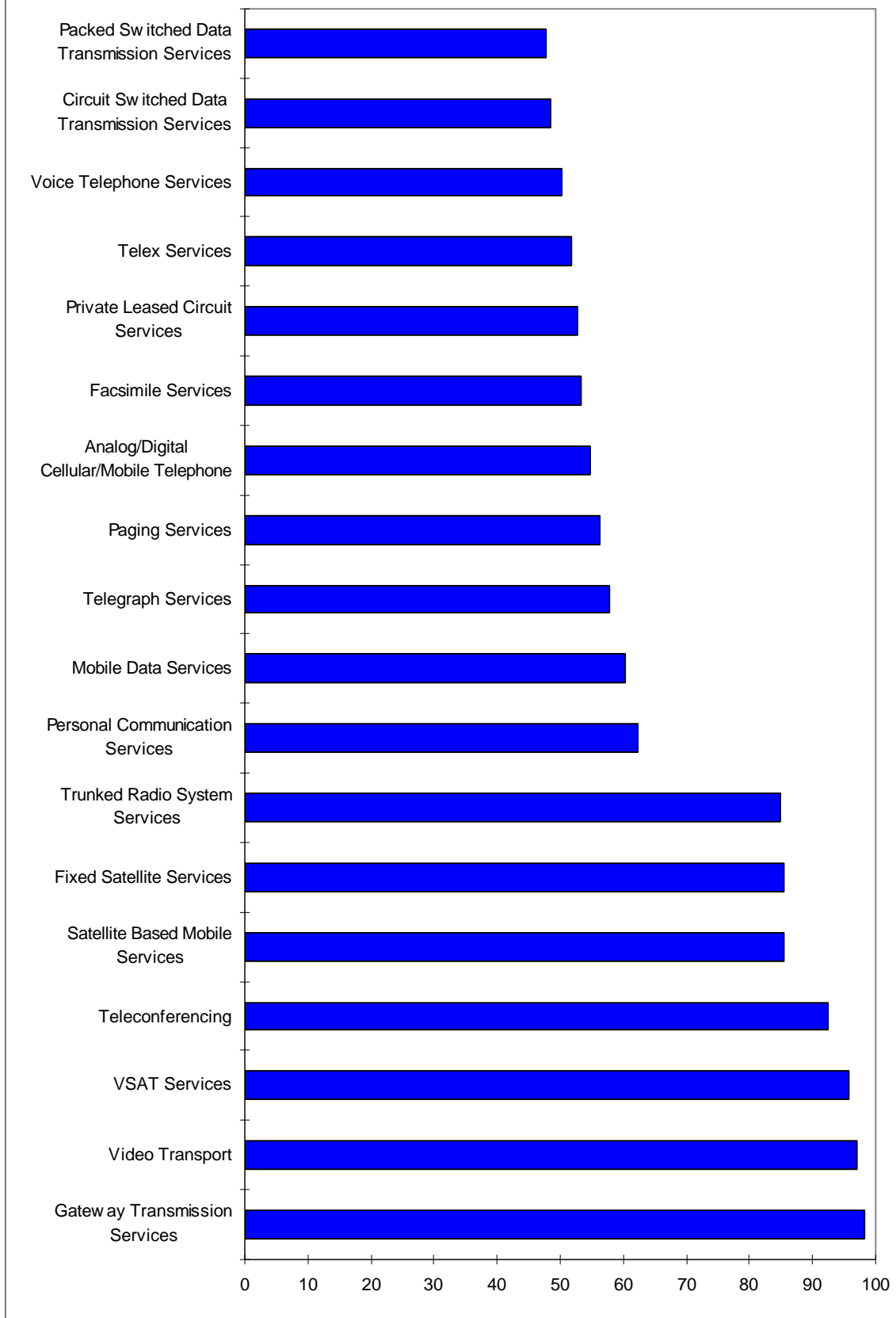
Figure 3.7 - Frequency Measures by Product

