Measuring the Commitments on Financial Services Trade Liberalization: Core Business of Commercial Bank in Developing Economies

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I. Introduction

This paper is the basis of studying the impact of financial service trade negotiation under the General agreement on Trade and Services (GATS) on the banking sector in developing countries. To test the impact, the first step is measuring the commitments in financial service trade negotiation. This paper measured members' commitments in the FIFTH PROTOCOL TO GATS. The focus of this paper is the core business of commercial banks, including deposit and credit services, whose definition is specified in section III.

II. The Efforts to measure the Commitments in previous literatures

Since the end of Uruguay round negotiation, there are a few literatures trying to assess the outcomes of service trade negotiation including that of financial service. B.Hoekman (1995)[1] made the tentative first step to measure the commitments on financial service trade[2] liberalization of all WTO members at the end of Uruguay round negotiation. As he said, he "guesstimated" the liberalization degree reflected by the commitments because of lack of statistical support. He quantified the commitments in two dimensions. One is the relative restrictiveness of different measures, which is classified into three categories, "unbound", "none" and "bound"[3]. The other is the relative importance of the modes of supply in specific sectors .Value of 0, 0.5 and 1 were attached to "unbound", "bound" and "none" respectively to scale the restrictiveness of commitments. For each of the four modes, a weight was given as shown in table 1, "reflecting a subjective assessment of the relative importance of the modes."

Table 1: B. Hoekman (1995)'s mode weights

Sector	Mode 1	Mode 2	Mode 3	Mode 4
banking	0.2	0.1	0.6	0.1

A. Mattoo (1999)[4] quantified the commitments on financial services trade liberalization of all developing members[5] of WTO as part of the conclusion of the negotiation in 1997. He argued

This Paper was first presented at a WTO Seminar in Geneva, Switzerland in August 2006. Permission has been granted by the author to reprint this article here.

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[1] Hoekman, B. "Tentative first steps: an assessment of the Uruguay Round agreement on services". *Policy Research Working Paper Series 1455*, 1995, The World Bank.

[2] He studied commitments of all the service sectors by 1994. Financial services are part of them.

[3] "Bound" means any kind of limitation

[4] Mattoo, A. "Financial Services and the World Trade Organization: Liberalization Commitments of the Developing and Transition Economies". *Policy Research Working Paper* WPS 2184. 1999. World Bank.

[5] The definition of developing members in Mattoo (1999), which includes the least developed members, is different

that "the limitation maybe on coverage or in the form of a restrictive measure (which can be one or more of the six types of restrictions listed in Article XVI of GATS). Many members impose restrictions on the legal form of commercial presence … . It is assumed that such restrictions are less burdensome than those which limit entry or the extent of foreign equity participation." With respect to mode 3, it adopted a slightly sophisticated approach, which was "first identifying the most restrictive measure specified and then applying a value based on an assessment of its restrictiveness." "The presence of any of the following limitations led to the indicated value being attached (regardless of whether other less restrictive measures were also applied)". See table 2.

Table 2: Mattoo's Scoring criterion

Limitation	Score
No new entry or unbound for new entry	0.1
Discretionary licensing for new entry	0.25
Ceiling on foreign equity at less than 50%	0.5
Ceiling on foreign equity at more than 50%	0.75
Restrictions on the legal form of commercial presence	0.75
Other minor restrictions	0.75

With respect to mode 1 and 2[6], he simply attached a value of 0.5 in all case of restrictions on the first two modes. He argued that "in the case of the first two modes, restrictions often take the form of excluding certain sub-sectors from the scope of the commitment". "It's difficult to judge the economic significance of these exclusions". Finally, to the most definite entries of "unbound" and "none", values of zero and one are attached respectively with respect to each mode.

To distinguish the different importance of modes of supply, he figured out a "modal weights in banking" shown in table 3, which were based on US trade statistics and estimated by the author[7].

Table 3: Mattoo (1999)'s mode weights

	Cross-border supply	Consumption abroad	Commercial presence
Deposits	0.12	0.03	0.85
Lending	0.2	0.05	0.75

N.Valckx[8] modified A.Mattoo's measures in the way that divided the entries of A.Matto's scoring criteria in detail. See table 4.

from this paper.

[6] Only mode 1 to 3 is measured in Mattoo (1999)

[7] According to Mattoo (1999), US is the only country reports statistics on establishment trade on a regular basis.

[8] Valckx, N. "WTO financial services liberalization: Measurement, Choice and Impact on Financial Stability". *Research Memorandum WO No.705*. 2002. De Nederlandsche Bank.

Table 4: N.Valckx's Limitations Scores

Limitations	Scores
No listing	0
Unbound against relevant mode	0.05
No new entry or unbound for new entry	0.1
Discretionary licensing, economic needs test	0.25
Limited commitments	0.25
Reciprocity	0.25
Licensing and / or authorization requirements (by ministry of finance or government); acquisition approval without mentioning terms, conditions, or procedures	0.3
Licensing and / or authorization requirements by supervisor (central bank, other regulator); acquisition approval with clear indications and guiding principles (laws, rulings,etc)	0.35
Voting or ownership < 50%	0.5
Limitation on legal form, number of operations (branches), ownership > 50%, types of operations (branches versus subsidiaries), value of transactions or assets	0.75
None	1

In order to aggregate a member's sector and mode scores, N.Valckx (2002) employed principal component analysis (PCA) constructing three main indicators for members' commitments. A.Kireyev (2002)[9] calculated the scores of commitments on financial service trade liberalization based on table 4. But he calculated arithmetic mean of scores of modes as aggregate scores of members instead of employing PCA.

It's easy to find that previous studies have made great progress on measuring financial service trade commitments. But there are still some questions remaining. First, regarding relative restrictiveness of different commitments, a series of measures were listed in a sequence of limitation degree and judged on a scale of 0 to 1. However, most of those measures are not mutually exclusive. Many of those are often inscribed in a member's schedule simultaneously. In such case, how shall we choice the scores? For example, in table 4, there are two restrictive measures, "voting or ownership < 50%" and "limitation on legal form", attached scores of 0.5 and 0.75 respectively. If one member committed both of them and another member only took one measure, "voting or ownership < 50%", both of them therefore was scored 0.5. It's irrational to say the former is as restrictive as the latter. Another question is how to treat the different measures committed in different sub-sectors in a member's schedule because even the smallest sector category, such as lending, in previous studies, also covers several sub-sectors.

Second, regarding the modes' weights, two types of methods are applied. One is estimating the weights subjectively based on experiences, common sense or American statistics. Another is

[9] Kireyev, A. "Liberalization of Trade in Financial Services and Financial Sector Stability (analytical approach)". *IMF Working Paper WP/02/138*. 2002. Geneva, International Monetary Fund Office in Geneva.

calculating the weights statistically through principal component analysis. For the former, its pitfall is obviously. Subjective estimation may lead to difference between estimates and reality and variance between different researchers. Although American statistics can provide an objective statistical basis, different developing levels among members reduce its reference value greatly. For the latter, PCA or factor analysis do provide an alternative way to aggregate the original scores. But careful exam should be made case by case because statistically constructed factors are often too abstract to explain or understand.

