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Council for Trade in Services
Committee on Trade in Financial Services

FINANCIAL SERVICES

Background Note by the Secretariat[1]

1. This Note has been prepared at the request of Members, with a view to stimulating discussions on financial services. It provides background information, and updates and expands on a previous note on trade in financial services (S/C/W/72, dated 2 December 1998). The Note takes account, *inter alia*, of recent discussions in the Committee on Trade in Financial Services. It focuses mainly on developments and issues considered to be relevant to the GATS. It is not intended to provide a comprehensive account of the sector.

2. This Note is structured as follows. Section I provides an overview of GATS provisions of particular relevance to financial services, and includes a discussion on the issues raised by definitional problems in distinguishing between modes 1 and 2 in the context of electronic transactions in financial services. Section II looks at the economic importance of the sector. Section III seeks to identify long-term trends shaping the financial services sector prior to the financial crisis. Section IV discusses the main causes of the financial crisis, the policy actions taken by governments to counter its effects, and its impact on trade in financial services. Section V analyzes GATS commitments and MFN exemptions, and highlights main trade barriers. An Annex looks at classification issues.

I. THE GATS AND FINANCIAL SERVICES

3. The multilateral rules and disciplines applicable to trade in financial services are contained in three legal instruments: the GATS strictly speaking (i.e. Articles I to XXIX of the Agreement, hereinafter "the GATS"); the GATS Annex on Financial Services (hereinafter "the Annex"); and the Understanding on Commitments in Financial Services (hereinafter "the Understanding").[2] The GATS contains the rules and disciplines applicable to all service sectors, including financial services. The Annex and the Understanding complement and/or modify certain provisions of the GATS, reflecting the need for specific rules and disciplines to cater for the particular features of financial services.[3]

4. The purpose of this section is not to provide an overview of the GATS, whose general rules and disciplines apply to financial services as they apply to any other service sector under its coverage, but to focus on the provisions of particular relevance to financial services, and on the specific

[1] This document has been prepared under the Secretariat's own responsibility and without prejudice to the positions of Members and to their rights and obligations under the WTO.

[2] It is understood of course that schedules of specific commitments are an integral part of the GATS as per Article XXIX. However, they are not discussed in this section.

[3] Thus, to this sector as well, the basic architecture of the Agreement applies, including the definition of trade in services by reference to four modes of supply, the Most-Favoured Nation principle, the distinction between scheduled (committed) and non-scheduled (unbound) sectors, and the possibility for Members to adjust their commitments by subsector and mode of supply as they see fit. For an overview of the GATS, see "The General Agreement on Trade in Services – An Introduction", by the WTO Secretariat, available on the WTO website.

disciplines on trade in financial services contained in the Annex and the Understanding. Notwithstanding, it is worth recalling that from the GATS perspective, services trade liberalization means the elimination of six types of limitations to market access, as well as measures contrary to national treatment, only with respect to trade in the sectors included in the Members' schedules of specific commitments.[4] Moreover, when including a service in their schedules, Members may qualify the access granted to their markets (by imposing any of the six limitations referred to before), as well as the extent to which national treatment is ensured.[5]

5. Measures that do not constitute a limitation on market access as defined by the Agreement, nor a limitation to national treatment, fall within the realm of regulation, whose exercise is guaranteed by the GATS.[6] Liberalization in the GATS sense is therefore not synonymous with deregulation of service activities. As a matter of fact, even within the context of comparable commitments on market access and national treatment, Members may operate completely different regulatory frameworks, ranging from leaving the services concerned unregulated to establishing stringent regulatory requirements in areas such as licensing, capital adequacy or liquidity.

6. Apart from the obligations on market access and national treatment, which only apply to services included in Members' schedules of specific commitments, the GATS contains few general obligations that apply to any measure by a Member that affects trade in any service sector under the Agreement's coverage, including those that are not included in the Member's schedule of commitments. The most important of these general obligations is Most-Favoured Nation (MFN). Many other general obligation, such as the ones on payments and transfers for current and capital transactions, will only apply with respect to the sectors where specific commitments have been made.

A. GATS PROVISIONS OF PARTICULAR RELEVANCE TO FINANCIAL SERVICES

1. Status of branches as service suppliers under the GATS

7. Towards the end of the Uruguay Round, in 1993, the question was raised whether branches (and representative offices) were covered by the definition of service suppliers in Article XXVIII. The problem, as perceived at the time, was that while the GATS was drafted in terms of the treatment

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[4] The six limitations on market access identified in Article XVI of the GATS are the following: a) limitations on the number of services suppliers (e.g. monopolies or exclusive rights for the supply of reinsurance services, measures limiting the number of bank licenses that will be granted); b) limitations on the total value of service transactions or assets (e.g. measures limiting foreign banking assets to a specific percentage of total banking assets in the Member concerned); c) limitations on the total number of service operations or on the total quantity of service output (e.g. limitations on the number of ATMs or branches that foreign banks can establish); d) limitations on the total number of natural persons that may be employed in a particular service sector or that a service supplier may employ (e.g. limitations on the number of foreign employees in banking institutions); e) measures which restrict or require specific types of legal entity or joint venture through which a service supplier may supply a service. This would capture, for examples, not only non-discriminatory measures requiring specific types of juridical person to supply financial services (e.g. joint-stock companies), but also prohibitions to establish direct branches; or requirements that foreign insurance companies establish joint-ventures with local partners; host Member’s territory; and f) limitations on the participation of foreign capital in terms of maximum percentage limit on foreign-shareholding or the total value of individual or aggregate foreign investment (e.g. measures prohibiting foreign investors from owning more than a specific percentage of the shares of asset management companies in the Member making the commitment).

[5] Unlike the provisions on market access, the national treatment obligation in the GATS (Article XVII) does not contain an exhaustive list of limitations. Members may therefore schedule any type of discriminatory measure that disadvantages foreign services and service suppliers *vis-à-vis* their domestic counterparts.

[6] The fourth considerandum of the GATS Preamble states: "Recognizing the right of Members to regulate, and to introduce new regulations, on the supply of services within their territories in order to meet national policy objectives..."

to be accorded to "services and service suppliers", the definition of "service supplier" in Article XXVIII(g) was confined to persons (i.e. natural or juridical persons). This seemed to exclude a priori branches and representative offices since they are not juridical persons as per Article XXVIII(d). The implication was that if no clarification was introduced to the text of the GATS, it seemed that branches and representative offices of foreign service suppliers would not be entitled to treatment as service suppliers.[7]

8. However, taking into account that branches and representative offices were recognised in XXVIII(d) as forms of "commercial presence" through which the supply of services can take place, a footnote to Article XXVIII(g) was introduced in order to clarify the status of branches in the GATS. Footnote 12 states the following: *"Where the service is not supplied directly by a juridical person but through other forms of commercial presence such as a branch or a representative office, the service supplier (i.e. the juridical person) shall, nonetheless, through such presence be accorded the treatment provided for service suppliers under the Agreement. Such treatment shall be extended to the presence through which the service is supplied and need not be extended to any other parts of the supplier located outside the territory where the service is supplied."*

9. Therefore, although a branch is not a juridical person, the juridical person (parent company) represented by the branch is entitled to receive the treatment provided for service suppliers, through its commercial presence in the territory where the service is being supplied. In such a case, the service supplier receives GATS treatment only to the extent that it has commercial presence in the territory where the service is being supplied; the right to such treatment does not extend to other parts of that juridical person, which exist outside the jurisdiction of the country hosting the branch. This does not mean, however, that the treatment accorded to a service supplier, which maintains a commercial presence in another Member as a branch should be exactly the same as the one accorded to other suppliers that are present in that Member in the form of juridical persons (i.e. subsidiaries), particularly in questions related to taxation, deposit protection, etc. As explained by the GATT Secretariat at the time, "since branches are not capable of assuming all the legal obligations of a juridical person it may be justified to apply special requirements to them, such as the requirement of a financial deposit. The basic obligation is that they should be given the same treatment as that given to 'like suppliers in similar situations." [8]

2. GATS provisions dealing with payments, transfers and capital movements

10. The international supply of financial services often entails capital flows. As a matter of fact, although its main focus is on the *liberalization of trade in financial services*, the GATS could require individual Members to allow *capital movements* associated with a broad range of – primarily – financial services, depending on the level of specific commitments undertaken. It is no wonder therefore, that the GATS contains provisions dealing with payments, transfers and capital movements.

11. The extent to which trade in a financial service is linked to the underlying capital movements generally depends on the type of financial service and the way it is supplied, i.e., across borders or through commercial presence. Since some financial service transactions, for example, consulting, advisory, and information services, are not accompanied by capital movements, liberalizing cross-border trade in such services does not require lifting capital controls. Cross-border trade in some other services, for example, acceptance of deposits, lending, or trading in securities, is inseparable

[7] See Status of Branches as Service Suppliers, Note by the Secretariat, document MTN.GNS/W/176, dated 23 October 1993.
[8] See MTN.GNS/W/176.

from capital movements. Hence, liberalizing such services transactions requires the liberalization of the related capital flows to make the transactions effective.[9]

12. Before examining the specific disciplines concerned, it is worth recalling that the GATS contains in Article XI:2 a general proviso to preserve the rights and obligations of common IMF/WTO Members. The Article states that nothing in the GATS "shall affect the rights and obligations" of Fund members under the Fund's Articles, including the use of exchange actions consistent with those Articles (subject to a partial exception discussed below).[10]

13. The GATS deals with payments, transfers and capital movements in Articles XI (Payments and Transfers) and XII (Restrictions to Safeguard the Balance of Payments), and in footnote 8 to Article XVI (Market Access). At the outset, it is worth situating these provisions in the appropriate context. The GATS' main purpose, as set out in its Preamble, is "to establish a multilateral framework of principles and rules for trade in services with a view to the expansion of such trade". Thus, the promotion of trade in financial services is a designated purpose. In contrast, the liberalization of payments and transfers for international transactions, or indeed capital movements, is not a primary objective of the GATS, but it might be viewed as a related condition.

14. One aspect to bear in mind when analysing these issues is that GATS provisions dealing with payments, transfers, and capital movements constitute "conditional" obligations, applicable only to the sectors and modes in which a Member has undertaken specific commitments on market access and/or national treatment. The inscription "unbound" for a particular mode of supply is tantamount to the Member concerned retaining full policy discretion with regard to the supply of that specific service through that mode.

15. GATS obligations on payments and transfers in Article XI are based on a distinction between current transactions and capital transactions.[11] Under Article XI, a WTO Member having undertaken specific commitments on financial services (or in any other services) is under the obligation not to impose "restrictions on international transfers and payments for current transactions relating to its specific commitments." The GATS does not define terms such as "payments and transfers for current transactions", "current transactions", "capital transactions", "movement of capital", or indeed "restrictions".

16. It is worth noting that some of these expressions have already been defined by the International Monetary Fund. In the Balance-of-Payments context, the expression “international" is

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[9] See Tamirisa et. al. (2000).

[10] The concept of "obligations" under the Fund's Articles includes the requirement to refrain from imposing exchange restrictions on payments and transfers for current international transactions, multiple currency practices, and discriminatory currency arrangements unless approved by the Fund or maintained under Article XIV of the Fund's Articles. The reference to "rights" of Fund members concerns the right to impose or maintain all exchange measures (relating to current or capital transactions) that are consistent with the Fund's Articles. Such exchange measures may involve approved restrictions, those maintained under Article XIV of the Fund's Articles, and non-restrictive exchange control measures (which do not require approval), as well as restrictions on capital movements. See Siegel (2002).

[11] Article XI of the GATS reads as follows:

1. Except under the circumstances envisaged in Article XII, a Member shall not apply restrictions on international transfers and payments for current transactions relating to its specific commitments.

2. Nothing in this Agreement shall affect the rights and obligations of the members of the International Monetary Fund under the Articles of Agreement of the Fund, including the use of exchange actions which are in conformity with the Articles of Agreement, provided that a Member shall not impose restrictions on any capital transactions inconsistently with its specific commitments regarding such transactions, except under Article XII or at the request of the Fund.

usually understood to apply to transactions between residents and non-residents. The IMF Articles of Agreement define "payments for current transactions" as "payments which are not for the purpose of transferring capital, and includes, without limitation: (1) all payments due in connection with foreign trade, other current business, including services, and normal short-term banking and credit facilities; (2) payments due as interest on loans and as net income from other investments; (3) payments of moderate amount for amortization of loans or for depreciation of direct investments; and (4) moderate remittances for family living expenses."[12] While these definitions are not legally part of the GATS, they are relevant for the present discussion.

17. As indicated before, restrictions on transfers and payments for current transactions must not be maintained where a Member has made a commitment on financial services. Neither can they be inscribed as limitations in the schedule of specific commitments. In other words, a Member cannot derogate from a general obligation through its schedule of specific commitments. Permissible measures depend on the definition to be given to the term "restriction" contained in GATS Article XI, which, however, is not further specified in the Agreement. In that regard, it is worth noting that the IMF distinguishes between restrictions on payments and transfers – including exchange restrictions – from the underlying transaction on the basis of a technical criterion: "The guiding principle in ascertaining whether a measure is a restriction on payments and transfers for current transactions under Article VIII, Section 2 [of the Fund's Articles of Agreement], is whether it involves a direct governmental limitation on the availability or use of exchange as such."[13] According to Siegel (2002), the Fund therefore identifies these restrictions by this technical criterion, rather than by the purposes or economic effects of the restrictions, which would be the way to identify trade restrictions only. If no such technical criterion were used, it would be almost impossible to distinguish between trade and exchange restrictions, as both may be used to achieve the same purposes and have the same economic effect. For instance, an outright prohibition to provide a certain financial service would be a trade measure subject to scheduling under the GATS, but would not constitute a restriction on payments and transfers for that transaction.

18. The obligation in paragraph 1 of Article XI to allow for unrestricted international payments and transfers for current transactions is qualified by the general proviso contained in paragraph 2 of the same Article to preserve the rights and obligations of Fund members under the Fund's Articles of Agreement, including the use of exchange actions which are in conformity with the Articles of Agreement.

19. The second part of Article XI:2 of the GATS deals with capital transactions. In this case, Members undertake not to impose restrictions on any capital transactions inconsistently with its specific commitments regarding those transactions, except under Article XII of the GATS (i.e. in the event of serious balance-of-payments and external financial difficulties or threat thereof) or at the request of the International Monetary Fund. In addition, the extent of capital movements required by specific commitments is defined in footnote 8 to paragraph 1 of Article XVI of the GATS. First, if the Member undertook a commitment on the cross-border supply of a service (mode 1), "and if the cross-border movement of capital is an essential pat of the service itself, that Member is thereby

[12] Article XXX (d) of the Fund's Articles of Agreement. It is worth noting that this definition entails elements that might otherwise be considered as payments for capital transactions. This applies in particular to (i) payments of moderate amount for amortization of loans or for depreciation of direct investments; (ii) normal short-term banking and credit facilities; and (iii) moderate remittances for family living expenses. Article XXX(d) of the IMF Articles of Agreement acknowledges that in certain cases current transactions are difficult to distinguish from capital transactions, and therefore provides that "the Fund may, after consultation with the members concerned, determine whether certain specific transactions are to be considered current transactions or capital transactions.

[13] See IMF Decision Nb 1034 (60/27), 1 June 1960.

committed to allow such movement of capital." Secondly, if the Members undertook a commitment on the supply of service through commercial presence, "it is thereby committed to allow related transfers of capital into its territory." Key (2003) considers that "the bottom line is that if a country makes a commitment to liberalize trade with respect to a particular financial service in the GATS, it is also making a commitment to liberalize most capital movements associated with the trade liberalization commitment", adding that "the country is not, however, making an across-the-board commitment to freedom of capital movements."

20. The term "cross-border movement of capital" used in reference to commitments under mode 1 suggests that the requirement covers both inward and outward movements of capital; whereas the expression "related transfers of capital into [its] territory" used in reference to commitments under mode 3 suggests that only capital inflows are envisaged, and not outflows (such as repatriation of capital). Since these minimum obligations on capital movements for modes 1 and 3 are not individually negotiated as part of the schedules, it would appear that no reservations can be introduced with regard to these obligations under these two modes. The absence of reference to the other two modes of supply (modes 2 and 4) suggests that Members would not be prevented, with regard to related commitments from restricting any associated capital movement.[14]

B. SPECIFIC PROVISIONS GOVERNING TRADE IN FINANCIAL SERVICES

1. The Annex on Financial Services

21. Like all other Annexes, this Annex is an integral part of the GATS and therefore binding on all Members.[15] It applies to "measures affecting the supply of financial services", and is divided in five sections, dealing with the scope of the GATS with regard to financial services, domestic regulation, recognition, dispute settlement, and definitions.

22. As further explained in the Annex, the supply of financial services means the supply of those services through the four modes identified in Article I:2 of the GATS.[16] The term "affecting" has been interpreted in WTO jurisprudence in a broad manner, as encompassing any measure of a Member to the extent that it affects the supply of a service regardless of whether such a measure directly governs the supply of that service or whether it regulates other matters but nevertheless affect trade in services.[17]

23. Paragraph 5(a) of the Annex defines "financial services" in a broad and non-exhaustive manner, as "any service of a financial nature offered by a financial service supplier of a Member". Financial services include insurance and insurance-related services, and all banking and other financial services (excluding insurance).[18] "Financial service supplier" is also broadly defined by the Annex as "any natural or juridical person of a Member wishing to supply or supplying financial services but the term 'financial service supplier' does not include a public entity".[19] Interestingly, unlike the concept of service supplier in Article XXVIII(g) of the GATS, this also includes a person that "wishes" to supply a financial service. This wording aims at clarifying that in order to be a financial service supplier under the GATS, for the purpose of the application of any of its provisions, the person covered does not need to be already engaged in the supply of financial services in the

[14] Siegel (2002) makes the same point in footnote 151 of her paper.

[15] Pursuant to Article II:2 of the WTO Agreement, the agreements and associated legal instruments included in its Annex 1, e.g., the GATS, are integral parts of the WTO Agreement, binding on all Members.

[16] Paragraph 1(a) of the Annex.

[17] See Panel Report on EC – Bananas III, para. 7.285, Appellate Body Report on EC – Bananas III, para. 220.

[18] See the section of this Note dealing with the classification of financial services.

[19] Paragraph 5(b) of the Annex.

territory of the other Member. This, however, should not be understood to imply that the term "service supplier" elsewhere in the GATS carries a different meaning.

24. In turn, a "public entity", which as indicated is not considered to be a financial service supplier under the GATS, is defined as including central banks or monetary authorities, or private entities performing their functions. In the case of non-governmental entities, the relevant exclusion applies only to those that are "principally" for governmental purposes and do not "principally" consist of the supply of financial services on commercial terms. The expressions "principally", "governmental purposes", and "commercial terms" are not further defined by either the Agreement itself or its Annex.

25. The Annex delineates the scope of the GATS with regard to the supply of financial services by clarifying what "services supplied in the exercise of governmental authority" means.[20] In the case of financial services, such services are the following: i) activities conducted by a central bank or monetary authority or by any other public entity in pursuit of monetary or exchange rate policies; ii) activities forming part of a statutory system of social security or public retirement plans; and iii) other activities conducted by a public entity for the account or with the guarantee or using the financial resources of the Government." The Annex does not contain any further explanation or definition of these activities. Apparently, the first category would cover monetary policy and exchange rate policy activities usually conducted by central banks such as open market operations, standing facilities provided to banking institutions, minimum reserve requirements, and exchange market interventions, to name just a few.

26. The Annex further specifies that if a Member allows the last two types of activities "to be conducted by its financial service suppliers in competition with a public entity or a financial service supplier", then those activities are not considered to be "services supplied in the exercise of governmental authority" and will therefore be considered as covered by the GATS. The meaning of the expression "in competition" becomes crucial in this context. For instance, financial service suppliers are often involved in statutory social security systems through, for example, the management of mandatory occupational pension funds or the supply of mandatory private insurance (e.g. to provide medical benefits and cash maternity benefits). Many of these activities may be subject to the GATS if conducted in competition among different financial service suppliers, for example in cases where, depending on the regulatory framework, the beneficiary and/or the employer are allowed to choose the pension fund manager or the insurance company that will provide the relevant service.

27. The exact scope of "other activities conducted by a public entity for the account or with the guarantee or using the financial resources of a government" is not entirely clear, and looks rather broad. The activities covered may even overlap with monetary policy activities in the case, for example, of typical public sector guarantees such as lender of last resort facilities, usually managed by central banks, and deposit insurance schemes. Activities of development banks, which are usually majority-owned by national governments, and which finance investment projects either through equity participation, loans or guarantees, might also fall in this category, provided these are not conducted in competition.

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[20] As per GATS Article I:3(b) "services supplied in the exercise of governmental authority" are not considered as services for the sake of the GATS scope and coverage. GATS Article I:3(c) defines "service supplied in the exercise of governmental authority" as any service which is supplied neither on a commercial basis nor in competition with one or more service suppliers. The expressions "commercial basis" and "competition" are not further defined in the Agreement.

28. The Annex provides for a specific exception for measures taken for prudential reasons.[21] The scope of this exception has not yet been interpreted in WTO jurisprudence, but a few observations may nonetheless be warranted. For one, as in the case of other exceptions, a measure falling within the ambit of the carve-out, although inconsistent with other provisions of the GATS, would still be legally permitted. This is made clear by the expression "notwithstanding any other provisions of the Agreement" that opens the paragraph. In other words, "measures for prudential reasons" could include measures that are inconsistent with a Member's MFN obligations, or specific commitments on financial services.

29. Any measure adopted for prudential reasons is covered *a priori*. The "prudential reasons" mentioned are the protection of investors, depositors, policyholders or persons to whom a fiduciary duty is owed by a financial service supplier, and the preservation of the integrity and stability of the financial system. It is worth noting that this list of "prudential reasons" is only indicative, as evidenced by the term "including" that precedes it. Other "prudential reasons" or more specific formulations or elaborations of the reasons mentioned in the carve-out are therefore possible, particularly taking into account that what might be perceived to constitute "prudential reasons" may evolve over time.

30. Observers have considered that the carve-out "affords Members considerable autonomy to enact financial regulatory measures."[22] However, it is not an unqualified exception. Even though a measure may have been taken for prudential reasons, and may be considered a priori covered, the measure concerned shall not be used as a means of avoiding commitments or obligations under the GATS. This provision is clearly intended to avoid abuse in the use of the exception. According to Leroux (2002), the second sentence of the carve-out "is essentially an 'anti-avoidance' provision, the purpose of which is to prevent the abuse of the exception for prudential measures. Although paragraph 2(a) has yet to be interpreted by a panel or the Appellate Body, it is clear that, at a minimum, it imposes an obligation of good faith with respect to the adoption and application of prudential measures." Von Bogdandy and Windsor (2008a)) also think that the second sentence of the carve-out sets, at the very least, "a good faith standard as to the avoidance of GATS commitments and obligations". In their view however, "[i]n light of the object and purpose of the GATS, particularly Recs 3 and 4 of the GATS Preamble, it seems reasonable to interpret the prudential carve-out as affording the Members a high level of discretion regarding measures for prudential reasons including, but not limited to, the ones listed, but at the same time not permitting measures that are purely or primarily protectionist in effect".

