PERSPECTIVES

on Services Regulatory Issues

The Pacific Economic Cooperation Council (PECC) is a unique partnership of senior representatives of business, government and research from 25 Asia Pacific economies, who work on practical policy issues to enhance trade, investment and economic development in the region. It is the only non-government, independent official observer organization of APEC. See:http://www.pecc.org

PECC Trade Forum Services Study Group, (see:http:/www.pecc.org/trade/services-content.htm) is a group of services experts from the Asia Pacific region whose goal is to advance discussion and knowledge of international services issues.

The work program of the Services Study Group during 2002-2003 focused on the issues of domestic regulation, the development of sectoral regulatory disciplines and the interface between the services and investment areas, all of which are relevant to the work of the APEC Group on Services and to the WTO GATS negotiations.

The objective of the work on domestic regulation was to explore the possibility of developing a set of regulatory principles and disciplines which might form the basis for a "model schedule" or "model agreement" in the WTO services negotiations for services industries with the following characteristics: network-based services (such as telecommunications, transport and energy services); services traded cross-border via the internet (in particular financial services) and services characterized by asymmetry of information (such as many professional services).

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Multilateral services negotiations have been ongoing under the WTO General Agreement on Trade in Services since January 2000, as a mandated outcome of the Uruguay Round. After the Doha Development Round was launched in November 2001, these services negotiations were folded into the larger round of multilateral trade negotiations and will now be a part of the single undertaking for this Round.

The WTO services negotiations are complex, as they include a wide range of issues beyond the market access component that involve the functioning of national regulatory regimes. Along with negotiating additional and improved services commitments, WTO members are also attempting to define unfinished components of the normative structure of the WTO General Agreement on Trade in Services (GATS). One of the critical issues in this work is that of domestic regulation and the development of appropriate sectoral regulatory disciplines.

Domestic regulation and the right to regulate are at the heart of the WTO services negotiations. This is because regulations, even when non-discriminatory, can have a serious trade-restricting impact when they are applied in ways that are more burdensome than necessary to achieve legitimate and well-defined objectives. Thus the importance of assuring that disciplines on domestic regulation, including both horizontal and sectoral ones, complement the market access commitments that will be negotiated by WTO Members so as to guarantee that services suppliers can actually take advantage of such market-opening measures.

The PECC has been actively supporting the work of the APEC Group on Services since its creation in 1997. Over the four years 2000-2003, the PECC developed and coordinated a project which has been at the core of the work of the APEC Group on Services, namely the *Menu of Options for the Voluntary Liberalization, Facilitation and Promotion of Economic and Technical Cooperation in Services Trade and Investment.*

The *Menu of Options* was designed to advance the core objective of the APEC Group on Services, namely to foster the liberalization and facilitation of services trade and investment, along with the promotion of capacity building in the services area. The *Menu of Options* provided an organizational framework for the work of the GOS, assisted APEC members in understanding what types of measures they may wish to include in their Individual Action Plans, and facilitated the discussion of how APEC member economies may advance towards achieving more open and better regulated services markets.

The *Menu of Options,* document, agreed in August 2003, contains elements that deal with the questions of how to improve services regulation and how transparency and regulatory disciplines

might be deepened at the multilateral level in the context of the GATS negotiations. [1]

To complement the work of the APEC Group on Services, the PECC Services Study Group has engaged in research during 2003 in the area of domestic regulation. Members of the PECC Services Study Group have taken the issue of domestic regulation one step further to look at how feasible and/or beneficial it might be to develop regulatory disciplines for specific service sectors. This work is particularly relevant at the present time, since it has proven extremely difficult to advance towards deeper horizontal disciplines at the multilateral level. Indeed, a more fundamental and heavyweight subject would be hard to find in the Doha Round Agenda since domestic regulation directly involves the issues that are at the heart of national sovereignty.

Discussions on deepening disciplines for domestic regulation in the WTO Working Party on Domestic Regulation have become more sensitive rather than less sensitive, as the years have passed since the conclusion of the Uruguay Round at end 1993. In the WTO General Agreement on Trade in Services, Article VI on Domestic Regulation sets out principles and rules for disciplines on non-quantitative, non-discriminatory domestic regulations "relating to qualification requirements and procedures, technical standards and licensing requirements". The Article mandates that disciplines be further developed to deal with regulatory measures not addressed by GATS Articles II (MFN), XVI (Market Access) and XVII (National Treatment). Aside from the difficulty of defining the specific types of measures that would be encompassed within a strengthened Article VI, there is no consensus at present among members of the WTO that deeper horizontal disciplines would be either useful or desirable, given the diversity of regulatory practices and the sensitivity surrounding the perceived encroachment of the multilateral system on the ability of governments to design and implement the level and type of regulatory structure they desire at home. Governments are fearful that such multilateral disciplines would be able to subordinate domestic regulatory prerogative to trade policy objectives.

Many WTO members are also resisting an intermediate step which would be the generalized application of the current level of discipline that is specified by Article VI.4, namely that:

[1] The finalized documents of the APEC Group on Services, *Menu of Options for Voluntary Liberalization, Facilitation and Promotion of Economic and Technical Cooperation in Services Trade and Investment*, APEC Publication No APEC#201-CT-01.6 in date of 20 August 2001) and its further extension through the elaboration of Additional Elements for the Menu of Options, APEC Publication No.APEC#203-CT-01.8, in date of 15 August 2003). can be found at the official APEC web site under the Group on Services - www.apec.org.

"....measures relating to qualification requirements and procedures, technical standards and licensing requirements are, *inter alia:*

(a) based on objective and transparent criteria, such as competence and the ability to supply the service;

(b) not more burdensome than necessary to ensure the quality of the service;

(c) in the case of licensing procedures, not in themselves a restriction on the supply of the service."

At present this discipline is only applicable to scheduled service sectors contained in national Schedules of Commitments of WTO members and not to all service sectors.

A well-known international services expert and former services negotiator for the United States, reflecting the views of several WTO members, has stated that:

"...the question of 'burdensomeness' is in the eye of the beholder...", and "...in the GATS over the past five years.....WTO members have made no progress in an effort to develop general disciplines that would apply to all services sectors under Article VI:4. This effort has gone nowhere and it will go nowhere." [2]

Given the lack of consensus to date on deepening horizontal disciplines for domestic regulation, the focus at present in the WTO GATS negotiations is on transparency and defining administrative procedures with more precision so that these do not serve as masked barriers to trade. However, the two questions that form the heart of the domestic regulation issue, namely whether the legitimacy of government aims enshrined in legal measures can be challenged under the WTO dispute settlement mechanism, and how to apply the necessity test to legitimate regulatory measures in order to ensure that these do not represent disguised barriers to trade, or unnecessarily burdensome regulations on service suppliers, have yet to be fully debated.

In this controversial context the PECC Services Study Group has chosen to examine whether, in light of the difficulties encountered in pursuing deeper horizontal disciplines, it would be possible instead to develop deeper regulatory disciplines targeted at specific service sectors. With the blockage at the WTO level on moving forward on horizontal disciplines, the work of the Services Study Group was designed to stimulate discussion as to the value of an alternative approach. Rather than scrutinizing the twelve major service sectors one by one to see

[2] Quotation by Dick Self, found in the paper by Julian Arkell on "The Prospects for Liberalisation in Services" presented at the Wilton Park Conference, 27-30 May 2003.

the relevance of specific disciplines, the issue of developing regulatory disciplines was approached by grouping service sectors according to their underlying characteristics and the reasons that justify regulatory intervention. The rationale behind this approach is that service sectors displaying similar underlying characteristics can be viewed as requiring similar types of regulatory disciplines. Moreover, these characteristics are likely to present themselves in the same sectors across all economies. This approach has been followed in several recent publications by international services experts.[3]

It is notable that in spite of the large diversity of services sectors, the basic rationale behind government action is remarkably similar depending upon the underlying economic and social reasons present for regulatory intervention. There are basically four reasons behind a government's decision to regulate:

1) the presence of monopolies in network services (e.g. telecommunications, transportation and energy services);
2) the presence of asymmetric information applying to knowledge and intermediation-based services (e.g. financial and professional services);
3) the presence of externalities associated with services supply (e.g. transport, tourism); and
4) the desire to ensure social objectives and universal access in essential services (e.g. health and education services).

Additionally, the mode in which services are delivered may affect the type of regulation that can be or should be developed. The challenge of the growing number of services supplied through cross-border means is a particular case in point.

The authors of the policy notes find in general that developing regulatory disciplines requires an understanding of the economic properties of the services industry as well as an appreciation of the social objectives that it satisfies. To the extent that an industry displays the same economic properties across markets and societies share universal social objectives, then a set of common regulatory principles can be developed for service sectors within the multilateral trading system. However, this involves a delicate balance in trying to ensure the effectiveness of such sectoral regulatory disciplines within the multilateral framework, while avoiding over-prescribing a regulatory regime that may not accommodate the diversity of national social and

[3] See publication edited by Christopher Findlay (2001) on *Towards Improving Regulation for Services*, conference proceedings, chapter 1, and the chapter by Aaditya Mattoo and Pierre Sauve (2003) in the volume that they co-edit on *Domestic Regulation and Trade in Services, World Bank and OECD.*

economic environments, institutional frameworks and legal infrastructures. In this context, the PECC services experts suggest that one way forward is to have a mix of a binding and non-binding regulatory framework where WTO members may be bound by general sectoral regulatory principles, with more detailed implementing rules and regulations subject to specific commitments. The following provides a summary of the findings of the three policy notes in this publication.

I. Developing Regulatory Disciplines for Network Services

The policy note by Deunden Nikomborirak and Ramonette Serafica examines the reasons behind, and the implications for, developing regulatory disciplines for network services, or those services that are characterized by the tendency to natural monopoly through the presence of both economies of scale and economies of scope. WTO members have already achieved a precedent in this regard in the form of the 1997 Reference Paper on Basic Telecommunications. The Reference Paper elaborates pro-competitive regulatory disciplines in several areas that ensure access to essential telecommunications infrastructure and that are consistent with good governance. Such disciplines are meant to reinforce market access commitments in the telecom area. Although the Reference Paper is voluntary, once accepted by WTO members, it becomes binding. Nikomborirak and Serafica believe that for other network services that display market characteristics similar to that of telecommunications, some form of additional regulatory disciplines is a prerequisite for market liberalization. They suggest that a similar set of disciplines to that of the Reference Paper could be extended to other network-based services such as transportation, water and electricity, which also typically contain monopoly elements that require government intervention to protect consumers and ensure availability of these essential services.

The experts feel, however, that the present provisions of the Telecom Reference Paper are insufficient. They therefore suggest adding the additional elements below to a network-services regulatory template in order to ensure the effectiveness of regulatory disciplines for other network-based sectors. These include:

a) the requirement to clearly specify the regulatory objective in order to promote transparency in administration and implementation of the regulation;
b) the inclusion of a provision to address the abuse of a dominant position in a market to foreclose competition* (for example, the potential abuse of a dominant position by a national airline into related activities, or of large international shipping companies);
c) the inclusion of a provision to ensure that standards (such as safety and environmental regulations in the transportation sector) are

reasonable and administered in a transparent, non-discriminatory and neutral manner and are not more burdensome than necessary (in a manner similar to that required under GATS Article VI.4).

d) the requirement to ensure that an industry is not over-regulated (e.g., it should not be necessary to regulate very small-scale producers, such as small electricity generating companies);

e) the inclusion of a provision concerning cross-border anti-competitive business practices that may be beyond the reach of domestic regulations or competition laws and that will allow those affected to have an international recourse (e.g. international maritime shipping cartels).