III. The original data for quantifying

This paper tries to measure the commitments on core business of commercial banks of WTO developing members. These commitments came from the FIFTH PROTOCOL TO THE GENERAL AGREEMENT ON TRADE IN SERVICES,[10] which, entering into force in 1999, is the outcome of financial service trade negotiation among WTO members under GATS. However, commitments of members, who didn't participate in the negotiation in 1997, came from the SECOND PROTOCOL TO THE GENERAL AGREEMENT OF TRADE IN SERVICES, entering into force in 1996. For those members who acceded to WTO after 1999, their commitments came from their protocol of accession.

All of the developing members of WTO are included in this study. However, there isn't a definition of developing countries in WTO or other international organizations. WTO has the definition of least developed countries and World Bank has an academic standard to distinguish developed and developing countries, which is often used in its working papers. This paper, based on both of these definitions, excepting the least developed members and developed members, covers all the remaining 90 members.

a. Definition of core services of commercial bank

This paper doesn't study all the financial services but the core business of commercial banks, which are deposit and credit services. According to article 5(v) and (vi) in ANNEX ON FINANCIAL SERVICES TO GATS, deposit service is "acceptance of deposits and other repayable funds from the public" and credit service is "lending of all types, including consumer credit, mortgage credit, factoring and financing of commercial transaction".

According to GUIDELINES FOR THE SCHEDULE OF SPECIFIC COMMITMENTS UNDER GATS, such general definition can be classified in a specific and standard way which is the UN provisional central product classification[11]. See table 5

Table 3.1 also shows the sectoral scope in this study, which includes the sub-sectors of 5-digit code of UN CPCprov: 81115, 81116, 81119, 81131, 81132, 81133, 81139[12]. Some members' commitments cover all of them, but some only cover part of them. The coverage of all 90

[10] Brazil, Philippines and Jamaica have not accepted the FIFTH PROTOCOL TO GATS.
[11] Department of International Economics and Social Affairs, Statistical Office of the United Nations, Provisional Central Product, Statistical Paper Series M No.77. (New York: UN, 1991)
[12] According to GUIDELINES FOR THE SCHEDULE OF SPECIFIC COMMITMENTS UNDER GATS, 81117, non-central bank currency issue, is also include in deposit service. Because many members haven't such sub-sector, this paper excludes it. "81131-81139", is also referred to 8113 hereinafter.

developing members' commitments in core business of commercial bank is listed in table A-1 in annex, which shows that 19 developing members' commitments don't cover any sub-sector in table 5. So these members' indexes of trade liberalization are all 0. And in section IV, these members are not discussed again.

Table 5: Definition of core business of commercial bank

Core service	Definition	Classification	
		CPCprov code	Explanatory note
Deposit service	Acceptance of deposits and other repayable funds from the public	81115	Wholesale deposit services：Services consisting in large-scale deposit-taking, particularly from other financial institutions
		81116	Other bank deposit services: Bank deposit services for persons, companies, etc.
		81119	Other deposit services: Non-bank deposit services for persons, companies, etc.
Credit service	Lending of all types, including consumer credit, mortgage credit, factoring and financing of commercial transaction	81131	Mortgage loan services: Services consisting in granting loans for which specific assets in land and buildings are used as security.
		81132	Personal instalment loan services: Services consisting in granting consumer credit especially to finance current expenditure on goods and services.
		81133	Credit card services: Services consisting in financing the purchase of products by granting point-of-sale credit using plastic cards or tokens.
		81139	Other credit services: Services consisting in other lending by institutions not involved in monetary intermediation.

IV. Methodology

WTO members' specific commitments schedules imposed a series of restrictive measures on core business of commercial banking which depressed trade liberalization. To measure trade liberalization is to measure the degree of restrictiveness of measures, which have a negative impact on trade liberalization. However, the difficulty is one member's specific commitments schedule usually stipulated a number of measures and members' measures are different from each other. Comparing members' commitments in general according to a uniform scoring criterion will lead to loss of information in commitments. But if the uniform scoring criterion were abandoned, the measurement would be random because no specific statistical data can support such measurement so far. In other words, because subject estimation is the only way to measure commitments, developing an uniform scoring criterion is the key point to make measurement rational. But it's hard to apply one standard to compare all kinds of measures.

To make it applicable to compare all kinds of measures and, at the same time, keep the uniformity of scoring criterion, this paper employs a structured analysis framework. First, all the measures included in 90 members' commitments were classified into different categories. Second, weights were assigned to each category. Third, only measures in the same category were compared and scored based on scoring criterion which is uniform inside a category but varies between different categories. In other words, each category has its own uniform scoring criterion.

a. Weights of sub-sectors

As discussed in section III, some members' commitments cover all the seven sub-sectors, but some not. The coverage of commitment may have an important impact on trade liberalization. In fact, only a part of categories of measures have tight relation with it. For those categories, the coverage must be taken into account when measures are quantified. The criterion is as follows,

If a member's commitments didn't cover a sub-sector, its measure score in this sub-sector is 0.

For those sub-sectors covered in a member's commitments, it's assumed that sub-sector's market scale decides its importance in the core business of commercial bank. Even taking the same measure in two sub-sectors with different market scale, the impact on the general trade condition is different. So an estimation of relative market scale of all sub-sectors is necessary, which was made and represented by weights, see table 6

Table 6: Sub-sectors' weights

Sectors	CPCprov code	Sub-sector	Weights
Deposit （weights 0.5）	81115	Wholesale deposit service	0.2
	81116	Other bank deposit service	0.6
	81119	Other deposit service	0.2
Credit （weights 0.5）	81131	Mortgage loan services	0.3
	81132	Personal installment loan services	0.25
	81133	Credit card services	0.25
	81139	Other credit services	0.2

b. Classification of restrictive measures

As discussed above, subject estimation was made to quantify the restrictive measures. Classification was the first step. Measures classified into the same category have the most similar attributes so the comparability increased. Only comparing measures in the same category make it easy to focus on the difference between degrees of restrictiveness of measures, excluding the noise of other difference. Therefore the subject scoring based on common sense only reflects the degree of restrictiveness of measures, which contributed to rational scoring.

This paper classified all the measures into six categories, listed in table 7, which are institution establishing limitation, segmental market limitation, ownership limitation, scale limitation, employment limitation and subsidy & tax treatment limitation. Because most of the commitments of members are based on GATS-16(2), the six categories cover the definition of sub-paragraph a - f in GATS-16(2). The corresponding relation is shown in table 7.