31. The carve-out differs however from the other general exceptions contained in the GATS – Article XIV – in one significant respect. While Article XIV allows measures to be inconsistent with a Member's obligations provided they are "necessary" to protect public morals or to maintain public order, or to protect human, animal or plant life or health, the prudential carve-out would allow a Member to breach its obligations or specific commitments in respect of financial services provided the measures are "not used as a means of avoiding" commitments or obligations under the GATS. As Key (2003) puts it: "In contrast to health and safety, for example, where only “necessary” measures are excepted, all prudential measures are excepted. As a result, a prudential measure may not be

[21]The "prudential carve-out", as it is usually referred to, reads as follows: "Notwithstanding any other provisions of the Agreement, a Member shall not be prevented from taking measures for prudential reasons, including for the protection of investors, depositors, policy holders or persons to whom a fiduciary duty is owed by a financial service supplier, or to ensure the integrity and stability of the financial system. Where such measures do not conform with the provisions of the Agreement, they shall not be used as a means of avoiding the Member’s commitments or obligations under the Agreement."

[22] Jarreau (1999).

challenged on the grounds of whether it is 'necessary' or 'least trade restrictive'. Moreover, the prudential carve-out overrides the requirements for domestic regulations in Article VI of the GATS."

32. If a measure that allegedly services "prudential reasons" is considered by affected Member(s) to violate a Member's obligations or specific commitments under the GATS, it may be challenged under the WTO dispute settlement system. Paragraph 4 of the Annex makes reference to panels "for disputes on prudential issues and other financial matters." The same paragraph goes on to require such panels to "have the necessary expertise relevant to the specific financial service under dispute".

33. With regard to privacy and confidentiality, the Annex complements Articles III *bis* and XIV(c)(ii) of the GATS, by providing another exception to protect "information relating to the affairs and accounts of individual customers or any confidential or proprietary information in the possession of public entities."[23]

34. Complementing Article VII of the GATS (Recognition), the Annex also contains provisions on recognition of prudential measures.[24] Members may thus recognize "prudential measures of any other country in determining how the Member's measures relating to financial services shall be applied". Such recognition, which may be achieved through harmonization or otherwise, may be accorded unilaterally or on the basis of a bilateral agreement or arrangement. The Annex further provides that where a Member grants such recognition to a particular country (or countries), but not to others, it must afford adequate opportunity to other interested Members to either negotiate their accession to existing agreements or arrangements or to negotiate comparable agreements with it, provided specific circumstances apply.[25] As per Article VII:4 of the GATS, Members must promptly notify to the WTO existing recognition measures, whether accorded unilaterally or on the basis of bilateral agreements or arrangements. However, contrasting from these obligations, Members are not obliged to notify the WTO of the opening of negotiations with another country for the purpose of concluding an agreement or arrangement on the recognition of prudential measures.[26]

2. The Understanding on Commitments in Financial Services

35. The Understanding is a unique legal instrument in the WTO, that was included in the Final Act although it is not an integral part of the GATS. As stated in the introduction to the Understanding, "[p]articipants in the Uruguay Round have been enabled to take on specific commitments with respect to financial services ... on the basis of an alternative approach to that covered by the provisions of Part III of the Agreement."[27] The rules and disciplines contained in the

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[23] Article III *bis* of the GATS already contains a generally applicable exception aimed at protecting, *inter alia*, the "legitimate commercial interests of particular enterprises, public or private", while article XIV(c)(ii) contains another generally applicable exception with regard to "the protection of the privacy of individuals in relation to the processing and dissemination of personal data and the protection of confidentiality of individual records and accounts."

[24] Paragraph 3 of the Annex. The reference to Article VII of the GATS in paragraph 3(c) of the Annex makes it clear that the provisions on the recognition of prudential measures contained in the Annex complement rather than replace the provisions of Article VII of the GATS.

[25] Paragraph 3(b) of the Annex. The circumstances mentioned are the existence of equivalent regulation, oversight, implementation of such regulation, and, if appropriate, procedures concerning the sharing of information between the parties to the agreement or arrangement.

[26] Paragraph 3(c) of the Annex.

[27] The adoption of this approach was, however, subject to the following conditions as specified in the Understanding: (i) it does not conflict with the provisions of the Agreement; (ii) it does not prejudice the right of any Member to schedule its specific commitments in accordance with the approach under Part III of the GATS; (iii) resulting specific commitments shall apply on a most-favoured-nation basis; and (iv) no

Understanding are therefore not binding on every Member, but only on those that voluntarily adhered to it.[28] Members making commitments pursuant to the Understanding have usually inserted a headnote to that effect in the section on financial services of their Schedules of Specific Commitments.[29] Since schedules are an integral part of the GATS, those obligations have become binding on the Members concerned. Members adopting the Understanding may, of course, schedule conditions and qualifications to the obligations imposed by the Understanding.[30] There is ample evidence of this.

36. The Understanding is not a plurilateral agreement with benefits accruing only to those Members that have adhered to it. Rather, according to an introductory paragraph, "resulting specific commitments shall apply on a most-favoured-nation basis." The Understanding provides in fact a sort of a formula approach to scheduling commitments under Articles XVI, XVII, and XVIII of the GATS with regard to financial services.

37. The Understanding starts by imposing a standstill obligation, according to which any conditions, limitations and qualifications to the commitments made must be limited to existing non-conforming measures at the time of making those commitments. In contrast, the GATS is silent on this matter, and therefore allows Members to inscribe limitations and conditions in their schedules that represent less than the level of liberalization achieved with regard to the measure concerned.

38. Apart from the standstill, the Understanding's obligations are organized under two headings: Market Access and National Treatment. The obligations on market access are further broken down into the following categories: monopoly rights; financial services purchased by public entities; cross-border trade; commercial presence; new financial services; transfers of information and processing of information; temporary entry of personnel; and non-discriminatory measures. A final section on definitions closes the document.

39. With regard to monopolies, the Understanding adds to the disciplines imposed by Article VIII of the GATS by providing that Members must include in their schedules any existing monopoly rights in the financial services sector and shall endeavour to eliminate them or reduce their scope. This obligation also applies to the activities conducted by a public entity for the account or with the guarantee or using the financial resources of the government, which, if provided on a non-competitive basis, would normally be considered services supplied in the exercise of governmental authority and, thus, fall outside the scope of the GATS.

40. The Understanding also contains obligations with regard to government procurement: Members must ensure that when purchasing financial services, public entities in their territories accord financial service suppliers of any other Member established in their territories MFN treatment and national treatment. This entails a significant element of GATS-plus treatment, taking into account that, according to Article XIII:1 of the GATS, services purchased by governmental agencies

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presumption has been created as to the degree of liberalization to which a Member is committing itself under the GATS.

[28] The following Members have made commitments in accordance with the Understanding: Australia, Bulgaria, Canada, Czech Republic, European Communities (EC15), Hungary, Iceland, Japan, Liechtenstein, New Zealand, Nigeria, Norway, Slovak Republic, Sri Lanka (excluding insurance), Switzerland, Turkey, and United States.

[29] Those headnotes usually read as follows: "Commitments in this subsector are undertaken in accordance with the Understanding on Commitments in Financial Services." Some Members have added the following (or a variation thereof): "These commitments are subject to the limitations on market access and national treatment in the "all sectors" section of this schedule and to those relating to the subsectors listed below."

[30] See the second indent of the introduction to the Understanding.

for "governmental purposes" are currently exempt from MFN, market access and national treatment obligations. The Understanding does not clarify the meaning of the expression "established", but uses some form of the word "establish" three times in direct connection with commercial presence.[31] Von Bogdandy and Windsor (2008b)) conclude in that regard that "while not explicit, it seems reasonable to assume that 'established' financial service suppliers means those with a commercial presence in the territory of the Member whose government is procuring financial services". If that is the case, it could be additionally argued that the benefits of this commitment should be extended not only to juridical persons established in the territory of the Member concerned, but also to other forms of commercial presence, such as branches and representative offices, as per footnote 12 to the GATS.[32]

41. The Understanding's obligations concerning cross-border trade apply to seemingly both modes 1 and 2 of the GATS. However, the scope of the mode 1 obligations is narrower than those applying to mode 2.[33]

42. The obligations imposed by the Understanding on the supply of financial services through commercial presence are still broader in scope and cover the whole spectrum of financial services.[34] Members are specifically allowed to impose "terms, conditions and procedures for authorization of the establishment and expansion of a commercial presence", but only in so far as they do not circumvent the former obligation and are consistent with the other obligations of the GATS.[35] The Understanding also contains specific obligations on the temporary entry of personnel.[36]

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[31] Paragraphs B.5, B.6, and B.9.

[32] See section B.1.

[33] With regard to mode 1, the Understanding provides that a Member must permit non-resident suppliers of financial services to supply, "as a principal, through an intermediary or as an intermediary, and under terms and conditions that accord national treatment", a specific list of services, namely: a) insurance of risks relating to i) maritime shipping and commercial aviation and space launching and freight (including satellites), with such insurance to cover any or all of the following: the goods being transported, the vehicle transporting the goods and any liability arising there from; and ii) goods in international transit; b) reinsurance and retrocession; c) services auxiliary to insurance, such as consultancy, actuarial, risk assessment and claim settlement services; d) provision and transfer of financial information and financial data processing as referred to in subparagraph 5(a)(xv) of the Annex; and e) advisory and other auxiliary services, excluding intermediation, relating to banking and other financial services as referred to in subparagraph 5(a)(xvi) of the Annex. The commitments on what appears to be mode 2 are broader. In fact, Members "shall permit its residents to purchase in the territory of any other Member the financial services indicated" in the previous paragraph, as well as all banking and other financial services (excluding insurance) listed in subparagraphs subparagraphs 5(a)(v) to (xvi) of the Annex. The concepts of "principally" and "intermediary" are not defined in the Understanding.

[34] Indeed, under the heading "commercial presence", the Understanding makes it mandatory for Members to "grant financial service suppliers of any other Member the right to establish or expand within its territory, including through the acquisition of existing enterprises, a commercial presence" (para 5). Article XXVIII(d) of the GATS defines "commercial presence" as "any type of business or professional establishment, including through (i) the constitution, acquisition or maintenance of a juridical person, or (ii) the creation or maintenance of a branch or a representative office", for the purpose of supplying a services.

[35] Interestingly, the Understanding contains its own definition of "commercial presence", which reads as follows: "Commercial presence means an enterprise within a Member's territory for the supply of financial services and includes wholly- or partly-owned subsidiaries, joint ventures, partnerships, sole proprietorships, franchising operations, branches, agencies, representative offices or other organizations." Some observers argue that this definition "significantly broadens the general definition" of commercial presence contained in Article XXVIII.d) of the GATS. See Von Bogdandy and Windsor (2008b).

[36] For one, Members must permit the temporary entry into their territories of the following personnel of a financial service supplier of any other Member that is establishing or has established a commercial presence in the territory of the Member: i) senior managerial personnel possessing proprietary information essential to the establishment, control and operation of the services of the financial service supplier; and ii) specialists in the

43. A Member having adhered to the Understanding must permit "financial service suppliers of any other Member established in its territory to offer in its territory any new financial service." Like the obligation on government procurement, this is a commitment only to the benefit of established foreign financial service suppliers. It must be noted that, according to the Understanding, a new financial service is not a financial services that does not exist anywhere and is being introduced for the first time ever.[37] Rather, such a new financial service may be related to existing and new products or the manner in which a product is delivered. The obligation concerned, as any other obligation in the Understanding, is covered by the GATS prudential carve-out.

44. Under the heading "transfers of information and processing of information", the Understanding provides that a Member shall not take measures that prevent transfers of information, the processing of financial information (including transfers of data by electronic means), or equipment, where such transfers of information, processing of financial information or transfers of equipment are necessary for the conduct of the ordinary business of a financial service supplier. However, this obligation does not restrict the right of a Member to protect personal data, personal privacy and the confidentiality of individual records and accounts so long as such right is not used to circumvent the provisions of the GATS.

45. The market access obligations in the Understanding also address (other) non-discriminatory measures.[38] The Understanding contains a "best endeavour" obligation "to remove or to limit any significant adverse effects on financial service suppliers of any other Member" of four categories of measures. The first one includes non-discriminatory measures that prevent financial service suppliers from offering in the Member's territory, in the form determined by the Member, all the financial services permitted by the Member. A case in point would be a prohibition to engage in non-banking activities, such as the offering of insurance products or the investment in securities. The second category refers to non-discriminatory measures that limit the expansion of the activities of financial service suppliers into the entire territory of the Member. The third category includes measures of a Member, when such a Member applies the same measures to the supply of both banking and securities services, and a financial service supplier of any other Member concentrates its activities on the provision of securities services. The fourth category refers, in a very broad manner, to "measures that, although respecting the provisions of the GATS, affect adversely the ability of financial service suppliers of any other Member to operate, compete or enter the Member's market." The Understanding makes it clear that these obligations would not require any Member to act in a way that would unfairly discriminate against its own financial service suppliers.[39]

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operation of the financial service supplier. Additionally, Members must permit, "subject to the availability of qualified personnel" in their territories, the temporary entry into their territories of the following personnel "associated with a commercial presence of a financial service supplier" of any other Member: i) specialists in computer services, telecommunication services and accounts of the financial service supplier; and ii) actuarial and legal specialists. It should be noted that these obligations are subject to the provisions contained in the Annex to the GATS on the Movement of Persons Supplying a Service.

[37] The Understanding defines a new financial services as "a service of a financial nature, including services related to existing and new products or the manner in which a product is delivered, that is not supplied by any financial service supplier in the territory of a particular Member but which is supplied in the territory of another Member." The "new financial service" must be already supplied in the territory of any Member, not necessarily the territory of the Member wishing to introduce it.

[38] Paragraph 10.

[39] Additionally, the Understanding provides that, with respect to the non-discriminatory measures referred to in the first two categories mentioned in the previous paragraph, a Member shall endeavour not to limit or restrict the present degree of market opportunities nor the benefits already enjoyed by financial service suppliers of all other Members as a class in the territory of the Member, provided that this commitment does not result in unfair discrimination against the Member's financial service suppliers.

46. The Understanding also contains two specific obligations on national treatment. First, each Members shall grant to financial services suppliers of any other Member established in its territory, under national treatment conditions, access to payment and clearing systems operated by public entities, and to official funding and refinancing facilities available in the normal course of ordinary business. This obligation is not intended, however, to grant access to the Member's lender of last resort facilities. Second, when membership in, or access to, any self-regulatory body, securities or futures exchange or market, clearing agency, or any other organization or association, is required by a Member in order for foreign financial service suppliers to supply financial services on an equal basis with national financial service suppliers, or when the Member provides such entities, directly or indirectly, with privileges or advantages in supplying financial services, the Member shall ensure that such entities accord national treatment to foreign financial service suppliers "resident" in the territory of the Member. In this context, the Understanding makes reference to "resident" financial service suppliers, and not to "established" financial services suppliers, but no definition is provided of either term.

C. THE DISTINCTION BETWEEN MODES 1 AND 2 OF THE GATS

1. The problem

47. Financial services are more easily supplied across frontiers than many other products. In fact, financial services consist in essence of diverse mechanisms or instruments that financial institutions put at the disposal of their clients to, *inter alia,* store savings, allocate resources, make payments, and manage risk. Such mechanisms or instruments materialize essentially in contracts (e.g. insurance policies, derivative contracts), structured information (e.g. bank accounts, credit card payments) or information exchange between the client and the financial supplier (e.g. financial advice). By their very nature, such contracts and information can circulate easily across borders and can be transmitted to consumers directly, sometimes via intermediaries, more often by traditional mail and increasingly via electronic channels (e.g. Internet, mobile phones).

48. Although cases of cross-border banking without a physical presence in the local jurisdiction were not previously unknown, the emergence of the Internet as ubiquitous and truly global electronic distribution channel has dramatically expanded the possibilities for the supply of different financial products and services on a cross-border basis. From a GATS perspective, the possibility of supplying financial services cross-border without the establishment of a commercial presence by the supplier in the host country raises the issue of whether the transaction has taken place under mode 1 or mode 2.

49. This issue was originally raised by some Members in mid-1996, and was further discussed the following year in the context of the negotiations on financial services which led to the Fifth Protocol. Informal consultations were held at the time, and the outcome of those discussions are contained in two informal documents issued by the Secretariat, which were later attached to the Scheduling Guidelines.[40]

50. They seek to address a perceived ambiguity which is due to the fact that the delivery of a financial service very often does not require the physical presence of the consumer. Technological advances have made it possible to "deliver" a financial service almost anywhere in the world. Once the physical presence of the consumer ceases to be a benchmark for determining the place of delivery

[40] See Attachments 2 and 3 to the Guidelines for the Scheduling of Specific Commitments under the General Agreement on Trade in Services (GATS), adopted by the Council for Trade in Services on 23 March 2001 (document S/L/92, dated 28 March 2001).

of a service, it becomes extremely difficult to determine in an unambiguous manner where a service is delivered.[41]

51. In essence, what is at stake here is whether a cross-border financial transaction should be classified as a mode 1 or a mode 2 transaction. It is clear that this question becomes particularly relevant when different levels of commitment have been undertaken for each of the two modes of supply, which is often the case, with more liberal commitments undertaken in general for mode 2. On the other hand, if both modes of supply were unbound, the Member concerned would be entitled to introduce any restrictions on market access or national treatment either hampering the non-established suppliers to supply services into its own territory or preventing its own consumers from acquiring services abroad. Similarly, if both modes of supply were fully bound, it would be legally impossible for the Member concerned to restrict a foreign non-established supplier from reaching a consumer within its territory or prevent its own consumers from getting services abroad.

2. The solutions envisaged in the past

52. At the time of the negotiations on financial services, in 1997, Members discussed several options to deal with this issue:

(a) all financial transactions (between non-resident suppliers and resident consumers) that take place inside a Member's territory could be classified as mode 1;

(b) mode 1 transactions could be defined as those that take place under the laws of the Member, while mode 2 transactions could be defined as those that take place under the laws of the foreign country from which the service is supplied;

(c) the supply of services accompanied by solicitation could be defined as mode 1; if not, mode 2;

(d) any measure applicable to the supplier of the service could be classified under mode 1, any measure applicable to the consumer under mode 2; or

(e) modes 1 and 2 could be merged.

53. All options have their particular pros and cons. In (a) above, the question of determining where the delivery of the service takes place is substituted by the determination of where the financial transaction takes place, which in the online environment may be as difficult to determine as establishing the place of delivery. The problem with option (b) is that the territorial application of laws differ between countries; in case of a conflict, the question would remain unresolved for GATS purposes. The fact that the parties to a financial transaction could choose the laws applicable to them might also complicate the issue. Moreover, as a matter of principle, there is no relationship between the territory in which a transaction takes place for GATS purposes and the place of legal jurisdiction in private international law. These are in fact two different issues which many observers have emphasized without explaining clearly what the link might be.

[41] As indicated in the Scheduling Guidelines, the modes of supply "are essentially defined on the basis of the origin of the service supplier and consumer, and the degree and type of territorial presence which they have at the moment the service is delivered".[41] The distinction between these two modes of supply would therefore hinge on whether the service is delivered within the territory of the consumer (from, say, another Member) or whether the service is delivered to a consumer outside his/her own country.

54. Option (c) also requires a departure from the approach of determining the mode of supply by the place of delivery of the service. Besides, in the online environment, determining whether there was solicitation may raise enforcement problems. Moreover, the distinction made – as relevant as it may be to ascertain who regulates and supervises the service supplier – seems to be based on the premise that the consumer is free to perform the transaction with a non-established supplier anyway, provided there is no solicitation. However, this distinction serves no purpose if the transaction is banned *per se*; in other words, if the consumer is not allowed to consume the service abroad or to get it from a non-established supplier, regardless of the existence or not of solicitation.

55. Option (d) seems to be quite straightforward. However, there could be cases in which the regulatory measures are applicable to both suppliers and consumers. Option (e) does not seem feasible without an amendment to the GATS, and would contradict at the present stage the Negotiating Guidelines and Procedures agreed by Members for this round of negotiations.[42] Finally, from a negotiating perspective, another solution envisaged is the undertaking of (full) commitments in both modes of supply, which as explained before, would render the problem irrelevant for the sake of the GATS and the WTO dispute settlement system.

56. During the informal consultations held in 1997, given time constraints then, it was felt that developing a common multilateral solution for the purposes of the financial services negotiations was infeasible and unnecessary. It was agreed that the responsibility for clarifying the content of commitments under modes 1 and 2 must lie with those individual Members feeling the need to do so. The simplest means of providing such clarification was the use of a headnote to the financial services commitments. Again, it was not thought necessary or feasible to develop a common headnote, but delegations undertook to give thought to the two examples circulated by the Secretariat, and to any other examples which may come forward.[43] There was also wide support at the time for the view that in the long-term efforts should be made towards providing a definitive distinction between modes 1 and 2 in financial services. However, some delegations remained unconvinced of the need for further consideration in the near future.

57. The issue resurfaced in 1999, in the context of the WTO Work Programme on Electronic Commerce. A progress report prepared by the Council for Trade in Services explains that "it was recognized that services could be supplied electronically under any of the four modes of supply. However, there was particular difficulty in making a distinction between supply under modes 1 and 2 in the case of electronic commerce, but no conclusion was reached as to how to clarify the matter, and it was agreed that further work is necessary".[44] The Committee on Trade in Financial Services addressed the issue the following year. The Committee's Annual Report states: "Regarding the distinction between modes 1 and 2, while recognizing its importance for the clarity of commitments, the Committee decided that the issue should be tackled at a later stage when concrete problems are identified".[45]

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[42] Paragraph 4 of the Guidelines and Procedures for the Negotiations on Trade in Services, adopted by the Special Session of the Council for Trade in Services on 28 March 2001 (document S/L/93, dated 29 March 2001), reads as follows: "The negotiations shall take place within and shall respect the existing structure and principles of the GATS, including the right to specify sectors in which commitments will be undertaken and the four modes of supply".

[43] See Attachment 3 to document S/L/92. The headnotes proposed by the Secretariat at the time reflected solutions (c) and (d).

[44] See Work Programme on Electronic Commerce - Progress Report to the General Council, Adopted by the Council for Trade in Services on 19 July 1999 (document S/L/74, dated 27 July 1999).

[45] Report of the Committee on Trade in Financial Services to the Council for Trade in Services (document S/FIN/5, dated 24 November 2000).