Lastly, the experts advocate the recourse to peer reviews and the use of codes and standards as mutually reinforcing mechanisms at the multilateral level that could be used to strengthen compliance of regulatory disciplines at the sectoral level. They suggest including a regulatory review for specific service sectors as part of the current WTO Trade Policy Review mechanism.

II. Developing Regulatory Disciplines for Professional Services

The policy note by Patricio Contreras examines the case for regulating professional services, due to the presence of asymmetries of information that arise in this sector when consumers are unable to assess the quality of the service provided. Contreras distinguishes between accredited professions, such as accountants, architects, doctors, engineers, lawyers, veterinaries and teachers, and other professional services such as consulting or advertising. For the former, the quality of service provided is critical for the consumer and such professions are subject to accreditation. Their quality tends to be observable, though in most cases only ex-post. For the non-accredited professional services, the quality of the service is either less critical or less observable, and therefore Contreras suggests that the development of regulatory disciplines should encompass the accredited professional services only.

Government intervention through regulation is almost always necessary in the area of professional services as market-based mechanisms (such as reputation, contractual guarantees of performance quality, performance bonds, or third-party accreditation) are not adequate for consumer protection. Contreras points out that many of the regulations (or sometimes their absence) that are put in place for professional services pose impediments to competition and international trade. While certain regulations are overtly protectionist (such as nationality or residency requirements), others (such as professional certification/ entry requirements) may restrict competition and trade more than is necessary, raising the price and limiting

innovation. Asymmetries in regulatory regimes - both requirements and procedures - between countries may also constitute barriers to trade in professional services. At present very few mutual recognition agreements have been concluded that overcome these barriers.

One way to mitigate the barriers posed to international trade in professional services is to negotiate common multilateral regulatory disciplines. WTO members have already developed a precedent in this regard in the form of the Disciplines on Domestic Regulation in the Accountancy Sector, adopted by the Working Party on Professional Services in November 1998. The Accountancy Disciplines contain provisions on transparency requirements, administration of licensing requirements, qualification requirements and procedures, and technical standards for the accountancy profession. A key provision of the Disciplines is the general requirement that regulations "are not more trade-restrictive than necessary to fulfill a legitimate objective. Legitimate objectives are, *inter alia*, the protection of consumers, the quality of the service, professional competence, and the integrity of the profession." Although the Accountancy Disciplines have not yet come into force, the intention of WTO Members is to bring them into effect and make them binding at the conclusion of the Doha Development Round.

Contreras believes that for other professional services that display market characteristics similar to that of accountancy, some form of additional regulatory disciplines similar to those mentioned above is a prerequisite for stimulating international trade. He suggests that whether the existing regulatory provisions for accountancy can be extended to other professions depends on the magnitude and impact of the information asymmetry and how this differs between professions and between countries and concludes that :

1) The deeper disciplines on transparency, licensing requirements and procedures, qualification requirements and procedures set out in the Accountancy Disciplines, can be applied to all accredited professional services, though some variation in specialized provisions may be needed;
2) The stronger version of the 'necessity' test set out in the Accountancy Disciplines can be applied to all accredited professional services, as consumer protection should be a common regulatory objective to all professions;
3) Mutual recognition agreements may be recommended for those professional services where it is more possible to observe quality ex-post (such as legal services, engineering services, medical services). For those services where it is not possible to observe such quality easily (such as accountancy or auditing), it is preferable to develop internationally harmonized and recognized standards.

III. Developing Disciplines for Cross-Border Electronic Trade in Services

The policy note by Alexandra Sidorenko and Christopher Findlay discusses the problems posed

for regulators by cross-border electronic trade in services, known under the GATS as mode 1, or cross-border supply of services via the mail or the internet (and at times undistinguishable from mode 2 of services trade, or consumption abroad). The note focuses on how e-commerce issues have been treated to date in the WTO, asking broadly the following questions:

1) Do the existing core agreements (GATT, GATS and TRIPS) apply to electronic commerce? Should disciplines for electronic commerce be developed within any of these three areas, or should a new horizontal approach be adopted?
2) Is there a need for specific trade-related regulatory guidance in areas like consumer protection and data privacy, and should this be under the purview of the WTO or other bodies?
3) What further liberalization would support the growth of the Internet and foster electronic commerce?

In answer to the first question Sidorenko and Findlay point out that how the existing WTO agreements apply to e-commerce is still under question. To a large extent the answer to this question depends upon whether an e-commerce transaction is defined exclusively as a service (the preference of the EU) or as either a good or a service, depending upon the form it can acquire (the preference of the US). Adopting the former approach would sit electronic transactions squarely within the GATS, while opting for the second would blur the lines.

The outcome of this debate will have significant consequences on what type of liberalizing impulse may be given to e-commerce under multilateral trade rules. The national treatment discipline under GATT (applying to goods) is a general obligation but applies only to internal measures like taxes or regulations and not to border measures like tariffs. Under the GATS (applying to services), national treatment applies to all measures affecting services supply but it is not a general obligation and only applies to sectors that have been scheduled. Thus if a sector has not been scheduled, foreign service suppliers could be subject to discriminatory internal or differential taxes. Also, the GATT contains a general prohibition of quantitative restrictions, but these are only prohibited or subject to bound ceilings in the GATS in sectors where specific commitments have been made. Thus items can be treated differently if they are categorized as a good or a service. The implications for e-commerce transactions are significant in that treatment under the GATS could be less liberal than under the GATT. The authors suggest following the recommendation of an e-commerce expert, requiring governments to adopt the more liberal treatment when relevant. However, this would necessitate a specific decision by all WTO Members.

While some international trade experts argue against an entirely new horizontal discipline for

internet trade on the grounds that existing rules can accommodate these transactions, others underline that many issues remain unresolved because of the classification problems around electronic trade. No initiative has been taken to date to develop a 'horizontal text or a WTO Annex on Pro-competitive Regulation and Open Markets for E-Commerce'. The risk is that by following a piecemeal approach, new barriers will emerge through government application of new regulations, which will then take time to dismantle. One way forward suggested by the authors is to adopt a cluster approach to negotiating liberalization of e-commerce that would encompass both goods and services, something not yet attempted in the WTO/ GATT context.[4]

Sidorenko and Findlay suggest that it would be useful to consider the development of multilateral regulations to apply to e-finance, since consumer protection remains a major issue of cross-border trade in financial services. Asymmetry of information between providers and consumers of these services necessitates regulation of the sector, and the cross-border aspect of the relationship adds on the complication of multiple jurisdictions. Another possibility for addressing electronic transactions in a holistic manner would be to consider impediments to particular modes of supply and to develop model schedules for commitments and necessary disciplines for e-commerce transactions under mode 1. The project on e-APEC is particularly relevant in this context.

[4] The core e-commerce goods and services which would be included in this cluster include: telecommunications basic infrastructure, value-added and support services; telecommunications and IT equipment and support services; Internet access, hosting and design services; online payment processing systems; delivery (post and courier) services; transport services; distribution services; and other services (legal, advertising, market research, photographic).

List of papers prepared by members of the PECC Services Study Group during 2003

1. ***Developing Regulatory Disciplines for Network Services***
   Deunden Nikomborirak and
   Ramonette Serafica

2. ***Developing Regulatory Disciplines for Professional Services***
   Patricio Contreras

3. ***Developing Regulatory Disciplines for Cross-Border Electronic Trade in Services***
   Alexandra Sidorenko and
   Christopher Findlay

4. ***Investment Issues and their Interface with Services***
   Pierre Sauve and
   Maryse Robert

Deunden Nikomborirak[1] *and Ramonette Serafica*[2]

1. A Review of Current Regulatory Disciplines in the GATS

Since provision of services would normally require commercial presence, trade in services is affected by domestic regulations to a much greater extent than is trade in goods. As the current regulatory disciplines available in the GATS are relatively weak, multilateral negotiations in services have been focusing on developing domestic rules and regulations that would not impede the flows of services across borders resulting from liberalization.

The current GATS regulatory disciplines relevant to network services can be found in (a) the GATS Articles, (b) the Annexes on Telecommunications[3] and (c) Telecom Reference paper, which is a component of the Agreement on Basic Telecommunications concluded in 1997[4]. Note that provisions found in (a) and (b) form part of general obligations, while those found in (c) are subject to individual member's national commitment. As can be seen, regulatory development in the GATS has been concentrated mainly in the telecommunications sector, which has been most successful among sector-specific negotiations in the WTO thus far.

Regulatory disciplines in the GATS are either general obligations or specific obligations that are tied to individual member's market access commitments. These disciplines are concerned mainly on the following issues:

(i) ***Non-discrimination:*** to ensure that domestic regulations do not discriminate between foreign services or service suppliers of different nationalities (most-favoured nation treatment/ MFN) and between foreign and national services and service suppliers (national treatment - NT)

(ii) ***Good governance:*** to ensure that domestic regulations are administered in a transparent and fair to all parties involved.

(iii) ***Competitive safeguards:*** to ensure that domestic rules and regulations do not pose unnecessary barriers to competition.

On ***non-discrimination***, GATS Article II requires all members to accord MFN treatment to services and service suppliers of other members. MFN exemptions are allowed, but subject to periodical reviews. National treatment obligation, specified in the GATS Article XVII, is tied to the individual member's specific market access

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[2] Ramonette Serafice is a member of the ASEAN Secretariat in Jakarta.

[3] Other annexes, namely Annex on Maritime Services and Annex on Air Transport do not have any provision concerning regulatory disciplines.

[4] The Agreement on Basic Telecommunications is one of the additional agreements negotiated after the Uruguay Round and attached to the General Agreement on Trade in Services.

commitment only. In other words, while a member's domestic regulations may not discriminate between foreign services or service suppliers, it may do so between foreign and domestic services and service suppliers. Thus, the non-discrimination provision in the GATS is obviously weaker than that in the GATT, where both MFN and national treatment principles are two fundamental principles that must be strictly observed by all members.

Good governance is often referred to the principles of non-discrimination (MFN and NT as discussed above), transparency (information disclosure, notification), fairness (impartiality, due process). Disclosure of information seems to be the predominant governance issue in the GATS. The GATS Article III requires members to publish relevant regulatory measures of general applications. Annex on Telecommunications lists the specific type of information that must be made public, in particular those pertaining to access to and use of telecommunications network. These include, for example, tariffs, specification of technical interfaces and licensing requirement. Where specific sector or sub-sector market access commitments are made, members are required, in addition, to inform the Council of Trade in Services of the introduction of new, or changes in existing, laws, regulations and administrative measures.

The Telecom Reference Paper further elaborates regulatory rules that are consistent with good governance principles. For example, the Paper requires that the reason for denial of a license must be made known to the applicant upon request and that universal service obligation be administered in a transparent, non-discriminatory and competitively neutral manner and not more burdensome than necessary. The Paper also requires that the regulatory authority be independent of telecom service suppliers to ensure impartiality. It should be noted, however, that the more comprehensive regulatory disciplines available in the Reference Paper are subject to specific commitments made by members only[5]. That is, a member may choose whether or not to commit to the Reference Paper and if so, which part it would like to commit to. Thus, the application of stronger regulatory disciplines in GATS is still limited in scope.

As for competitive safeguards, there is very little in GATS that guarantee "contestability" of the domestic market, unless a market access commitment is made. Article VI that prescribes against overly restrictive licensing qualification requirements, Article VIII that spells out members' obligations to safeguard against abuse of monopoly positions, and Article XVI that prohibits members from limiting the number of service suppliers, total sales volume, number of employed natural persons or foreign equity share, are triggered only when specific market access commitments are undertaken.