Table 7: Classification of restrictive measures

Categories	Weights	Entry in GATS16（2）	Explanatory note
Institution establishing limitation	0.35	a，e	Limit on institution setting in domestic market by foreign banks. Legal form are often distinguished.
Segmental market limitation	0.25	b，c	Limit on segmental market access in a sub-sector. market is often segmented by customers, currency, etc.
Ownership limitation	0.2	f，e	Limit on ownership of institutions set by foreign banks in domestic market.
Scale limitation	0.1	b，c	Limit on scale of assets and establishment
Employment limitation	0.05	d	Limit on citizenship of senior managers or clerks
Subsidy & tax treatment limitation	0.05	/	Exception on national treatment of subsidies and taxes.

Obviously the six categories have different degree of impact on free trade. The first one decides directly whether a member's bank can operate in another member's market. Some banks may be forbidden completely to access a member's market by such measures. The second one can only block a part of domestic market. The others can't stop foreign banks accessing but just restrict the control rights and competition through affecting their equity structure, scale, employment structure, profitability, etc. According to the degree of restrictiveness, each measure was assigned a weight, also listed in table 7. The score of a measure multiplies by its weight is the measurement of its restrictiveness.

The last category, subsidy & tax treatment limitation is the only restrictive measure of national treatment. Because of the provision of GATS-20(2), the measures in column of national treatment of member's schedule are relatively few, some of which can still be merged to market access column. Most of the remaining ones belong to subsidy & tax treatment limitation, with a few exceptions omitted,

c. General criterion for quantifying

Although scoring criterion varies across categories, there is a general criterion, as follows, applied to all the categories.

The indicator of degree of trade liberalization is index of trade liberalization which range from 0 to 10. A member's index of trade liberalization is a weighted sum of scores of measures of all six categories. The score of measure also ranges from 0 to 10. If the measure is "unbound", score is 0. If the measure is "none", score is 10.

"Authorization" is a measure used by most members. Sometimes it's used together with another measure, sometimes not. For the former case, the authorized trade condition is also restricted by another measure. For the latter case, the authorized trade condition is completely free. In order to treat with both of the two cases according to a uniform criterion, the quantification went in two steps. First, the authorized trade condition was scored. Second, the authorization measure was scaled by a multiplier, called authorization coefficient, which multiplied the score in first step. The product was the final score. If the authorization based on discretionary judge or economic demand test, the authorization coefficient is 0.3 and if based on specific condition or qualification, it's 0.35. So if there isn't other measure accompanying, the final score of authorization measure is 3 or 3.5.

Similar to "authorization", "grandfather provision" was also scaled by a multiplier, 1.2, called grandfather coefficient.

The same method was applied to "rollback provision" which usually stipulated to cancel some measures in future. For such provision, the future trade condition after cancelling some measures was scored first. Then the score was multiplied by "time coefficient". The time coefficient is 0.9 if the rollback provision stipulated to cancel measures in five years after the commitments entering into force. If it's in more than five years to cancel measures, the time coefficient is 0.8.

Members' commitments may not cover all of the six categories of measures. According to GATS-16(2), members can not take any restrictive measures not listed in their schedules. So if a member's commitments did not cover a category of measures, such category is scored 10.

Members' commitments also do not cover all the sub-sectors. But GATS can not bind sectors or sub-sectors not listed in members' schedules. Those uncovered sub-sectors were scored 0.

So generally, a member's index of trade liberalization is calculated in the following equation.

$$Index = \sum_i W_i \sum_j U_j \sum_k T_k X_{ijk} \tag{1}$$

W_i — weight of sub-sector i

U_j — weight of category j

T_K — weight of sub-category k

X_{IJK} — score of a particular measure

d. Scoring criteria for institution establishing limitation

Institution establishing limitation is the first and most important barrier for banking service trade. Such kind of measures can keep foreign banks out of domestic market completely. Otherwise if it had established an institution in domestic market, a foreign bank acquired the platform to further expand or penetrate. Measures in this category are mainly authorization, qualification for entering, legal form, etc.

Members used a number of terminologies to call the legal form of foreign invested institutions, such as joint venture banks, subsidiaries, branches, etc. This paper only distinguishes two legal forms, joint venture banks and branches. The former, whose foreign equity share varies from minority to 100%, includes all the non-branch institutions except representative office.

Usually, measures were taken to restrict one of the two type institutions, joint venture banks and branches. And the one restricting joint venture banks may not restrict branches. So this category's measures were classified into two sub-categories according to the type of institutions they restrict. The two sub-category measures are scored respectively and their weighted sum is the final score of this category, called index of institution establishing freedom.The scoring criterion is shown in table 8.

Table 8: scoring criteria for institution setting

measures	score
Forbid establishing joint venture banks or branches	0
No new licenses	0.5
Number limit	4
Only permit investing in existing banks instead of establishing new joint venture banks	6
Specify qualification or condition to establish joint venture banks or branches	7
None	10

According to the criterion in table 8, members' measures were scored and reported in table A-2 in Annex. EL Salvador, whose measure was "unbound", and those members, not taking measures in this category, were excluded from table A-2, who are Albania, Argentina, Armenia, Bolivia, Croatia, Estonia, Gabon, Georgia, Guyana, Israel, Jamaica, Kyrgyz, Latvia, Lithuania, Mongolia, Panama, Paraguay, Qatar, Romania, South Africa, Zimbabwe. They are scored 10 except for EL Salvador scored 0.

e. Scoring criteria for segmental market limitation

Another main barrier for free banking service trade is to segment domestic market and keep some segmental markets close to foreign banks although general commitments of market access were made. The provision of such measures is usually composed of two parts. The first part is how to segment domestic market and the second part is how to restrict the segmental market access. The second part shows degree of restrictiveness of measures but the first part shows coverage of measures. Both of them are important to quantify this category especially the first part. Because the same measures applied to two segmental markets with different scales will affect the trade liberalization in different degrees.

Members often segmented market from three dimensions which are citizenship of customers, currency type and legal form of providers. Weights, as table 9 shows, were employed in this paper to distinguish the relative importance of different segmental markets based on their scales.

Table 9: weights of segmental markets

Dimension		Weight
Citizenship of customers	Resident natural person	0.35
	Resident legal person	0.35
	Non-resident	0.3
Type of currency	Local currency	0.7
	Foreign currency	0.3
Legal form of providers	Joint venture banks	0.5
	branches	0.5

The scoring criterion is shown in table 10.