58. In 2005, the issue was discussed again at the initiative of the delegation of Brazil, but no progress was made.[46] The outcome of these discussions was the following: Firstly, most Members did not consider it necessary to have an updated Note by the Secretariat at this stage. Some preferred reviewing previous discussions on this issue to see whether there might be a need for further information. Secondly, there was no consensus at that stage to invite representatives from the International Standard Setting Organizations.

II. ECONOMIC IMPORTANCE OF THE SECTOR

A. CONTRIBUTION TO OVERALL ECONOMIC ACTIVITY

59. Tables 1 and 2 illustrate the importance of the financial services sector (including insurance services), both as producer and as employer. Value added in financial services as a share of GDP ranges from about 1 per cent or less (Cambodia, Nigeria, Madagascar, Libya and Mali), to more than 10 per cent in economies as diverse as St. Kitts and Nevis, Kiribati, Hong Kong, China, Bahamas, Tonga, Switzerland, Dominica, Singapore and Ireland, or even more than 20 per cent in Bahrain and Luxembourg. The 2000s have seen a significant shift toward the production of financial services in places such as Kiribati, Iceland, Ireland, Jordan and the United Kingdom.

60. Employment in the financial services sector ranges from less than 1 per cent of total employment in Bolivia, Azerbaijan, Kyrgyz Republic, Indonesia, Mexico, Georgia, Nicaragua, Egypt, Kazakhstan, Bhutan, and Thailand, to more than 4 per cent in Cyprus, United States, Ireland, Switzerland, Canada, Gibraltar and Uruguay, and to more than 10 per cent in places such as Cayman Islands, Bahamas, South Africa, Luxembourg, and Jersey (more than 20 per cent).

61. The size of the financial services sector – both domestically and internationally – is also reflected in other indicators. For example, according to the McKinsey Global Institute, global financial assets reached an all time high of US$194 trillion in 2007, equivalent to 343 per cent of world GDP (Table 3). The United States, the Euro-area countries, Japan, and the United Kingdom together accounted for almost three quarters of those assets.

62. Other indicators, drawn mostly from a recently updated – and publicly available – database at the World Bank, shed further light on financial depth worldwide.[47] Liquid liabilities is the broadest available indicator of financial intermediation, since it includes all banks, bank-like and non-bank financial institutions.[48] The ratio of liquid liabilities to GDP shows a large variation, ranging from more than 100 per cent for some twenty countries to as little as 20 per cent for the smallest fifteen. The list of countries with the highest shares of liquid liabilities to GDP include economies as diverse as Luxembourg (394 per cent), Hong Kong, China (277 per cent), Japan (198 per cent), Switzerland (144 per cent), St. Kitts and Nevis (142 per cent), United Kingdom (140 per cent), Spain (129 per

[46] "Electronic Commerce and Financial Services", Communication from Brazil (Document Job(05)/103, dated 13 June 2005). See reports of the meetings of the Committee on Trade in Financial Services held on 23 June and 19 September 2005 (documents S/FIN/M/49 and 50). In essence, Members did not reach consensus to embark on further analysis of these issues or to invite International Standard Setting Organizations (principally the Basel Committee on Banking Supervision and the International Organization of Securities Commissions) to share information with Members on their activities related to the regulation and supervision of cross-border financial service suppliers.

[47] See Beck et al. (2009).

[48] Liquid liabilities or broad money (M3) consists of the sum of currency and deposits in the Central Bank (M0), plus transferable deposits and electronic currency (M1), plus time and savings deposits, foreign currency transferable deposits, certificates of deposit, and securities repurchase agreements (M2), plus travellers checks, foreign currency time deposits, commercial paper, and shares of mutual funds or market funds held by residents.

cent), Jordan (126 per cent), Canada (123 per cent), the Netherlands (122 per cent), Macao, China (117 per cent), Malaysia (116 per cent), Singapore (114 per cent), Germany (109 per cent), Vanuatu (107 per cent), Grenada (107 per cent), Portugal (105 per cent), and Belgium (104 per cent). Another common indicator of financial depth is the ratio of Bank Deposits to GDP. Here again, while deposits represented more than 100 per cent of GDP in 2007 for 18 countries, they only represented 25 per cent for 25 countries.

63. While liquid liabilities and bank deposits reflect the liability side of financial intermediaries, other indicators, such as the ratio of private credit by financial institutions to GDP focus on the asset side of financial institutions and aims at capturing one of the most important functions of financial intermediaries – credit allocation. In 20 economies, consisting mostly of high income countries, private credit represented more than the value of GDP in 2007. Not surprisingly, the list is headed by the United States.

64. The indicators on stock market capitalization to GDP and private bond market capitalization to GDP give an indication of the size of the capital market relative to the size of the economy. Stock market capitalization can represent more than 200 per cent of GDP for economies such as Hong Kong, China; Switzerland; South Africa; Luxembourg; Jordan; and Iceland. Only three economies had a ratio of bond market capitalization relative to GDP higher than 100 per cent in 2007: Iceland (356 per cent), Denmark (149 per cent), and the United States (125 per cent).

65. Chart 1 shows all these indicators for different income country groups, as defined by the World Bank.[49]

66. Chart 2 and Table 4 show insurance penetration and insurance density for the life and non-life lines of business. While individuals and companies in high-income OECD countries spend on average more than US$3,000 on insurance per year, individuals and companies in upper middle income countries spend on average no more than US$280. Insurance penetration is generally higher for non-life insurance at all levels of development. Both indicators are associated with the level of development, particularly in life insurance, which is much more income-elastic than non-life insurance products.

67. In spite of the great disparity in financial depth, it is clear that financial systems across the world, both in developed and developing economies, have deepened over the last decades. Charts 3 to 7 show different indicators of financial depth over time for different country groups. For example, while the size of financial systems, as measured by total financial assets to GDP, was roughly 60 per cent of GDP in high-income countries in 1980, it represented more than 120 per cent in 2007. In upper middle income countries, the size of the financial system almost doubled in less than 40 years, moving from slightly more than 30 per cent of GDP in 1970 to more than 60 per cent in 2007. The same progression can be seen in liquid liabilities to GDP. Private credit also expanded vigorously over the years, going from less than 20 and 40 per cent of GDP in 1960 in upper-middle income and high income countries respectively to more than 40 and 100 per cent for both groups of countries, respectively, in 2007.

68. Much of the deepening continues to be concentrated in high income countries.[50] From the perspective of low- and middle-income countries this may be reason for concern, as growing empirical evidence tends to suggest that financial sector development has a positive impact on long-

[49] Economies are divided according to 2008 Gross National Income per capita, calculated using the World Bank Atlas method. The groups are: low income, US$975 or less; lower middle income, US$976 - $3,855; upper middle income, US$3,856 - $11,905; and high income, US$11,906 or more.

[50] See Beck and Demirgüç-Kunt, 2009.

run economic growth.[51] For some, however, the financial crisis has called this into question. After all, there is reason to believe that much of the rise in financial assets in high income countries in recent years did not reflect capital being channelled into economically productive activities; but reflected policy distortions and growing asset bubbles. It turned out that in many places the financial system was not performing its basic functions – including risk management, resource allocation, and corporate governance – in an efficient manner.

69. Yet, after all, financial deepening was a key factor fostering the significant productivity growth of the 1990s and gave many borrowers, particularly productive firms, unparalleled access to credit. Reforms might therefore need to focus on improving the functioning of the system, with a view to reaping the benefits of better resource allocation and economic growth, while preventing dangerous excesses. All economies stand to gain from financial deepening. While capital markets are instrumental in financing the activities of large corporations, the banking system plays a critical role in funding not only large, but also small and medium-sized firms. Similarly, lack of access to finance, not only of businesses but also of households, severely restrains economic welfare and growth. In that sense, the task of fostering sound financial system development has become more important than ever.

B. OVERVIEW OF TRADE IN FINANCIAL SERVICES

70. In recent years, financial services trade has experienced rapid growth in tandem with the deepening of financial systems. Several factors have contributed to this expansion: technological progress, regulatory reform (including the liberalization of trade in financial services), the expansion of world trade in general, as well as macroeconomic stability and high growth rates during the 1997-2007 decade.

71. At present, Balance of Payments statistics, which measure resident to non-resident transactions, are the main source of data on international trade in financial and insurance services.[52]

[51] See Demirgüç-Kunt and Levine (2008), for a recent and thorough overview of studies on 1) the relationship between financial development and economic growth, and 2) the policy and institutional determinants of financial development. As explained also by these authors, there are certainly methodological problems associated with this kind of studies, such as reverse causality, difficulties in measuring financial development, and nonlinearities and threshold effects. The latest evidence suggests that reverse causality is not governing the relationship, and that causality goes from financial development to economic growth. Nonlinearities are relevant, and may be an issue in future research, if the date covers more thoroughly the 2000s, which has not been the case so far. For example, financial size and depth may be actually reflecting policy distortions rather than financial development. Hence it should not come as a surprise that the econometric link between banking depth and aggregate economic growth has weakened in recent years, in particular when the data set includes the 1997 East Asian crisis or is limited to turbulent Latin American countries. Also, threshold effects are important. For example, below a certain level of development, small differences in financial development do not seem to help growth. Distinguishing between long-run and short-run effects of financial development, where it has been found that the former may be positive but the latter negative, is also important. Another challenge to the finance and growth literature comes in the form of individual country outliers, i.e. those countries that may be cited as counterexamples because they have registered high economic growth rates despite weaknesses in the financial system. Recent research has also found a positive relationship between insurance activity and economic growth. See Arena (2006).

[52] Trade in financial services consists of two categories: *insurance services* and *financial services*. "Insurance services" cover the provision of various types of insurance to non-residents by resident insurance enterprises, and vice versa. Insurance services are further subdivided into five components – life insurance and pension funding, freight insurance, other direct insurance, reinsurance, and auxiliary services to insurance. "Financial services" covers financial intermediation and auxiliary services, provided by banks, stock exchanges, factoring enterprises, credit card enterprises, and other enterprises. Apart from a few exceptions, f*inancial services* in BOP statistics do not include the so-called *financial intermediation services indirectly measured*

According to WTO data, world exports of financial services (including insurance) have grown by 17 per cent per year since 2000, reaching US$370 billion in 2007. Financial services were among the main components of the growth of world exports of commercial services. In 2007, they accounted overall for 11 per cent of global exports of commercial services up from 6 per cent in 1995. However, while the share of insurance services in world exports of commercial services has remained somewhat stable at 2 per cent, financial services exports have increased their part from 4 per cent in 1995 to 9 per cent in 2007 (Chart 8).

72. Tables 5 and 6 provide information on cross-border trade in financial services and insurance services for 15 leading economies. Together they represent 97 per cent of world financial services exports, and 93 per cent of world exports of insurance services. As shown by the tables, the European Union (27) and the United States are the biggest exporters and importers of both financial and insurance services. Switzerland appears as the third largest exporter of both services. Tables 7 and 8 show available data on bilateral cross-border trade in financial and insurance services for a selection of Members that compile such information. As can be seen in those tables, there are significant levels of trade within the European Union, and between the European Union and the United States. While 56 per cent and almost 50 per cent of European Union's exports of financial and insurance services are in fact intra-EU trade, 14 per cent of European Union's exports of financial services are destined to the United States, and almost 29 per cent of European Union's insurance exports have also the US as final destination. In the case of the United States, 42 per cent of its financial services exports are destined to the European Union, while 30 per cent of its exports of insurance services have the European Union as a destination.

73. The cross-border data presented so far, gleaned from Balance-of-Payments statistics, reflect trade under mode 1 (and to a lesser extent modes 2 and 4) of the GATS. In spite of improvements made over the last years in the collection of statistics on trade in services, very limited data still exist on trade under mode 3 of the GATS, in particular for financial and insurance services. Available data on total outward sales of enterprises primarily engaged in financial activities (including insurance), as published by the Organization for Economic Cooperation and Development (OECD), are presented in Table 9.[53] The United States appears as the biggest exporter of financial services under this mode of supply, followed by Germany.[54]

(FISIM), which reflect financial service charges that, while not explicit, may be imputed or derived from the differences between appropriate reference interest rates and rates actually applied to loans, debt securities, or deposits. Such imputations are equivalent to reclassifying a portion of interest as financial services.

[53] Although imperfect, these are currently the best approximation for financial and insurance services sales through commercial presence. Outward turnover comprises the totals invoiced by the observation unit primarily engaged in financial (including insurance) services activities during the reference period (i.e. including sales or output of non-financial services and/or goods which may correspond to secondary activities of the affiliates). In addition, given the recent development of the foreign affiliates statistical framework there may be a number of methodological and coverage differences which limit the comparability of the data. Data for the US (which did not cover affiliates of banks at the time of writing) have been included in Table 9 for the sake of comparability. However, the US also compiles data on "services supplied" through affiliates, a better approximation of the supply of services through mode 3 (since 2009 the US Bureau of Economic Analysis release also includes data of services provided by bank affiliates, see Box 1).

[54] It is worth noting that the proxy for financial services used in these data, taken from the OECD data on foreign affiliates activities, is outward turnover, which does not fully accurately reflect trade under mode 3 of the GATS. Outward turnover comprises the totals invoiced by the observation unit during the reference period, and corresponds to sales of goods and services supplied to third parties. As noted above, data on the US have been included for the sake of comparability. However, the US also compiles data on "services supplied" through affiliates, which is a better approximation of services trade under mode 3. Last year, the US included data of services provided by bank affiliates (see Box 1).

Box 1. Improvements in US data on foreign affiliates trade in services.

In 2009, a new measure of services provided by affiliates, called "services supplied", was introduced by the US Bureau of Economic Analysis (BEA). The "services supplied" measure incorporated new measures of insurance that are more akin to services output than the previous "sales of services" measure. The measure has also been expanded to cover services provided by bank affiliates. In particular, the statistics on services supplied for 2004 now cover services supplied abroad by majority-owned bank foreign affiliates and non-bank foreign affiliates owned by US banks, as well as services supplied to the United States by foreign companies' US bank affiliates. This closes an important gap in the coverage of US data.

Effects of the new measures on insurance and banking services developed by the United States (US$ billion)

	2004	2005	2006	2007
Services supplied to foreign residents through MOFAs				
Effects of new measures:				
Insurance services	-53.2	-57.4	-48.6	-47.6
Banks' services	+42.1	+70.6	+93.0	+109.2
Services supplied to US residents through MOUSAs				
Effects of new measures:				
Insurance services	-44.6	-43.1	-49.7	-55.3
Banks' services	+39.4	+44.0	+44.7	+47.7

Notes: MOFAs denotes majority-owned foreign affiliates, while MOUSAs stand for majority-owned US affiliates. The expression "measure" is used in this Box in its statistical sense, and not as used in the GATS.
Source: Koncz-Bruner Jennifer and Anne Flatness "U.S. International Services – Cross Border Trade in 2008 and Services Supplied Through Affiliates in 2007", Survey of Current Business 89, October 2009.

III. LONG-TERM TRENDS SHAPING THE FINANCIAL SERVICES SECTOR

74. The environment in which the financial services industry operates and the industry itself have undergone dramatic changes in the last decades. Several forces, including globalization and internationalization[55], liberalization and policy reform, consolidation, convergence, and technological change, are affecting financial services firms, markets and products. These trends are inter-related and often mutually reinforcing. They have increased the complexity of the financial services sector, with the subsequent alteration of the types and extent of risks faced by consumers, investors, and the industry. Increased complexity has, in turn, posed new challenges for regulators and policy-makers.[56]

75. Of all types of financial institutions, banks have been the most active in pursuing an international presence. Data on the share of foreign banks in domestic markets are very telling in that regard. As can be seen in Tables 10 and 11, bank foreign ownership increased in almost all regions of the world, including in developed countries. The increase in foreign ownership between 1995 and 2005 was particularly noticeable in Eastern Europe, where the share of banking assets under foreign

[55] One could roughly define internationalization as the elimination of barriers to entry and discrimination in domestic financial sectors. In that sense, financial sectors become more open to foreign competition. Globalization could be roughly depicted as an increase in linkages among financial markets around the globe. Therefore, markets have become not only more open, but also more interconnected over the years. The growth, for example, of international debt securities over the last 15 years is a clear illustration of the growing linkages among financial markets around the globe.

[56] See Marchetti (2009 a) for further discussions of these trends.

control grew from 25 per cent to 58 per cent, and in Latin America, where that share rose from 18 to 38 per cent of total bank assets. In contrast, internationalization of banking has proceeded more slowly in Africa, Asia, and the Middle East.

76. The literature has identified the following main determinants of bank internationalization: a) the "follow-the-client" hypothesis, according to which banks' cross-border expansion is a by-product of internationalization in manufacturing, and that seems particularly suited to explain the expansion of banks towards developed markets; b) migration, which has made it necessary for developing-country banks to organize their operations so as to better serve a growing numbers of expatriates; c) profit opportunities in the host market, which seems to be a good explanatory variable for the expansion of banks into developing countries' markets; d) integration between home and host countries, measured by geographical distance, by the volume of bilateral trade flows or bilateral FDI or by linguistic and institutional proximity; and e) the degree of competition, as well as the elimination of regulatory restrictions on banking.[57]

77. It is interesting to note that the most recent data show that the mode of foreign bank entry in developing countries has shifted from greenfield investments to mergers and acquisitions (M&A), and from branches to subsidiaries. The choice of mode of entry is affected by the nature of the bank's business (i.e. whether the intention is to provide only wholesale services or retail services as well), and several host country factors, such as the existence of business restrictions for branches or outright prohibitions to establish as a branch. The distinction between branches and subsidiaries also has implications for home-host country regulation and supervision, and for parent bank responsibility and financial support.

78. Internationalization has also happened in insurance markets, reflected in increasing market shares of foreign insurers (Table 12). In the case of insurance companies expanding operations abroad, the main determinants are high growth potential in the host country, especially in emerging economies; the size of the insurance market and of the overall financial development in the country of origin; the difference in wages and in the cost of capital between the origin and the destination countries; the integration between origin and destination countries; and geographical proximity, coupled with large market size, more efficient legal environment, more developed telecommunication systems and higher level of education.

79. International financial activity has traditionally been dominated by developed country suppliers. However, in recent times, developing countries have become important sources of lending and investment, particularly to other developing countries. For example, South–South syndicated lending grew from US$0.7 billion in 1985 to US$6.2 billion in 2005, and the number of developing countries receiving such flows, from 19 in 1985 to 41 in 2005. South-South bank ownership is also becoming significant. Between 1995 and 2006, North-South banking grew by 61 per cent, while South-South banking grew by 52 per cent. The pattern of ownership differs, however, significantly by region.[58]

80. Developing country banks tend to invest in developing countries of a relatively lesser level of development, taking advantage of their experience in dealing with challenging contexts. Although in terms of numbers, South-South banks are most strongly represented in upper middle income countries, the share of South-South banks in total foreign banks are most important in low income

[57] There is evidence that banks prefer to expand towards countries where the degree of competition with domestic banks is lower, for example, because local banks are less efficient and where the institutional framework is more favorable to banking activities, because there is a high-quality legal and institutional set-up and little regulatory restriction on banking.

[58] This data and the discussion on this topic draws on World Bank (2008).

countries. Nevertheless, South-South banking still represents a small portion of total banking activities. Its significance is more important in terms of the number of institutions present in foreign markets (up by 19 per cent and 15 per cent in Sub-Saharan Africa and Latin America and the Caribbean, respectively) than in terms of banking assets, where the share of South banks in most banking markets (with the exception of Sub-Saharan Africa) is only about 1 per cent of total bank assets.

81. A second major trend over the 25 years that preceded the financial crisis in 2007-2008 concerned financial policy reform and liberalization. The process involved both developed and developing economies, as part of a general trend towards more market-oriented economic policies.[59] However, the reform processes differed substantially in timing, content and speed. While financial reforms advanced substantially in virtually all countries, income groups and regions, higher-income economies generally set the pace.

82. Occasionally, previous reforms were reversed. Overall, the period of more intense changes initiatives was the first half of the 1990s, partly due to extensive reform in transition economies, but also in Western Europe and Latin America. The process of financial liberalization in East Asia was much more gradual than in Latin America. Interestingly, the 1997 financial crisis did not lead to sharp reversals of reform in Asia. The fastest episodes of financial liberalization took place in transition economies, which by 2002 had almost closed the gap with Latin America and East Asia.

83. A process of consolidation, convergence, and financial innovation has also taken hold in the financial services sector. Generally, over the last decades, large financial institutions in all segments of the industry (banking, insurance, securities) have consolidated by merging with or acquiring other companies in the same lines of business. The change has been particularly dramatic in the banking sector, driven by the need for scale, regulatory changes, advances in technology, and, perhaps most importantly, the craving for market share. In the US, for example, 40 large banking organizations operating in 1990 had consolidated into only 6 organizations by August 2004 (with a market share of 40 per cent in the US alone).[60] Consolidation has also proceeded on a cross-border basis, particularly in Europe.[61]

84. Convergence among the principal segments of the financial services industry – banks, securities firms and insurance companies – prompted in many cases by the breaking down of previously imposed "fire walls" between the different subsectors of the industry, has blurred traditional distinctions between banks, insurance companies, and brokerage/investment firms, with consequences for competition in the marketplace. Cases in point are brokerage firms offering their clients banking products (such as deposit accounts, debit cards, credit cards, funds transfers, ATM withdrawals, check writing, etc.), and commercial banks offering brokerage services (advise, trading capabilities, etc.).

85. Convergence has also taken the form of firms in different sectors competing by offering functionally similar (although different in kind) products to satisfy their customers' needs. For example, in the area of fixed return investment, banks offer corporate bonds and treasury bills, or certificates of deposits; while investment and insurance companies offer guaranteed investment contracts or fixed annuities. Increasingly, financial intermediaries, particularly commercial banks, have built their profitability on fee-based services (including asset management) instead of interest income.

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[59] See Marchetti (2009 a).
[60] US Government Accountability Office (2004).
[61] See Deloitte Research (2009).

86. Financial innovation has taken basically two forms. On the one hand, the introduction of new IT technologies allowed financial intermediaries to better organize themselves by introducing office automation or by outsourcing different functions, such as client data management, or the clearing and settlement of payments. Technology also facilitated the expansion of product delivery mechanisms, through the use of smart cards, ATMs, online banking, mobile banking, etc.[62] On the other hand, financial innovation also consisted of the introduction of new financial products, such as stock-market index funds, futures and forwards, options, swaps, credit default swaps, and securitisation.