[5] Sixty members subscribed to the Reference Paper either in full or in some parts.

The only general obligation with regard to competitive safeguard in the GATS appears in Article IX governing Business Practices, which provides for consultations between members regarding restrictive business practices that are not covered in Article VIII on Monopolies and Exclusive Service Suppliers. Since this particular provision is rather soft, it is rarely invoked.

Similarly, competition provisions found in the Annex on Telecommunications that require members to ensure access to and use of public telecommunications networks and services on reasonable and non-discriminatory terms only apply to services included in a member's specific commitment schedules only. Finally, the Reference Paper imposes obligations on signatories to undertake appropriate measures to prevent major suppliers from engaging in anti-competitive practices. It also requires that interconnection fee charged by a major supplier is cost-based and that interconnection services are made at any technically feasible point to ensure that the service is sufficiently unbundled. But as noted earlier, such provisions are binding only for members that have chosen to commit to the specific section of the Reference Paper.

To conclude, much of the regulatory disciplines in the GATS are tied to specific commitments. Besides MFN obligations, disclosure and publication of key regulatory measures and consultation concerning restrictive business practices when requested by another member, GATS general obligations do not impose any kind of regulatory discipline on members. However, more advanced regulatory framework can be found in the sector-specific agreements, in particular, the telecommunications sector, which can serve as the model framework for other network-based services such as transport and electricity. The following section will examine the Telecom Reference Paper in greater details.

2. An Assessment of the Telecom Reference Paper

How effective is the Reference Paper in ensuring fair competition and market access? The Paper has been criticized for its "vagueness". For example, members are to take "appropriate measures" to prevent major suppliers from engaging in anti-competitive and interconnection is to be provided under "reasonable" terms. Transparency is referred to in several sections including those concerning administration of universal service obligation, interconnection arrangements and frequencies allocation, but it is not clear what is the exact definition of transparency covered by this agreement. Similarly, obligation to provide interconnection at "cost oriented" rates provides no guidelines with regard to the basis on which the network cost should be calculated. It would therefore appear that the loose regulatory principles contained in the Reference Paper would be ineffective in safeguarding competition in the market.

At the same time, however, two disputes concerning interconnection charges filed by the United States against Mexico and Japan. In case of Japan, it agreed to lower interconnection charges substantially to avoid being engaged in a WTO arbitration process. As for Mexico, the United States initiated WTO dispute settlement proceedings and maintained its right to continue the proceedings even after the Mexican dominant carrier had agreed to lower tariffs[6]. These two cases may indicate that the Paper does have some teeth. It should be noted, however, that both cases also rely on bilateral pressures applied by the United States. It is uncertain whether similar problems faced by smaller economies will be resolved in the same manner since so far no WTO panel has arbitrated on the basis of the Reference Paper.

According to the authors' view, there is a delicate balance in trying to ensure effectiveness of a multilateral regulatory framework, while avoiding over-prescribing a regulatory regime that may not accommodate the diversity of local social, economic environment, institutional design and legal infrastructure. In this regard, a possible solution is to have a binding and non-binding mix regulatory framework where a member may be bound by the more general regulatory principles similar to those found in the Reference paper, while more detailed implementing rules and regulations will be subject to specific commitments.

3. Regulation in Network Utilities

Developing regulatory disciplines requires an understanding of the economic properties of the industry as well as an appreciation of the social objectives that it satisfies. To the extent that an industry displays the same economic properties across markets and societies share universal social objectives then a set of common regulatory principles can be developed for use in the multilateral trading regime. This section will look at such similarities in network-based services and discuss possible implications for developing regulatory disciplines.

A. Characteristics of Network-Based Services

Network-based services are typically supplied over a network of facilities involving key components such as generation, transmission, and distribution. Telecommunications, defined as the transmission and reception of signals by any electromagnetic means, involves a labyrinth of switches, transmission links, and terminal points. Energy services include "those services involved in the exploration, development, extraction, production, generation,

[6] Fink, Carsten (2002), in Development, Trade and the WTO: A Handbook, Chapter 29 Domestic Regulations and Liberalization of Trade in Services, Box 29.2, The World Bank Publication, page 293

transportation, distribution, marketing, consumption, management, and efficiency of energy, energy, products, and fuels."[7] Transport covers different modes such as maritime, air, railways, and roads and under each mode, types of services include passenger transport, freight transport, maintenance and repair, and supporting services. Finally, examples of water services are the provision of water, drainage, sanitation, etc. involving large water supply and wastewater systems of dams, pipelines, treatment facilities, and other infrastructure.

The production technology of these industries gives rise to both economies of scale and economies of scope. Scale economies imply that larger firms are more efficient and, depending on the size of the market, either one or only a few firms can operate profitably. Economies of scope mean that it is cheaper to produce jointly and share common inputs in supplying different types of services although not necessarily by a single firm.

The existence of both types of economies results in a market structure that significantly departs from a perfectly competitive market providing a strong rationale for government intervention to protect consumers from monopoly abuse. The tendency to raise prices, limit supply, behave inefficiently, overlook customer demands on the quality, and ignore environmental impacts are some of the possible outcomes in markets where supply is controlled by one or few sellers. Network industries such as telecommunications, energy, water, and transportation have therefore been one of the most regulated sectors. These industries also have the longest tradition of public oversight and even government ownership.

Technological developments over the years have relaxed monopoly arguments in network industries especially in the supply of services provided over the infrastructure. Whereas these sectors used to be dominated by one large vertically integrated firm, today's network industries are characterized by a combination of natural monopoly and competitive segments. Although the various components of a network can be unbundled there is still a high degree of vertical relationship involved the delivery of services to final consumers. Due to the changing industry structures therefore, regulators are no longer just concerned with monopoly behavior vis-á-vis consumers but increasingly more attention is being devoted to the interaction between firms especially with respect to the behavior of incumbent operators vis-á-vis newer firms.

Aside from promoting efficiency in the sector, it is equally important for regulation to encourage investments in infrastructure facilities to ensure continuous and reliable service delivery. For utilities

[7] http://www.ustr.gov/sectors/services/energy.pdf

in particular, economies of scale arise from the huge fixed costs involved, a significant portion of which is sunk. The irreversibility of such investments, which are typically long-lived assets, requires adequate protection for owners and operators in order to encourage them to continue to provide the service as well as enter the market in the first place.

Finally, there are distributional and other objectives that governments uphold which influence the regulation of network industries and its related services. The essential public service nature of utilities means that availability of the services must be guaranteed to all. However it is defined, access to a basic quantity and quality of a service (e.g. basic telephone service, electricity, water, etc.) is usually a fundamental objective common to all societies. For less advanced economies, the promotion of national development goals may also factor prominently (e.g. transport services in unprofitable areas to support a balanced regional growth). Other social and environmental objectives relating to employment levels, health, security, sustainable development, etc. affect the regulation of network industries as well.

B. Implications for developing regulatory disciplines

Although countries may share common regulatory objectives, the value attached to each will differ. Some objectives may be more important than others depending on the stage of economic development or the state of infrastructure development. For example, some countries value expanding consumer choice and/or promoting service innovation whereas for others, infrastructure build-up would be more critical and the attainment of universal access to basic service is of primary concern. Even when the objective is the same, capabilities and/or endowments may vary thus affecting the extent to which regulatory requirements can be successfully enforced. These differences limit the scope for developing regulatory disciplines that can be applied multilaterally for the regulation of tradeable network-based services. However, given that similarities can be found across markets, for example with respect to the industry structure, then a common set of rules or *code of conduct* can be prescribed to ensure fair trade in network-based services.

Rules to govern business to business conduct

As previously discussed, it is more efficient for firms in network industries to share common inputs or facilities. Creating a level playing field for the competitive supply of services provided over the network infrastructure requires fair and non-discriminatory access to essential facilities. Imposing high access charges or denying, restricting, and delaying access hurt competitors and constitute abuse of one's dominant position as being both infrastructure owner and service provider. The assurance of access to essential facilities (a form of interconnection) at reasonable cost, of standard

quality, and in a timely manner is a crucial pro-competitive safeguard. This would apply in cases involving access to port and airport facilities to deliver, for example, maintenance and ground services while for electricity this may involve access over transmission lines to "wheel" power. Another form of interconnection which is more applicable to telecommunications allows users of different service suppliers to communicate with one another.

Related to the physical interconnection of services and facilities is the need to make available the necessary technical information to effect such interconnection. Firms must be required to provide without delay all such information needed by requesting parties wishing to supply a service over their network infrastructure.

Rules to govern government to business conduct

The need for transparency on technical aspects and/or requirements on technical standards, which are particularly important in the infrastructure sectors, especially applies to the government. Whereas in the past technical knowledge would be concentrated in one private firm or government agency, the fair and efficient functioning of the new market structure requires that the government make available to everyone complete information on industry-wide technical standards. Sharing of such information between firms as mentioned above and by the appropriate government body is crucial in order to ensure efficient functioning of network industries where reliable supply of services depends on a high degree (and even minute by minute, in the case of electricity) coordination between network components.

As pointed out earlier, regulation is not only concerned about ensuring efficiency but in promoting investment in the sector as well. In order for governments to encourage suppliers to enter the market and make necessary investments to deliver the service, guarantees against expropriation may be introduced or compensation for unrealized returns on investment attributable to policy reversals or changes in regulation (e.g. rate-setting) may be offered.

Finally, there are social and other objectives that governments impose on firms to fulfill. When administering universal service programs either directly or through private service providers, governments must do so in a competitively neutral manner so that no supplier is unduly favored nor burdened. The same principle should be observed in satisfying other objectives (e.g., health, safety, etc). Competitive neutrality must govern requirements to fulfill such objectives whether it is to be administered using market-based incentives (e.g. taxes, subsidies, etc.) or command and control mechanisms.

4. Possible Model Schedule on Domestic Regulations

The Telecom Reference paper is deemed as

a great success in introducing sectoral regulatory disciplines in the GATS. Many experts in this area has recommended extending similar model schedule to other network based services such as transportation, water and electricity, which typically contain monopoly elements and social dimension that require government intervention to protect consumers and ensure availability of these essential services.

Sectoral regulatory disciplines among network industries often include provisions to i) protection of consumers' interests ii) ensure fair and equal access to public network iii) ensure fair competition among large and small competitors in the market and iv) guarantee availability of basic essential services. The Reference Paper covers most of these elements. Therefore, the authors would draft a model schedule for network services based on the content of the reference paper, while adding additional provisions that we deem essential. These additional provisions are drawn mostly from regulatory disciplines embedded in the various articles of the GATS and the Telecommunications Annex as discussed in section 1. By importing these disciplines into the model schedule, members may choose to commit to a regulatory discipline without having to make market access commitment. This is consistent with our belief that **a good regulatory regime is a prerequisite to market liberalization**.

It should also be noted that the authors believe that, like the telecom reference paper, the content of a model schedule should prescribe general core principles rather than detailed legal commitments. Overly prescriptive schedules would represent an unjustified invasion of sovereign rights of national governments to design domestic regulatory regimes that consistent with domestic legal traditions, institutional structures and social and economic policies. While it is recognized that non-prescriptive regulatory guidelines may undermine the effectiveness of regulatory disciplines, we believe that the availability of recourse to the DSU will ensure compliance efforts as is the case of the Reference Paper discussed in section 1.

As the authors are not of the legal profession, we do not aspire to draft the wording of the provisions. Rather, we intend merely to spell put the substantive elements that should be incorporated for further consideration in a possible model schedule of a sectoral regulatory discipline. The following (A) - (E) entries are the proposed additional provisions that may incorporated into the network-services regulatory template drawn from the telecom reference paper. These are highlighted in the proposed "Model Schedule for Network Services" that appear in the appendix.