Table 10 scoring criteria for segmental market

measure	score
forbid entrance	0
authorization	Coefficient 0.3
Restrict qualification of providers	7
Restrict transaction conditions	8

It's rational to consider the segmental market as part of the market of a sub-sector because different sub-sectors certainly mean different markets, although some members' commitments didn't show which sub-sector a segmental market belongs to. So first, the weighted sum of scores of measures in all segmental markets of a particular sub-sector was figured out as score of such sub-sector and second, weighted sum of scores of all sub-sectors was made as the index of segmental market freedom. Table A-3 in Annex reported the index of segmental market freedom as well as content and relationship of measures, segmental markets and sub-sectors. The indexes of members who didn't take measures in this category are all 10. They are not listed in table A-3, who are Albania, Argentina, Bolivia, Bulgaria, Colombia, Cote d'lvoire, Croatia, Cuba, Ecuador, Gabon, Georgia, Hong Kong, Hungary, India, Indonesia, Israel, Jordan, Kenya, Kyrgyz, Latvia, Lithuania, Macau, Macedonia, Malta, Mauritius, Mexico, Mongolia, Morocco, Nicaragua, Nigeria, Oman, Paraguay, Peru, Poland, Qatar, Saudi Arabia, Slovak, South Africa, Sri Lanka, Thailand, Turkey, United Arab Emirates.

f. Scoring criteria for ownership limitation

Members, on one hand, allowed foreign invested banking institutions provide services in domestic market, on the other hand, restricted the ownership of domestic banking assets through restricting the ownership of locally established foreign banking institutions. The majority or parts of banking assets will be kept by domestic capital through measure of ownership limitation which is restricting establishment of branches or restricting share structure of joint venture banks. For joint venture banks, members restricted share of either individual foreign stockholder and its related parties or aggregate foreign stockholders through setting ceiling of foreign share or requiring foreigners to get authorization before investing. A very few members limited the number of foreign directors as an additional measure. Different situations were usually distinguished in members' commitments. One is when establishing new joint venture bank, the other is when investing in existing banks.

The scoring criterion of ownership limitation is as follows:

According to the objects it restricts, the measure of ownership limitations was classified into three sub-categories which are limitations on branching, on individual foreign share of joint venture banks, and on aggregate foreign share of joint venture banks. They were assigned weights as 0.4, 0.3, 0.3 respectively. Each of them was scored independently and the weighted sum of their scores is the index of ownership freedom.

Usually the ceiling of foreign share in members' commitments is a percentage. Through multiplying the percentage by value 10, score of sub-category measures was got directly. But sometimes members distinguished the conditions to take measures, which was taken into account through assigning the same weights to every conditions and calculating the weighted sum of scores of measures under different conditions.

A special situation in this category is members tended to loose some ceiling by discretionary authorization. In such case, the percentage of foreign share was divided into two parts. One is the part below the ceiling (form zero to ceiling) and another is the part above the ceiling (from ceiling to the theoretic maximum of foreign share, usually 100%). Both of them were scored respectively and the score of latter was adjusted by authorization coefficient. Sum of the two parts' score is the final score of such case.

Table A-4 in Annex reported the index and summary of ownership limitation. The indexes of members who didn't take measures in this category are all 10. They were not listed in table A-4, who are Albania, Argentina, Armenia, Bolivia, Croatia, Estonia, Gabon, Georgia, Guyana, Jamaica, Kyrgyz, Latvia, Lithuania, Mongolia, Panama, Paraguay, Qatar, Romania, South Africa.

g. Scoring criteria for scale limitation

Since developing members have all opened their market in different degrees, one of their worries is that foreign banks entrance may lead to intense competition and market share decrease of domestic banks. So some members also took measures to limit the scale of foreign invested banking institutions. However, such measures are mainly imposed on branches or foreign controlled joint venture banks. Those joint venture banks where foreign banks only hold minority of shares are usually not limited.

The measure was taken on both asset or transaction scale and establishment scale. For asset or transaction scale, some members limited that relating to aggregate foreign banking institutions, some limited that relating to individual foreign banking institutions. And the measure often affects particular sub-sector or business, which makes the impact of such measures decrease. For establishment scale, members usually limited sub-branching, offices and ATM networks. Because the limitations on asset or transaction and on establishment scale are entirely different kinds, this paper measured them separately.

The scoring criterion of asset or transaction limitation is discussed as follows.

Weight of 0.5 is assigned to each of such measures: measure on aggregate scale and the one on individual scale of foreign invested banking institutions. Weighted sum of scores of the two measures is the score of asset or transaction limitation. Criterion of segmental market limitation is applied here to assign weight to the particular scope a measure affects. Because this kind of measures diversify greatly, it's hard to compare each other. For simple, each measure is scored 5.

Table A-5(1) in annex reported the score of asset or transaction limitation.

The scoring criterion of establishment scale limitation is discussed as follows.

The measure of establishment scale limitation includes three kinds which are sub-branching limitation, offices limitation and ATM network limitation. They are assigned weights as 0.5, 0.3, 0.2 respectively. The weighted sum of scores of all the three kinds of measures is the score of establishment scale limitation. For sub-branching limitation, the ceiling of sub-branches' number is used as the score value.

Table A-5(2) in annex reported the score of establishment scale limitation.

h. Scoring criterion for employment limitation

Some members took measures to limit foreigners to assume the position of CEO or senior manager and some limited the proportion of foreign employees in a foreign invested banking institution. This paper gave the index of employment freedom directly in table A-6 in the annex based on the assumption that limitation on CEO is more important than on senior manager and limitation on aggregate foreign employees is the mildest measure. Because employment localization is the best way to reduce cost and develop local market.

i. Scoring criterion for subsidy & tax treatment limitation

Subsidy & tax treatment limitation is the main restrictive measure relating to national treatment. Other measures on national treatment have been merged to measures on market access in the above five categories.

The scoring criterion of subsidy & tax treatment limitation is as follows.

Weight of 0.5 is assigned to measures limiting subsidy treatment and tax treatment. Because this kind of measures usually limits a particular sub-sector, the weighted sum of scores of subsidy treatment limitation and tax treatment limitation is only the sub-sector's score. The weighted sum of sub-sector's score is the index of subsidy & tax national treatment.

If a measure of subsidy or tax covers whole sub-sector or whole area, there is no discrimination, so it's scored 9. If a measure only affects a small part of foreign banking institution or in a light degree, it's scored 7. If a measure covers half part of foreign banking institutions, it's scored 4. If a measure discriminates all foreign banking institutions, it's scored 2.

Table A-7 in annex reported the index of subsidy & tax national treatment.

VI. Conclusion

Ninety Members' final index of trade freedom and index of all six categories of restrictive measures were reported in table A-8.