Figure 3.8 - Frequency Measures for Products 1 - 11

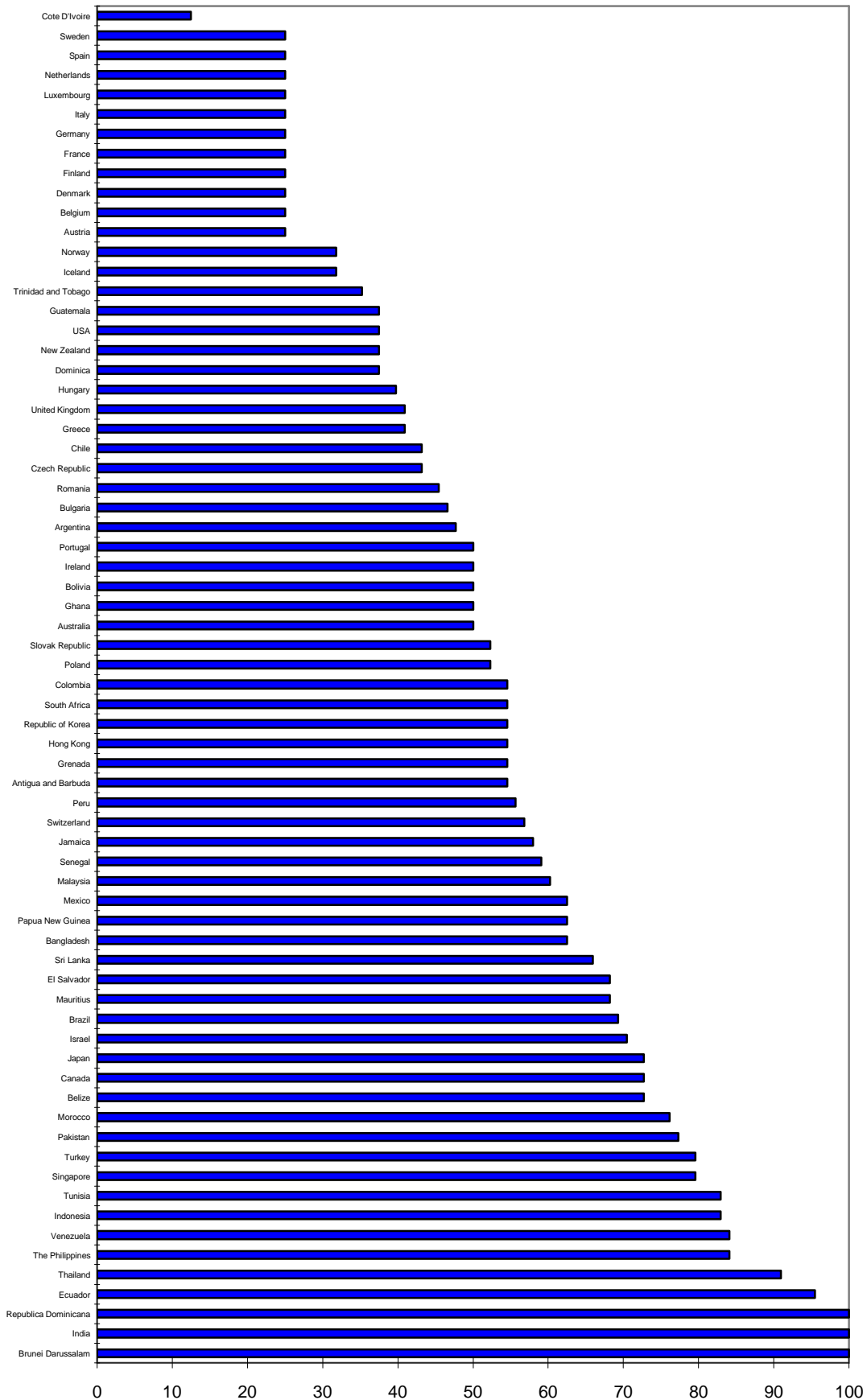


Table 3.2 compares the Top 10 countries under the previous analysis with the Top 10 countries when only 11 products are taken into account. There was no change in the ranking of the Bottom 10 countries.

Table 3.2 - Frequency Measures for Top 10 Countries			
Top 10 - 18 Products		Top 10 - 11 Products	
Cote D'Ivoire	31.94%	Cote D'Ivoire	12.50%
Dominica	47.91%	EC *	25.00%
EC *	54.17%	Norway	31.82%
Malaysia	54.86%	Iceland	31.82%
New Zealand	54.86%	Trinidad and Tobago	35.23%
Guatemala	54.86%	Guatemala	37.50%
Trinidad and Tobago	55.56%	US	37.50%
Chile	55.56%	New Zealand	37.50%
Grenada	58.33%	Dominica	37.50%
Iceland	58.33%	Hungary	39.77%

(* excludes Portugal, Ireland, UK and Greece)

The main difference is that the US is now included in the Top 10. The frequency measures are considerably lower when looking at the 11 products. There is now more variance between the member countries, ranging from 100% to 12.5%.

Figure 3.9 indicates the average frequency measures of the member countries for the products when grouped into fixed services, mobile services and satellite services⁶. These groupings should indicate the level of commitments given for products considered to use more sophisticated levels of technology and be more capital intensive products.

⁶Fixed services include products 1 to 7, mobile services include products 8 to 11 and satellite services include products 12 to 18.

Figure 3.9 - Average Frequency Measures

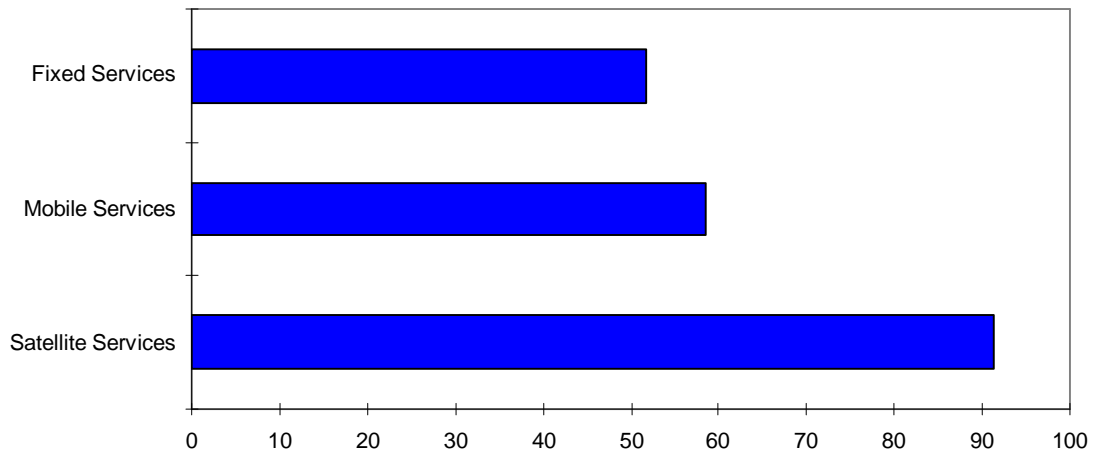
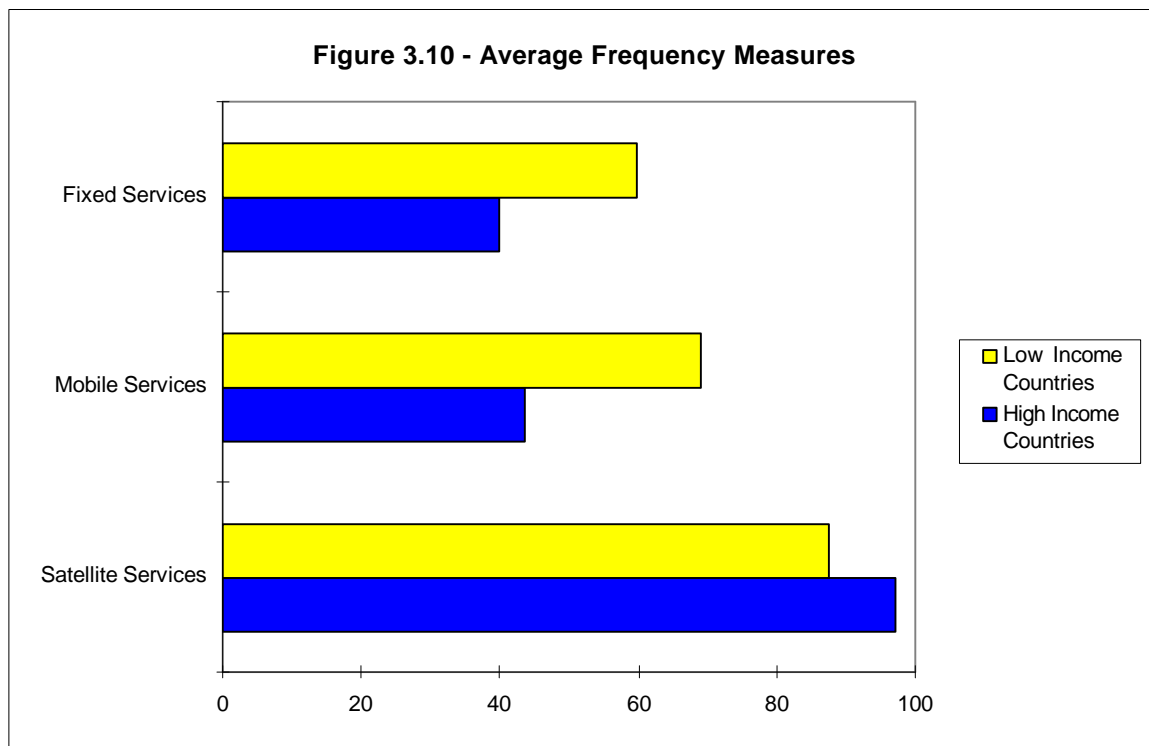