A. Regulatory objectives shall be clearly specified in order to promote transparency in the administration and implementation.

The objective of a domestic regulation is not always available, which may pose a problem when two conflicting goals may arise in the course of implementation. Some regulatory regimes are

concerned mainly about efficiency and consumer welfare -- i.e., how to achieve a variety of best-quality services at the lowest price, while others may have a strong emphasis on equity or even the growth of the industry. It is therefore important for any regulatory regime to have a clear objective specified for greater transparency of its administration as the GATS Article VI.1 stipulates that "*each member shall ensure that all measures of general application affecting trade in services are administered in a reasonable, **objective** and impartial manner*".

B. *Use of dominant position in a market to foreclose competition in a related market*.

The anti-competitive practices listed in the section on Competition Safeguard in the Telecom Reference Paper do not include abuse of dominance, which tend to be a major problem in network services. Article VIII.2 of the GATS stipulates that "when a monopoly supplier outside the scope of its monopoly rights,...,*members must ensure that it does not abuse its monopoly position*..." This article addresses concerns regarding the potential abuse of monopoly or dominance in one market in a related market. For example, a national airline that holds a dominant position in the air transport market may extend its dominance into the catering and aircraft maintenance businesses. Similarly, large international shipping companies may discriminate between own freight forwarders operator and those that are independent. In this case, it would be inappropriate to classify aircraft or ships as "essential facilities" access to which would be guaranteed on a non-discriminatory basis by the Reference Paper. Thus, we recommend a provision addressing this particular concern that is prevalent among network industries.

C. *Standard setting (technical, environmental and safety): Any member has the right to define its own standard as long as these standards are reasonable and administered in a transparent, non-discriminatory and competitively neutral manner and are not more burdensome than necessary.*

One of the main objectives of regulation is to protect consumers and the interests of the public. In the transportation sector, this involved safety and environmental regulations. However, such standards, if too restrictive, can pose barriers to entry or may favor one service provider against the other. It is thus necessary to have a provision that, -- while allowing member to define its own standards -- will ensure that standards are reasonable and administered in a transparent, non-discriminatory and competitively neutral manner and are not more burdensome than necessary. GATS Article VI.4 requires members to ensure that "...*qualification requirements and procedures, technical standards and licensing requirements do not constitute unnecessary barriers to trade in services,...*".

D. *Licensing requirements should be limited in scope -- i.e., to the sub-sectors that are not contestable or are involved with public safety and environmental concerns.*

Over-regulation is one of the major problems in any regulatory regime. While the GATS Article VI.4 stipulates that licensing procedures should not restrict the supply of services, it may be the case that licensing -- or any other kind of state regulation -- is unjustified. For example, it is not necessary to regulate very small-scale electricity generation (below 5 MW, for example) for own consumption. It is therefore important to have a provision that will ensure that the industry as a whole is not overly regulated.

E. Cross-border anti-competitive or restrictive business practices: appropriate measures shall be maintained to prevent national companies to pursue anti-competitive practices overseas that lead to restriction of services trade.

Thanks to globalisation and advancement in technology, services are increasingly being supplied from providers overseas. It is thus important to have provisions concerning cross-border anti-competitive business practices that may be beyond the reach of domestic regulations or competition laws. Article IX of the GATS addresses concerns about restrictive business practices and requires that members enter into consultations with the requesting party in view to eliminate such practices. While we agree that restrictive business practices, such as collusive practices and abuse of dominance, that occur and take effect within a jurisdiction should be subject to a soft discipline, we believe that those that affect cross-border flows of services need to be subject to a stronger discipline in the WTO. We believe that access to service markets requires not only the regulatory discipline, but also private sector's -- in particular multinationals' -- discipline. In this regard, we propose that members have at its disposition appropriate measures that can help prevent national companies to pursue anti-competitive practices overseas that lead to restriction of service trade.

5. Compliance Mechanism

As earlier discussed, the differences across countries limit the scope for developing regulatory disciplines that can be applied multilaterally for the regulation of tradable network-based services. At best, general core principles may be prescribed as specified in the previous chapter.

Although members have recourse to the WTO dispute settlement mechanism for violations of commitments, it may not be the most effective way of ensuring compliance, especially in the absence of other supporting mechanisms. If experiences at the national level are any indication, one can expect that issues involving networks, say with respect to interconnection, would be most difficult to resolve. Indeed, the most credible sanction of a regulator against erring network operators is the revocation of a franchise or the non renewal of a license to operate, but this is not within the purview of the WTO thus reducing its ability to pose as a threat to non compliance. Additionally, the interlocking nature

of network industries implies that a mechanism that encourages cooperation would be superior to an adversarial approach. In view of these concerns, this final section will look at additional mechanisms that may be adopted to strengthen compliance of sectoral regulatory frameworks.

Regulating business to business conduct: The use of standards and code

The establishment of codes of conduct is an effort to instill good practice in a number of aspects of firm behavior. Standards-setting allows firms to benchmark against industry or world best practice. Standards and codes can cover a wide array of a firm's domestic or cross-border activities such as business practices, environmental protection, health and safety standard, labor practices, etc. Codes of corporate conduct have been developed in many OECD countries which take into account concerns by different stakeholders, including consumers. Another example is the code of conduct for liner conferences which was formulated to help facilitate the orderly expansion of world sea-borne trade; stimulate the development of regular and efficient liner services, and to ensure a balance of interests between suppliers and users of liner shipping services. A key principle of the code is that conference practices should not involve any discrimination against the ship owners, shippers or the foreign trade of any country.

There is a wide agreement on the value of the use of codes and standards especially as a mechanism for self regulation. Although voluntary, adherence to established codes and standards signals good behavior and is rewarding in its own right as it can influence investment and lending decisions by other parties. However, there are also risks involved. For one, there is the usual tension between country specificity and the use of uniform standards. Such concern is not trivial and needs to be acknowledged as willingness and ability to meet rules and regulation are necessary conditions for regulatory compliance. One way to address this is to open the standard-setting process to inputs from different countries. Another way is to arrange standards by tiers so that industry norms and practices can be compared across similar groups. The same can be done for benchmarking at the country level. A participatory process should also be adopted in formulating codes of conduct so that it responds to the concerns of various stakeholders and not the industry alone. Otherwise, there is a danger that it may be used as an instrument for collusion in business practices (e.g. price fixing, market sharing arrangements, etc).

Regulating government to business conduct: The use of peer reviews

A peer review is described as "a systematic examination and assessment of the performance of State by other States, with the ultimate goal of helping the reviewed State improve its policy making, adopt best practices, and comply with established

standards and principles."[8] One form of peer review undertaken by the OECD is the country reviews on regulatory reform to improve regulatory practices in all member countries. The exercise is aimed at helping governments identify best practice regulatory methods, set priorities for regulatory reform across a broad range of policy areas, and to strengthen their capacities for self assessment. The reviews also help reduce the risks of transition and are useful in informing public debate on the importance and implications of sustained regulatory reform. Weaknesses in the policy and regulatory environment are also revealed in the review process and thus provide direction for capacity building or technical assistance.

Currently, WTO conducts trade policy reviews for each country and it may be worth exploring if a regulatory review for specific sectors may be a useful exercise for the reasons mentioned above. From the standpoint of negotiating modalities, conducting comprehensive reviews has its merits as well. Feketekuty[9] argues that item by item negotiation of national commitments through request/offer process is not the best method for achieving systemic changes in a country's regulations as this approach does not lend itself to a thoughtful review of regulatory reform objectives, including evaluation of less trade-distorting regulatory approaches and the associated benefits. A comprehensive review is much more likely to lead to a search for systemic reforms than a process of haggling over individual provisions.

In conclusion, peer reviews and the use of codes and standards are complementary, mutually reinforcing mechanisms that can be used to strengthen compliance of regulatory disciplines covering government to business and business to business conduct. Although the dispute settlement mechanism of the WTO can be invoked for the "basic regulatory requirement" as a final recourse for non-compliance, voluntary and cooperative mechanisms would be more effective in influencing behavior and in raising the general quality of regulation across countries.

[8] Fabrizio Pagani "Peer Review: A Tool for Co-operation and Change, An analysis of an OECD Working Method" OECD SG/LEG(2002)1

[9] Geza Feketekuty "Peepening Sectoral Disciplines for Services Regulation: How to move forward in the GATS" paper prepared for the Workshop on "Towards Improving Regulation in the Services Sector" of the Menu of Options Phase III, APEC Group on Services, 18 May 2002.

APPENDIX

Model Schedule for Network Services

Reference Paper

Scope

The following are definitions and principles on the regulatory framework for network services.

Definitions

Users mean service consumers and service suppliers.

Essential facilities mean facilities of a public network or service that

(a) are exclusively or predominantly provided by a single or limited number of suppliers; and

(b) cannot feasibly be economically or technically substituted in order to provide a service.

A major supplier is a supplier which has the ability to materially affect the terms of participation (having regard to price and supply) in the relevant market for the specified network services as a result of:

(a) control over essential facilities; or

(b) use of its position in the market.

(A) Objectives: regulatory objectives shall be clearly specified in order to promote transparency in the administration and implementation.

1. Competitive safeguards

1.1 Prevention of anti-competitive practices in the network service

Appropriate measures shall be maintained for the purpose of preventing suppliers who, alone or together, are a major supplier from engaging in or continuing anti-competitive practices.

1.2 Safeguards

The anti-competitive practices referred to above shall include in particular:

(a) engaging in anti-competitive cross-subsidization;

(b) using information obtained from competitors with anti-competitive results; and

(c) not making available to other services suppliers on a timely basis technical information about essential facilities and commercially relevant information which are necessary for them to provide services.

(B) Using dominant position in a market to foreclose competition in a related market.

2. Access to Essential Facilities

2.1 This section applies to linking with suppliers providing public telecommunications transport networks or services in order to allow the users of one supplier to communicate with users of another supplier and to access services provided by another supplier, where specific commitments are undertaken.

2.2 Access to essential facilities to be ensured

Access to essential facilities controlled by a major supplier will be ensured at any technically feasible point in the network. Such access is provided.

(a) under non-discriminatory terms, conditions (including technical standards and specifications) and rates and of a quality no less favourable than that provided for its own like services or for like services of non-affiliated service suppliers or for its subsidiaries or other affiliates;

(b) in a timely fashion, on terms, conditions (including technical standards and specifications) and cost-oriented rates that are transparent, reasonable, having regard to economic feasibility, and sufficiently unbundled so that the supplier need not pay for network components or facilities that it does not require for the service to be provided; and

(c) upon request, at points in addition to the network termination points offered to the majority of users, subject to charges that reflect the cost of construction of necessary additional facilities.

2.3 Public availability of the procedures for access to essential facilities negotiations

The procedures applicable for interconnection to a major supplier will be made publicly available.

2.4 Transparency of access arrangements

It is ensured that a major supplier will make publicly available either its access agreements or a reference access offer.

2.5 Access: dispute settlement

A service supplier requesting access with a major supplier will have recourse, either:

(a) at any time or

(b) after a reasonable period of time which has been made publicly known

to an independent domestic body, which may be a regulatory body as referred to in paragraph 5 below, to resolve disputes regarding appropriate terms, conditions and access charges within a reasonable period of time, to the extent that these have not been established previously.

3.0 Universal service

Any Member has the right to define the kind of universal service obligation it wishes to maintain. Such obligations will not be regarded as anti-competitive *per se*, provided they are administered in a transparent, non-discriminatory and competitively neutral manner and are not more burdensome than necessary for the kind of universal service defined by the Member.