Table A-1 Coverage of specific commitments schedule

Member	Coverage	Member	Coverage	Member	Coverage
Albania	All	Gabon	8113	Nicaragua	All
Antigua & Bermuda	Nothing	Ghana	All	Nigeria	All
Argentina	All	Georgia	All	Oman	All
Armenia	All	Grenada	Nothing	Pakistan	All
Bahrain	All	Guatemala	Nothing	Panama	All
Barbados	Nothing	Guyana	All	Papua New Guinea	All
Belize	Nothing	Honduras	81116，81119 81132-81139	Paraguay	All
Bolivia	All	Hong Kong	All	Peru	All
Botswana	Nothing	Hungary	All	Philippines	All
Brazil	81116，8113	India	All	Poland	All
Brunei Darussalam	Nothing	Indonesia	All	Qatar	All
Bulgaria	All	Israel	All	Romania	All
Cameroon	Nothing	Jamaica	81115，81116 8113	St. Christopher & Nevis	Nothing
Chile	8115-81119 81131,81139	Jordan	All	St. Lucia	Nothing
China	All	Kenya	All	St. Vincent & the Grenadines	Nothing
Chinese Taipei	All	Korea	All ex.81119	Saudi Arabia	All
Colombia	All	Kuwait	All	Singapore	All
Congo	Nothing	Kyrgyz	All	Slovak	All
Costa Rica	81115-81119	Latvia	All	South Africa	All
Cote d'lvoire	All	Lithuania	All	Sri Lanka	All
Croatia	All	Macau	All	Suriname	Nothing
Cuba	All	Macedonia	All	Swaziland	Nothing
Czech REP	All	Malaysia	All	Thailand	All
Dominica	Nothing	Malta	All	Trinidad & Tobago	Nothing
Dominican Republic	All ex.81139	Mauritius	All	Tunisia	81115，81116 81131-81133
Ecuador	All	Mexico	All	Turkey	All
Egypt	All	Moldova	All	United Arab Emirates	All
El Salvador	81116-81119 81131-81133	Mongolia	All	Uruguay	81115，81116 81132，81133
Estonia	All	Morocco	All	Venezuela	81115，81116 81131-81133
Fiji	Nothing	Namibia	Nothing	Zimbabwe	All

Table A-2 Index of institution setting freedom

Member	Summary of measure of institution setting limit		Index
	Measure	Legal form of institutions	
Bahrain	Need authorization	Joint venture & branch	3
Brazil	Need authorization. If participating in privatization of public sector financial institutions, commercial presence is permitted.	Joint venture & branch	5
Bulgaria	—	Joint venture & branch	5
Chile	Need authorization based on economic demand test	Joint venture & branch	3
China	foreign banks with total assets of more than US$10 billion can establish joint venture; with total assets of more than US$20 billion can establish branch	Joint venture & branch	7
Chinese Taipei	to establish branch, foreign bank shall match specified business relation and volume with Taiwan enterprises 3 years before applying	Joint venture & branch	8.5
Colombia	Need authorization based on economic demand test	Joint venture & branch	1.5
Costa Rica	—	Only joint venture	5
Cote d'lvoire	—	Only joint venture	5
Cube	Need authorization	Joint venture & branch	3
Czech	Need authorization	Joint venture & branch	3
Dominican Republic	Need authorization based on economic demand test	Joint venture & branch	3
Ecuador	Only through acquire share of existing banks. No new bank is permitted	—	3
Egypt	Establishing branch need authorization based on economic demand test	Joint venture & branch	6.5
Ghana	need licence based on prudential requirements	—	3.5
Honduras	Need authorization based on economic demand test	Only joint venture	1.5
Hong Kong	Need authorization based on specified criteria except for grandfather provision	Joint venture & branch	4.2
Hungary	—	Only joint venture	5
India	a limit of 12 licenses per year both for new and existing banks. licenses may be denied when the maximum share of assets in India both on and off balance sheet of foreign banks to total assets both on and off balance sheet of the banking system exceeds 15%.	Only branch	2
Indonesia	Unbound for new licenses	Only joint venture except grandfather provision	1
Jordan	—	Joint venture & branch	10
Kenya	Need authorization	—	3
Korea	—	Joint venture & branch	10
Kuwait	Foreign banks in which Kuwait government or Kuwait banks are shareholders may entry under authorization	—	2.1
Macau	—	Joint venture & branch	10

Table A-2 Index of institution setting freedom -continued

Member	Summary of measure of institution setting limit		Index
	Measure	Legal form of institutions	
Macedonia	—	Joint venture. branch(no late than 2008)	9
Malaysia	Only through acquire share of existing banks. No new bank is permitted	Forbid branch	3
Malta	Need authorization based on economic demand test	Joint venture & branch	3
Mauritius	Need authorization based on economic demand test	—	3
Mexico	—	—	10
Moldova	Need authorization	Joint venture & branch	3
Morocco	—	Joint venture & branch	10
Nicaragua	Need authorization based on economic demand test	Joint venture & branch	3
Nigeria	—	Joint venture & branch	10
Oman	—	Joint venture & branch	10
Pakistan	license required based on the same criteria applicable to domestic banks	Only joint venture except for grandfather provision	2.75
Peru	Establishing branch need authorization based on economic demand test	Joint venture & branch	6.5
Philippines	Need authorization based on public interest and listed economic condistions	Joint venture & branch	3.5
Poland	—	Joint venture & branch	10
Saudi Arabia	—	Joint venture & branch	10
Singapore	No new licenses for joint venture	Joint venture & branch	5.5
Slovak	Need authorization based on criteria of profession and so on.	Joint venture & branch	3.5
Sri Lanka	Need authorization based on economic demand test	Joint venture & branch	3
Thailand	No new licenses for joint venture but permit acquiring share of existing banks Establishing branch need authorization	Joint venture & branch	4.5
Tunisia	Need authorization	—	3
Turkey	Need authorization	Joint venture & branch	3
United Arab Emirates	—	Unbound for branch	5
Uruguay	Need authorization and ceiling of annually new bank entry is 10% of last year	Joint venture & branch	1.2
Venezuela	Need authorization based on economic conditions	Joint venture & branch	3

Table A-3 Index of segmental market freedom

Member	Sub-sector	Summary of segmental market limitation		Score	Index
		Segmental market	Measure		
Armenia	81116 81119	branch, resident natural persons	Forbid	8.25	9.3
	others[13]	—	—	10	
Brazil	81116	demand deposits, time deposits, savings deposits destined for housing finance	Only open segmental markets	7	6.8
	8113	—		10	
Chile	81132, 81133	No commitments		0	7.5
	others	—		10	
China	All[14]	Enterprise local currency business,	Open in two years after accession; Must have three years operation in China and being profitable for two consecutive years prior to the application	6.3	7.41
		Personal local currency business	Open in five years after accession; Must have three years operation in China and being profitable for two consecutive years prior to the application		
		Foreign currency business	None	10	
Chinese Taipei	81116	foreign exchange checking account deposits and foreign exchange negotiable certificates of time deposit	Forbid	8.5	8.89
	8113	Foreign currency, residents	only available when there are underlying transactions; except for post -export loans, are not allowed to be converted into New Taiwan dollars	8.68	
		Foreign currency, non-residents	Forbid		
	others	—		10	
Costa Rica	8113	No commitments		0	5
	others	—		10	
Czech	81131	Joint venture banks Branches	Permit forbid	5	9.25
	others	—		10	
Dominican Republic	81139	No commitments		9	9
	others	—		10	

[13] "Others" means all sub-sectors defined in table 3.1 except for those listed before in other rows.
[14] "All" means all sub-sectors defined in table 3.1.