87. All these trends have changed the risk profile of financial institutions and the linkages among them. Credit risks in particular have changed as a result structural changes in the industry.[63]

IV. THE FINANCIAL CRISIS: ORIGINS, EFFECTS, AND POLICY ACTIONS

A. FACTORS BEHIND THE FINANCIAL CRISIS

88. The underlying causes of the financial crisis and how it was transmitted across firms, sectors, and borders will be studied and debated for years. Nevertheless, it is widely agreed that the crisis is the result of the interaction of numerous macroeconomic and microeconomic forces that had been developing over the last decade(s). None of them alone can fully explain this crisis. The purpose of this section is not to provide a thorough explanation of individual factors, but give an indication of the root causes and their possible interaction.[64]

89. The financial crisis that broke out in the most advanced markets in the summer of 2007, and that spread quickly to the rest of the world leading to a global economic crisis, was the culmination of an exceptional credit boom and an unprecedented expansion of leverage in the financial system. This had been fuelled by an expansionary monetary policy in industrialized markets (particularly in the United States) that led to historically low real interest rates and abundant liquidity.[65]

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[62] The expansion of banking and securities activities over the Internet has prompted International Standard Setting Organizations to take action in this area. Two issues addressed by these organizations may be of interest in the GATS context: firstly, how to identify cross-border transactions targeted at local consumers; and, secondly, how to determine what country has jurisdiction over the transaction – the country of the supplier or the country of the consumer. In July 2003, the Basel Committee on Banking Supervision (BCBS) issued guidance to home and host country supervisors on the Management and Supervision of Cross-Border Electronic Banking Activities.[62] The issues raised by the licensing of cross-border financial intermediaries has also been tackled by the International Organization of Securities Commissions (IOSCO). In February 2004, IOSCO's Technical Committee issued a report on the Regulation of Remote Cross-Border Financial Intermediaries.

[63] US Government Accountability Office (2004).

[64] For different perspectives on the crisis, see *inter alia* Bank for International Settlements (2009); Blundell-Wignall *et.al* (2008); De Larosière Report (2009); OECD (2008); Tirole (2008) and the Turner Review (2009).

[65] Safe for the period 2005-2006, monetary policy in the US remained expansive, with periods of negative interest rates. For example, from 2001 to mid-2003, the US Fed Funds rate fell from 6.5 per cent to 1 per cent, and was kept at this level for almost a year before being increased. These moves were certainly policy-motivated. The US Federal Reserve had started to reduce interest rates as a response to the 2000 dot.com and stock exchange crash and subsequent recession, and refrained from monetary tightening in view of the economy's vulnerabilities and the seemingly low inflation expectations. Although there is no consensus among economists, global imbalances may have also contributed to this environment. Driven by high savings rates, oil exporting countries, plus Japan, China, and some other East Asian emerging economies had accumulated large current account surpluses, while large deficits (due to low levels of saving) emerged primarily in the United States. Whenever savings exceed domestic investment, the surplus countries accumulate claims on the rest of the world. Moreover, surplus countries are committed to fixed or managed exchange rates, these rising claims take the form of central bank reserves, which tend to be invested in apparently risk-free or close to risk-free

90. A particular feature this time was that the credit boom was combined with the expansion of (riskier) lending to borrowers with little creditworthiness (the so-called "sub-prime"), the increasing use of complex financial products, a vigorous "search for yield" by investors and financial institutions, the mispricing of risk (which is usual in contexts of excessively low interest rates), the degradation of credit standards, and the apparent failure of regulators and supervisors to restrain excessive risk-taking.[66]

91. The financial crisis also revealed deficiencies in financial intermediation. Financial markets have always been complex. Nonetheless, financial innovation, particularly in the field of "structured finance", drastically increased their complexity.[67] Securitisation allowed the repackaging of mortgages – traditionally illiquid assets originated and held by local banks – into higher-yielding complex securities with triple-A rating. Mortgage-backed securities or more complex products based on those securities were in high demand by banks and investors around the world who were "searching for yield" in an environment characterised by low interest rates. As evidenced later, the financial products they flocked to buy entailed risks that were difficult to assess and price. In addition, no active secondary market existed for many of the new instruments, and the associated opacity of the credit risk distribution made it difficult to keep track of the risk exposures. The crisis revealed that both the securitization process and the so-called "originate-and-distribute" model were mired with agency problems which blurred investors' risk perception and prevented them from playing a disciplining role in the securitisation process.[68]

92. To compensate for the lack of transparency in high-yield products, investors relied excessively on the credit ratings issued by credit rating agencies (CRAs) rather than conducting their own quality assessments, e.g. of structured finance products. Additionally, the crisis raised questions

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government bonds or government guaranteed bonds. Over the years from 1999 to mid-2007 – from the end of the Asian crisis to the beginning of the current crisis – the cumulative US current account deficit was US$4.6 trillion. The US Treasury estimates that by the end of 2007, US gross external debt was roughly US$13.4 trillion, nearly four times what it had been just nine years earlier (Bank for International Settlements, 2009, page 5).

[66] The crisis cannot be fully understood without looking into the real estate market, particularly in the United States, where a bubble was being built up, under the presumption of continuous rising real estate prices.

[67] Structured finance is a generic term, usually defined as a financing transaction where legal structures are used to isolate asset or entity risk, resulting in decreased risk for the originator. Within the scope of structured finance is securitization, including widely used instruments such as asset-backed securities (ABS), residential mortgage-backed securities (RMBS), commercial mortgage-backed securities (CMBS) and collateralized debt obligations (CDOs). Some view structured finance as also including derivatives and other risk transfer instruments. Securitisation had always been predicated on the belief that by slicing, structuring and hedging, it was possible to "create value", offering investors combinations of risk, return, and liquidity which were more attractive than those available from the direct purchase of the underlying credit exposures. See Jobst (2007).

[68] Indeed, the securitisation process involves transactions among participants with diverse incentives, that can be characterised as principal-agent relationships. As such, they are fundamentally vulnerable to certain adverse behaviour since agents seek to maximise their benefits while principals cannot fully observe and control the agents' actions. Simply put, the model – which is at the core of securitization activities– implies that banks originate loans or purchase them from specialized brokers and transfer them to a special purpose vehicle (SPV), which then packages them into Collateralized Debt Obligations (CDO) for sale to other investors. Over time, the model ended up working on the basis of misaligned incentives: 1) originators (mortgage brokers, loan associations, and commercial banks), distributors (investment banks, but also institutions like Fannie Mae), and managers had insufficient incentives to generate and provide initial and ongoing information on the quality and performance of underlying assets; 2) regulatory arbitrage (the pre-Basel II capital adequacy framework encouraged banks to securitise assets through instruments with low capital charges); and 3) distorted compensation schemes in financial institutions encouraged disproportionate and insufficiently checked risk-taking with no regard to longer-term risks. See Jobst (2007).

about the CRAs' proper execution of their functions. According to widespread criticism, the agencies failed to adequately distinguish between the riskiness of different securities, and were subject to conflicts of interest (e.g. earning fees both from advising issuers on how to structure bonds and derivatives and from actually rating those securities).

93. The growing size of the financial sector was accompanied by an increase in total system leverage, which – considered in all its forms – played an important role in driving the credit boom and in creating vulnerabilities in the financial system that have increased the severity of the crisis.[69] Additionally, with the benefit of hindsight, it appears that extensive regulatory arbitrage was under way. In other words, financial institutions were transferring a large portion of financial intermediation from more-heavily-regulated-banks to non-bank financial institutions such as broker dealers, hedge funds, and structured investment vehicles (SIVs).[70] As a result, the run up to the crisis saw the rapid growth of off-balance sheet vehicles, which were highly leveraged and became systemically important due to their interconnectedness with many other financial institutions.

94. At the same time, the pattern and the locus of maturity transformation was changing, creating huge and inadequately appreciated risks. A growing proportion of aggregate maturity transformation had not been occurring in banks, but in the so-called "shadow banking system", which had come to perform large-scale maturity transformation between short-term promises and much longer-term instruments held on the asset side; and in investment banks, which increasingly funded holdings of long-term maturity assets with shorter-term liabilities like repurchase agreements (repos).

95. Remuneration schemes based on rewarding short-term profits tended to predominate throughout the system, distorting risk management and internal controls, often to the detriment of the longer-term health of financial institutions. Additionally, risk management was complicated by the fact that certain risks are hard to quantify and measure. Inadequate accounting rules, and insufficient transparency at all levels further complicated matters.

96. The previous discussion suggests that none of the root causes of the financial crisis can be attributed to services trade liberalization as provided for in the GATS, namely granting market access and national treatment. For one, excesses in monetary policy or the build-up of a bubble in real estate markets, and the policies that could potentially curb the detrimental effects arising from those situations, are in no way connected to liberalization commitments undertaken by Members. On the other hand, malfunctions of the financial services sector in recent years seem to be more related to idiosyncrasies of the sector (e.g. search for yield, absence of due diligence, lowering of lending standards) and regulatory loopholes (e.g. regulatory arbitrage, inadequate capital and liquidity regulation, unregulated suppliers). Even though a large exposure to foreign financial institutions and

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[69] Regulatory measures may have played a role as well. In April 2004, the US Securities and Exchange Commission (SEC) exempted five investment banks – the three that later collapsed plus Goldman Sachs and Morgan Stanley – from a 1975 rule to allow them to more than double the leverage they could keep on their balance sheets and remove discounts on the assets they had been required to keep to protect them from defaults. The 1975 so-called "net capital rule" was intended to allow the SEC to oversee broker-dealers, or companies that trade securities for customers as well as their own accounts. It required that broker dealers limit their debt-to-net capital ratio to 12-to-1, and that they issue an early warning if they began approaching this limit. Dealers were forced to stop trading if they exceeded the limit. With the exemption from this rule,investment banks were allowed to reach leverage ratios of up 22-to-1 (e.g. Goldman Sachs) or even 30-to-1 (Morgan Stanley).

[70] Under the Basel I capital accord, mortgages held on the balance sheet were subject to a 50 per cent capital charge (i.e. 4 per cent, instead of the minimum 8 per cent of capital required), securities backed by mortgages were subject to a 20 per cent capital charge; and there is capital charge when mortgages are sold to a special purpose vehicle, such as a mortgage conduit or a Structured Investment Vehicle (SPV) sponsored by the bank.

markets may exacerbate the transmission of shocks (IMF 2007), the crisis cannot be attributed to the involvement of foreign financial institutions *per se*.

B. IMPACT OF THE FINANCIAL CRISIS ON THE SECTOR

97. Although data are still scarce and not equally available across countries, the impact of the financial crisis on output and employment in the sector seems to have been immediate and significant. For example, in the United States, real GDP in financial services and insurance declined for five consecutive quarters between Q4 2007 and Q4 2008 inclusive, before resuming positive growth rates in 2009.[71] Employment in the US financial services sector has also been strongly affected. Between early 2008 and end-2008, total employment in the sector contracted by 1.8 per cent (148,000 jobs) to 8.1 million. Almost 74 per cent of the decrease happened in the second half of 2008. In the European Union, employment in the sector fell steadily between the last quarter of 2007 and the third quarter of 2008, when 646,000 jobs were lost.[72]

98. By the same token, the financial crisis has severely hit trade in the sector, as captured by Balance-of-Payments statistics.[73] The sharp fall in the value of financial assets following the crisis in financial markets – some US$16 trillion only in 2008 according to the McKinsey Global Institute – has translated in a steep reduction in the commissions and fees earned by resident banks, and, thus, a collapse in exports of financial services. (Chart 9). The decline in the value of world assets is the largest setback since 1990. Indeed, the financial crisis stopped the process of almost uninterrupted growth of financial assets of the last two decades. The damage has been widespread, with financial assets declining in most countries around the world.

99. Having recorded the fastest growth rate among services in 2007 (32 per cent in current US$), world exports of financial services are estimated to have expanded by only 2 per cent in 2008 due to the year-on-year decline that started in the third and fourth quarters of 2008. The downslide has continued into 2009. According to preliminary estimates, world exports of financial services dropped by 26 per cent in the first quarter of 2009 on a year-on-year basis.[74] Declines since the third quarter of 2008 have been significant for all leading exporters, as shown in Chart 10. Preliminary figures for the first quarter of 2009 show an important fall in exports of leading exporters, ranging from 13 per cent for the United States to an estimated 30 per cent for the European Union. However, some of the sharpest declines in the first quarter of 2009 were recorded in Asian economies, such as in Hong, Kong, China (a drop of 32 per cent), Chinese Taipei (53 per cent) and the Republic of Korea (56 per cent).

100. According to preliminary quarterly figures for the second quarter of 2009, the United States' exports of financial services seem to have stabilized, with a decline of only 1 per cent (compared to 13 per cent in the previous quarter). European financial services exports have dropped another 26 per cent in the second quarter of 2009.

101. The international banking market has also been severely affected by the crisis.[75] International banking activities started to reflect the tensions on bank balance sheets in the second quarter of 2008, when international bank lending fell by an unprecedented US$1.1 trillion (Chart 11). While inter-

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[71] US Bureau of Economic Analysis (2009)

[72] Escudero (2009)

[73] Exports of financial services cover mainly fees and commissions earned by resident banks (and other financial institutions) arising from financial asset management activities and transactions in financial instruments with non residents. These commissions are primarily related to the value of the managed assets. Similarly available statistics for foreign affiliates services trade are not still available.

[74] WTO "International Trade Statistics 2009".

[75] The analysis on lending is based on information on *BIS* Quarterly Review (Q1 to Q4, 2009).

bank lending accounted for most of the overall decline (- US$812 billion), lending to the non-banking sector (mainly to the US, UK, and Japan) also fell (for the first time since 1998). Tensions in the international banking market continued into the third quarter of 2008, but this time total international lending actually grew slightly (by US$248 billion), driven mainly by greater inter-office activity. As a matter of fact, inter-bank lending (including inter-office claims) grew by US$150 billion, but, if considered net of inter-office activity, lending to other (unaffiliated) banks actually fell in the third quarter as well, this time by US$173 billion, reflecting the severe market strains that followed Lehman Brothers' failures in September 2008. With inter-bank markets effectively shut down by end-September 2008, banks sought dollar financing directly from monetary authorities, and cut their lending to emerging markets.[76]

102. International bank lending contracted by record amounts in the fourth quarter of 2008 (-US$1.9 trillion), in the wake of the failure of Lehman Brothers. The decline in both inter-bank lending and lending to the non-banking sector (particularly in the US) reflected reduced lending, disposal of assets and write-downs. As banks' funding pressures intensified, governments and central banks reacted with an unprecedented policy response.

103. Tensions in international financial markets began to subside in the first quarter of 2009, and the contraction of banks' international balance sheets slowed. Inter-bank lending still fell by an amount comparable to that in the fourth quarter of 2008 (a bit more than US$800 billion), reflecting protracted funding pressures, but the decline in credit to non-banks was only one fourth of that registered in the previous quarter. International lending continued to contract during the second quarter of 2009, albeit at a much slower pace. This time, the decrease was entirely driven by a contraction in inter-bank lending (- US$481 billion), while international lending to non-banks increased slightly (US$4 billion).

104. Cross-border international lending to emerging markets started to slow down in the third quarter of 2008, then dropped sharply in the following two quarters (Q4 2008 and Q1 2009) and did not stabilise until the second quarter of 2009, when it recorded a modest overall increase of US$5.3 billion. The sharpest declines over this period were registered in Central and Eastern European countries (more than US$50 billion in Q4 2008) and in Asia-Pacific (more than US$150 billion in Q4 2008), which reflect the relatively higher dependence of these two regions on cross-border lending *vis-à-vis* lending booked by banks established in their territories. (Charts 12 and 13).

105. While there are differences across regions, available data suggest that, in real terms, foreign banks' local lending and deposit-taking in local currencies have remained relatively stable over the period. International banks local positions in all emerging markets decreased in the second quarter of 2009 for the first time since the beginning of the crisis, but only moderately (by 0.1 per cent for local lending, and 0.6 per cent for local deposit-taking). In most countries, the decline in local currency lending was accompanied by a fall in real economic activity (e.g. Argentina, Chile, Chinese Taipei, Korea, Mexico and Turkey), although there are exceptions, such as China and India, where lending shrank but real output increased.

106. How has the crisis affected financial service suppliers?[77] Banks, particularly investment banks, have certainly borne the brunt. Nevertheless, despite huge losses last year, Western banks

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[76] It is not clear whether the drop in lending to developing economies was demand or supply driven. While lending was drastically cut in banking systems with large exposure to US mortgage-backed securities in banks' balance sheets, in some places, foreign banks without such balance-sheet problems also reduced cross-border (and even local) lending presumably because of slowing economic activity in the developing economy concerned.

[77] The following analysis is based on data in The Banker (2009) and The Economist (2009).

have kept their dominance in the rankings of the biggest banks due to massive capital raising. Profits virtually collapsed in 2008, with total profits of the top world's 1,000 banks plunging by 85 per cent from US$780 to US$115billion, and return on capital sinking from 20 per cent in 2008 to just 2.7 per cent in 2009. After four years of above 20 per cent profit growth, last year's figure stayed relatively flat with a loss of 0.7 per cent. For the first time in the last 39 years, the world's top 25 banks – which account for almost 40 per cent of the top 1000 banks' Tier 1 capital and almost 45 per cent of its total assets – recorded losses totalling US$32.4 billion. Also, there was a surge in bank failures in the US in 2008. A total of 25 deposit-taking institutions, with combined assets of US$372 billion, collapsed.[78] Besides the failed banks, the number of institutions on the US deposit insurer's list of problem reached 252, with total assets of around US$159 billion.

107. As banks have written off losses, they have also recapitalised – often with government support – so that total Tier 1 capital has risen by 9.7 per cent to US$4,276 billion. Assets have grown by 6.8 per cent to US$96,395 billion but at a much slower pace than in previous years, when the assets basically doubled between 2003 and 2008.

108. The investment banking industry has been particularly affected by the crisis. With an estimated US$69.5 billion earned in 2009, global investment banking fees were down 7 per cent compared to 2008 to reach the lowest total since 2004. Fees from equity capital markets underwriting were the main source of fees for investment banks, comprising 36 per cent of the total. Traditionally, M&A advising used to be the largest fee generator for investment banks, as has been the case for the past six years.

109. Surprisingly, the world ranking of the most important banks, measured in terms of Tier 1 capital, has changed very little in the aftermath of the crisis. (Tables 13 and 14). Aside from three new entrants (Goldman Sachs, Morgan Stanley, and Agricultural Bank of China), the top 25 world banks continue to be composed mainly of much the same institutions as in the past, dominated by US, European and a couple of Japanese banks. Even when government capital injections are excluded from the calculation, the ranking does not change drastically. Industry consolidation has played a key role in three of the top five positions. JP Morgan's takeover of Bear Stearns and Washington Mutual propelled it to first position; Bank of America's purchase of Merril Lynch pushed it to second place; and Wells Fargo jumped from 23rd to sixth place after the acquisition of Wachovia.[79]

110. The relative stability of the world banks ranking may be attributed in part to capitalization by governments and in part to intensive issuance activities in the capital markets. Globally, the financial services industry has raised US$998.9 billion in total bank capital since the crisis began, against a total of US$1,040.7 billion in write-downs and losses. In Europe and Asia, capital raising has exceeded losses, at US$422.3 billion versus US$420.7 billion in the former and at US$75.9 billion against losses of US$37.3 billion in the latter. Only in the Americas have losses outpaced capital raising, with US$500.7 billion versus US$582.6 billion.

111. More significantly, because regulators and investors have raised the bar in terms of what level of capital is now deemed adequate, the capital-to-asset ratio has increased overall, if only marginally. On an aggregate basis, the top 1000 banks have increased Tier 1 capital to assets to 4.43 per cent (or

[78] The failure of Washington Mutual accounted for $307 billion of the total and was the largest US bank failure in history. The bank was eventually absorbed by JPMorgan Chase, with governmental assistance. Further large failures were averted as weakened institutions were acquired by others with healthier balance sheets.

[79] UK banks Lloyds and HBOS merged too late to be included in The Banker's ranking, but would have entered in 16th place.

11 basis points). Like Tier 1 capital, assets have grown by 6.8 per cent this year, to US$96,395 billion.

112. The crisis hit the US and West European banks hardest, with some of the latter requiring full or partial nationalization to survive. The general pattern has in fact been heavy losses in the financial institutions of industrialized countries and comparatively benign situations in most institutions in emerging economies. A look at profitability of the Top 1000 world banks shows that the "winners" have been those banks that stuck to what might be considered to be the basics of banking – taking deposits and lending in their home markets. Somewhat sheltered from global competition, Chinese and Indian banks have remained broadly profitable, with the biggest Chinese banks advancing in the world banks' rankings.[80] Asian banks, excluding Japanese ones, have significantly altered the composition of the top 1000 ranking. There are currently 193 banks from Asia among the top 1000 (up from 174 two years ago), while the number of banks from the US and the EU has dropped from 185 to 159 and from 279 to 258, respectively.

113. Insurance companies have suffered from the crisis as well, although not on the same scale as banks. Insurers were hit by the sharp fall in stocks and corporate bonds in their investment portfolios during the peak of the financial crisis. They have also been hurt by a sustained fall in demand for insurance coverage, in the aftermath of economic downturn. Global insurance premiums declined by 2.0 per cent in real terms in 2008. This fall was entirely explained by the performance of industrialised countries, where premiums dropped by 3.4 per cent. In emerging economies, however, premiums rose by 11 per cent.[81]

114. By December 2009, only a few large insurers in the US and Europe had been forced to seek government assistance to ensure their survival, including Aegon and ING in the Netherlands, and Hartford Financial Services in the US. The American International Group (AIG) is a special case insofar as it was heavily invested in credit insurance, and required partial nationalization.

115. Three factors may explain why insurers came out of the downturn in better shape than banks. First, unlike banks, they are not reliant on short-term financing to fund their operations. Second, where bank depositors can move funds fairly easily to another bank, insurance policy holders face higher switching costs since policies are usually for longer-term periods. Third, insurers have historically been more focused on risk management than banks, and instead of securitising their assets and selling them off (as banks have done), insurance companies retain risk, which has prompted them to be more disciplined when underwriting policies.

116. Available data confirm that insurers have been far more resilient than banks during the financial turmoil. Of the US$1.7 trillion that financial institutions wrote down from the start of the crisis to early December 2009, insurers accounted for losses of US$234 billion or 13.7 per cent of the total, with AIG alone accounting for US$98 billion in losses. By region, it is estimated that insurers' losses have been concentrated in the US (82 per cent of the total), with less in Europe (17 per cent) and very little in Asia (1 per cent).[82]

C. FINANCIAL SECTOR POLICIES IN RESPONSE TO THE CRISIS

117. The financial crisis does not seem to have prompted a widespread introduction of trade restrictions in financial services. With only few exceptions, most countries have maintained their

[80] Measured in terms of total assets, there is little change among the top ten banks. However, three banks made it to the top 25 in 2008, namely the Agriculture Bank of China, Bank of China, and Wells Fargo.
[81] SwissRe (2009).
[82] Bloomberg estimates, quoted by The Economist (2009).

policies regarding typical market access limitations (e.g. foreign equity caps, incorporation requirements).[83] In general, policies have focused on providing support to financial institutions in various forms, and closing regulatory loopholes that were considered to have contributed to the crisis.[84] These policies, which for the most part were introduced in the second half of 2008 in the wake of the collapse of Lehman Brothers, and which may generally be considered as necessary to ensure financial sector stability in the wake of the crisis, seemed to have served their purpose thus far. In particular, they helped avoid widespread bank failures, and allowed markets to operate in a more normal – if not necessarily fully restored – environment.[85]

118. Support to the financial sector has usually taken the following forms, with some countries applying more than one approach at the same time:[86]

(a) Separation of "good" assets from "bad" assets, and placing the latter off banks' balance sheets. The basic objective is to allow affected financial institutions to clean-up their balance sheets and re-start lending under more "normal" circumstances. This objective can be attained through various mechanisms, for example through purchasing troubled mortgage assets from banks and other lenders – basically swapping troubled assets for cash.