(C) Standard setting (technical, environmental and safety): Any member has the right to define its own standard as long as these standards are reasonable and administered

in a transparent, non-discriminatory and competitively neutral manner and are not more burdensome than necessary.

3. **Public availability of licensing criteria**

D. Licensing requirements should be limited in scope -- i.e., to the sub-sectors that are not contestable or are involved with public safety and environmental concerns.

Where a licence is required, the following will be made publicly available:

(a) all the licensing criteria and the period of time normally required to reach a decision concerning an application for a licence and

(b) the terms and conditions of individual licences.

The reasons for the 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 the regulated network service. The decisions of and the procedures used by regulators shall be impartial with respect to all market participants.

6. **Allocation and use of scarce resources**

Any procedures for the allocation and use of scarce resources (rights of way for electricity grid and road transport, parking slots at air terminals) will be carried out in an objective, timely, transparent and non-discriminatory manner.

Patricio Contreras[1]

Introduction

GATS Article VI.4 calls for the development of disciplines to ensure "that measures relating to qualification requirements and procedures, technical standards and licensing requirements do not constitute unnecessary barriers to trade in services." In accordance with this mandate, the former Working Party on Professional Services developed such disciplines for accountancy services. The purpose of this note is to discuss the feasibility of extending these disciplines to professional services more generally.

In referring to professional services the note addresses accredited professions such as accountants, architects, auditors, doctors, engineers, lawyers, teachers and veterinaries.

Whether the disciplines on domestic regulation for accounting can be extended to other accredited professions is assessed on the basis of issues such as the rationale for regulation, the type of regulations that apply in each case and the type of barriers to trade that arise in each case.

Case for Regulating Professional Services

The economic case for regulating economic sectors stems essentially from three types of market failure: market power, asymmetries of information and externalities. The social case for regulation is motivated by distributional concerns, such as universal access.

Asymmetries of information arise in professional services because consumers are unable to assess the quality of the service provided. This is mainly the case in accredited professions, such as accountants, architects, doctors, engineers, lawyers, veterinaries and teachers. In other professional services such as consulting or advertising the quality of the service is either less critical or easily observable. This note addresses the former type of professional services.

Unobservability of the quality of the service may occur ex-ante and/or ex-post. For instance, in the case of architectural, engineering, medical and legal services the client/patient observes the quality of the service after it was provided. In auditing/ accounting services, the consumer - i.e. shareholders and other third parties- cannot tell, even after the fact, if the auditor/accountant provided quality services.[2]

A number of market-based mechanisms exist

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[2] Consumers are unable to determine the quality of auditing services ex-post for three reasons: 1) the rate of audit failure is less than 1%, 2) the customers never see the auditors do their work and 3) Firm* decisions on hiring the auditor are made by managers who are the subject of the audit (Sunder, 2002).

to deal with information asymmetries. These include reputation, contractual guarantees of performance quality, performance bonds, or third-party accreditation or quality rating. All of these mechanisms, as well as civil liability rules (as opposed to direct government intervention), provide an incentive for providers to maintain higher quality. For instance, providers of professional services will find it beneficial to invest in reputation for providing high quality services if ex-post observation is feasible, consumers make purchases repeatedly or information about quality is easily spread amongst consumers. This may be the case of all accredited professions listed above except for auditors/accountants. With very low failure rates, and the absence of contact and observability by customers, it is not possible for auditors/accountants to develop meaningful and accurate reputation with shareholders in any reasonable length of time (Sunder, 2000).

Where observability (ex-ante and ex-post) of the quality of the service is not feasible, competition is weak, purchases are rare (i.e. reputation effects are not applicable), assigning responsibility for outcomes is difficult or any consequences are irreversible[3] market-based mechanisms are less effective. Private medical surgery and auditing services may be examples of some of these categories.

When market-based mechanisms or horizontal civil liability rules do not adequately address information asymmetries, direct domestic regulation becomes essential. Good domestic regulation in professional services should find a balance between increasing the contestability of the markets and ensuring the quality of the service. Where the purchase of professional services is mandated in order to promote other objectives (for instance mandatory auditing of corporate accounts in order to protect small shareholders), regulation of the quality of the service is necessary to offset the incentive to purchase low-quality services.

Domestic Regulation in Professional Services

The scope and form of regulation varies widely between professions and between countries. In most cases regulation includes the service provider, extending from qualification requirements for professionals to licensing requirements for firms. In other cases regulation also includes the service itself by setting mandatory standards. An example of the latter is accounting services.

Some countries limit the activities that can be performed by professionals. For instance, some countries allow accountants to provide taxation services or management consultancy services, while others restrict these services to entirely

[3] See OECD, 2000.

separate professions. Likewise, in some countries engineers are allowed to provide design services, while in others such activities are limited to architects.[4]

Professional services are regulated at the national or sub-national level by governments and/or by delegating regulatory powers to self-regulatory organizations such as professional bodies. Sub-national regulations are common in accountancy and legal services (e.g. bar associations in the United States).

The responsibilities of professional bodies vary widely across professions and countries (and in some cases within countries) and membership of a professional body may be mandatory or voluntary. Professional associations usually play an important role in the accounting, legal and medical professions.

Trade in Professional Services

Many of the regulations (or their absence) that affect professional services may become impediments to competition and international trade in professional services. Concerns have been raised that certain regulations may restrict competition (and trade) more than is necessary, raising the price and limiting innovation in the provision of professional services.

Impediments to trade in professional services include nationality requirements, residence/ establishment requirements, professional certification/entry requirements, compartamentalization/ scope of practice limitations, restrictions on advertising, solicitation and fee-setting, quantitative restrictions on the provision of services, differences in quality standards, restrictions on business structures, and restrictions on international relationships/use of firms names.[5]

Asymmetries in regulatory regimes between countries may also constitute barriers to trade in professional services, for instance, when qualification requirements in one country are more stringent than in the partner country, or when the host country does not allow the same array of activities to be developed by a certain profession as the foreign country.

Similarly, differences in the powers delegated to professional associations between countries may also constitute important barriers to trade. For example, when a professional association is delegated the power to discipline its members, concerns have arisen that these associations may use this powers to excessively restrict entry,

[4] The annex to the template attached to this document lists the activities that each of four types of professionals may be allowed to perform.

[5] See template attached for a complete list of limitations of trade in each of four professional services.

fix prices and enforce anti-competitive co-operation between its members. In some cases, studies have found that restricting entry to the most highly qualified providers may lower service quality overall as consumers forgo professional services or seek to provide the services for themselves (OECD, 2000).

The lack of regulatory harmonization and mutual recognition procedures - which reduce regulatory asymmetries between countries - can act as a major barrier to international trade. For instance, adapting to local training and certification requirements may be excessively costly for foreign professionals, whereas local conduct rules may be less costly to comply with. Permanent establishment may justify greater adaptation effort than sporadic cross-border provision of services. In this context, lack of harmonization or mutual recognition can preclude certain types of international transactions entirely, at least through the means of cross-border trade as opposed to permanent local establishment.

Regulatory harmonization is however not feasible in every services sector. It must be noted that regulatory asymmetries usually reflect legitimate differences between countries in taste, income distribution, market culture, geography, risk aversion and more generally, prevailing patterns of state-society relationships (Nicolaodis, 2002). For instance, where consumers have a low risk tolerance it might not be justifiable to harmonize regulations of medical services with a jurisdiction where regulations are less stringent. Even if countries agree on the objectives of regulation of medical services, confidence in compliance verification methods may differ. On the other hand, a higher degree of harmonization may be justified in auditing services, as risk probability is low and the quality of the service is not observable ex-post (so that the quality of the service does not depend on consumer characteristics).

Mutual recognition agreements (MRAs) in professional services are likely to magnify information asymmetries, as observability of the quality of the service becomes less feasible between consumers and suppliers form different countries. Hence, they are more suitable for sectors where ex-post observation is feasible.

An approximation to regulatory harmonization, which facilitates MRAs, has been the development of international quality standards. However, these have been legitimised for a limited number of professional services and their incorporation into domestic regulations is not contractually binding. International standards have been developed for the accountancy profession (IASC), auditing profession (IFAC), engineering profession (ISO).

Professions also differ in their organizational structure and the preferred means to supply

services internationally. Such differences may also constitute a barrier to international trade. They usually respond to the extent to which information asymmetries are magnified through international trade, which increases the relevance of issues such as client relations, knowledge of host country business customs and regulations and the need to balance local expertise with international coordination. Some of these issues may be attenuated by the development of international rules on domestic regulation.

Accounting and auditing, for example, in most countries is largely practiced at the level of firms or partnerships rather than individuals, with small-scale firms predominant. Law firms operate offices in foreign countries generally to provide host country clients with advice on laws and regulations concerning the law firms' home country. Architects and engineers usually work as independent professionals based in either the home or the foreign country.

GATS Disciplines on Domestic Regulation in the Accountancy Sector

Pursuant to GATS Article VI.4 the Council for Trade in Services developed disciplines to ensure that qualification requirements and procedures, technical standards and licensing requirements do not constitute unnecessary barriers to trade in accounting services.

The disciplines adopted[6] contain provisions on transparency requirements, administration of licensing requirements, qualification requirements and procedures, and technical standards for the accountancy profession. The disciplines do not address measures subject to GATS Articles XVI and XVII, which restrict access to the domestic market or limit the application of national treatment to foreign suppliers. Such measures are addressed in the GATS through the negotiation and scheduling of specific commitments.

A key provision is the general requirement that measures taken for the purposes above "are not more trade-restrictive than necessary to fulfil a legitimate objective. Legitimate objectives are, *inter alia*, the protection of consumers (which includes all users of accounting services and the public generally), the quality of the service, professional competence, and the integrity of the profession." The objectives are further qualified by obligations to: 1) inform another Member of the rationale behind domestic regulatory measures in relation to the legitimate objectives (Transparency provision); 2) ensure that, when membership of a professional

[6] See WTO document S/L/64.

organization is required, the terms for membership are reasonable, and do not include conditions or pre-conditions unrelated to the fulfilment of a legitimate objective (Licensing Requirements provision); and 3) in determining whether a measure relating to technical standards is not excessively restrictive, take account of internationally recognized standards of relevant international organizations applied by a Member (Technical Standards provision).[7]

The transparency provision requires that members make publicly available contact information of competent authorities (governmental and non-governmental), as well as information describing the activities andprofessional titles which are regulated or which must comply with technical standards; requirements and procedures to obtain, renew or retain any licenses or professional qualifications and the regulator's procedures for monitoring compliance; information on technical standards; and confirmation that a particular professional or firm is licensed to practise within their jurisdiction. Members should also endeavour to provide opportunity for comment before adoption of new measures and make public details of procedures for the review of administrative procedures.

Licensing requirements and procedures shall be pre-established, publicly available and objective, and shall not in themselves constitute a restriction on the supply of the service. Where residency requirements not subject to scheduling under GATS Article XVII exist, Members shall consider whether less trade restrictive means could be employed to achieve the purposes for which these requirements were set, taking into account costs and local conditions. Use of firm names may not be restricted, save in fulfilment of a legitimate objective. Requirements regarding professional indemnity insurance for foreign applicants must take into account any existing insurance coverage and fees charged by the competent authorities shall not represent an impediment in themselves to practising the relevant activity. Application procedures and the related documentation shall be not more burdensome than necessary to ensure that applicants fulfil qualification and licensing requirements. A license, once granted, shall enter into effect immediately.