Figure 3.9 indicates that as the level of technology and capital intensiveness increases the level of commitments decreases.

Figure 3.10 indicates the average frequency measures for fixed services, mobile services and satellite services for low income countries and high income countries.



An interesting result from Figure 3.10 is that although high income countries gave more commitments with respect to fixed and mobile services, low income countries gave more commitments with respect to satellite services.

3.3 Partial Commitments to Market Access and National Treatment

To take into account partial commitments in member country schedules PECC (1996) and Hoekman (1994a) developed a further frequency measure whereby partial commitments are given a score of 0.5. Hoekman argues that scaling commitments implying maintenance of measures violating national treatment or market access reflects a perception that scheduling and binding has value, no matter how restrictive the policies that are maintained. The main difficulty with this procedure is that all partial commitments are given the same weighting irrespective of the degree of restrictiveness.

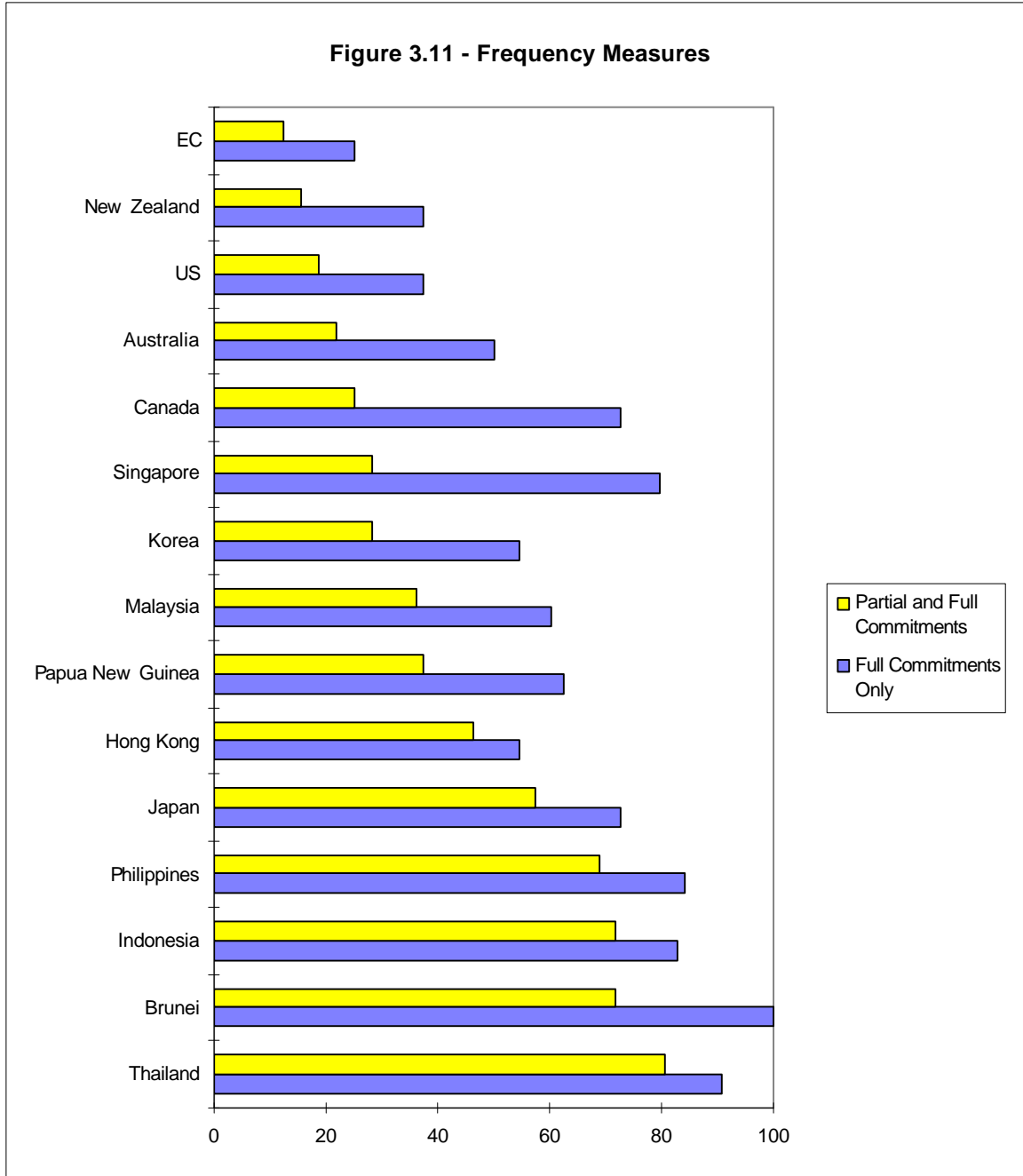
In this paper, a 5 point weighting system is applied to the commitments made in the member country schedules to capture more information about the degree of restrictiveness. A sample of 15 countries is selected being the APEC member countries (excluding Chile, Mexico, China and Chinese Taipei) and including the EC (excluding UK, Ireland, Greece and Portugal) as one.