(b) Takeovers of failing banks by better capitalized banks, entailing government support in some cases;

(c) Recapitalization of troubled financial institutions. Recapitalisation schemes (for which specific amounts have been earmarked) were generally made available to financial institutions falling under specific eligibility criteria, with a view to strengthening the capital base of fundamentally sound institutions, improving the functioning and stability of the banking system as a whole, and ensuring proper financing to the wider economy. In addition, liquidity positions institutions have been enhanced through the provision of loans. Recapitalization of individual

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[83] Among the exceptions is Malaysia. In April 2009, for example, the Central Bank of Malaysia announced a broad liberalisation package focusing on the issuance of new licenses, increments in foreign equity participation, and further operation flexibility in both the conventional and Islamic financial sectors. Other countries, such as India, suspended on-going liberalization initiatives. Citing the current global financial turmoil and concerns regarding the financial strength of banks around the world, the Reserve Bank of India (RBI) decided – as part of its annual policy for the period 2009/2010 – not to change its policy on presence of foreign banks in the country. As a consequence, the second phase of the "Roadmap for Presence of Foreign Banks in India", which was supposed to be implemented as of April 2010, has been put on hold. That second phase included the extension of national treatment to wholly-owned subsidiaries of foreign banks; the dilution of stakes in wholly-owned subsidiaries (so that 26 per cent of the paid up capital be held by residents Indians); and allowing foreign banks to enter into mergers and acquisitions with any private sector bank in India subject to an overall limit of 74 per cent. However, RBI relaxed some operating conditions affecting foreign banks (e.g., the employees of foreign banks are allowed to offer services over larger distances from their offices (30 km instead of 15km) all banks may set up ATMs freely without approval). For details of both packages, see the D-G Monitoring report.

[84] This section does not cover monetary policies introduced in the wake of the financial crisis. For a description and analysis of the different types of monetary policies implemented thus far, see *BIS* 79th Annual Report (Chapter VI. Policy responses to the crisis).

[85] For initial analyses of the impact of measures in response to the financial crisis, see IMF (2009), Chapter III; King (2009); Panetta *et. al.* (2009); and Petrovic and Tutsch (2009).

[86] For a list of measures, as well as further explanations, see Annex 3 to the Report to the TPRB from the WTO Director-General on the Financial and Economic Crisis and Trade-Related Developments (1 July 2009).

financial institutions has been decided sometimes on a case-by-case basis, and not as part of a generally available programme.

(d) Nationalization of financial institutions, with a view to restructuring them. In some cases, nationalisation has taken place after other measures had turned out to be unsuccessful to avoid the failure of a systemically important institution.

(e) Expanded government guarantees for different forms of bank liabilities. While some of these measures have targeted specific financial institutions, many others constitute more general "rescue packages" for the whole sector, whose effects will only materialize over time, depending on how they are implemented. Expanded government guarantees have taken basically two forms: increases in the threshold on savings eligible for deposit insurance, and provision of loan guarantees, including guarantees on inter-bank loans or on banks' issues of debt.[87] The main stated purpose of these measures has been to ensure banks' continued access to funding. While deposit insurance guarantees apply to the liability side of banks' balance sheet, loan guarantees apply to the asset side of banks. These guarantees are a form of insurance that covers a lender – typically a commercial bank – against default on its loan to either another financial institution or a non-financial institution. In light of the dry up of inter-bank liquidity last year, several governments have granted guarantees for inter-bank lending, with a view to unlocking credit among financial institutions in particular and enhancing credit availability more generally. More recently however, countries have also resorted to more general loan guarantees, aiming at compensating for the insufficient loan activity by private banks and thus improving the access of firms to investment and working capital loans. These guarantees confer an advantage by relieving the final beneficiaries (e.g. corporations) of higher costs in terms of fees and/or interest rates, which they would otherwise have to bear under normal market conditions.

119. As recently reported by the Financial Stability Board (2009 b), not all available facilities or guarantees have actually been used; a number of policies have expired without notable market impact or the need for successor programmes; and other support measures that were introduced during the crisis have been made permanent, including increases in minimum deposit insurance. Other policies are considered temporary, but still remain in place. For example, temporary increases in deposit protection, adopted by 26 of the 47 jurisdictions that took action in this area during the crisis, will for the most part be terminated in 2010 or 2011 (the remaining 21 jurisdictions introduced permanent changes to deposit protection). Another example concerns most debt guarantee schemes, which have been made more expensive over time or whose availability has been made dependent on market conditions. Finally, programmes for capital injections to troubled institutions or for the removal of exposures to toxic assets have generally been of a one-off nature.[88]

120. From a trade perspective, it is worth taking into account that these measures, which in most cases constitute some form of state aid or subsidy, may have an effect on competition in the financial services industry, both in domestic markets and internationally (particularly if there are significant opportunities for international arbitrage).[89] Such considerations may have prompted, for example, the

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[87] At the same, central banks, in their roles as 'lenders of last resort' continued to be a source of liquidity support to financial institutions, most often in the form of loans extended against collateral.

[88] See the explanation and examples in Financial Stability Board (2009 b).

[89] Discussing the potential coordination of exit strategies, the Financial Stability Board (2009 b) has recently stated that "In most cases, members noted that decisions on the removal of emergency measures are taken primarily on an assessment of the health of the domestic financial system and the ability of intermediaries

European Commission to issue guidance on the design and implementation of State aid in favour of banks (including public guarantees, recapitalisation measures and impaired asset relief) in order to ensure that emergency measures for reasons of financial stability guarantee a level playing-field between banks located in different EU Member States as well as between banks who receive public support and those who do not.[90]

121. The impact of the measures on cross-border flows depends *inter alia* on the willingness and ability of agents to arbitrage between countries. There are examples, such as the introduction of government guarantees for banks' debt or changes in retail deposit insurance mechanisms, where the potential for arbitrage was significant when the measures were initially introduced in an uncoordinated manner. The timing and context, in which protection for depositors has been increased, reflects the nature of relations between banking markets, and shows that the financial stability rationale has been accompanied by a "level-playing-field" concern in the eyes of policy-makers and regulators.[91]

122. Such concerns have also been mentioned as part of the factors that the international community should look at when figuring out the appropriateness and timing of the unwinding of

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to fund themselves and to raise new capital where necessary on private markets. As highlighted above, a number of special measures have already been withdrawn and there have been clear policy announcements regarding the withdrawal of others. Members recognized, however, that the emergency measures have distortionary effects on the allocation of capital across borders as well as within them.... The impact of the measures on cross-border flows depends on a range of characteristics such as the willingness and ability of agents to arbitrage between countries."

[90] See Communication from the Commission – The application of State aid rules to measures taken in relation to financial institutions in the context of the current global financial crisis, OJ C 270, 25 October 2008; Communication from the Commission – The recapitalisation of Financial Institutions in the Current Financial Crisis: Limitation of Aid to the Minimum Necessary and Safeguards against Undue Distortions of Competition, OJ C 10, 15 January 2009; Communication from the Commission on the Treatment of Impaired Assets in the Community Banking Sector, OJ 72, 26 March 2009. See also Communication from the Commission on the return to viability and the assessment of restructuring measures in the financial sector in the current crisis under the State aid rules, OJ C 195/9, 19 August 2009.

[91] In Asia, for example, four economies (Chinese Taipei; Hong Kong, China; Malaysia; and Singapore) introduced unlimited guarantees of all deposits on a temporary basis. That a trade rationale has influenced some of these decisions was made apparent in Singapore's statement, in which both the Ministry of Finance and the Monetary Authority of Singapore stated that "the announcement by a few jurisdictions in the region of Government guarantees for bank deposits has set off a dynamic that puts pressure on other jurisdictions to respond or else risk disadvantaging and potentially weakening their own financial institutions and financial sectors. This is why although Singapore's banking system continues to be sound and resilient, the Government has decided to take precautionary action to avoid an erosion of banks' deposit base and ensure a level international playing field for banks in Singapore." Indonesia and the Philippines also increased their protection, within limits. Australia's and New Zealand's unlimited deposit guarantees (for three years, respectively) have been motivated by similar considerations. As expressed by Kevin Rudd, Australian Prime Minister, in a press conference "I don't want a first-class Australian bank discriminated against because some other foreign bank, which has a bad balance sheet, is being propped up by a guarantee by a foreign government." In Europe, "level-playing-field" considerations have prompted common action regarding deposit guarantees. At a meeting on 7 October 2008, EU finance ministers decided to raise minimum bank deposit guarantees across all 27 Member States and to take coordinated action to save financial institutions. Following that meeting, on 15 October 2008, the European Commission put forward a revision of EU rules on deposit guarantee schemes, making it mandatory for Members States to increase the coverage level to at least 50,000 euros and within a further year to at least 100,000 euros. In its opinion of 18 November 2008, the European Central Bank emphasized "that any increase in the coverage exceeding the latter of the above mentioned amounts should be preceded by close coordination at the EU level, as substantial differences between national measures may have a counter-productive effect and create distortions in the single market." See Report by the WTO DG, *op. cit.*

crisis-related public sector interventions. This has been recently stressed by the Bank for International Settlement (*BIS),* the IMF, and the FSB.[92] A persuasive case can be made in favour of countries' coordination of exit strategies, particularly where there is potential for financial and regulatory arbitrage across jurisdictions. This may be particularly relevant in the case of government bank debt guarantees or even deposit protection schemes. As recently put by the IMF (2009 a), "a potential for cross-border arbitrage is particularly relevant when the removal of guarantees on bank liabilities is not coordinated across countries. Specifically, in cases of countries whose liability guarantee applies to all banks operating within the jurisdiction, including subsidiaries, banks can choose the location in which they issue debt through their subsidiaries in different jurisdictions. Spreads between guaranteed and non-guaranteed debt in various jurisdictions can be monitored so that such opportunities can be countered or anticipated."[93] On the other hand, cross-border coordination might be less crucial for measures dealing with banks' impaired assets, depending on the assets. Since already-purchased assets that are held on the government's balance sheet are unlikely to have a major distorting impact on market mechanisms, the government can afford some latitude in completing their unwinding.

D. NEW RULES OF THE GAME AND THEIR POTENTIAL EFFECTS ON TRADE IN FINANCIAL SERVICES

123. The extent and depth of the financial crisis have prompted the reassessment of financial services regulation across the world, becoming a central topic for academics, regulators, and policy-makers.[94] The crisis has also brought about modifications in the governance mechanisms of global finance, which are now more inclusive and reflect both the growing role of emerging economies not so much as global players but as regional players in financial markets, and the close linkages between developed and emerging markets that were evidenced by the speed with which financial stress spread from central to more peripheral markets.[95]

124. The purpose of this section is to review some of the regulatory initiatives put forward in different countries and fora that are likely to have significant and durable implications for the supply of financial services.[96]

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[92] See Bank for International Settlements (2009 a); International Monetary Fund (2009 a); and Financial Stability Board (2009 b).

[93] Although in a crisis bank debt guarantees help preserve financial stability by supporting funding liquidity, they are highly distortionary, since the government assumes the credit risk in place of the debt-issuing entity, thereby reducing the market incentive to monitor credit risk. As an indicator of the degree of market distortion created by the public sector's assumption of private sector credit risk, the IMF calculated the difference in the risk premium between government-guaranteed and non-guaranteed debt issued for a sample of three major banks. In the second quarter of 2009, the average risk premium for government-guaranteed paper was 350 basis points lower than for non-guaranteed paper for the banks in the IMF's sample. See IMF (2009; chapter 3, footnote 25.

[94] The urgency of strengthening the regulation and supervision of financial-market institutions has been highlighted by the G20 since its meeting in November 2008. Over the last few months, a large number of academic papers, official reports and white papers have been published in the US and in Europe, and international organisations have also contributed.

[95] As a reaction to calls for more inclusive global financial regulatory initiatives in the current context, in March 2009 both the Basel Committee on Banking Supervision (BCBS) and the Financial Stability Forum (FSF) expanded their respective memberships. The BCBS decided to add as new members Australia, Brazil, China, India, Korea, Mexico and Russia. The FSF changed its name to Financial Stability Board (FSB) and broadened its membership to include the G20 countries that were not in the FSF (Argentina, Brazil, China, India, Indonesia, Korea, Mexico, Russia, Saudi Arabia, South Africa and Turkey), as well as Spain and the European Commission.

[96] On progress made to date on improving financial regulation, see Financial Stability Board (2009 a).

125. The agenda starts with capital requirements, whose pro-cyclicality and insufficient levels have been widely viewed as having considerably deepened the financial crisis. A consensus has emerged – and it is being translated into regulatory action by International Standard Setting Organizations – that the quality and quantity of capital in the system as a whole needs to be increased, so that banks holding the minimum required capital will be clearly viable in a crisis and confidence will be maintained. This will lead to in a substantial increase in capital requirements over time. Capital requirements will also be implemented for risks in banks' trading book activities, with average requirements for the largest banks' trading books at least doubling by end-2010. Increased emphasis will be put on Tier 1 capital, whose current definition is considered too lax.[97] With a view to avoiding highly leveraged institutions, a leverage ratio will also be introduced as a supplement to the Basel II risk-based framework.

126. As the basic minimum requirement applied for the operation of financial institutions, this will necessarily impact the financial business, as capital build-ups are costly and may have – depending on their level – effects on interest rates. Minimum capital requirements will not only be raised, but applied in a countercyclical manner, so that financial institutions will be obliged to build capital buffers above minimum requirements during good times that can be drawn down during more difficult periods. While new approaches to capital adequacy will certainly be implemented in a non-discriminatory manner, and not uniquely to foreign bank branches, it can be expected that regulators and supervisors carry their emphasis on a more heavily capitalized financial system into their assessment of the adequacy of capital in the "whole foreign bank" on a continuing basis. In applying these standards, and taking into account the changes in supervisory philosophy that seem to be under way (see below), it can be expected that regulators and supervisors will use more stringent capital tests.

127. Bank liquidity requirements have also turned out to be a necessary prerequisite for financial stability.[98] The drying up of liquidity at the level of individual financial institutions, and ultimately the global system caused the seizing up of credit and financial flows. The proposals put forward so far envisage significant increases in the amount and quality of liquid resources that banks will have to maintain, on a continuous basis, well above the amount they held in the past. Stress testing will also be carried out more frequently, and in a more extensive and rigorous manner than financial institutions may formerly have been used to.

128. The scope of application of these standards, whether applied at group and/or entity level and to foreign bank branches, will be crucial in shaping future locational and trade patterns in the sector. A renewed focus on host-country supervision may imply the imposition of these requirements on a stand alone basis for each firm established in the host market, including foreign bank branches.[99]

129. The scope of financial regulation and supervision is widely regarded as having been inadequate. There will certainly be an expansion in the "perimeter of regulation" in the years to

[97] As explained by The Economist, "many of the equity-like instruments allowed were really debt. In effect, the fine print allowed banks' common equity, or "core" Tier 1, the purest and most flexible form of capital, to be as little as 2 per cent of risk-adjusted assets. In hindsight, says one regulator, this was 'very, very low...unacceptably low'."

[98] As indicated in the proposed UK FSA rule on liquidity, "[a] firm must at all times maintain liquidity resources which are adequate, both as to amount and quality, to ensure that there is no significant risk that its liabilities cannot be met as they fall due. Such liquidity resources should be sufficient to withstand a range of severe stress events which could impair its ability to meet its liabilities as they fall due".

[99] The Basel Committee on Banking Supervision leaves this option open. This application to all institutions on a stand-alone basis is, for example, the approach favoured by the UK, which has elicited criticism from industry.

come.[100] The objective is to ensure that all systemically important activities are subject to appropriate regulation and oversight. This concerns not only institutions that were unregulated and non-transparent, such as those constituting the so-called "shadow banking system" but, more importantly, the most regulated of all financial institutions – banks – which could escape capital regulation by using off-balance sheet special investment vehicles (SIVs).[101]

130. Credit rating agencies, which used to operate in a largely unregulated environment, will also be subject to stronger regulation and oversight. New legislation creating oversight regimes has been approved in Japan and the European Union; and in the US, amendments to existing regimes have been proposed or already made.

131. While supervisory approaches differ significantly across countries, there had been a general shift in focus during the years preceding the crisis, at least in most industrialized countries. Rather than on direct intervention, emphasis had been put on banks' policies and practices, on the adequacy of their internal systems and controls, on the competence of their senior management and boards of directors and, with the advent of Basel II, on their internal models for the calculation of capital requirements for market, credit, and operational risks.[102] Under this approach, customer protection was not achieved mainly via product regulation or direct intervention in markets, but by ensuring that wholesale markets were transparent and worked smoothly. Additionally, this supervisory approach relied on the supervision of individual institutions rather than the whole system; and a balance between conduct of business regulation and prudential regulation. With the benefit of hindsight, this balance now appears biased towards the former, particularly in banking. Of course, this shift reflected prevailing perceptions about the effectiveness of different supervisory approaches, changes in and the increased complexity of the activities undertaken by banks, and the growth of the financial sector.

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[100] This expression has been used by the Financial Stability Board itself. See Financial Stability Board (2009a).

[101] The key point here is that such SIVs served to buy asset-backed securities mostly through short-term asset-backed commercial papers. However, the corresponding risk was not transferred since banks extended guarantees to their SIVs, or even held asset-backed securities (ABS) while transferring their loans to SIVs in order to reduce in-balance-sheet risks. When in the wake of the crisis, short-run funding dried up, ABSs (now called 'toxic assets') were transferred back to banks' balance sheets (where capital requirements apply), leading to a sudden undercapitalisation of the banking sector and to the subsequent disruptions in financial markets. This clearly suggests that failure to regulate the 'shadow' banking sector is one of the root causes of the crisis. The "shadow banking sector" can be broadly defined as financial intermediation by institutions, markets, and products outside of the banking sector and traditional securities markets. This definition covers non-bank financial institutions (NBFIs), such as hedge funds and SIVs, financial products such as asset backed securities, and markets such as repo markets.

[102] Basel II adopts a "three-pillar" approach: 1) minimum capital requirements; 2) supervisory review; and 3) market discipline. Under "pillar 1" (minimum capital requirements), banks are required to have sufficient capital to cover credit, market and operational risk, the latter being a new element of regulatory ratios, as Basel I had no explicit capital charge for operational risk. One fundamental innovation under Basel II is the use of credit ratings to provide a more refined measure of a bank's credit risk exposure. Basel II has foreseen two systems to calculate banks' minimum capital requirements for credit risk, depending on the degree of sophistication of the bank: the Standardised system, and the Internal Ratings Based (IRB) system . The Standardised Approach is the simplest of all, and represents a limited departure from Basel I. In contrast to the Standardised approach, the IRB approach represent a fundamental shift in the philosophy of capital regulation, moving towards a regulatory capital system based on the bank's own internal assessments of its risks. The IRB approach can be divided into "foundation" and "advanced". The "foundation" approach requires the bank to determine only each loan's probability of default, and the supervisor would provide the other risk inputs; while under the "advanced" approach, the bank determines all the risk inputs, using models and procedures validated by the supervisor. Industrialized countries in general have opted for the advanced IRB system, albeit with some differences in the scope of application (e.g. all banks in the EU, only the internationally active ones in the US).

132. The new regulatory and supervisory approach that seems to be emerging is likely to be more intrusive and more systemic, including not only micro- but also macro-prudential oversight. Moreover, it will require supervisors to exercise more judgement across a wide range of areas, including capital, liquidity, and stress testing.

133. As indicated, there may be a renewed focus on host-country regulation and supervision in many areas. This is already reflected in the stance taken by some supervisors over the last months, which have been seeking greater assurances about the financial soundness of branches' and subsidiaries' parent institutions; the willingness of the parent bank to support its branches and subsidiaries in the host country; the adequacy of liquidity being held locally by the branch or subsidiary; the standards of regulation and supervision in the home country; and, in some cases, the adequacy of deposit protection for the depositors of the local branch. Over time, foreign banks (particularly when working through branches) may be increasingly confronted with requirements to ring-fence liquidity, to provide guarantees by the parent bank for its branches, to restrict the range of their activities, or to operate through subsidiaries rather than branches (particularly if foreign bank branches become systemically important in the host country market or if there is a concentration of assets in the hands of banks originating in the same home country).[103]

134. Another issue on the agenda relates to the challenges posed by the so-called "too-big-to-fail" (TBTF) financial institutions, which have grown in the 2000s through a process of intense consolidation, not only within borders but across countries.[104] The financial crisis has contributed to further consolidation, by spurring a series of mergers and acquisitions that have led to an even larger number of systemically important institutions whose activities are spread over numerous countries. The problem raised by the TBTF phenomenon is, on the one hand, one of size – the larger the bank that fails, the bigger the potential impact – and, on the other hand, one of interconnectedness – the more banks are linked by counterparty relationships and inter-bank funding, the greater the danger that the failure of one will pull down the system.[105]

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[103] So-called local incorporation requirements are not new though. The US and Canada authorise foreign branches to conduct wholesale business only. Banks wishing to accept retail deposits (i.e. deposits under a certain threshold established by the regulatory authority) must incorporate locally. Since April 2001, New Zealand has required some Australian banks, which have become systemically important in New Zealand, to incorporate locally. Singapore has also applied local incorporation requirements for systemically important banks.

[104] "Too-big-to-fail" (TBTF) has been defined as an institution that is too big to be allowed to fail in a fashion which includes options other than whole bank rescue through capital injections and guarantees, and in a fashion which imposes losses on people other than the equity providers (e.g. debt capital providers). According to Turner (2009), the "TBTF" status creates three categories of concern. First, there is moral hazard arising if uninsured creditors believe ex-ante that a bank is "too-big-to-fail", and therefore provide funds at artificially low rates, with no incentive to impose market discipline. Second, rescuing these institutions may imply a high fiscal cost, and may be perceived as unfair if the risk of failure has been preceded by very large gains. Third, some banks may be too big for the home country authorities to rescue – a danger which materialized in the case of Iceland, but which could theoretically be a challenge in much larger economies, wherever total bank liabilities are very large as a per cent of GDP.