In respect to qualification requirements, competent authorities must take account of qualifications acquired in the territory of another Member, on the basis of equivalency of education, experience and/or examination requirements. The

[7] The term "relevant international organizations" refers to international bodies whose membership is open to the relevant bodies of at least all Members of the WTO.

scope of examinations and of any other qualification requirements shall be limited to subjects relevant to the activities for which authorization is sought. Qualification requirements may include education, examinations, practical training, experience and language skills. The importance of mutual recognition agreements is explicitly acknowledged regarding the process of verification of qualifications and/or in establishing equivalency of education.

Qualification procedures must expedite the verification of qualifications acquired in the partner country and, when additional qualifications are necessary, this must be identified. Examinations shall be open to all eligible applicants, including foreign and foreign-qualified applicants, and must be scheduled at reasonably frequent intervals. Fees charged by competent authorities shall not represent in themselves an impediment to practising the relevant activity. Residency requirements not subject to scheduling under GATS Article XVII shall not be required for sitting examinations.

Measures related to technical standards must be prepared, adopted and applied only to fulfil legitimate objectives.

Extending the Disciplines on Domestic Regulation in Accounting to other Professions

This section analyses whether the disciplines on domestic regulation developed for the accountancy profession in GATS can be extended to other accredited professions. The rationale for stating this premise is that given that the case for regulating accredited professions stems from the existence of a common market failure, it should be possible to devise a common set of disciplines aimed at reducing barriers to trade in such services. The underlying principle suggests that economic sectors can be grouped according to the market failure(s) affecting them, and that regulatory disciplines in trade agreements should target the market failure itself, rather than developing specific regulations for specific sectors.

Hence, the issue of whether the regulatory provisions developed for the accounting sector in GATS can be extended to other professions depends on whether the magnitude and impact of the information asymmetry differ between professions and across countries. It also depends on idiosyncratic factors such as taste, income distribution, market culture, geography, risk aversion and prevailing patterns of state-society relations.

As regards the necessity test developed for the accountancy sector, consumer protection should be a common regulatory objective to all professions as it addresses the source of the problem, i.e. the market failure. The other three "objectives" - quality of the service, professional competence, and the integrity of the profession - constitute instruments to

achieve the overall objective of consumer protection. The relevant question then is not whether or not these objectives are also legitimate in other professions, which they are, but whether it is possible to develop generic criteria to determine if a measure is excessively restrictive with respect to legitimate objectives defined in such general terms.

For instance, the concept of consumer protection (and also quality of the service, professional competence and integrity of the profession) may not only differ across countries, but also across professions as it depends on issues such as consumer type (individuals v/s firms), the effectiveness of market-based mechanisms and direct government intervention to address the information asymmetry problem, as well as idiosyncratic factors like risk aversion, tastes and market culture.

Similarly, the issue of whether a measure is necessary to guarantee a "desired" quality of a service is directly related to the observability of the service. Where the quality of the service is not observable ex-ante and ex-post, measures to achieve the "desired" quality may need to be much more stringent than in cases where it is observable ex-post. This would require, for example, that the criteria to assess the restrictiveness of measures affecting doctors should be less stringent that those affecting auditors. A residency requirement may hence be justified for doctors and not for auditors.

Both professional competence and integrity of the profession may be interpreted as ex-ante indicators of the quality of the service. Should these be highly correlated with ex-post quality the criteria to assess the restrictiveness of the related measures should be in line with those established for the quality of the service. Should this not be the case more stringent temporary measures should be allowed to ensure that competence and integrity increase the observability, at least ex-ante, of the quality of the service.

Other provisions developed for the accounting sector - transparency, licensing requirements and procedures, qualification requirements and procedures - are also stated in very general terms and may thus be extended to all other professions. It is possible however to develop more specialized provisions should the different professions be grouped according to common characteristics. For instance, in the architecture, engineering and law professional bodies play an important role, reputation creation is viable and assigning responsibility for outcomes is feasible. In medical and veterinary services ex-post observability and irreversibility of the consequences of the service may be the basis for common regulatory principles.

The technical standards provision developed for accounting services is a special case. The necessity test in this case is importantly dependent of the existence of internationally recognized standards. As mentioned above, such standards have only been developed for a limited number

of professional services, so the provision has limited applicability in other professions. Moreover, internationally accepted standards may be seen as a second best solution to harmonization and it was mentioned above that not all professions require such a high degree of regulatory integration. Only where observability of the quality of the service ex-post is not feasible, a common set of regulations is critical internationally. In sectors where observability ex-post is more probable, mutual recognition agreements may be a better solution, as these not only allow regulatory competition and replace host country control (i.e. enforcement capacity) by recognition of home country control, but they also take into account idiosyncratic factors.

The chart below groups professions according to common characteristics and identifies the provisions that could be extended to them.

Table 1:

Types of Regulatory Disciplines that may be applied to Various Categories of Professional Services

Category of Professional Service	Common disciplines on transparency, licensing requirements and procedures, qualification requirements and procedures	Common necessity test	Harmonization recommended (technical standards developed)	Mutual Recognition recommended
Legal Services, Architectural Services, Engineering Services	X	X		X
Accounting/Auditing	X	X	X	
Medical and Veterinary services	X	X		X

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DEVELOPING REGULATORY DISCIPLINES FOR CROSS-BORDER ELECTRONIC TRADE IN SERVICES

Alexandra Sidorenko[1] *and Christopher Findlay*[2]

Introduction

E-commerce as part of a "new economy" has been found to be an important driver of economic growth. Sustainable long-term growth of the "new economy" is attributed to the use of information networks through information and communication technologies, as well as to favourable policies encouraging innovation, entrepreneurship and human resource development (Sidorenko and Findlay (2001)). There are potentially large economic benefits to developing countries through participation in the global economic commerce, including e-commerce. The global Internet economy is estimated to reach US$4.5 trillion by 2004 (OECD (2001a)). Most of it is takes from of business-to-business (B2B) transactions, accounting for up to 80% of total electronic sales.

The international vision on the "new economy" has been shaped by the Charter on Global Information Society adopted at Okinawa summit of G8 in July 2000. In their 2000 Declaration, the APEC Leaders said:

We commit to develop and implement a policy framework which will enable the people of urban, provincial and rural communities in every economy to have individual or community-based access to information and services offered via the internet by 2010. As a first step toward this goal we aim to triple the number of people within the region with individual and community-based access by 2005.

The "new economy" is now a strategic priority for regional capacity-building in APEC member countries. Realising a vision of the scope and scale of that laid out in the Leaders Brunei Declaration will clearly require a package of actions that apply across all the pillars of APEC. Key elements of the work program include liberalisation of the telecommunications sector and a capacity building program to establishing the right policy environment and the skills to work within the new e-economy. Policies beneficial for development of information economy include support for higher education in mathematics, engineering and computer science; promotion of Research and Development, safeguarding intellectual property rights, and providing standardisation, quality assurance and regulations stimulating knowledge-based economy. Studies of new economy include OECD (2001b), OECD (2002), and APEC (2001), and Dunt and Harper (2002) on the Australian economy.

In this paper we review some issues in the treatment of e-commerce in the WTO. In the next section we review a definition of e-commerce which is now in common use. We then examine some issues in the negotiating process to date, with a focus on market access issues, and we then review specific questions in relation to infrastructure, intellectual property and consumer protection. The final section contains comments on options for the next steps in work on e-commerce, including scope for cooperation at the regional level.

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Definition of e-commerce

The WTO work program on electronic commerce was adopted in September 1998. The definition of the electronic commerce included "The production, distribution, marketing, sale or delivery of goods and services by electronic means". Technological infrastructure necessary is also included in the working program on e-commerce.

In work which aims to identify the origins of what is new or different about e-commerce, Mann (2002) says that e-commerce is a shorthand term which refers to a 'complex amalgam of technologies, infrastructures, processes and products' (p. 315). She argues that the consequence of this package is the creation of a global market called "the Internet". Mann refers to three basic elements of e-commerce

- The institutions and technologies that create the network which supports the Internet.
- Services that connect the internet to the traditional marketplace.
- Protocols, laws and regulations that govern conduct and relationships.

Mann refers to the consequences of these elements for innovation. The effects are evident in new processes, products and markets. Process innovations affect the ways that existing transactions are organised. Product innovations include the creation of new industries or formats of exchange. Market innovations include new markets made possible by the reduction in transactions costs. As a consequence many activities are can now be traded across international borders where previously this was not possible. There are many examples of services which fall into this category: some services still require direct contact (eg a haircut) but others can be traded in this way (eg medical diagnosis).

Similar developments had occurred in earlier periods, as Thompson (2002) points out. However a significance difference is that the framework of e-commerce is open and not proprietary. This feature has driven its growth, but also creates some special issues in intellectual property and in consumer protection to which we refer again below.

WTO work programs

Electronic commerce comprises goods, services and intellectual property components, hence the WTO bodies involved in the e-commerce work program include Council for Trade in Services, Council for Trade in Goods, Council for TRIPs and the Committee for Trade and Development. The work program on e-commerce within the Council for trade in Goods takes into account deliberations of other intergovernmental organisations such as OECD, UNCITRAL, UNCTAD and the World Bank (WTO (2000d)). It creates opportunities through trade creation and facilitation and through network effect. At the same time it presents challenges of consumer protection in cross-border disputes, ensuring online security and dealing with international fraud activities.

Thompson (2002) argues that there were three main issues which the WTO had to consider:

- Do the existing core agreements (GATT, GATS and TRIPS) apply to electronic commerce and

are there any gaps or ambiguities (and so do they need to be supplemented by new specific agreements or a horizontal approach).

- Is there a need for specific trade-related regulatory guidance in areas like consumer protection and data privacy so that 'nascent national measures do not become, unwittingly or deliberately, unnecessarily restrictive of trade'.
- What further liberalisation would support the growth of the Internet.

The following material includes a review of the treatment of these issues in the core agreements to date (with the exception of the TRIPS which is discussed in a later section), as well as proposals for further liberalisation. Some of the regulatory issues are considered in a later section.

The Council for Trade in Goods have addressed issues related to market access in products related to e-commerce; valuation issues, import licensing procedures, custom duties, standards for e-commerce, rules of origin and classification issues (WTO (2000a)). It recognised that a genuinely difficult issue related to electronic commerce is custom valuation treatment of carrier media such as laser disks or tapes, containing digitised information (software, DVD or music CDs), and also treatment of the digital products delivered exclusively through electronic means. The extent to which content of the transmission can be separated from the transmission carrier service remains subject to disagreement. The GATT rules could be applied to digital products as far as the content of the product could be characterised as goods, or a close substitute to goods in question. If custom import duties are imposed on a physical carrier, then there is an effectively more favourable treatment for electronic deliveries that are not subject to duties (WTO (1998) and WTO (1999a)). Of course, elimination of import duties on the products that lend themselves to digitised delivery would be the first best outcome.

A significant issues has been whether items exchanged through the Internet should be treated as goods or services. Discussion was conducted on the definition of "like" products in respect to e.g. electronic downloads of music and software. Some members suggested that if an electronic supply of the digitised product happens on a personal distribution basis, the transaction represents services and is covered by GATS. Others argued that it should be treated as a good, and covered by the GATT, on the grounds of equivalence with the hard copy. Some members questioned whether importation takes place at all in case of cross-border supply of digital products (and hence, the question of custom duties become redundant as no physical imports are actually crossing the border).[3]

[3] Goods ordered over the internet but delivered physically are not subject to this debate - the GATT applies to them.