Table 3.3 indicates the weighting system used for limitations on market access and national treatment for the four modes of supply.

Table 3.3 - Weighting System	
Limitations on Market Access - Cross Border Supply	
1.00	None
0.75	Services unrestricted as at later date
0.50	Subject to commercial arrangements with licensed operator(s)
0.25	Only through network of existing operator(s)
0.00	Unbound
Limitations on Market Access - Consumption Abroad	
1.00	None
0.75	
0.50	Callback not allowed
0.25	Only through network of existing operator(s)
0.00	Unbound
Limitations on Market Access - Commercial Presence	
1.00	None
0.75	Foreign equity allowed greater than 50%
0.50	Foreign equity allowed less than 50%
0.25	Services exclusively provided
0.00	Unbound
Limitations on Market Access - Presence of Natural Persons	
1.00	None
0.75	
0.50	Unbound except as indicated in horizontal section
0.25	
0.00	Unbound
Limitations on National Treatment - Cross Border Supply	
1.00	None
0.75	
0.50	Unbound except as indicated in horizontal section
0.25	
0.00	Unbound
Limitations on National Treatment - Consumption Abroad	
1.00	None
0.75	
0.50	Unbound except as indicated in horizontal section
0.25	
0.00	Unbound
Limitations on National Treatment - Commercial Presence	
1.00	None
0.75	Restrictions on nationality of directors
0.50	All executives and managers must be citizens
0.25	Conditional upon passage of Acts
0.00	Unbound
Limitations on National Treatment - Presence of Natural Persons	
1.00	None
0.75	
0.50	Unbound except as indicated in horizontal section
0.25	
0.00	Unbound

3.4 Results of Partial Commitments to Market Access and National Treatment

Figure 3.11 indicates the frequency measures for each of the 15 countries under the full commitments only method and the partial and full commitments method.



The frequency measures in this analysis indicate that 58.64% of the basic telecommunications services market has been covered by commitments by the member countries. Again, there is quite a lot of variance between the member countries with frequency measures ranging from

80.68% to 12.5%. Figure 3.11 appears to show a larger change in the frequency measures for the countries with relatively low frequency measures under the full commitments only method.

Figure 3.12 indicates the proportional change between frequency measures under the two methods.

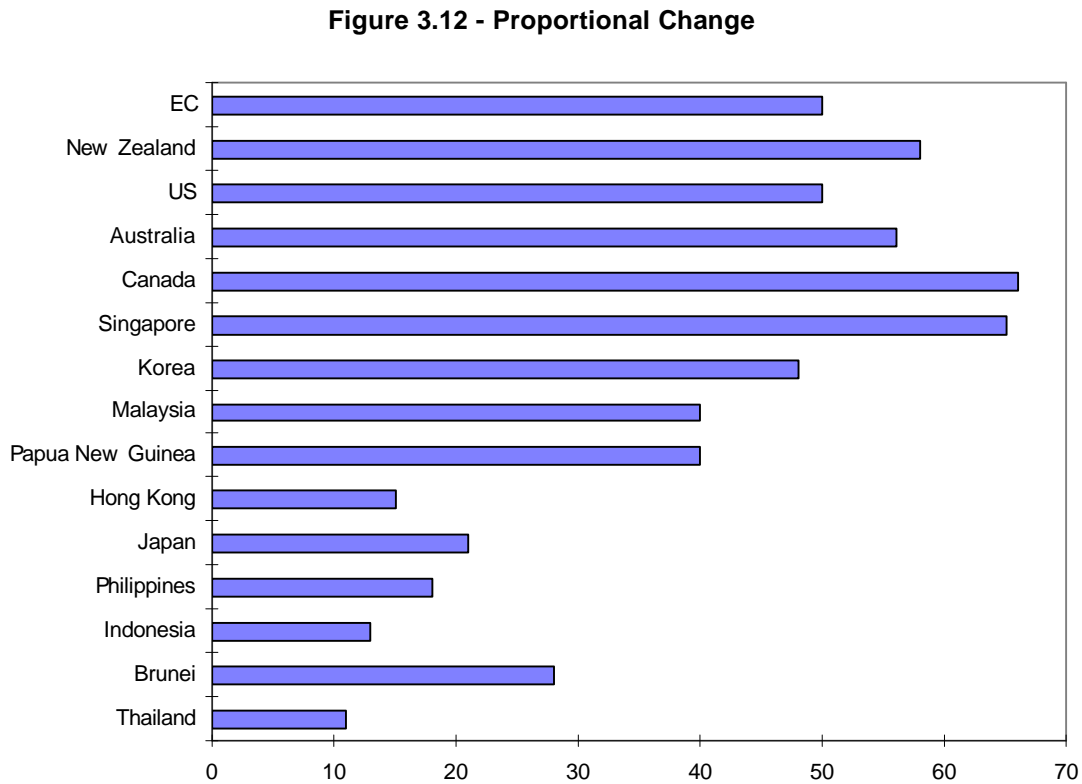


Figure 3.12 dramatically illustrates a greater proportional change for the higher ranked member countries. Therefore, member countries that are already performing well under the full commitments only method perform even better when the partial commitments are also taken into account. Consequently, inclusion of partial commitments would appear to widen the dispersion between the member countries.