[105] One of the startling features of the years leading up to the crisis was the explosion of trading in securities and derivatives, which resulted in a dramatic growth in the balance sheets of the banking system. Those of banks and investment banks grew far more rapidly than could be explained by increasing debt in the real economy, instead driven by a huge proliferation of contract claims within the financial system, between different banks, investment banks and even insurance companies. For example, AIG was considered by US authorities to be too big and too interconnected to fail, since the company had sold billions in credit-default swaps to several major banks, including US$20 billion to Goldman Sachs, what amounted to unregulated insurance on risky subprime-mortgage investments. As the real-estate market collapsed, Standard & Poor's was preparing to slash AIG's credit rating, meaning AIG would be swamped with collateral calls it could not pay.

135. Policies to deal with this problem range from reducing interconnectedness in counterparty relationships (something which at this stage seems uncontroversial), increasing capital and liquidity requirements well above those enforced on smaller financial institutions (which also seems uncontroversial at this stage), breaking up financial institutions through antitrust mechanisms, or a variant of the "Glass-Steagal" regime that prevailed in the US until the late 1990s.

136. Profound changes have been recently announced by the United States.[106] The US plan consists of two parts, the first dealing with restrictions on the scope of banks' activities. Banks that accept deposits will no longer be allowed to own, sponsor, or invest in hedge funds or private equity funds. Nor would they be allowed to engage in proprietary trading operations for their own profit, unrelated to serving their customers (though they could presumably continue to offer investment banking for clients, such as underwriting securities, and advising on mergers). The second part focuses on size, and aims at preventing further consolidation of the US financial system. In addition to the 10 per cent cap on national market share of deposits that has long been in place, large financial institutions operating in the US would be subject to a cap on wider forms of funding, most notably wholesale funding.

137. Any of these initiatives will affect the supply of financial services in national markets and beyond. The pace and direction of change are very difficult to predict at present. For example, it is not yet clear whether counterparty clearing services will be channelled through a single or multiple central counterparty clearing providers (CCPs). The potential for trade in this subsector may diminish if, for example, regulators mandate a single CCP or put limits on the numbers of CCPs that can provide these services in their jurisdictions. Additionally, the new requirements may reduce much of the competitive advantage of TBTF institutions. For one, if an institution ceases to be considered as TBTF, and both an institution and the public perceive that, if there is a problem, the institution might be led to fail, then its products will have to be priced differently reflecting the reduced incidence of the implicit subsidy granted by the government guarantee. Additionally, higher capital requirements may potentially affect the competitive position of these institutions, which used to be subject to relatively lighter capital requirements under Basel II.[107]

138. These regulatory initiatives seem genuinely motivated by the need to avoid systemic risk, either because of excessive risk-taking by financial institutions or cross-border contagion. Such initiatives, particularly those of a clear regulatory nature, would not be hampered by the GATS. But even if any specific measure could be considered as inconsistent with an obligation or commitment in the GATS, Members could still have recourse to the prudential carve-out, which, as explained in previous sections, recognizes the right of Members to take any measure for prudential reasons notwithstanding any other provisions of the Agreement.

However, it is worth noting that problems of interconnectedness can arise not only in really big financial institutions, but also among medium or small-size banks having similar business models so that the failure of one inevitably creates concerns about the sustainability of others, which in turn may prompt calls for government bailouts. For example, Northern Rock’s failure posed immediate questions about the sustainability of Bradford and Bingley.

[106] President Obama himself made the announcement on 21 January 2010. See "Remarks by the President on Financial Reform", available at the White House website.

[107] In the words of Lord Turner (chairman of the UK FSA): "But it’s worth noting that until this crisis,...there was a fairly explicit regulatory philosophy, embedded in the Basel II capital adequacy regime, that large-scale meant diversification and sophistication, and that both could justify lighter capital requirements. Advanced Internal Ratings Based (IRB) approaches, applied by the larger banks, can result in estimates of required capital up to a third lower than under standalone standardised approaches, and in the past larger banks have tended if anything to be more lightly capitalised than small." See Turner (2009).

V. COVERAGE, LEVEL AND TYPE OF CURRENT COMMITMENTS IN FINANCIAL SERVICES

139. WTO Members have made more commitments in financial services than in any other sector except tourism. This may be attributed to the interplay of several factors: (i) the higher negotiating momentum in this as compared to many other sectors as reflected in the extended negotiations on financial services held in 1995 and 1997, which allowed for significant improvements in the number of commitments; (ii) the accession of some 25 new Members to the WTO after 1995, who in all cases undertook extensive commitments on financial services (Box 3); (iii) governments' self-interest in using commitments, and the associated gains in stability and transparency, to promote foreign participation in this sector for obvious economic reasons.[108] As of today, 110 schedules (counting the EU-15 as one) contain commitments in at least one financial services subsector.

140. The coverage of subsectors is variable, as can be seen in Table 15. Interestingly, almost all Members with commitments in banking and other financial services covered the "core" services of commercial banks – deposit taking and lending (98 and 97 schedules, respectively). Fewer Members made commitments in insurance services, among which, as could be expected, given its liberalized and highly international nature, reinsurance stands out (90 schedules). Far fewer Members, some 70 on average, made commitments in capital market-related services such as trading, underwriting of securities, asset management, settlement and clearing services, and advisory and other auxiliary financial services.

141. Of the 17 subsectors listed in the Annex on Financial Services[109], Members on average committed about 13 (12 if recently acceded Members are not taken into account). Coverage is more comprehensive among developed countries, who made commitments in all 17 sub-sectors, compared to transition economies, developing, and least-developed countries, who made commitments in 15.8, 11.3, and 11.7 subsectors respectively.

142. Tables 16 and 17 present the levels of market access commitments for insurance and banking and other financial services for all modes of supply, based on a distinction between full (i.e. no limitations), partial (i.e. some limitation) and unbound. The percentage shares of the three levels are calculated on the basis of the sub-sector under consideration. For example, among the Members making commitments regarding non-life insurance services under mode, 12 per cent made full commitments, 58 per cent introduced limitations, and the remaining 30 per cent left the mode unbound.[110]

143. As could be expected, across all subsectors the proportion of full commitments is higher in general for trade through mode 2 and lower for mode 4. The percentage share of full commitments for trade through mode 1 is generally low – roughly under 27 per cent. However, there are variations depending on the subsector. While the share of full commitments in mode 1 is extremely low for services such as life and non-life insurance, which have historically required a commercial presence or have been subject to the requirement of establishing a presence in the host country), they are much

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[108] See Marchetti (2009 b) for an overview of results achieved in the 1995 and 1997 negotiations.

[109] Considering life and non-life insurance services as two separate subsectors, and trading in all sorts of securities and financial assets as one subsector.

[110] A focus on market access for this type of general analysis is warranted not only because of the importance of market access limitations for foreign service suppliers, but also because, as per Article XX:2 of the GATS, any measures inconsistent with both Article XVI (market access) and Article XVII (national treatment) are scheduled in the market access column. As a consequence of this scheduling convention, the entry "none" in the national treatment column may not necessarily be taken to mean a full commitment to national treatment in cases where market access limitations also constitute limitations on national treatment. This makes it more difficult to assess the degree of commitment to national treatment.

higher for sectors such as provision and transfer of financial information (which has been increasingly concentrated in specific locations, benefiting from outsourcing), and MAT insurance services and reinsurance services.[111] The latter services are commonly supplied on a cross-border basis from the world's major financial centres, and countries usually place few restrictions on their supply.

144. Stronger commitments have been made in general under mode 3 than under mode 1. This is due on the one hand, to supervisory concerns on the part of financial regulators that have historically preferred supply through a local establishment than on a cross-border basis for most financial services, particularly for reasons of consumer protection (i.e. direct insurance, and retail commercial banking) and, on the other hand, to concerns regarding the potential legal effect of GATS disciplines on the regulation of capital flows. Those concerns have motivated higher proportions of "unbound" in mode 1 than in mode 3. Indeed, as can be gauged by Table 16,the combined percentage share of full and partial commitments in mode 1 is much lower than in mode 3. The observed distribution of commitments therefore generally confirms the notion that governments have preferred commercial presence to cross-border supply, but the differences are not very great.

145. The high proportion of partial commitments in mode 3 is not surprising taking into account that the financial sector has been traditionally subject to heavy regulation.[112] Many of the market access limitations scheduled seem to be of a non-discriminatory nature (i.e. limitations on the type of legal entity that must be established to supply specific financial services, or restrictions on the concentration of bank ownership and the ability of non-financial corporations to purchase substantial stakes in financial entities, particularly banks, without regulatory approval. Another interesting feature of commitments in financial services is that they tend to be particularly "wordy". As a result, a good number of the limitations found cannot be easily allocated to one of the six categories of market access limitations contained in Article XVI:2 of the GATS. Some of them seem to be clearly of a prudential nature and, therefore, would not need to be scheduled as per the Scheduling Guidelines (e.g. minimum capital requirements), while others seem to relate to non-discriminatory authorization or licensing requirements.[113] Again, if these requirements are maintained for domestic regulatory purposes, they do not need to be inscribed in schedules either. Otherwise, if they serve as an implementation mechanism for quantitative restrictions, it is the latter that ought to be inscribed.

146. In general, among the six types of measures limiting market access as listed in Article XVI:2 of the GATS, restrictions on the type of legal entity (e.g. specific legal types, or restrictions on direct branching) predominate. These are followed by limitations on the participation of foreign capital, limitations on the number of suppliers, and limitations on the value of transactions or assets (such as limitations on the share of banking assets allowed to be held by foreign banks). Limitations on the number of service operations and on the total quantity of service output (such as numerical limits on the number of ATMs allowed) are relatively few. The frequency of the types of measures do not differ very much for the major sub-sectors of financial services (e.g. direct insurance and deposit-taking and lending).

147. It should be kept in mind, however, that, except for recently acceded Members, current commitments do not reflect the actual level of liberalization in most WTO Members. Recent research

[111] MAT stands for marine, aviation, and transport insurance.
[112] For a discussion about trade policy in financial services, see Marchetti (2009 a).
[113] For information on the main barriers identified by Members in the current negotiations, see "Financial Services", Informal Note by the Secretariat, (JOB(05)/190, dated 19 September 2005).

comparing WTO specific commitments in banking services with current regulatory practice in the sector shows that many Members are more open in reality than they have committed to at the WTO.[114]

148. Additional Commitments have been made only by a small number of Members: Albania, Brazil, China, Chinese Taipei, the European Union, Japan, and the United States.[115] Finally, sector-specific MFN exemptions in financial services have been taken by 27 Members: Austria, Brunei Darussalam, Canada, Colombia, Côte d'Ivoire, El Salvador, the European Union, Honduras, Hungary, Indonesia, Israel, Liechtenstein, Mauritius, Nicaragua, Pakistan, Peru, Philippines, Senegal, Singapore, Slovak Republic, South Africa, Swaziland, Switzerland, Turkey, United Arab Emirates, United States, and the Bolivarian Republic of Venezuela.

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[114] See Barth *et. al.* (2009a)). The paper compares information on 123 WTO Members' commitments on banking services (counting each EC member state individually) with World Bank data on regulatory practices in those countries ("Reported Practices" data). The latter information was compiled through questionnaires replied by each country's regulatory agency, and reflects therefore "practice" instead of specific pieces of legislation or regulation. For an overview of methods used in other papers to quantify the degree of restrictiveness of WTO specific commitments on banking and other financial services, see Barth et al. (2009b)).

[115] For a full analysis of additional commitments in financial services, see "Additional Commitments under Article XVIII of the GATS", background note by the Secretariat, WTO document S/CSC/W/34 (paragraphs 40 to 80) and Add.1.

ANNEX

The Classification of Financial Services

1. The GATS Annex on Financial Services defines financial services as "any service of a financial nature offered by a financial service supplier of a Member", including all insurance and insurance-related services, and all banking and other financial services (excluding insurance). Financial services is the only sector in the GATS for which two internationally recognised classifications exist: one is contained in the Annex on Financial Services and one is included in the Services Sectoral Classification List, document MTN.GNS/W/120, dated 10 July 1991 (hereinafter "the W/120").[1] Both classifications are deemed to cover the whole range of financial services under the GATS coverage. However, although similar in their description of financial services, both classifications present some differences.

2. The main differences in the structure and listing of financial services between the two classifications are the following:

(a) Each sector contained in the W/120 is accompanied by a Provisional Central Product Classification (CPC) number, whose purpose is to provide a more detailed definition of each-subsector.

(b) While the classification in the Annex distinguishes between life and non-life insurance, the W/120 distinguishes between life, accident and health insurance on the one hand, and non-life insurance on the other.

(c) While the W/120 classifies together "services auxiliary to insurance" and "insurance intermediation services" (e.g. broking and agency), the classification in the Annex distinguishes between intermediation services, such as brokerage and agency, on the one hand, and services auxiliary to insurance, on the other. The Annex provides examples of the latter, such as consultancy, actuarial, risk assessment and claim settlement services.[2]

(d) The Annex classification provides a non-exhaustive list of so-called payment and money transmission services, i.e., credit card, charge and debit cards, travellers cheques and bankers drafts services.

(e) While subsector (k) in the W/120 refers to "[a]dvisory and other auxiliary financial services", the equivalent subsector in the Annex adds a reference to "intermediation", which does not appear to be totally clear in this context.[3]

3. The correspondence between the literal headings in the W/120 and the Provisional CPC numbers is not entirely straightforward. The main problems include:

[1] See Guidelines for the Scheduling of Specific Commitments under the General Agreement on Trade in Services (GATS), document S/L/92, dated 28 March 2001, paragraph 23.

[2] The same distinction could in principle be achieved by opening up CPC number 8140 at 5-digit level.

[3] As a matter of fact, the illustrative list of services mentioned in this subsector relates more to advice and auxiliary services than to intermediation services *per se*.

(a) While accident and health insurance are included in "life" insurance instead of "non life" insurance as in the Provisional CPC, the corresponding CPC code given in the W/120 for life, accident and health insurance services (8121) does not cover accident and health insurance (81291 under non-life insurance in the CPC), which appears to contradict the heading for this item.

(b) While reinsurance and retrocession services have been separated out in the W/120, the Provisional CPC code used (81299* under non-life insurance in the Provisional CPC) gives the impression that reinsurance and retrocession are only part of non-life insurance services, while in fact reinsurers provide services to both life and non-life insurers. It would have probably been better to use the Provisional CPC code 812*, which already includes reinsurance.

(c) Both classifications set "pension fund management services" apart from life insurance services and include those services as part of "asset management services" (under "Banking and other Financial Services"). However, the corresponding Provisional CPC code adopted in the W/120 (81212) does not take into account that pension fund management services (which in the Provisional CPC are classified together with life insurance services) are separated out and put under asset management services. In other words, the Provisional CPC code 8121 already covers both life and pension fund management services.[4]

4. While a majority of Members (absent 64 per cent) have adopted either the classification in the Annex or in the W/120 in whole or in part, the rest has opted for their own classification in either insurance or banking and other financial services. Some of the latter have complemented their own classifications with the use of CPC numbers. It is not uncommon to find Members using one classification for one of the subsectors (e.g. insurance), and another for other subsectors (e.g. banking and other financial services). In some cases, only a partial use of CPC numbers has been made, even within the same subsector.

5. The fact that only about half of the schedules contains CPC numbers (about 43 per cent for banking and other financial services and 51 per cent for insurance) may be an indication of the difficulties encountered by Members in identifying the different subsectors with CPC codes.[5] It is worth noting in that regard that a good number of Members have expressed a preference for the classification in the Annex on Financial Services, which in their view provides a flexible and comprehensive framework for scheduling commitments, and which is more disaggregated and therefore more appropriate for the purposes of scheduling than the provisional CPC codes used in the W/120 classification. According to a Member, the broad definitions in the Annex also cover services the purchase of which is compulsory (e.g. certain types of insurance).

6. A few Members raised classification issues towards the beginning of the negotiations which have not been thoroughly examined thus far. Although these Members consider that the classification of financial services (particularly the one contained in the Annex) is comprehensive and flexible in general, they express doubts whether certain services are adequately captured. Services mentioned in this context include alternative (electronic) trading systems, venture capital; electronic bill presentment; and securitisation. How to address these services in the classification remains open.

[4] The provisional CPC group 812 is entitled "Insurance (including reinsurance) and pension fund services, except compulsory social security services", and is further subdivided in classes 8121 (life insurance and pension fund services) and 8129 (non-life insurance services).

[5] The analysis that follows is based on "Financial Services", Informal Note by the Secretariat (JOB(05)/190, dated 19 September 2005).

7. New definitions of marine and energy insurance have been proposed for the purposes of scheduling commitments. In the case of marine insurance, it has been proposed to broaden the definition used in the Understanding on Commitments in Financial Services in order to clearly identify (non-life) insurance services with regard to (i) transportation of passengers (scheduled or non-scheduled), and (ii) larger fishing vessels. In the case of energy insurance, the new definition proposed addresses the insurance of the commercial upstream – or the so-called "offshore" – segment of the market; i.e. all insurance related to: (a) exploration; (b) development; (c) production activities; and (d) properties in the petroleum sector, both onshore and offshore.[6]

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[6] According to this proposal, the insurance products would normally cover a petroleum company's assets and liabilities during the exploration and operation phase, including vessels operating in these activities. This consists of insurance relating to drilling and producing oil and gas; transportation to terminals by pipelines or vessels; gathering, separation, storage, terminals and other processes prior to arrival at refinery; marine liabilities and pollution liability; business interruptions arising form physical damage to installations, etc.; terrorist coverage; and other associated properties or plants relating to the upstream activities, including mobile offshore units, supply boats, safety vessels and related vessels and units. Insurance related to refineries (which is considered down-stream business) could also be included. However, liability insurance in relation to occupational injury or illness is not included.

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APPENDIX

Table 1: Share of value added of the finance and insurance services sectors, 2000-2008
(percent of GDP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Afghanistan a	...	...	0.7	1.0	1.3	1.4	1.6	2.0	...
Albania	4.1	3.7	3.6	3.9	3.3	3.9	4.0	4.6	...
Algeria	2.0	2.4	2.3	2.1	...	...	...	...	...
Andorra	21.4	22.3	20.9	18.4	17.8	18.4	18.9	19.8	...
Anguilla	13.3	13.9	12.1	12.5	12.7	11.6	10.5	...	...
Argentina	4.3	5.4	5.5	3.9	4.1	4.3	4.6	4.9	...
Armenia	2.0	2.1	1.7	1.6	1.8	1.9	2.3	2.4	3.0
Aruba	7.0	7.1	6.6	6.7	6.7	6.8	6.7	...	...
Australia	7.1	7.5	7.4	7.6	7.7	7.8	8.0	7.8	...
Austria	5.6	5.5	5.5	5.2	5.2	5.5	5.4	5.4	...
Azerbaijan	1.0	1.3	1.1	1.3	1.5	1.5	1.4	1.6	1.8
Bahamas	12.6	13.7	13.2	10.7	10.9	11.2	11.1	...	...
Bahrain	21.6	18.9	17.8	21.4	24.4	24.1	23.1	23.0	20.6
Bangladesh	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7
Belgium	6.0	5.6	6.1	5.8	6.1	5.9	5.7	5.6	...
Belize	7.2	7.4	8.4	9.6	9.5	9.4	8.9	...	...
Bhutan	3.9	4.0	3.4	3.6	4.1	5.1	5.6	5.1	...
Bolivia	6.0	5.5	5.2	4.3	3.6	4.0	4.0	4.3	4.5
Bosnia and Herzegovina	3.6	3.4	3.7	3.7	3.7	4.2	4.1	4.4	...
Botswana	4.6	4.2	4.8	5.3	5.5	5.4	5.5	5.3	5.9
Brazil	6.0	6.8	7.5	7.1	5.8	7.1	7.2	...	...
British Virgin Islands	6.3	4.9	5.0	5.2	5.8	4.9	5.6	5.4	...
Brunei Darussalam b	3.1	3.5	3.4	3.1	2.8	3.0	3.0	2.9	...
Bulgaria	3.0	3.2	3.5	3.9	4.3	5.5	5.6	7.0	...
Burkina Faso	1.3	1.5	1.3	1.3	1.5	1.5	1.6	1.6	1.8
Cambodia	1.3	1.0	1.1	1.0	1.2	1.2	1.3	1.5	...
Cameroon	1.3	1.3	1.3	1.4	1.3	1.2	0.9	0.8	...
Canada	7.1	7.3	7.3	7.3	7.4	...	...	...	...
Cape Verde c	...	...	...	...	4.5	4.1	4.6	...	...
Chad	1.1	0.9	...	...	...	...	...	...	...
China	4.1	4.0	3.8	3.7	3.4	3.4	4.0	4.4	...
Colombia	4.1	4.1	4.3	4.3	4.4	4.5	4.1	4.4	...
Costa Rica	4.8	5.0	5.4	5.7	5.6	5.9	5.9	6.1	...
Côte d'Ivoire	4.0	...	...	...	...	...	...	...	...
Croatia	3.9	4.4	4.9	5.3	5.1	5.9	...	...	...
Cyprus	7.7	7.1	6.3	6.2	6.6	6.9	7.5	8.0	...
Czech Republic	2.8	3.2	3.1	3.6	3.5	3.0	3.1	3.7	...
Denmark	4.7	4.7	5.0	5.4	5.3	5.4	5.3	5.4	...
Dominica	11.3	11.6	11.3	11.2	11.5	11.8	12.0	...	...
Dominican Republic	4.0	4.6	5.2	5.1	4.4	4.1	4.7	5.5	6.0
Ecuador	2.0	2.2	2.3	2.2	2.2	2.6	2.7	2.6	...
Egypt	10.9	10.7	8.8	8.5	10.0	7.7	7.3	...	...
El Salvador	4.5	4.5	4.5	4.4	4.6	4.7	4.7	4.7	...
Estonia	4.1	3.8	4.2	3.8	3.9	3.7	3.8	4.1	...
Ethiopia	1.8	1.8	1.4	1.7	1.7	1.7	1.8	1.7	1.5
EU (27)	4.9	4.8	5.1	5.4	5.5	5.6	5.5	5.5	5.4
Fiji d	5.6	7.1	6.8	5.6	5.7	5.4	7.8	8.3	...
Finland	4.3	3.6	3.4	2.2	2.6	2.3	2.6	2.9	...