Mattoo and Schuknecht (2002) explain why the treatment is important. They point out that in the GATT national treatment (treating foreign products no less favourably than domestic products) is a general obligation but applies only to internal measures like taxes or regulations and not to border measures like tariffs. In the GATS, national treatment applies to all measures affecting supply but it is not a general obligation and only applies to sectors which have been scheduled. A member's internal tax regime should be consistent with their commitments, but if a sector is not scheduled foreign suppliers could be subject to discriminatory internal taxes. They also point out that the GATT contains a general prohibition of quantitative restrictions but such measures are only prohibited in the GATS in sectors where specific commitments have been made. As a result, items can be treated differently as a good or a service. Mann (2002) then notes that treatment under the GATS could be less liberal than under the GATT. She also suggests that the WTO might be able to sidestep the classification issue if members followed the more liberal treatment when relevant of either the GATT or the GATS.

Panagariya (2000) argues against an entirely new discipline for internet trade, on the grounds that the necessary rules can be found in existing agreements. The 'real contest' he says (p. 961) is between the GATT and the GATS. He supports treatment under the GATS, first on the grounds that a physical counterpart may not always exist, and second that a definition applied across-the-board minimises issues in the application of dispute settlement processes.

Since the Ministerial Declaration on Electronic Commerce[4], there has been a standstill on custom duties on electronic transmissions. The Doha Ministerial Declaration 14 November 2001 in its para 34, *Electronic Commerce*, calls for standstill to continue until the Fifth Ministerial:

> *34. We take note of the work which has been done in the General Council and other relevant bodies since the Ministerial Declaration of 20 May 1998 and agree to continue the Work Programme on Electronic Commerce. The work to date demonstrates that electronic commerce creates new challenges and opportunities for trade for members at all stages of development, and we recognize the importance of creating and maintaining an environment which is favourable to the future development of electronic commerce. We instruct the General Council to consider the most appropriate institutional arrangements for handling the Work Programme, and to report on further progress to the Fifth Session of the Ministerial Conference. We declare that members will maintain their current practice of not imposing customs duties on electronic transmissions until the Fifth Session.*

Mattoo and Schuknecht (2002) question whether the commitment is valuable, given existing GATS commitments, which may already prohibit discriminatory taxes or which may not inhibit the application of discriminatory internal taxes as a

[4] WT/Min(98)/DEC/2

substitute measure. They are also concerned that limitations on the application of duties might divert WTO members into less efficient forms of protection (where such instruments could be applied).

It would be extremely difficult to impose custom duties on any electronic transaction even if it were technically feasible to do so. Electronic transactions are not classified in the Harmonised System (HS), and most of the value of the transaction is represented by its content/intellectual property. Mattoo and Schuknecht (2000) calculate that revenue loss from the duty-free e-commerce would be small even if all delivery of digitisable media products moved online, as these products are responsible for less than 1% of total revenue collection in all studied countries. At the same time, trade in digitisable media products represents a substantial component of cross-border e-commerce: OECD (2002) reports that books, music and software represented 45% of spending over the Internet by Australian households, including both domestic and international purchases.

As noted above, a feature of e-commerce is the package of products and processes involved. Key inputs obviously include information technology products. In respect of market access, the Information Technology Agreement (ITA) provides a useful starting framework that can be extended to include more inputs into e-commerce. Further work on the extent of commitments under the ITA would be of value in this context.

Within the Council for Trade in Services (WTO (1999b) and WTO (1999c)), participants have developed a common understanding that electronic delivery of services can occur within any of the four modes of supply, and are covered by the commitments in the particular sector according to the technological neutrality principle (meaning that once the commitments are made eg to allow cross-border supply of services, the supply is allowed in any technologically feasible form including post, telephone, facsimile, and electronic communications). All general obligations imposed by GATS, such as MFN, transparency and disciplines for domestic regulation, as well as sector specific commitments, are applicable to e-commerce activities. The following areas of disagreement were identified:

- classification of cross-border electronic delivery of service as Mode 1 or Mode 2;

  (Suggestions were made that if the services is rendered through an e-mail from the service provider to a customer, the transaction belongs to Mode 1. If the service eg download is obtained by the customer accessing the Web page of the provider hosted on the server abroad, this transaction arguably can be classified as Mode 2 - "supplied in the territory of one Member to the service consumer of any other Member").

- classification and scheduling of new services arising through e-commerce;
- classification of Internet-related services and their relationship with the commitments in the telecommunications agreement;
- classification of digital products as goods or services;
- custom duties and valuation, etc.

The WTO Committee in Trade and Development focussed on developing the technical assistance programs to promote participation of developing countries in e-commerce activities (WTO (2000e)). Exclusion of certain developing countries from access to encryption and internet security (digital certificate) technology due the US trade restrictions was criticised in Cuba's submission (WTO (2001)). Global cooperation in anti-terrorism activities has added a new dimension to and interest in these technological and capacity building issues.

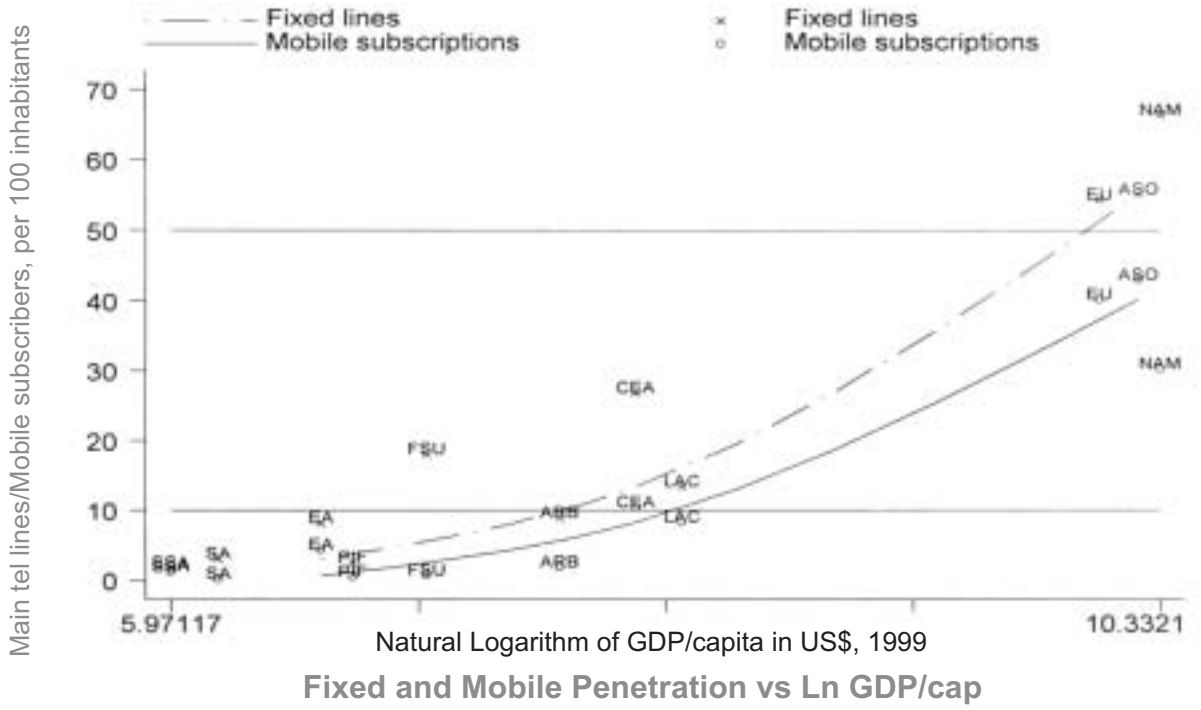
The EU approach treats all electronically delivered digital products as services, bringing them under the umbrella of GATS. The US approach is different, tending towards GATT disciplines for "virtual products"(i.e. those digital products that can be copied into physical medium and are tradable in both physical and electronic form, such as books, music, video and software).

Disagreements on treatment of e-commerce within the WTO are now being addressed on the bilateral level. Thus, the United States-Singapore Free Trade Agreement (USSFTA) signed on 6 May 2003 contains Chapter 14 *Electronic Commerce*. The concept of a "digital product" has been introduced, defined as "computer programs, text, video, images, sound recordings and other products that are digitally encoded, regardless of whether they are fixed on a carrier medium or transmitted electronically". Article 14.3(1) imposes duty-free electronic trade in digital products. The customs value of an imported carrier medium carrying a recorded digital product is to be calculated based on the value of the medium alone. MFN and NT principles apply. Article 6 excludes broadcasting services from the scope of application (new services such as interactive digital TV seem to be falling within the definition of digital products). Whether this forms a useful precedent or not is a topic for further work.

Telecommunications infrastructure and policies for e-commerce

Availability of the telecommunications infrastructure is the necessary component of e-commerce. Despite the difference in network architecture and design, most of the "last-mile" connections to the Internet in the industrialised countries have been achieved through the standard telephone copper wire. Fixed and mobile penetration

Figure 1. Fixed Lines and Mobile Subscribers per 100 inhabitants, by Income and Region



Fixed and Mobile Penetration vs Ln GDP/cap

Source: ITU 2001

rates are found to increase with per capita income (Figure 1), and cross-country differentials are very large.

Provision of distance education depends on the availability, accessibility, affordability and quality of the telecommunications infrastructure. Distance education is more valuable in the most in rural remote areas, which are also the areas most disadvantaged in availability of technological and communications infrastructure. Physical impediments to connectivity are exacerbated by the high cost of access to (broadband) Internet, which is the most important deterrent from use of the ICT in the developing countries. More investment into network capacity and hardware, and improvement in network architecture would solve this problem. Current Internet interconnection and pricing arrangements should be revised in order to improve accessibility by the developing countries.

Telecommunication policies are lubricants essential to the smooth functioning of this market. In most countries, the telecommunications market developed as a natural monopoly and started with one public monopoly provider. The losses resulting from the monopoly pricing, low efficiency and high costs of regulations are well documented for a number of countries, and lack of competition was found to contribute to inflated access prices. Since the 1980s, the telecommunications sector underwent

a major restructuring and liberalisation in most industrialised countries, and the tendency continued world-wide. The incumbent telecommunications provider was partially or fully privatised, with differing degrees of foreign investment allowed. Competition was introduced, and an autonomous regulator created, with government sometimes retaining a stake in the incumbent operator. The formal monopoly operator can use its existing market power to hinder the new entrant. Hence, competition policies have to be developed and enforced by an independent regulator.

In most developing countries, the telecommunications sector is still monopolistic. Market access and national treatment restrictions are present. Interconnectivity between the incumbent operator's network and that of new entrants' is usually an obstacle to the telecoms deregulation and liberalisation processes.

A Universal Service Obligation (USO) is often imposed on a monopoly or incumbent company by the government to extend access to telecommunications to remote areas and to other consumer groups that would not be served by the market alone. The concept of the Universal Service differs between countries, with most of the developing countries targeting universal access of some kind (e.g. pay phone within 20 km of most communities in Burkina Faso vs. fixed telephone connection countrywide to each household in Australia, USA and UK). The Universal Service/Access Obligation is a useful vehicle to ensure government's commitment to provision of digital opportunity to people in rural area. USO funding can be provided by the government through general taxation, or by a special levy on telecommunications providers operating in the market, to cover the net losses of the incumbent operator responsible for the USO. Cost-based pricing of services and interconnection charges contribute to better cost recovery of service extension. The USO can be put up for competitive bidding, with more efficient companies winning the funding to provide a USO to specific geographic areas. There is a wealth of research and knowledge about best practices in funding USO and incentive regulations accumulated in Australia. This knowledge can be successfully shared with policy-makers and regulators from the developing countries to assist them in formulating optimal regulatory framework for efficient operation of telecommunications sector.