Table 3.4 compares the frequency measures and ranking of the 15 member countries obtained under the full commitments only analysis with that obtained under the full and partial commitments analysis presented above.

The rankings do not change a great deal. Brunei fares considerably better going from 100% to 71.88% which indicates that the only commitments made by Brunei were partial

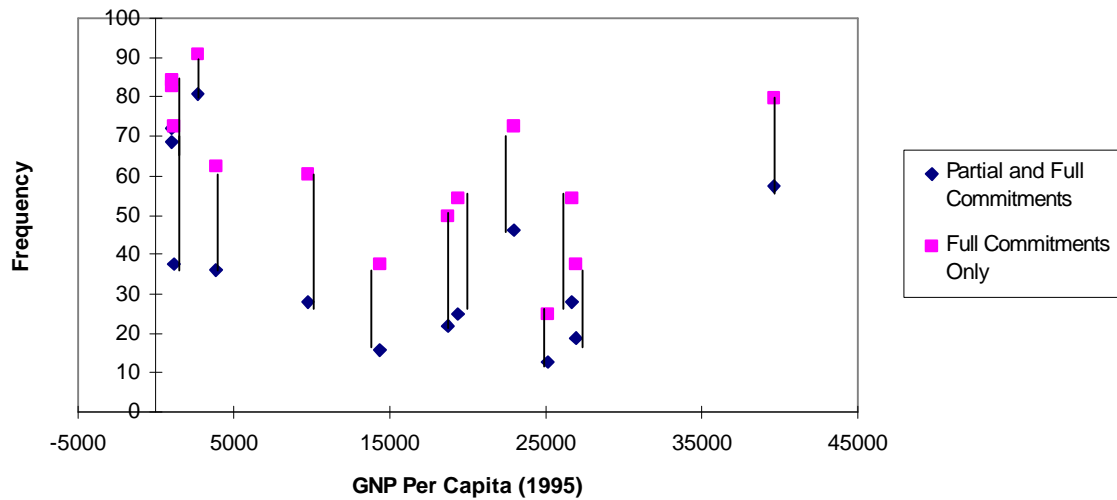
commitments. Canada moves from 10th to 5th which also indicates that Canada made quite a few partial commitments compared to other countries.

Table 3.4 - Frequency Measures					
Partial and Full Commitments			Full Commitments Only		
<i>Rank</i>	<i>Country</i>	<i>Frequency Measure</i>	<i>Rank</i>	<i>Country</i>	<i>Frequency Measure</i>
1	EC *	12.50%	1	EC *	25.00%
2	New Zealand	15.63%	2	New Zealand	37.50%
3	US	18.75%	3	US	37.50%
4	Australia	21.88%	4	Australia	50.00%
5	Canada	25.00%	5	Korea	54.55%
6	Singapore	28.13%	6	Hong Kong	54.55%
7	Korea	28.13%	7	Malaysia	60.23%
8	Malaysia	36.08%	8	Papua New Guinea	62.50%
9	Papua New Guinea	37.50%	9	Japan	72.73%
10	Hong Kong	46.31%	10	Canada	72.73%
11	Japan	57.39%	11	Singapore	79.55%
12	Philippines	68.75%	12	Indonesia	82.95%
13	Indonesia	71.88%	13	Philippines	84.09%
14	Brunei	71.88%	14	Thailand	90.91%
15	Thailand	80.68%	15	Brunei	100.00%

(* excludes Portugal, Ireland, UK and Greece)

A Spearman Rank Test was conducted to test whether there is a high correlation between the ranking of the member countries under the full commitments method and the partial and full commitments method. The result of the test was 0.857 which indicates that the correlation is significant at the 1% level, which means that the null hypothesis that the rankings are significantly different can be rejected. Therefore this indicates that the full commitments method is a good indication of the ranking of the member countries and that the more time consuming, complicated and more subjective partial and full commitments method may not need to be conducted.

Figure 3.13 - Frequency Measures



Finally, Figure 3.13 indicates the frequency measures for the 15 countries under the full commitments method and the partial commitments method and GNP per capita.

Figure 3.13 does not show a relationship between the level of income and the differences between the two methods.

3.5 Other Studies

OECD (1997) assesses barriers to trade in services with respect to the accountancy and telecommunications sectors. The objective of the study on accountancy services is to develop a methodology to translate qualitative regulatory information into a quantitative indicator of “restrictiveness” of barriers affecting trade and investment in professional services. The study does not limit its analysis to commitments scheduled under the GATS but looks at a broader universe of government measures affecting conditions of entry, access and presence in markets for professional services. Measures affecting the international delivery of professional services are looked at comprehensively with the aid of a flowchart which provides an overview of what restrictions are in place in any particular market.

The construction of restrictiveness indexes allows ranking of barriers affecting trade in professional services. Examples of access impairing measures include nationality, residency and licensing requirements. By asking a hypothetical service provider a sequence of questions in the right order starting with “can the service be provided at all” and if so, progressing to questions about the conditions attached thereto, it is possible to identify which measures affect the provision of the services, which of those are market access impairing and to what

degree. Qualitative information on the presence of a restriction is converted into a simple 0-1 indicator. A value of zero is applied when there is no restriction in place, while unity means that a restriction prohibiting market access is in place. Moreover, the ranking describes the extent of the restrictiveness of the measure within the scale of zero to unity.

To normalise the various measures of restrictiveness and ensure some level of comparability across restrictions, benchmark weights are constructed for each category of restrictions. The benchmark score represents the maximum degree of trade and investment liberalisation compatible with the attainment of legitimate regulatory concerns.

Such an approach requires reliable and comprehensive information. The study uses information from the OECD professional services database. An obvious shortcoming is that the various assessments involve a fair degree of subjectivity.