	2000	2001	2002	2003	2004	2005	2006	2007	2008
France	5.1	4.5	4.8	4.9	4.9	4.9	4.9	4.7	4.6
FYR Macedonia	3.6	3.7	3.6	2.8	3.2	3.3	3.6	3.9	...
Gambia	7.8	7.5	7.6	7.2	7.1	7.0	6.6	6.6	...
Georgia	1.6	1.5	1.5	1.6	1.4	2.2	2.4	2.5	2.4
Germany	4.2	4.1	4.4	4.7	5.1	5.0	4.8	4.2	...
Greece	5.5	4.3	4.2	4.5	4.6	4.8	4.5	4.7	...
Grenada	8.7	9.2	9.4	10.0	10.1	8.8	8.8	9.1	...
Guatemala	...	2.7	2.8	2.7	2.8	2.8	2.9	...	...
Guinea	1.3	1.2	1.8	2.0	1.9	2.0	3.4	...	...
Guyana	3.9	3.7	3.6	3.6	3.6	3.9	4.0	4.4	...
Honduras	5.3	5.4	5.4	5.3	5.7	5.7	6.2	6.5	6.9
Hong Kong, China	12.0	11.4	11.6	12.4	12.3	12.8	15.9	...	...
Hungary	3.3	3.4	3.8	3.9	4.1	4.7	4.5	4.2	...
Iceland e	5.4	6.0	6.1	7.3	8.2	9.2	10.0	...	...
India	5.4	5.9	6.3	6.3	5.8	5.4	5.6	5.5	...
Indonesia	4.6	4.6	4.5	4.5	4.2	4.0	3.7	3.6	...
Iran, Islamic Rep. of	1.6	1.5	1.8	2.4	3.3	3.6	4.4	5.0	...
Iraq	0.3	0.5	0.6	...	0.6	0.7	0.7	0.8	...
Ireland	7.3	7.6	7.6	9.2	9.8	10.1	10.2	10.6	...
Italy	4.7	4.8	4.6	4.8	4.7	4.8	4.8	5.1	...
Jamaica	8.6	8.7	8.8	10.5	10.0	9.6	8.9	8.9	...
Japan	5.9	6.3	6.6	6.7	6.5	6.7	6.7	6.5	...
Jordan	3.7	3.9	4.9	5.0	5.2	6.9	6.9	...	...
Kazakhstan	3.3	3.6	3.7	3.3	3.1	3.4	4.8	6.1	...
Kenya	4.0	4.6	4.0	4.9	3.9	3.8	4.4	5.3	...
Kiribati	7.7	8.1	7.5	6.0	10.9	14.0	11.9	13.6	12.9
Korea, Republic of	5.8	6.4	7.5	7.3	6.7	6.9	6.8	7.0	...
Kuwait	5.2	6.2	7.2	8.4	8.6	10.5	10.7	12.2	...
Kyrgyz Republic	0.5	1.2	1.6	1.6	2.1	2.5	2.9	3.8	4.0
Lao People's Dem. Rep.	0.8	0.8	0.4	0.4	0.3	0.4	1.5	1.7	...
Latvia	4.9	4.4	5.0	4.9	5.1	6.0	6.8	6.2	...
Lesotho	4.2	4.2	4.1	4.6	4.3	3.7	4.0	4.0	...
Libyan Arab Jamahiriya	...	2.1	1.7	1.6	1.3	1.1	1.0	1.1	...
Lithuania	2.2	2.1	2.3	1.9	1.9	2.3	2.9	3.5	...
Luxembourg	25.0	21.2	20.7	23.2	22.9	25.4	28.8	27.2	...
Macao, China	11.5	11.1	10.5	9.7	8.0	9.5	10.2	9.3	...
Madagascar	1.2	1.0	0.9	0.9	1.0	1.1	1.1	1.1	...
Malawi	...	...	5.6	6.7	6.2	6.2	...	...	...
Malaysia	8.9	9.6	9.9	9.3	8.6	8.3	8.3	8.1	...
Mali	0.9	0.8	0.9	0.8	0.8	0.9	0.9	0.9	0.9
Malta	5.9	6.1	5.4	4.9	4.1	4.9	5.0	4.4	...
Mauritania	...	2.2	...	...	...	2.5	1.5	...	...
Mauritius	9.1	8.4	8.8	9.5	9.3	9.8	9.8	9.9	10.2
Mexico	2.3	2.1	3.5	3.0	3.1	3.7	3.6	...	...
Moldova	5.9	5.0	4.8	5.2	5.4	5.3	5.8	7.1	7.4 (p)
Mongolia	2.5	3.2	3.4	4.3	4.3	4.1	3.2	3.7	...
Montenegro	3.5	2.6	2.7	2.7	2.7	2.9	3.7	4.7	...
Morocco	5.8	5.6	5.5	5.3	5.2	5.7	5.8	6.7	...
Mozambique	4.0	3.7	3.7	3.6	3.8	4.8	4.5	4.6	...
Myanmar b, f	0.1	0.1	0.1	0.1	0.1	0.1	...	...	...
Namibia	3.9	3.8	3.9	4.9	4.3	4.3	4.4	4.4	...
Nepal	2.8	2.8	2.8	2.7	3.2	3.6	4.2	4.9	...
Netherlands	6.1	6.1	6.5	7.3	7.4	7.7	6.7	6.0	...

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Netherlands Antilles	15.5	15.1	16.3	17.6	17.4	19.4	17.3	...	...
New Zealand g	5.8	6.0	6.4	...	...	...	...	...	...
Nicaragua	3.8	3.6	4.0	4.3	5.0	4.7	4.9	5.7	6.0
Niger	0.8	0.9	0.7	0.9	1.3	1.3	1.2	1.4	1.3
Nigeria	1.0	1.2	1.1	1.0	0.9	0.9	1.6	1.7	1.5
Norway	3.0	3.0	3.1	4.0	4.3	3.9	3.4	3.6	3.6
Oman	3.9	4.3	4.6	4.6	4.5	3.9	3.9	3.7	...
Panama	9.6	10.0	10.0	9.2	8.7	9.1	8.6	9.0	...
Paraguay	3.5	3.5	3.3	2.7	2.4	2.6	2.8	2.8	...
Peru	3.0	2.7	3.1	3.2	3.1	3.3	3.2	...	...
Philippines	4.4	4.4	4.3	4.3	4.4	4.8	5.2	5.4	...
Poland	4.9	4.5	4.2	4.2	4.2	4.4	4.5	5.2	...
Portugal	6.1	6.5	6.3	6.5	6.6	6.6	7.5	...	...
Qatar	2.8	3.4	3.7	3.7	3.2	4.5	...	...	...
Romania	1.7	2.2	2.8	2.1	2.5	2.3	2.0	1.9	...
Russian Federation	1.4	2.5	3.1	3.4	3.4	4.0	4.5	4.7	4.7
Rwanda	2.7	2.9	3.1	...	...	...	...	...	...
Saint Kitts and Nevis	14.3	14.4	14.8	15.1	14.8	17.0	16.9	17.6	18.5
Saint Lucia	8.2	9.0	9.2	9.4	9.2	9.4	9.2	...	...
Saint Vincent & the Grenadines	8.2	7.3	7.6	9.5	9.9	11.7	10.9	10.7	...
Sao Tome and Principe	...	2.8	2.5	5.1	5.6	6.7	6.9	8.3	...
Senegal	0.7	0.7	0.7	1.0	1.3	1.3	1.1	1.0	...
Serbia	1.9	2.6	3.8	3.8	3.1	2.9	2.9	3.0	...
Seychelles	7.3	7.9	...	...	7.5	6.5	6.9	7.1 (p)	6.1 (p)
Singapore	11.6	12.9	12.6	11.9	11.4	11.6	11.8	13.2	14.0
Slovak Republic	2.4	2.3	4.0	4.0	4.1	4.5	4.2	3.8	...
Slovenia	4.7	4.2	4.5	4.4	4.4	4.3	4.9	4.5	...
Solomon Islands	...	...	...	1.2	1.6	2.2	2.4	...	...
South Africa	8.2	8.3	7.9	7.7	8.0	7.8	...	...	...
Spain	4.6	4.9	4.9	4.8	4.7	4.6	4.7	5.2	...
Suriname	5.7	6.0	6.0	5.6	6.0	6.4	6.5	6.2	...
Swaziland	2.8	2.4	2.6	2.7	3.1	3.3	3.3	3.1	...
Sweden	4.3	4.1	3.8	3.8	4.2	4.5	3.7	3.6	...
Switzerland	13.2	11.3	11.5	12.2	12.2	12.0	12.5	...	...
Tajikistan	...	1.5	1.9	...	...	...	...	...	...
Tanzania	1.7	1.6	1.8	1.8	1.8	1.8	1.8	1.8	...
Thailand b	3.0	2.9	3.1	3.4	3.6	3.7	3.7	3.7	...
Tonga	9.6	10.1	10.9	11.0	11.7	12.4	12.6	...	...
Turkey	7.5	9.2	4.9	3.8	3.8	3.2	3.3	3.6	...
Turks and Caicos Islands	8.8	8.2	8.1	7.2	9.4	10.5	11.7	11.5	...
Uganda	...	...	2.3	2.7	2.9	2.6	2.7	3.1	...
Ukraine	2.1	2.9	3.0	3.8	6.7	5.0	5.2	6.5	6.7 (p)
United Arab Emirates	...	6.5	6.2	6.1	7.0	8.1	7.7	7.5	...
United Kingdom	5.2	5.3	6.6	7.0	7.0	7.1	7.7	8.3	...
United States	8.1	8.3	8.5	8.5	8.4	8.6	8.7	8.5	...
Uruguay	6.5	7.3	8.1	7.0	5.9	6.0	6.1	6.1	5.5
Vanuatu	6.3	7.7	7.9	8.1	8.4	9.2	8.7	8.2	...
Venezuela	2.5	2.6	2.9	2.8	2.2	1.7	2.2	...	...
Viet Nam	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Yemen	3.1	3.1	2.7	2.6	2.6	2.9	3.6	4.1	...
Zambia	10.3	10.0	9.6	9.4	9.1	8.8	8.5	8.1	7.8
Zimbabwe	7.7	4.0	4.0	8.2	5.7	4.7	3.2	1.5	...

a Includes insurance, real estate and business activities.
b Value Added refers to GDP.
c Refers to banking and insurance.
d 2000-2004 include insurance.
e At factor cost.
f Refers to financial institutions.
g At producers' prices.
(p) provisional

Source: United Nations, OECD, Eurostat, and UK Office for National Statistics.

Table 2: Share of employment in the finance and insurance services sectors, 2000-2008
(percent of total employment)

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Algeria	...	1.1	...	1.0	0.9	...	...	...	...
Anguilla	...	3.5	...	...	...	...	...	...	...
Antigua and Barbuda	...	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Argentina	2.5	2.4	2.3	1.7	1.5	1.7	1.9	...	...
Armenia	...	...	...	...	...	...	...	1.2	...
Aruba	...	...	...	...	...	...	...	3.7	...
Australia	3.7	3.9	3.7	3.7	3.6	3.8	3.8	3.9	3.7
Austria	3.7	3.5	3.5	3.5	3.7	3.8	3.4	3.4	3.5
Azerbaijan	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.5
Bahamas	...	10.7	10.8	10.1	11.1	10.1	11.1	11.8	...
Bahrain	...	2.2	...	...	...	...	...	...	...
Bangladesh	...	...	...	0.5	...	1.1	...	...	...
Belgium	...	4.0	3.9	3.8	3.7	3.8	3.7	3.7	4.0
Belize	...	...	...	...	...	1.6	...	...	...
Bermuda	7.6	...	...	...	...	...	...	...	...
Bhutan	...	...	...	...	...	0.9	...	...	...
Bolivia	0.5	0.5	0.5	...	0.4	0.3	0.5	0.6	...
Botswana	0.9	...	...	1.1	...	...	1.6	...	...
Brazil	...	...	1.2	1.3	1.2	1.2	1.2	1.3	...
Brunei Darussalam	...	5.6	...	...	...	...	...	...	...
Bulgaria	...	...	...	1.1	1.2	1.3	1.3	1.3	1.7
Canada	4.1	4.3	4.3	4.1	4.3	4.4	4.5	4.5	4.6
Cayman Islands	...	...	...	...	...	8.7	9.2	9.5	10.1
Colombia	...	...	1.2	1.2	1.3	1.3	1.2	1.3	1.3
Costa Rica	1.8	1.9	2.0	2.2	2.2	2.0	2.1	2.6	2.7
Croatia	2.4	1.9	2.3	2.1	2.0	1.8	2.4	2.3	2.1
Cyprus	5.4	6.3	5.8	5.0	4.7	5.2	5.3	5.0	5.1
Czech Republic	2.1	2.1	2.0	2.0	2.0	2.0	1.9	2.1	2.3
Denmark	3.1	3.1	3.2	3.0	3.0	3.3	3.3	3.1	3.1
Dominican Republic	...	...	...	2.1	1.7	1.9	1.9	2.1	...
Ecuador	1.3	0.9	1.3	1.5	1.3	1.3	1.2	...	...
Egypt	1.1	1.1	1.2	1.1	1.0	0.9	0.9	0.9	...
El Salvador	3.8	4.1	4.1	4.3	4.1	4.7	4.3	4.7	...
Estonia	1.3	1.2	1.3	1.3	1.3	1.1	1.1	1.4	1.6
EU(27)	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.6
Finland	2.1	2.1	2.0	2.1	2.1	1.9	1.9	2.0	2.0
France	...	...	...	3.0	2.8	3.0	3.2	3.2	3.1
French Polynesia	...	...	1.7	...	...	...	...	...	...
Georgia	0.5	0.5	0.4	0.5	0.7	0.8	0.8	1.0	...
Germany	3.6	3.7	3.7	3.7	3.6	3.6	3.5	3.4	3.4

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Gibraltar	8.3	8.5	8.5	8.0	8.3	8.5	9.4	9.6	...
Greece	2.6	2.7	2.3	2.6	2.6	2.6	2.6	2.5	2.6
Guatemala	...	...	...	...	...	...	3.3	...	...
Guyana	...	...	1.3	...	...	...	...	...	...
Hungary	2.2	2.0	1.9	1.9	2.1	2.1	2.0	2.1	2.4
Iceland	4.2	4.1	3.9	4.0	4.4	4.1	4.3	4.9	5.0
Indonesia	0.5	0.5	0.5	0.4	0.5	0.6	0.7	0.7	0.7
Iran, Islamic Rep. of	...	...	...	...	...	1.3	1.3	1.3	1.4
Ireland	4.1	4.0	4.0	4.1	4.5	4.3	4.2	4.3	4.5
Isle of Man	...	18.9	...	...	...	...	16.7	...	...
Israel	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.5	3.6
Italy	3.1	3.0	3.0	3.0	2.9	2.8	2.9	2.9	2.8
Japan	...	...	...	...	...	...	...	...	...
Jersey	23.9	24.6	24.6	23.9	23.6	23.6	24.0	24.7	25.0
Kazakhstan	...	0.7	0.7	0.8	0.8	0.9	1.0	1.1	1.2
Korea, Republic of	3.6	3.5	3.3	3.4	3.3	3.3	3.4	3.5	...
Kuwait	...	...	...	...	...	1.2	...	...	...
Kyrgyz Republic	...	...	0.4	0.5	0.4	0.4	0.5	...	...
Latvia	1.3	1.4	1.3	1.6	1.8	1.9	2.3	2.0	1.7
Lithuania	1.0	0.8	1.0	1.2	1.0	1.1	1.1	1.5	1.3
Luxembourg	11.2	11.7	11.6	11.2	11.0	11.0	11.4	11.5	11.8
Macau, China	3.5	3.0	3.1	3.1	2.8	2.8	2.6	2.6	2.3
Macedonia, Former Yugoslav Rep.	...	...	1.5	1.3	1.5	1.2	1.2	1.5	1.3
Madagascar	...	...	...	...	...	0.0	...	...	...
Malaysia	...	2.4	2.5	2.3	2.4	2.5	2.4	2.7	2.6
Maldives	...	...	...	...	...	...	0.5	...	...
Mali	...	...	...	...	0.2	...	...	...	...
Malta	3.6	3.7	3.9	3.6	3.0	3.9	4.2	4.1	3.8
Mauritius	1.5	1.5	1.5	1.6	1.6	1.7	1.8	2.0	2.3
Mexico	0.8	0.7	0.7	0.7	0.7	0.8	0.9	0.9	0.9
Moldova, Republic of	0.5	0.6	0.6	0.8	1.0	1.0	1.2	1.2	1.4
Mongolia	0.8	0.9	1.1	1.4	1.7	1.7	1.7	1.7	1.9
Montenegro	...	...	...	...	...	1.2	...	...	...
Morocco	...	...	1.2	1.3	1.2	1.3	1.5	...	...
Namibia	1.1	...	...	...	2.0	...	...	...	...
Nepal	...	0.5	...	...	...	...	...	...	...
Netherlands	3.5	3.6	3.4	3.2	3.3	3.2	3.3	3.1	2.9
Netherlands Antilles	6.6	...	6.8	6.4	6.9	7.2	7.5	7.6	7.2
New Zealand	3.1	2.9	2.9	2.8	3.0	3.1	3.3	3.3	3.1
Nicaragua	...	...	...	0.8	0.9	0.8	0.8	...	...
Norway	2.2	2.2	2.2	2.1	2.1	2.2	2.3	2.3	2.2
Oman	2.2	...	...	...	...	...	...	...	...
Panama	2.8	2.3	2.1	2.0	2.2	2.0	2.2	2.3	2.1
Paraguay	...	...	...	...	...	...	...	3.8	4.3
Peru	...	...	1.0	1.0	0.9	1.4	1.2	1.0	1.5
Peru	...	...	1.0	1.0	0.9	1.4	1.2	1.0	1.5
Philippines	...	...	...	...	...	...	...	...	...
Poland	2.6	2.4	2.3	2.1	2.0	2.1	2.3	2.4	2.2
Portugal	1.8	1.8	1.6	1.7	1.9	1.9	1.7	1.9	1.8
Qatar	...	1.3	...	...	...	...	1.2	1.1	...
Romania	0.9	0.7	0.8	0.9	0.9	0.9	1.0	1.0	1.2
Russian Federation	1.3	1.3	1.3	1.2	1.4	1.4	1.5	1.8	1.9
Saint Lucia	1.6	...	1.5	1.9	1.9	...	...	...	...

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Samoa	...	2.1	...	...	...	...	...	...	...
San Marino	...	3.3	3.4	3.5	3.8	4.0	4.2	4.5	4.6
Saudi Arabia	0.7	1.0	0.8	...	...	...	1.2	1.1	1.1
Senegal	...	...	...	...	...	...	0.5	...	...
Serbia	...	...	...	...	1.5	1.6	1.6	1.6	2.0
Sierra Leone	...	...	...	...	0.4	...	...	...	...
Singapore	...	5.6	5.8	5.5	5.6	...	5.9	6.1	6.7
Slovakia	1.8	1.8	1.9	2.0	2.1	2.2	2.3	2.0	2.3
Slovenia	2.5	2.6	2.4	2.5	2.3	2.4	2.2	2.3	2.3
South Africa	8.0	9.3	9.6	9.6	9.9	10.5	10.2	10.1	12.0
Spain	2.7	2.4	2.4	2.3	2.2	2.4	2.4	2.5	2.5
Sri Lanka	...	...	2.6	2.7	2.4	3.1	3.1	3.1	3.3
Suriname	...	...	...	...	1.7	...	...	...	...
Sweden	2.1	2.1	2.1	2.1	2.1	1.9	1.9	2.0	2.0
Switzerland	5.1	5.2	5.5	5.8	5.6	5.5	5.7	5.8	5.8
Syrian Arab Republic	...	...	...	...	...	...	...	...	...
Chinese Taipei	...	...	...	...	...	4.1	4.0	3.9	4.0
Tajikistan	...	...	...	...	0.8	...	...	...	...
Tanzania	...	...	...	...	...	...	0.1	...	...
Thailand	...	...	0.8	0.8	0.8	0.9	1.0	0.9	1.0
Tonga	...	...	...	1.5	...	...	...	...	...
Turkey	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.2	1.2
Turks and Caicos Islands	...	3.0	4.1	2.9	3.0	2.8	2.6	2.6	...
Uganda	...	...	...	...	...	...	...	...	...
Ukraine	...	0.9	0.9	0.9	1.1	1.2	1.4	1.6	1.9
United Arab Emirates	...	...	...	...	...	...	...	...	3.2
United Kingdom	4.3	4.4	4.5	4.4	4.2	4.2	4.3	4.3	4.3
United States	4.4	4.5	4.5	4.7	4.6	4.6	4.7	4.6	...
Uruguay	8.2	9.1	9.3	8.8	8.6	9.3	7.2	7.7	...
Viet Nam	0.3	0.3	0.3	0.4	0.4	...	...	...	...

Source: ILO, Eurostat, and U.S. Bureau of Economic Analysis.

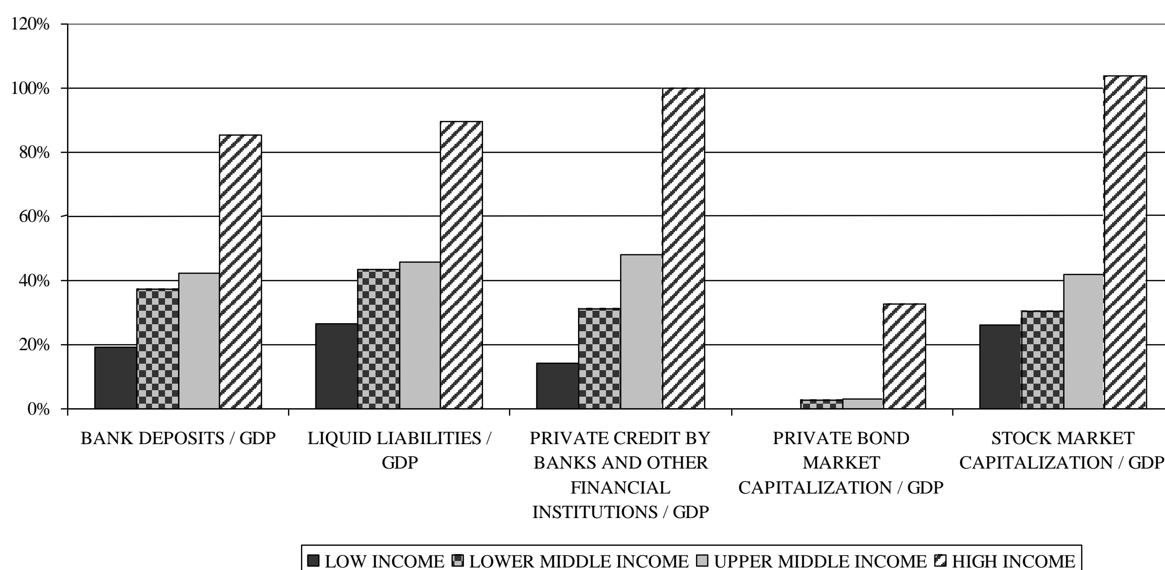
Table 3: Total financial assets in selected countries and regions, 2007-2008

	US$ trillion		percent of total	
	2007	2008	2007	2008
Total	194.0	178.0	100.0	100.0
US	60.4	54.9	31.1	30.8
Eurozone	43.6	42.0	22.5	23.6
Japan	28.7	26.3	14.8	14.8
China	14.4	12.0	7.4	6.7
UK	8.0	8.6	4.1	4.8
Latin America	4.1	3.9	2.1	2.2
Emerging Asia	4.2	3.8	2.2	2.1
Russian Federation	1.9	1.1	1.0	0.6
India	2.6	2.0	1.3	1.1
Eastern Europe	4.3	1.5	2.2	0.8
Other	21.8	21.9	11.2	12.3

Notes: 1) Financial assets include equity securities, private debt securities, Government debt securities, and bank deposits; 2) As of 1 January 2008, the Eurozone was composed of Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovenia and Spain. Slovak Republic joined on 1 January 2009; 3)Emerging Asia includes Indonesia, Macao, Malaysia, Philippines, Korea, and Thailand; 4) Eastern Europe includes Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Ukraine; 2008 exchange rates for both years.