International trade in telecommunications opens up domestic markets to foreign providers and increases its competitiveness. Alternative measures of impediments to trade in telecommunications services have been constructed based on the WTO GATS commitments and the actual implemented policies. Telecommunications policies appear to be the least restrictive in industrialised countries, and the most restrictive in the developing countries including Sub-Saharan Africa, South Asia, Pacific Islands and Arab states. Various studies suggest that higher teledensity (number of fixed lines or mobile subscriptions per 100 inhabitants) is linked to the more liberal policy

index. It is obviously so among the regional aggregates, since regions with more liberal policies are enjoying higher teledensity.

The Internet owes its rapid development partially to the "hands-off" regulatory environment. Liberal functioning of Internet Service Providers (ISP), including a transparent licensing requirement, is important to maintain growth of Internet penetration. More legislative activities are currently being undertaken in the Internet area, including the regulatory framework for e-commerce, secure transactions, copyright and intellectual property on the Web, Internet gambling, and pornography. Singapore, for example, requires all Internet service and content providers to hold a Singapore Broadcasting Authority license. Malaysia has recently expressed its intention to introduce an Internet "code of content" similar to the Singaporean code of practice.[5] Coordination of Internet policies and sharing the best practice rules can be useful actions to consider.

The EU proposed a cluster approach in negotiating liberalisation of "e-commerce infrastructure services" such as telecommunications, computer-related, advertising, distribution and payment services (WTO (2000b)), all of which are commercially linked in the e-commerce value chain. The problem with this approach is that there are many goods and IP components to the e-commerce sector as well.

The cluster approach to e-commerce encompassing both goods and services is developed more fully in OECD (2001a). The core e-commerce goods and services subsectors are identified as follows:

- telecommunications basic infrastructure, value added and support services;
- telecommunications and IT equipment and support services;
- Internet access, hosting and design services;
- Online payment processing systems;
- Delivery (post and courier) services;
- Transport services;
- Distribution services;
- Other services (legal, advertising, market research, photographic).

The USA (WTO (2000c)) also emphasised the need to encourage investment into telecommunications network capacity, including through ensuring that an appropriate competition regimes are in place to control monopolistic practices of incumbent operators. The 1997 Reference Paper on Basic Telecommunications provides important tools to ensure access to essential

[5] South China Morning Post, May 30, 2001. *Malaysia Mulls "Code of Content" for Net*. REUTERS, Kuala Lumpur

telecommunications infrastructure. Liberalisation of basic telecommunications services and accepting competition provisions of the Reference Paper should be encouraged. Market commitments in value-added services are also of great importance, as well as the need for introduction of pro-competitive regulation of VA services. The US submission recognised that other sectors are complementary to the telecommunications services in e-commerce chain. They are distribution, advertising, express delivery services, computer and related services, and financial services. Relevant sector-specific proposals should treat liberalisation of these sectors in a concomitant manner.

Protection of Intellectual Property Rights (IPRs)

Intellectual property rights protection is an important issue concerning provision of content products for e-commerce. Private sector involvement is contingent upon the ability of content developers to protect their intellectual property. IP management has been found a significant problem area in joint education projects, where local partners participated in development of the product. Making information freely accessible by requires careful examination of compliance with the Digital Copyright legislation which is necessary in the environment with growing attention from author's rights protection societies and collection agencies.

Recognition of intellectual property rights was found to be a factor promoting trade and investment in IP-intensive sectors. The Berne Convention for the Protection of Literary and Artistic Works (1971, Paris Act) and the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (1961) are at the core of Australian international commitments in copyright. Australia also has international obligations under the WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement.

Rapid advancement of ICTs presented the WIPO with the challenge of developing new norms and standards for international copyright protection in the Internet age. The issues of digital media and internet are dealt with in the WIPO Copyright Treaty (WCT) and the WIPO Performance and Phonograms Treaty (WPPT). The new treaties explicitly address wire or wireless network transmission of the material, including through Internet, and rights of communication to the public (Article 8):

"...authors of literary and artistic works shall enjoy the exclusive right of authorizing any communication to the public of their works, by wire or wireless means, including the making available to the public of their works in such a way that members of the public may access these works from a place and at a time individually chosen by them".

To achieve a balance between the copyright owners' interests and those of the users, an arrangement similar to "fair dealing" in print work is extended to educational and research institutions making available electronic copies of works and broadcasting to their students. The statutory license scheme for educational institutions is extended to incorporate electronic sources.

Measures recommended by the Register of Copyrights included development of more effective digital licensing, technological protection of the work, the use of electronic copyright management information, online licensing system, limiting access to the online resources to the registered students, password and firewall protection, TCP/IP addresses/domain names screening, and encryption. The next stage of technical measures of copyright protection includes limiting downloads or further electronic distribution capacity (e.g. proprietary viewer technologies to allow viewing but not printing of the document). New generation technologies allow it to embed information in digital works to identify and track its consequent usage. Digital watermarking can be used as a search object to identify unauthorised users of the protected digital work. Fair use remains a technology-neutral exemption principle for educational purposes use of copyright material. In order for digital copyright management systems to be functional, coherent technical standards for Internet delivery are to be adopted.

Even though developing countries are increasingly committing themselves to protect IP rights by joining WIPO and WTO TRIPS, cases of software piracy and computer hacking are well documented there, and a more efficient enforcement is important. The Business Software Alliance provides further information on the scope and costs of piracy.

The ***Council for Trade-Related Aspects of Intellectual Property Rights*** recognised that e-commerce activities include a high proportion of IP content, hence IPRs enforcement is beneficial for development of e-commerce, with participation in the WIPO "internet" treaties to be encouraged. The technologically neutral formulation of the TRIPs allows it to treat e-commerce activities within the existing framework (WTO (1999d)). The IP council focused its activities on definition of publication, right of reproduction and communication, right holders and other IP management issues related to e-commerce. At present, major forms of IPR protection with respect to digital products including software are trademarks, copyrights, database protection and patents for computer programs (the latter precludes reverse engineering/ decompilation and may limit interoperability and development of new add-ons) (Maskus, 2001). Enforcement of distribution and copying rights by the copyright holders is particularly difficult in the online environment, but is essential for continuing investment into content products for e-commerce.

Consumer Protection

International activities in consumer protection related to cross-border electronic commerce are summarised on OECD (2003). Consumer Sentinel (a US-Canadian consumer complaint database) recorded 15,000 cross-border complaints in 2001, amounting to the losses of US$30 million by consumers. About 13% of the 2001 consumer complaints included a cross-border component.

E-finance

Consumer protection in B2C remains a major issue of cross-border trade in financial services. Asymmetry of information between providers and consumers of financial services necessitates regulation of the sector, and the cross-border aspect of the relationship adds the complication of multiple jurisdictions. Often consumers lack knowledge and experience to make informed decisions about financial products offered by foreign financial services providers. Quite often online finance activities are conducted for fraud or tax evasion purposes. Supervisory authorities have adopted the following approaches to deal with the cross-border trade issue (Corbett and Sidorenko 2002):

- The cross-border trade is prohibited or discouraged;
- Activities are permitted, subject to the (non-discriminatory) application of host country rules and supervision;
- Activities are permitted, with implicit or explicit reliance on the home country's regulation and supervision;
- Activities are permitted, subject to reliance on a combination of host-and home country rules and supervision.

Panagariya (2000) suggests that the choice of options in consumer protection is related to the choice of classification of the mode of supply. If internet transactions are classified as mode 1 (cross border supply), the transaction is deemed to have taken place where the buyer resides and so the regulatory regime in the importing country applies. Under mode 2 (consumption abroad) he suggests that the regulatory regime in the supplier economy prevails. A country putting more weight on consumer protection might prefer a mode 1 classification. One with more interest in market access might prefer a mode 2 classification.

Telemedicine

Cross-border supply of health services (called e-health or telemedicine) is becoming increasingly feasible due to the recent developments in the information and communications technology (ICT). Health care services supplied cross-border include direct clinical services (diagnostics, laboratory testing, consultations), continuing professional education, consumer health information services, professional back up services and management of health care delivery. Consumer (patient) protection regulations remain the major impediment to B2C telehealth (direct consultation from a doctor to a patient). Doctor-to-doctor consultations and other B2B forms of telemedicine including for medical education and professional development are more widespread.

As a rule, the legal status of cross-border provision of telehealth limits direct provision of consultations to patients overseas. The technological neutrality principle implies that the same qualification and licensing requirement should apply for provision of medical consultations/ diagnostic via Information and Communication Technologies as for physical consultations. Professional indemnity insurance for cross-jurisdictional practices is largely unavailable. Privacy law may differ creating additional problems in cross-border exchange of personal health data.

Audio-visual content

A sector with cultural sensitivities and very few commitments in the GATS is audio-visual services. Australia and EU are reluctant to take liberalising steps in this sector, while the US and Japan are actively pursuing additional market access commitments in AV from their partners. Treatment of audiovisuals is complicated by the fact that these products are easily digitisable and hence lend themselves to electronic distributions. The EU position is to treat digitised products as services and hence keep them within the scope of GATS (but then excluded from commitments in the GATS). The US's position is that digitised products that can be downloaded and kept on a physical medium should be treated like their physical counterpart, ie as goods (hence evoking the GATT disciplines for goods that provide a more liberal market access to the US digital products). Convergence between telecommunications, computer and audio-visual services due to technological progress and creation of new products/services such as video-on-demand and digital TV, with technology allowing to make and store digital copies of the programs, will exacerbate problems with treatment of audio-visual services in future (EBU (2003)).

In line with Mann's (2002) of a response to the classification problem, the US Coalition of Service Industries advocates that the products delivered electronically be afforded no less favourable treatment than similar products delivered in physical form.

Conclusions

Thompson (2002) argues that because of the character of the WTO work program on e-commerce, some aspects of which have been outlined here, the WTO has missed an opportunity to 'keep a new area of world trade "barrier free" from the start'. Thompson raises three questions about the treatment of e-commerce in the WTO:

- Do the existing core agreements (GATT, GATS and TRIPS) apply to electronic commerce?
- Is there a need for specific trade-related regulatory guidance in areas like consumer protection and data privacy?
- What further liberalisation would support the growth of the Internet?

She challenges the position that the existing agreements in the WTO were adequate, and notes that even with respect to the application of existing agreements, many issues remain unresolved. She is also concerned about the risk of regulation that is unnecessarily restrictive.

The importance of consideration a package of activities and policies in relation to e-commerce is a common theme of work on international exchange via the Internet. Thompson points to gains from liberalisation of sectors like IT equipment, logistics and freight, telecommunications, and distribution systems for 'cartelised' products such as airline tickets and brand name goods.

Thompson notes that nothing has been done about a 'horizontal text or WTO annex on pro-

competitive regulation and open markets for e-commerce'. A successful defense of the status quo (both the existing agreements and, by implication, the "reciprocal concessions" approach to removing barriers in the WTO process), she says, will not keep these new markets open. The risk is that, as governments build new regulations for the Internet market place, new barriers will emerge which will take time to dismantle.

Are there options for dealing with e-commerce even within the existing architecture?

Mann (2002) suggests that a horizontal approach might still be possible, for example if negotiators agreed to consider impediments to particular modes of supply, which could then include e-commerce. Mann suggests work to complement the horizontal approach by establishing a new working group to coordinate the activity. Further she suggests that the regional forums including APEC can support this work, for example, by canvassing issues that will confront the WTO, by working up model schedules and by engaging in dialogue with the private sector. The project on e-APEC is particularly relevant in this context.

The proposal to try to maintain a horizontal approach is an interesting one, and it remains contentious. It also raises further questions. It leads to points for consideration in relation to the treatment of both investment and the movement of people in the WTO, and to the question of whether there is an argument for dividing the GATS along the lines of modes of supply.

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