OECD (1997) also develops a methodology to quantify non-tariff barriers in services by the application of a price based approach to the telecommunications sector. The prices used in the study are prices of a one minute international telephone call between each of the 23 countries at the peak hour and at the cheapest discount rate hour as at 1 January 1996 excluding taxes and converted to US dollars using 1995 PPP exchange rates.

It is suggested that given the history of regulation in the telecommunications sectors across countries, it would not be unreasonable to assume that a significant proportion of each country's residual can be attributed to the presence of regulatory and/or trade and investment barriers in this sector. Consequently, the differences in the value of the residual among the countries studied can be thought of as an index of the degree of market access barriers in each country's telecommunications sector. Prior to running the regression, differences in the price of international calls were "normalised" to account for the differences in the quality of service offered.

Table 3.5 indicates the results obtained in the OECD study with respect to the quality of service in telecommunications, the estimated departure from international telecommunication prices given by the residual and the frequency measures obtained for the countries under the full commitments method.

Table 3.5 - Price, Quality and Frequency Measures			
<i>Country</i>	<i>Price Residual</i>	<i>Quality of Service Indicator</i>	<i>Frequency Measure</i>
United States	-0.361	0.957	37.50%
Australia	-0.311	0.996	50.00%
Canada	-0.073	0.950	72.73%
Japan	0.025	1.000	72.73%
New Zealand	0.042	0.844	37.50%
United Kingdom	0.160	0.934	40.91%
Mexico	0.206	0.918	62.50%
Netherlands	0.222	0.918	25.00%
France	0.227	0.914	25.00%
Sweden	0.227	0.917	25.00%
Ireland	0.236	0.878	50.00%
Germany	0.246	0.889	25.00%
Norway	0.248	0.889	31.82%
Denmark	0.254	0.770	25.00%
Switzerland	0.261	0.904	56.82%
Finland	0.270	0.823	25.00%
Italy	0.280	0.909	25.00%
Belgium	0.306	0.951	25.00%
Luxembourg	0.354	0.813	25.00%
Spain	0.397	0.917	25.00%
Greece	0.428	0.793	40.91%
Portugal	0.430	0.809	50.00%
Turkey	0.513	0.807	79.55%

Figure 3.14 plots the frequency measures with the price residuals. There does not appear to be a relationship. It would be expected that there would be a positive relationship between the frequency measure for a country and the price residual.

Figure 3.14 - Frequency Measures and Price Residuals

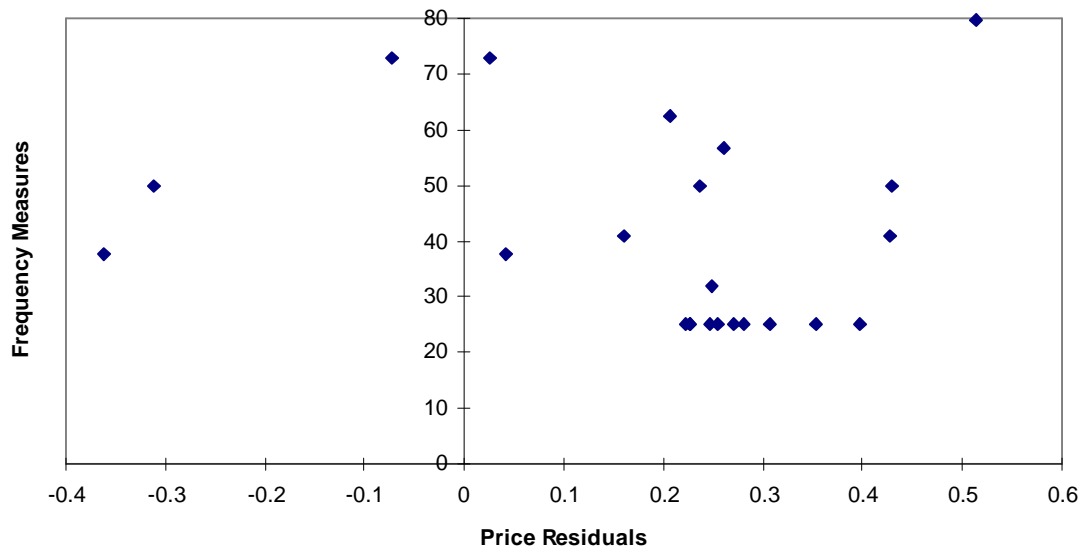
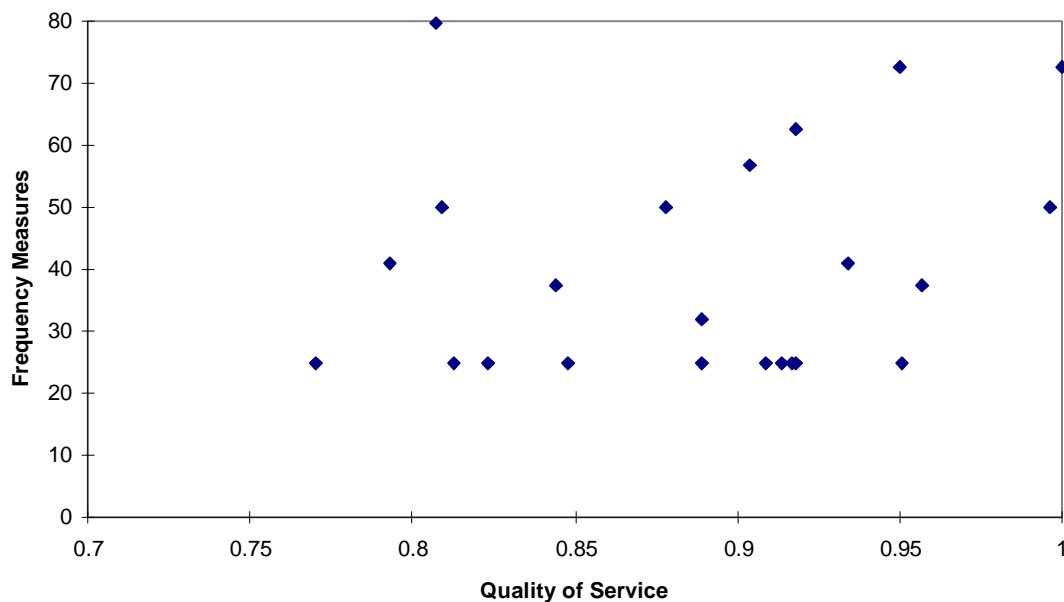


Figure 3.15 plots the frequency measures with the quality of service indicators. There does not appear to be a relationship.