Table A-3 Index of segmental market freedom -continued

Member	Sub-sector	Summary of segmental market limitation: Segmental market	Measure	Score	Index
	others	—		10	
Egypt	All	branches，local currency	Only open to branches existed on 1992	6.8	6.85
El Salvador	All	Unbound or no commitments		0	0
Estonia	81115—81119	—	Need authorization	3	6.5
	8113	—		10	
Gabon	81115—81119	No commitments		0	5
	8113	—		10	
Guyana	8113	Non-residents	Need authorization	7.9	8.95
	Others	—		10	
Honduras	81115，81131	No commitments		0	7.5
	Others	—		10	
Jamaica	81119	No commitments		0	9
	Others	—		10	
Korea	81115，81116	Non-residents	Need authorization	6.01	5.44
		Foreign currency	Need authorization		
	8113	CDs	the maturity of CDs shall be more than 30 days	6.25	
		Non-residents	Need authorization		
		Foreign currency	Need authorization and are restricted with respect to ceiling and uses		
Kuwait	all	Unbound		0	0
Malaysia	81115—81119	Foreign currency, residents	Be subject to conditions imposed on designated banks	9.37	9.69
	others	—		10	
Moldova	81132，81133	Non-residents	Need authorization	7.9	9.48
	Others	—		10	
Pakistan	81131，81139	Non-residents controlled enterprises	is subject to the borrowing entitlements	9.1	9.78
	Others	—		10	
Panama	81131	mortgage of real estate	forbid	6	8.95
	Others	—		10	
Philippines	81115—81119	Foreign currency	Need authorization	5.45	7.73
		Substitute of deposit	Need authorization		
	Others	—		10	

Table A-3 Index of segmental market freedom-continued

Member	Sub-sector	Summary of segmental market limitation: Segmental market	Summary of segmental market limitation: Measure	Score	Index
		Foreign currency business	None	10	
Romania	all	Residents, local currency Residents, foreign currency Non-residents	Permit forbid —	7.9	7.9
Singapore	81115－81119	Foreign currency saving account，non-residents	Need authorization	4.89	6.66
		restricted banks as provider，foreign currency fixed deposit and current account and more than S$250000 local currency fixed deposit	permit		
		Restricted banks as provider, other deposit services	forbid		
		Branches，foreign currency fixed deposits	permit		
		Branches，non-residents, fixed deposits of more than S$250000 per deposit	permit		
		Branches, other deposit services	forbid		
	8113	Local currency, non-residents	Need authorization	8.43	
Tunisia[15]	81115，81116	“Non-resident banks”，residents	Need authorization	7.55	5.25
	81131	“Non-resident banks”	Need authorization	6.5	
	81132，81133	“Resident banks”	permit	5	
Uruguay	81119，81131，81139	No commitments		0	6.5
	Others	—		10	
Venezuela	81119，81139	No commitments		0	8
	Others	—		10	
Zimbabwe	81139	loan for building	forbid	5	9.5
	Others	—		10	

15 Tunisia classifies banks into two types, resident-bank and non-resident bank. The former mainly services resident customers and the latter mainly services non-resident customers.

Table A-4 Index of ownership freedom

Member	Index	Summary of ownership limitations			
		Branches establishing	**Individual foreign share limit**	**Aggregate foreign share limit**	**Foreign director limit**
Bahrain	2.67	Need authorization	unbound	49%	—
Bolivia	10		—	—	—
Brazil	7.2	Need authorization	—	—	—
Bulgaria	4.01	forbid	—	acquisition of 5% or more voting rights of existing one need approval	—
Chile	5.31	Need authorization based on economic demand test	without authorization, can't acquire more than 10% equity	—	—
China	4.3	Foreign banks with assets more than US$ 20 billion are permitted	—	25%	—
Chinese Taipei	7.01	foreign banks are permitted who matches specified business relation and volume with Taiwan enterprises 3 years before applying	Individual 5%, related party 15%, unless obtain approval	—	—
Colombia	6	forbid	—	—	—
Costa Rica	6	forbid	—	—	—
Cote d'lvoire	6	forbid	—	—	—
Cuba	4.14	Need authorization	—	49%	—
Czech	6.15	Need authorization	purchase of shares of existing banks is subject to prior approval	—	—
Dominican Republic	4.14	Need authorization based on economic demand test	—	49%	—
Ecuador	6	forbid	—	—	—
Egypt	5.31	Need authorization based on economic demand test	acquiring more than 10% need approval	No ceiling	—
El Salvador	2.5		acquiring more than 1% need approval	at least 75% share can be hold by foreign bank with first grade risk rating;	—
Ghana	7.4	need authorization based on prudential requirements	—	—	—

able A-4 Index of ownership freedom-continued

Member	Index	Summary of ownership limitations			
		Branches establishing	**Individual foreign share limit**	**Aggregate foreign share limit**	**Foreign director limit**
Honduras	6	forbid	—	—	—
Hong Kong	6.63	Need authorization based on specified conditions except for grandfather provision	acquire existing local bank require approval	—	—
Hungary	5.7	forbid	—	—	at least 2 must be residents
India	3.9	forbid	investment in existing bank can't exceed 10% of owned funds or 30% of capital of the existing bank, whichever is lower	—	—
Indonesia	3.93	Forbid, except for grandfather provision	—	49% except for grandfather provision	—
Israel	9.7		—	—	at least 2 must be residents
Jordan	10	Permit	—	—	—
Kenya	7.2	Need authorization	—	—	—
Korea	5.19	Permit	Ceiling is 4%，but 15% for provincial banks	limited	—
Kuwait	3.24	Foreign banks in which Kuwait government or Kuwait banks are shareholders may entry under authorization	—	40％	—
Macau	9.7	Permit	—	—	at least 3 directors and 2 of them must be residents in Macau
Macedonia	9.2	Permit no later than 2008	—	—	—
Malaysia	1.32	Forbid	Ceiling is 20%. To acquire more than 5%, banks must match specified criteria	30%	—
Malta	3	Need authorization based on economic demand test	equity participation need authorization	equity participation need authorization	—