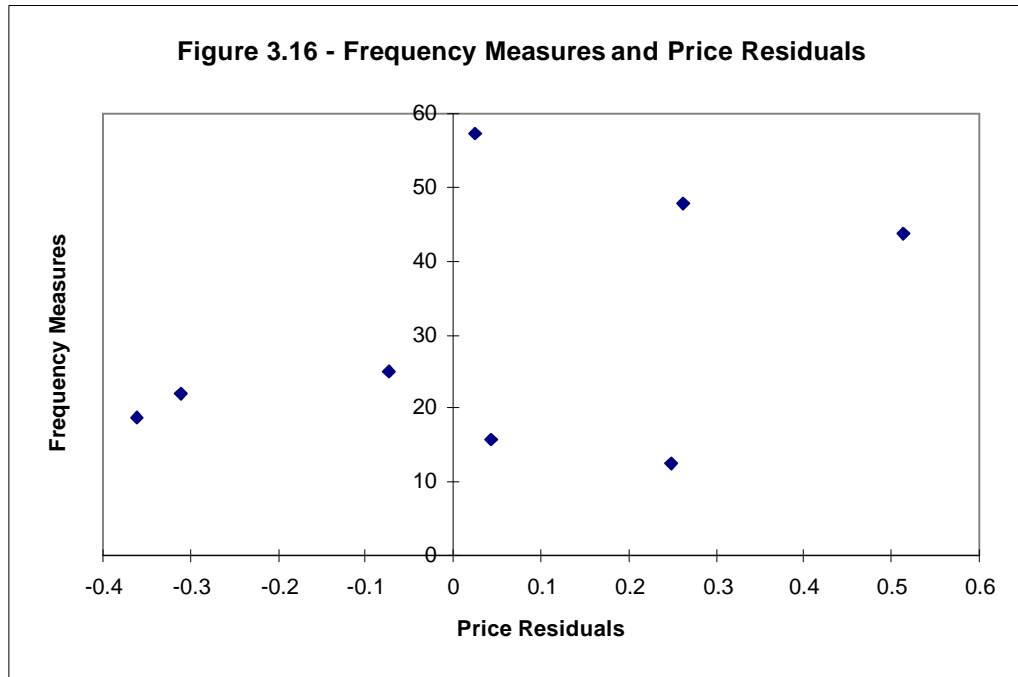
Figure 3.15 - Frequency Measures and Quality of Service



There are two conclusions that can be made from these results. The first is that the frequency measure is not a good indicator of barriers to trade in telecommunications services. The other

conclusion is that there is a deficiency in the methodology used in obtaining the price residuals.

Figure 3.16 plots the frequency measures (full and partial commitments) with the price residuals of eight of the member countries.



There appears to be a positive relationship between the frequency measure and the price residual of the member countries in this case. For a more conclusive result price residuals would need to be obtained for the other member countries.

3.6 Extent of Liberalisation

Unfortunately the analysis in this paper does not enable a determination to be made in respect of the extent of liberalisation. To be able to do this, a comparison needs to be made between what was the policy in the member countries and what the member countries have committed to in the schedules.

According to USITC (1997a) liberalisation in the basic telecommunications services markets of the various member countries has occurred. The USITC examines the commitments made in respect of foreign investment, market access and foreign access to satellite facilities and categorises them as:

1. Standstill Commitment - indicates that current regulations will remain in place.

2. Unclear.
3. Rollback Commitment - indicates that trade restrictions have been removed in part or in whole.
4. Regressive Commitment - indicates that new or more restrictive trade limitations have been imposed.

Table 3.6 indicates that 41 out of the 69 member countries have made rollback commitments.

TABLE 3.6 - MEMBER COUNTRIES WHICH MADE ROLLBACK COMMITMENTS			
Argentina	El Salvador	Japan	South Africa
Austria	Finland	Korea	Spain
Belgium	France	Luxembourg	Sweden
Brazil	Germany	Mauritius	Switzerland
Canada	Greece	Netherlands	Tunisia
Colombia	Guatemala	Norway	UK
Cote D'Ivoire	Hungary	Peru	US
Czech Republic	Iceland	Poland	Venezuela
Denmark	Ireland	Portugal	
Dominican Republic	Israel	Singapore	
Ecuador	Italy	Slovak Republic	

It does not mean that these countries have more open telecommunications markets but that they have liberalised their market to some extent. A problem with this method is that it disadvantages countries such as Australia which have liberalised their telecommunications markets unilaterally but do not receive credit for having done so. This can lead to countries suspending their liberalisation efforts until the multilateral negotiations rather than doing so unilaterally.

For countries such as Australia, UK and US their commitments only locked in unilateral progress. These commitments have value in that they do lock in liberalisation and prevent more restrictive policies being put in place.

The result of the negotiations on basic telecommunications services is impressive as implementation of the Agreement should generate substantial additional liberalisation.

4 CONCLUSIONS

Summary of Results

The average frequency measure for the 69 member countries under the full commitments method is 54.15%. Therefore, just over 45% of the basic telecommunications services market is open to free trade. The average frequency measure for the 15 countries under the partial and full commitments method is 41.36%. Therefore, approximately 58% of the basic telecommunications services market has been covered by commitments.

There are generally more restrictions on market access than national treatment. Therefore, member countries are more likely to hinder foreign service providers trying to get into their market than to discriminate against foreign service providers once they have entered the market.