Table A-4 Index of ownership freedom-continued

Member	Index	Summary of ownership limitations			
		Branches establishing	**Individual foreign share limit**	**Aggregate foreign share limit**	**Foreign director limit**
Mauritius	7.2	Need authorization based on economic demand test	—	—	—
Mexico	5.49	Permit	5%, or 20%with authorization	40%,effective control by Mexican shareholders is required	—
Moldova	7.2	Need authorization	—	—	—
Morocco	8.8	Permit	—	Limitation on the participation of foreign capital in the capital of the large existing bank which would lead to takeover	—
Nicaragua	7.2	Need authorization based on economic demand test	—	—	—
Nigeria	10	Permit	—	—	—
Oman	6.1	Permit	—	35％	—
Pakistan	4.08	license required based on the same criteria applicable to domestic banks	More than 5% need authorization	49％	
Peru	5.31	Need authorization based on economic demand test	More than 10% need authorization	—	—
Philippines	5.66	Need authorization based on public interest and listed conditions	51％ in new established bank; 30% or 40% with authorization in existing bank	—	—
Poland	10	Permit	—	—	—
Saudi Arabia	7.6	Permit	—	60%	—
Singapore	5.35	Permit	5％	40％	—
Slovak	5.3	Need authorization based on criteria of profession	equity participation in existing bank need authorization	equity participation in existing bank need authorization	—
Sri Lanka	4.14	Need authorization based on economic demand test	—	49％	—
Thailand	3.03	Need authorization	5％, but may be relaxed	25%,may be relaxed. factoring and credit card business is 49%	At least 75% of the directors is Thai nationality

Table A-4 Index of ownership freedom-continued

Member	Index	Summary of ownership limitations			
		Branches establishing	Individual foreign share limit	Aggregate foreign share limit	Foreign director limit
Tunisia	5.7	Need authorization	—	50% in existing bank	—
Turkey	6.68	Need authorization	acquisition or transfer of shares equal or higher than 5%,20%,33%,50% require approval	—	—
United Arab Emirates	2.94	Unbound	—	49%	—
Uruguay	5.8	Need authorization	—	—	—
Venezuela	7.2	Need authorization based on economic demand test	—	—	—
Zimbabwe	7.6	—	—	60%	—

Table A-5(1) Score of asset or transaction scale limitation

Member	Summary of asset or transaction scale limitation		Score
	Aggregate scale	Individual scale	
Chinese Taipei	—	Foreign banks are subject to per client foreign currency credit extension limit of 25% of the net worth of their head office; and per client New Taiwan dollar credit extension limit of 10% of the total balance of New Taiwan dollars credit extension or one billion New Taiwan dollars, whichever is higher.	8.75
Malaysia	foreign controlled banking institutions[16] in Malaysia are allowed to extend credit facilities, including factoring and leasing up to a maximum of 40% of the total credit facilities obtained by non-resident controlled companies from banking institutions. The limitation will be relaxed to 50% in the year 2000.	—	9.38
Pakistan	bound for the total volume of foreign banks' assets in Pakistan and total volume of deposits mobilized by foreign bank on Dec 12 1997	—	7.5
Philippines	70% total assets of banking system must be held by domestic banks which are at least majority-owned by Filipinos.	—	7.5
Singapore	—	local currency loan to residents shall not exceed S$200m	9.39
South Africa	—	branches must maintain a minimum balance of R 1 million on the deposit accounts of natural persons	9.38
Tunisia	all non-resident banks established in Tunisia as a whole, 1.5% of the deposits of deposit banks.	funds from residents received by non-resident bank established in Tunisia must not exceed its share of equity of resident enterprises	8.94
Turkey	—	lending limit of foreign bank branch is based on branch capital	9.38

[16] There are 13 grandfathered wholly-foreign owned commercial banks.

Table A-5(2) Score of establishment scale limitation

Member	Summary of establishment scale limitation: Sub-branching	Office	ATM network	Score
Bahrain	Unbound for sub-branching of foreign bank branch	—	—	7.5
Brazil	Need authorization except grandfather provision	—	—	6.8
China	—	gradually remove geographic restriction within 5 years after accession	—	9.7
Hong Kong	—	No more than 3 offices for branch	Only in office	7.3
India	—	—	Need authorization	8.6
Indonesia	Only one sub-branch	Only set up in 8 designated cities	—	4
Malaysia	—	Unbound	Unbound	5
Oman	In capital of Oman, sub-branches are limited to 4	—	—	8.5
Pakistan	3	—	—	6.5
Philippines	No more than 6 sub-branches for foreign bank branch	3 at locations of own choices and 3 at designated locations	—	8.4
Qatar	8	—	—	9
Singapore	Forbid new sub-branch	Only one in designated location	Only in office	0.5
Thailand	—	—	For foreign bank branch: only joining ATM pools operated by Thai banks or within own premises or sharing the facilities with other commercial banks in Thailand	8.8
Turkey	Need authorization	—	—	6.5

Table A-6 Index of employment freedom

Member	**Index**	**Position unavailable for non-residents**				**Summary of employment limitation**
		CEO	**Senior manager**	**15% of the staff**	**More than 15% of the staff**	
Bolivia	9					the number of foreign employees may not exceed 15% of the staff
Chile	9					the number of foreign employees may not exceed 15% of the staff
Georgia	9					at least one manager with his domicile in George
Hong Kong	6					CEO must be resident
India	9					Must constitute local advisory boards consisting of professionals and experts in small-scale industry and exports. The chairman and members of the board must be resident Indian nationals
Indonesia	4					for branch, only executive position can be assumed by expatriates
Lithuania	8					at least one manager must be Lithuanian citizen
Macau	7					For branch, CEO must be resident
Panama	9					Foreign technical employees may not exceed 15% of the total workforce.
Poland	8					at least one executive must be Poland national
Thailand	7					Ceiling of foreign employees is 8.[17]
Venezuela	8					no less than 50% of the administrative board of bank must reside in Venezuela.

Resource: author compiled. means unavailable for non-residents; means partially unavailable for non-residents.

[17] Thailand stipulated ceiling of foreign employees in from 2 to 8 for foreign banks institutions with different licenses.

Table A-7 index of subsidy & tax national treatment

Member	Sub-sector	Index	Subsidy	Tax
Bahrain	All	0	Unbound	Unbound
Brazil	81116，8113	8	National treatment	National treatment
Chile	81115－81119 81131，81139	7.5	National treatment	National treatment
Costa Rica	81115－81119	5	National treatment	National treatment
Dominican Republic	81115－81119 81131－81133	5	Unbound for 81131－81133	Unbound for 81131－81133
El Salvador	81116，81119 81131－81133	0	Unbound	Unbound
Gabon	8113	5	National treatment	National treatment
Ghana	All	8.5	Government support bank located in rural area	National treatment
Honduras	81116，81119 81132－81139	7.5	National treatment	National treatment
Hungary	All	5	Unbound	National treatment
Jamaica	81115，81116 8113	9	National treatment	National treatment
Jordan	All	5	Unbound	National treatment
Kenya	All	0	Unbound	Unbound
Korea	81115，81116 8113	9	National treatment	National treatment
Kuwait	All	0	Unbound	Unbound
Lithuania	All	8	eligibility of subsidies maybe limited to legal persons within the territory of Lithuania	National treatment
Nicaragua	All	8.5	National treatment	Tax rate of payment of dividends to foreigners is 5%, tax of interest payment abroad is 30%
Oman	All	7	National treatment	bank with more than 70% foreign equity should pay higher rate income tax
Saudi Arabia	All	6	National treatment	income tax to foreign bank
Tunisia	81115，81116 81131－81133	4.75	National treatment only for resident banks in 81115，81116，81132，81133; National treatment for 81131	National treatment only for resident banks in 81115，81116，81132，81133; National treatment for 81131
United Arab Emirates	All	2	may offer subsidy to nationals	foreigners may be required to pay direct tax on income
Uruguay	81115，81116 81132，81133	6.5	National treatment	National treatment
Venezuela	81115，81116 81131－81133	8	National treatment	National treatment