The average frequency measure for cross border supply is 61.11%. Cross border supply is by far the most important way in which basic telecommunications services are traded. Therefore, restrictions on this mode of supply are significant. The average frequency measure for commercial presence is 68.40%. Commercial presence is also another important mode of supply and its significance is likely to increase as a result of liberalisation.

The average frequency measure for consumption abroad is 47.62%. Therefore, consumption abroad is the least restricted mode of supply. The average frequency measure for presence of natural persons is 96.66%. Therefore, presence of natural persons is the most constrained mode of supply. These modes of supply are increasing in importance due to the introduction of new services.

Anticipated Benefits resulting from the Agreement on Basic Telecommunications Services

There is substantial evidence that policies which reduce competition in service industries are very costly and that liberalisation can bring large efficiency and welfare gains. Industry Commission (1996) cites a report which estimates the benefits to users of the Agreement on Basic Telecommunications Services to be more than US\$1000 billion over the next 14 years. This estimate includes savings resulting from lower costs as well as improved quality of services. However, this estimate does not include the economy wide benefits of a competitive telecommunications market.

ITU (1997) reports that competitive telecommunications markets are growing by 15% per year since 1990 compared with just 3% per year in non-competitive markets which provides evidence of the benefits of allowing competition in telecommunications services.

Although unilateral liberalisation has brought significant economic benefits to many countries, the public often perceive it as being outside the national interest. There is a widespread mercantilist belief that exporting is good for a country, importing is bad (Baldwin, 1988). Multilateral negotiations for reciprocal reductions in trade barriers helps to overcome the public perception that a country loses by reducing protection. Political support from exporting sectors also tends to offset the opposition from import competing industries.

Multilateral liberalisation also yields benefits beyond those from unilateral liberalisation. The opening of foreign and domestic markets further expands world trade and permits a country to further specialise according to its comparative advantage, thereby bringing additional income gains to the country. Additionally, contrary to widespread scepticism, developing countries do have comparative advantage in particular services when services are examined at a sufficiently disaggregated level. Factor endowments are important in determining the pattern of trade in services just as with goods.

Developing Countries

This paper challenges the view that there is a high correlation between the level of commitments and income per head. This paper does not find any relationship at all between GNP per capita and the level of commitments. Other studies of the GATS have concluded that developing countries have made much less commitments. This may be so when looking at services sectors as a whole but this paper indicates that it is not the case when looking at commitments in respect of basic telecommunications services.

Hoekman (1994) finds that the average frequency measure for high income countries was 75% and for low income countries it was 93%. However, in this paper the average frequency measure for high income countries was 62.92% and for low income countries it was 71.97%; which is not significantly different.

Although, on average, developed countries did give a higher level of commitments, when the products in the telecommunications sector are disaggregated into fixed, mobile and satellite services, it is interesting to note that low income countries actually gave more commitments in respect of satellite services than high income countries.

Some developing countries have not made many commitments at all but others have performed extremely well. As shown, there is more variance between the commitments given by developing countries. According to Hoekman (1994) most of the potential gains for developing countries will result from liberalising access to their own markets. Developing countries would benefit from opening their telecommunications markets to foreign investment to provide the necessary infrastructure for future economic development.

Altinger and Enders (1996) state that a commitment to services liberalisation is not evident in the commitments of the majority of developing countries. Conversely, this paper deduces that many developing countries have recognised the anticipated benefits of liberalising their telecommunications sectors as indicated by their level of commitments.

Therefore, this paper concludes that, in general, developing countries have been more committed to liberalisation of their telecommunications sectors than other service sectors.

Methodology

This paper has assessed the Agreement on Basic Telecommunications Services under two methods. The first method only takes account of full commitments made by member countries. The second method involved constructing a five point weighting system to the partial commitments given by the member countries. This method is much more complex and requires subjective judgement of the restrictions that have been scheduled by the member countries.

The result of the Spearman Rank Test in relation to the ranking of member countries under the full commitments method and the partial and full commitments method suggests that the null hypothesis that the ranks are significantly different can be rejected. Therefore, this result suggests that it may not be necessary to include the partial commitments when assessing the commitments given by the member countries.

However, although the rankings under the two methods are not significantly different there does appear to be a widening dispersion between member countries when partial commitments are also included. This result may have implications for other studies attempting to evaluate the commitments made under the GATS.

Is the Agreement on Basic Telecommunications Services a Success and Why?

Although only 69 of the 131 member countries of the WTO have made commitments in respect of the Agreement on Basic Telecommunications Services, the agreement is significant,

as the 69 member countries represent 93% of the global market for telecommunications services. Since the member countries account for a significant proportion of the total world market they will have a potentially big impact on the industry as a whole.

The most open regime for foreign service providers is where no limitations on either market access or national treatment for any of the modes of supply are entered in the schedules. In other words, the government undertakes to remove all measures limiting cross border supply, consumption abroad, commercial presence or the temporary entry of natural persons.

This paper concludes that just over 45% of the basic telecommunications services market is open to free trade. While this result compares well with other service sectors it also illustrates how far member countries are from attaining free trade in basic telecommunications services. Consequently, much remains to be done. Having said that, it needs to be understood that the negotiations did not set out to achieve free trade in basic telecommunications services.

The role of the GATS is to facilitate the reduction of barriers to trade. The negotiations on basic telecommunications services were entered into with a view to the progressive liberalisation of trade in basic telecommunications services. The liberalising effect of the GATS and the Agreement on Basic Telecommunications Services will become much clearer in the medium term.

The major criticism of the GATS is its sectoral focus. It is generally perceived that negotiations on a broad front will be more successful than sectoral negotiations as costs can be offset by benefits within a country to a much greater extent. However, in this instance it seems to have worked.

What are the reasons for the success of negotiations on basic telecommunications services? One reason may be that market forces are bringing about a global trend towards liberalisation of the telecommunications market in most countries. Also, technological developments in the telecommunications sector have rendered regulatory systems obsolete.

The dynamic nature of the telecommunications industry together with the obvious benefits to be realised have made the negotiations a success. For these reasons, very different countries at very different levels of development joined together to pursue the same objectives.

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