Table A-8 summary of index of trade freedom

Member	Index of trade freedom	Index of institution setting freedom	Index of segmental market freedom	Index of ownership freedom	Index scale freedom	Index of employment freedom	Index of subsidy & tax national treatment
Albania	10	10	10	10	10	10	10
Antigua & Bermuda	0	0	0	0	0	0	0
Argentina	10	10	10	10	10	10	10
Armenia	9.83	10	9.3	10	10	10	10
Bahrain	1.96	3	0	2.67	3.75	0	0
Barbados	0	0	0	0	0	0	0
Belize	0	0	0	0	0	0	0
Bolivia	9.95	10	10	10	10	9	10
Botswana	0	0	0	0	0	0	0
Brazil	6.63	5	6.8	7.2	8.4	10	8
Brunei Darussalam	0	0	0	0	0	0	0
Bulgaria	7.05	5	10	4.01	10	10	10
Cameroon	0	0	0	0	0	0	0
Chile	5.81	3	7.5	5.31	10	9	7.5
China	7.15	7	7.41	4.3	9.85	10	10
Chinese Taipei	8.54	8.5	8.89	7.01	9.38	10	10
Colombia	6.23	1.5	10	6	10	10	10
Congo	0	0	0	0	0	0	0
Costa Rica	5.95	5	5	6	10	10	5
Cote d'lvoire	7.45	5	10	6	10	10	10
Croatia	10	10	10	10	10	10	10
Cuba	6.38	3	10	4.14	10	10	10
Czech Republic	6.59	3	9.25	6.15	10	10	10
Dominica	0	0	0	0	0	0	0
Dominican Republic	5.88	3	9	4.14	10	10	5
Ecuador	6.75	3	10	6	10	10	10
Egypt	7.05	6.5	6.85	5.31	10	10	10
El Salvador	0.45	0	0	2.5	0	0	0
Estonia	9.13	10	6.5	10	10	10	10
Fiji	0	0	0	0	0	0	0
Gabon	8.5	10	5	10	10	10	5
Ghana	7.13	3.5	10	7.4	10	10	8.5

Table A-8 summary of index of trade freedom-continued

Member	Index of trade freedom	Index of institution setting freedom	Index of segmental market freedom	Index of ownership freedom	Index scale freedom	Index of employment freedom	Index of subsidy & tax national treatment
Georgia	9.95	10	10	10	10	9	10
Grenada	0	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0	0
Guyana	9.74	10	8.95	10	10	10	10
Honduras	5.48	1.5	7.5	6	10	10	7.5
Hong Kong	6.96	4.2	10	6.63	8.65	6	10
Hungary	7.14	5	10	5.7	10	10	5
India	5.86	2	10	3.9	9.3	9	10
Indonesia	5.04	1	10	3.93	7	4	10
Israel	9.94	10	10	9.7	10	10	10
Jamaica	9.7	10	9	10	10	10	9
Jordan	9.75	10	10	10	10	10	5
Kenya	6.49	3	10	7.2	10	10	0
Korea	7.85	10	5.44	5.19	10	10	9
Kuwait	1.38	2.1	0	3.24	0	0	0
Kyrgyz	10	10	10	10	10	10	10
Latvia	10	10	10	10	10	10	10
Lithuania	9.8	10	10	10	10	8	8
Macau	9.79	10	10	9.7	10	7	10
Macedonia	9.49	9	10	9.2	10	10	10
Malaysia	5.45	3	9.69	1.32	7.19	10	10
Malta	6.15	3	10	3	10	10	10
Mauritius	6.99	3	10	7.2	10	10	10
Mexico	9.1	10	10	5.49	10	10	10
Moldova	6.86	3	9.48	7.2	10	10	10
Mongolia	10	10	10	10	10	10	10
Morocco	9.76	10	10	8.8	10	10	10
Namibia	0	0	0	0	0	0	0
Nicaragua	6.92	3	10	7.2	10	10	8.5
Nigeria	10	10	10	10	10	10	10
Oman	9	10	10	6.1	9.25	10	7
Pakistan	5.92	2.75	9.78	4.08	7	10	10
Panama	9.69	10	8.95	10	10	9	10

Table A-8 summary of index of trade freedom-continued

Member	Index of trade freedom	Index of institution setting freedom	Index of segmental market freedom	Index of ownership freedom	Index scale freedom	Index of employment freedom	Index of subsidy & tax national treatment
Papua New Guinea	0	0	0	0	0	0	0
Paraguay	10	10	10	10	10	10	10
Peru	7.84	6.5	10	5.31	10	10	10
Philippines	6.08	3.5	7.73	5.66	7.95	10	10
Poland	9.9	10	10	10	10	8	10
Qatar	9.95	10	10	10	9.5	10	10
Romania	9.48	10	7.9	10	10	10	10
Saint Christopher and Nevis	0	0	0	0	0	0	0
Saint Lucia	0	0	0	0	0	0	0
Saudi Arabia	9.32	10	10	7.6	10	10	6
Singapore	6.15	5.5	6.66	5.35	4.95	10	10
Slovak Republic	6.79	3.5	10	5.3	10	10	10
South Africa	9.97	10	10	10	9.69	10	10
Sri Lanka	6.38	3	10	4.14	10	10	10
St. Vincent and the Grenadines	0	0	0	0	0	0	0
Suriname	0	0	0	0	0	0	0
Swaziland	0	0	0	0	0	0	0
Thailand	6.47	4.5	10	3.03	9.4	7	10
Trinidad and Tobago	0	0	0	0	0	0	0
Tunisia	5.19	3	5.25	5.7	9.47	10	4.75
Turkey	6.68	3	10	6.68	7.94	10	10
United Arab Emirates	6.44	5	10	2.94	10	10	2
Uruguay	5.03	1.2	6.5	5.8	10	10	6.5
Venezuela	6.29	3	8	7.2	10	8	8
Zimbabwe	9.4	10	9.5	7.6	10	10	10