Source: McKinsey Global Institute "Global capital markets: Entering a new era" (September 2009)

Chart 1: Financial system size indicators, 2007
(percent of GDP, median by income group)



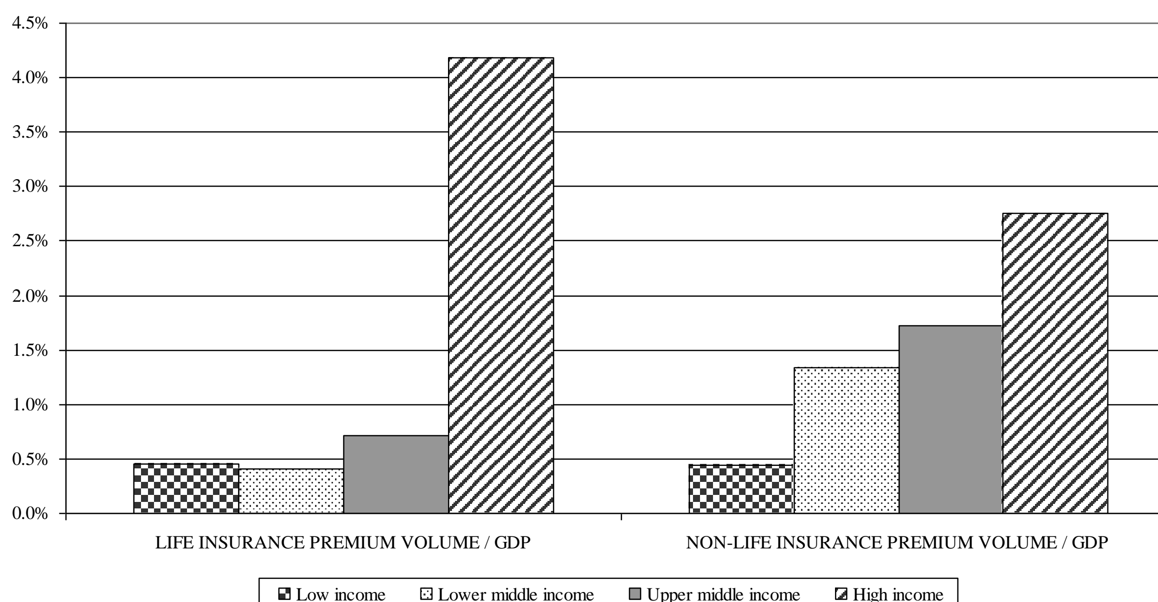
Source: Own elaboration based on Beck *et. al.* (2009)

Table 4: Insurance density, 2008
(premiums per capita, averages by income group (US$)

	Life insurance	Non-life insurance	Total
Low income	4.6	6.8	11.4
Lower middle income	22.0	41.6	63.6
Upper middle income	112.8	167.0	279.8
High income (non-OECD)	820.7	531.5	1352.2
High income (OECD)	1971.8	1378.1	3349.9

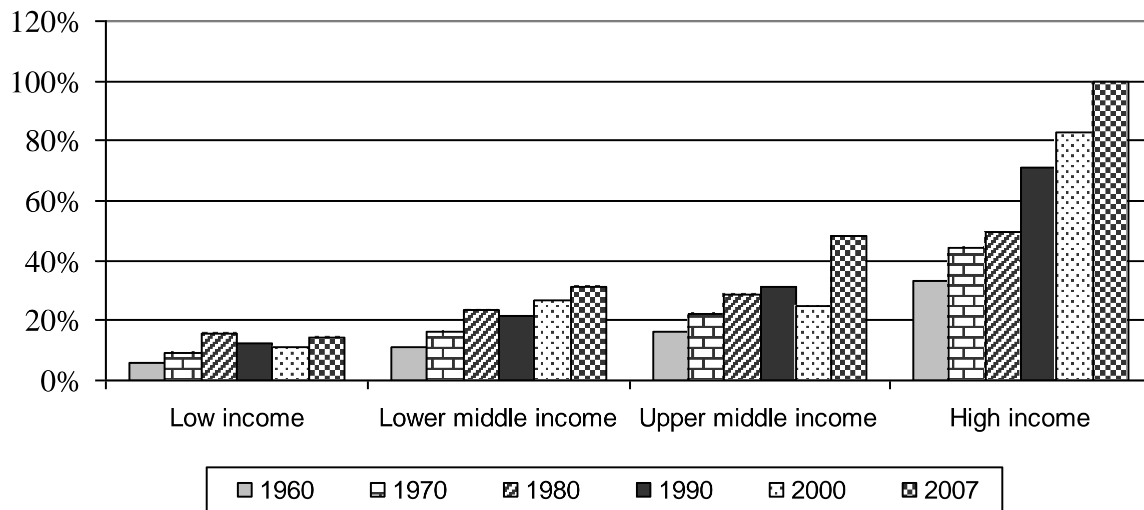
Source: SwissRe (Sigma 03/2009)

Chart 2: Insurance penetration, by income group, 2007
(life and non-life insurance premium volume to GDP, median values)



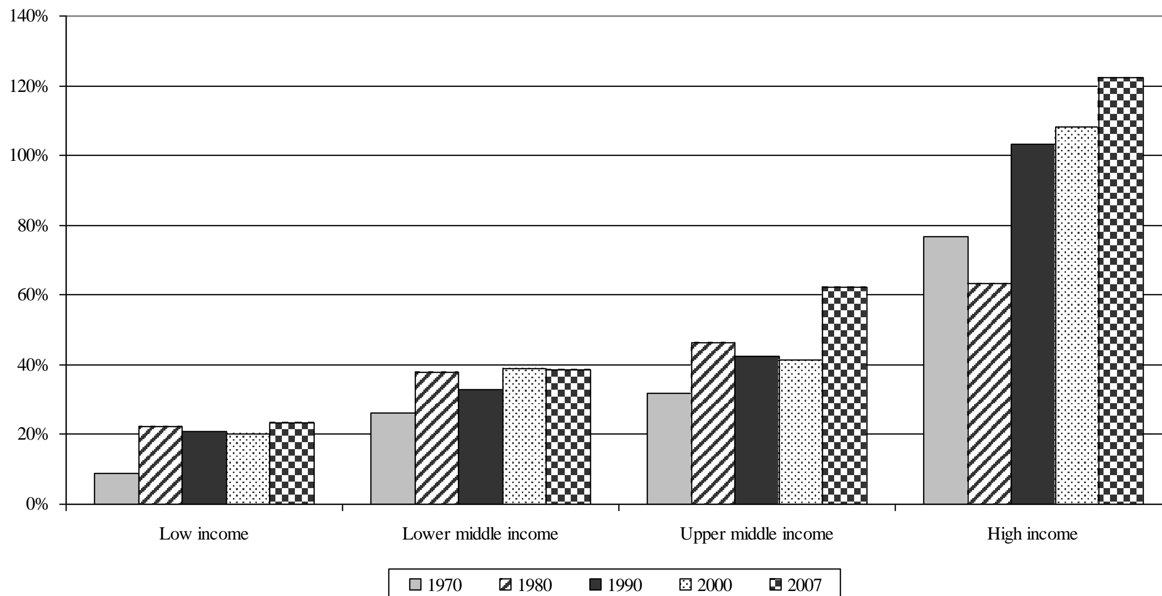
Source: Own elaboration based on Beck *et. al.* (2009)

Chart 3: Private credit, by income group, 1960-2007
(percent of total private credit to GDP, median values)



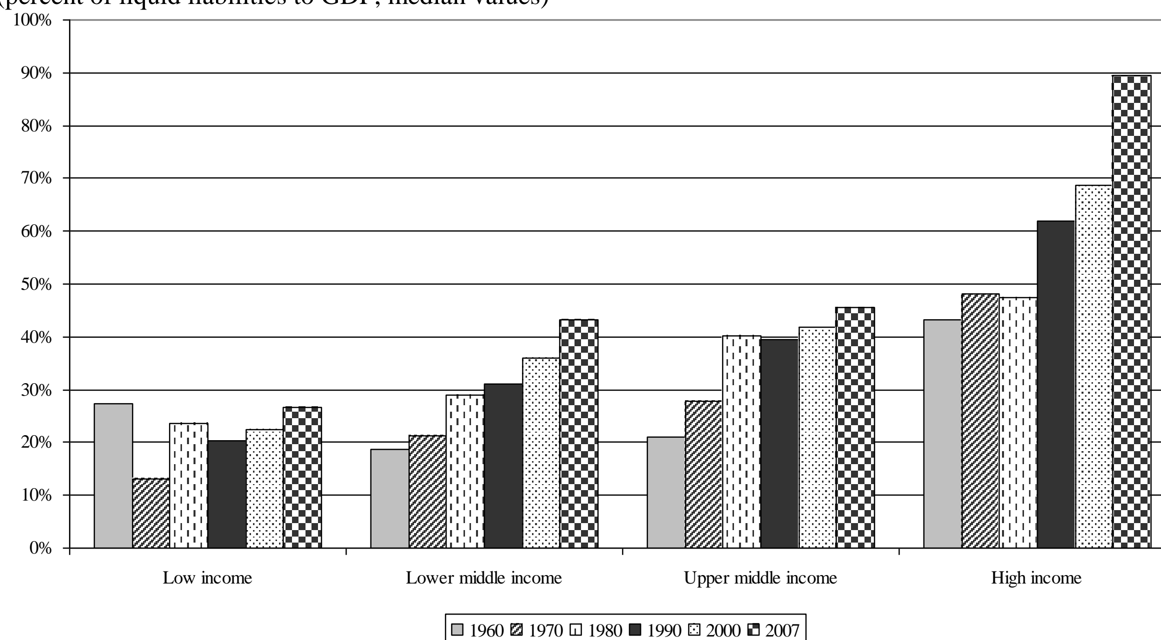
Source: Own elaboration based on Beck *et. al.* (2009)

Chart 4: Financial system size, by income group, 1970-2007
(percent of total financial assets to GDP, median values)



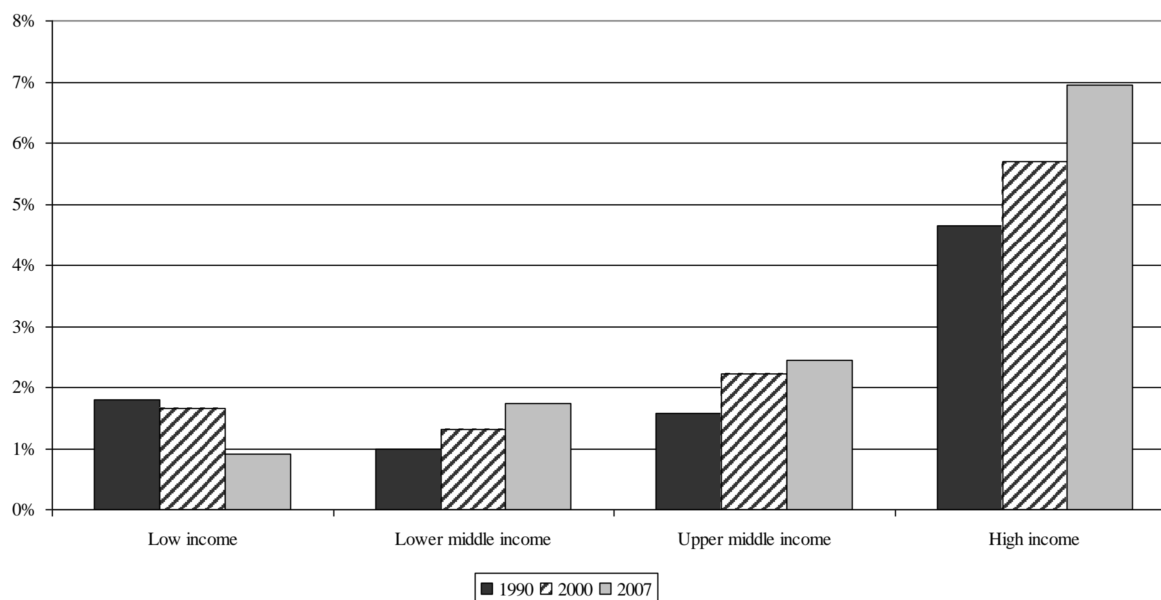
Source: Own elaboration based on Beck *et. al.* (2009)

Chart 5: Financial system size, by income group, 1960-2007
(percent of liquid liabilities to GDP, median values)



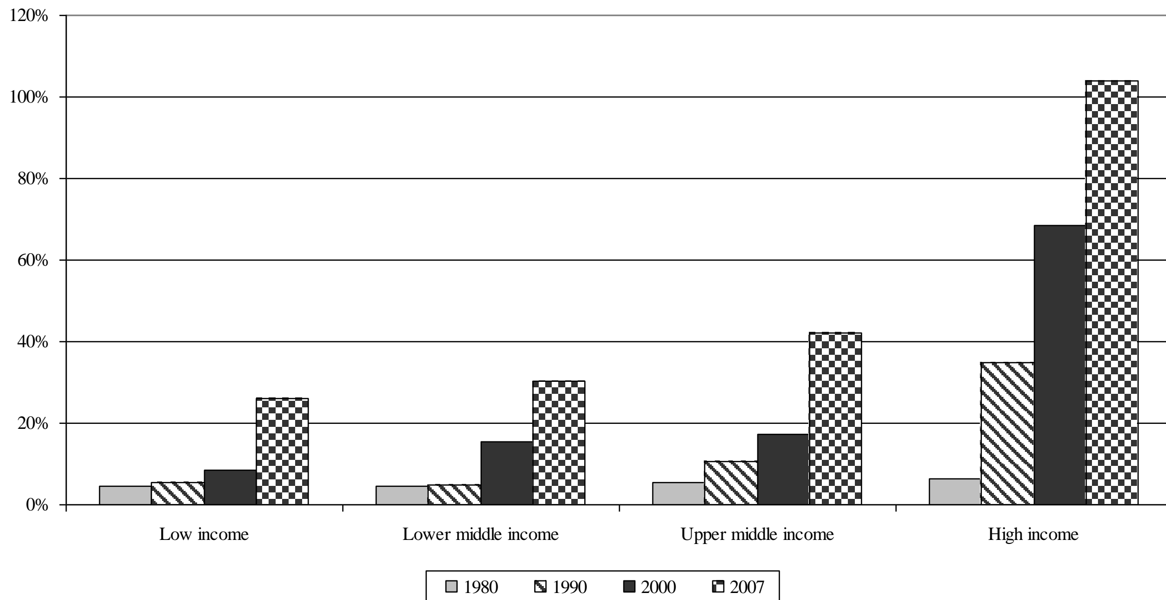
Source: Own elaboration based on Beck *et. al.* (2009)

Chart 6: Insurance market size, by income group, 1990-2007
(percent of total insurance premium volume to GDP, median values)



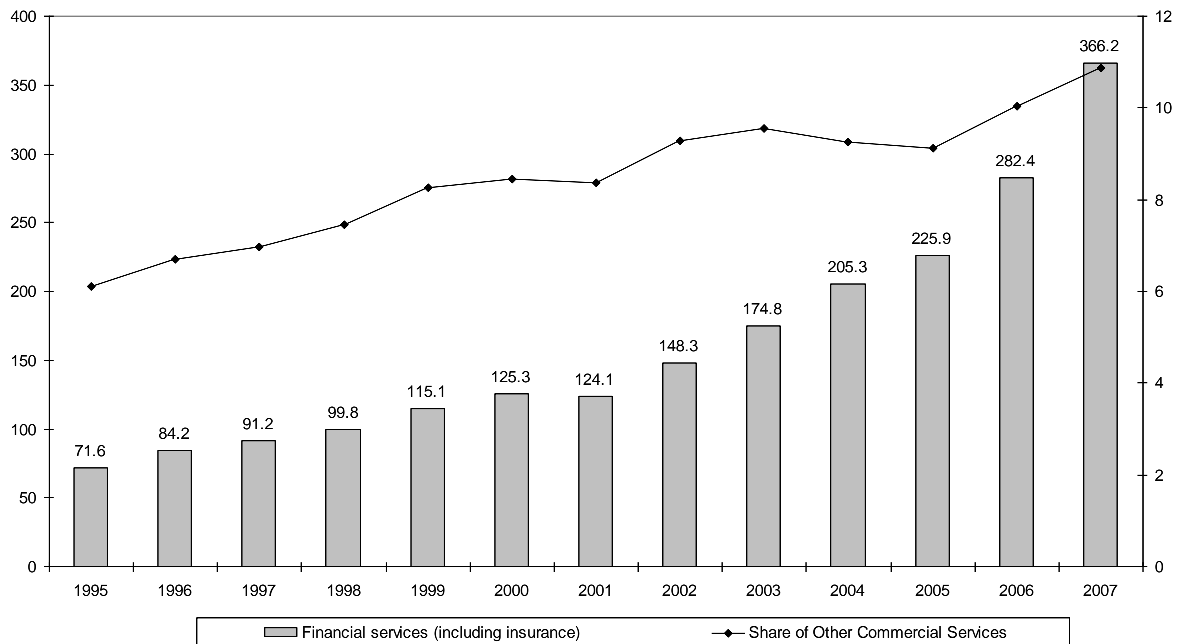
Source: Own elaboration based on Beck *et. al.* (2009)

Chart 7: Size of the stock market, by income group, 1980-2007
(percent of stock market capitalization to GDP, median values)



Source: Own elaboration based on Beck *et. al.* (2009)

Chart 8: World exports of financial services, 1995-2007
(US$ billion and percentage)



Source: Own elaboration based on WTO data

Table 5: Major exporters and importers of financial services, 2007
(US$ million and percentage)

Rank	Exporters	Value	Share in 15 economies	Annual percentage change	Rank	Importers	Value	Share in 15 economies	Annual percentage change
1	European Union (27)	160187	56.9	36	1	European Union (27)	71061	62.5	26
	Extra-EU (27) exports	70270	25.0	35		Extra-EU (27) imports	27996	24.6	29
2	United States	58266	20.7	23	2	United States	18928	16.7	33
3	Switzerland	20517	7.3	27	3	Canada	4072	3.6	10
4	Hong Kong, China	12425	4.4	34	4	Japan	3610	3.2	21
5	Singapore	6547	2.3	52	5	India	3262	2.9	175
6	Japan	6207	2.2	1	6	Hong Kong, China	2807	2.5	39
7	Korea, Rep. of	4001	1.4	57	7	Switzerland	1790	1.6	40
8	India	3886	1.4	121	8	Singapore	1754	1.5	60
9	Canada	3234	1.1	25	9	Russian Fed.	1472	1.3	63
10	Chinese Taipei	1302	0.5	6	10	Norway	1122	1.0	28
11	Russian Fed.	1174	0.4	99	11	Ukraine	887	0.8	118
12	Brazil	1090	0.4	48	12	Brazil	807	0.7	-6
13	Norway	1021	0.4	24	13	Chinese Taipei	782	0.7	-44
14	South Africa	876	0.3	24	14	Korea, Rep. of	696	0.6	27
15	Australia	856	0.3	13	15	Turkey	623	0.5	19
	Above 15	**281590**	**100.0**	**-**		**Above 15**	**113675**	**100.0**	**-**

Note: Based on information available to the Secretariat. For more information on asymmetries, see the Metadata.

Source: WTO

Table 6: Major exporters and importers of insurance services, 2007
(US$ million and percentage)

Rank	Exporters	Value	Share in 15 econo-mies	Annual percen-tage change	Rank	Importers	Value	Share in 15 econo-mies	Annual percen-tage change
1	European Union (27)	40189	57.4	27	1	United States	42761	35.4	14
	Extra-EU (27) exports	20257	28.9	41	2	European Union (27)	31482	26.1	14
2	United States	10287	14.7	2		Extra-EU (27) imports	10778	8.9	16
3	Switzerland	4857	6.9	30	3	Mexico	10936	9.1	18
4	Canada	3788	5.4	12	4	China	10664	8.8	21
5	Mexico	1999	2.9	58	5	Canada	6123	5.1	12
6	Singapore	1697	2.4	7	6	Japan	4118	3.4	-10
7	India	1504	2.1	35	7	India	3203	2.7	19
8	Japan	1343	1.9	-15	8	Singapore	2445	2.0	17
9	China	904	1.3	65	9	Thailand	1916	1.6	7
10	Bahrain	819	1.2	12	10	Turkey	1542	1.3	35
11	Turkey	645	0.9	24	11	Brazil	1308	1.1	73
12	Australia	599	0.9	13	12	Egypt	1282	1.1	31
13	Brazil	543	0.8	67	13	Korea, Rep. of	1000	0.8	17
14	Hong Kong, China	468	0.7	12	14	Saudi Arabia	991	0.8	68
15	Korea, Rep. of	415	0.6	52	15	Chinese Taipei	973	0.8	-3
	Above 15	**70055**	**100.0**	**-**		**Above 15**	**120745**	**100.0**	**-**

Note: Based on information available to the Secretariat. For more information on asymmetries, see the Metadata.

Source: WTO

Table 7: Exports of financial services of selected economies by destination, 2007
(US$ million and percentage)

	Value	Share	Annual percentage change				Value	Share	Annual percentage change		
	2007	2007	2004-07	2006	2007		2007	2007	2004-07	2006	2007
European Union (27)						United States					
World	**160187**	**100.0**	**27**	**26**	**36**	**World**	**58266**	**100.0**	**17**	**19**	**23**
European Union (27)	89917	56.1	28	31	37	European Union (27)	24589	42.2	...	...	...
United States	22671	14.2	23	18	38	Canada	3773	6.5	...	...	31
Switzerland	10265	6.4	25	24	32	Japan	2536	4.4	...	...	8
Japan	6034	3.8	28	22	35	Bermuda	2214	3.8	...	...	-11
Russian Fed.	2203	1.4	50	62	60	Australia	1636	2.8	...	...	39
Above 5	**131090**	**81.8**	**-**	**-**	**-**	**Above 5**	**34748**	**59.6**	**-**	**-**	**-**
Hong Kong, China	1709	1.1	35	27	55	Hong Kong, China	1469	2.5	...	...	35
Norway	1555	1.0	30	19	61	Brazil	1061	1.8	...	...	54
Canada	1334	0.8	34	51	38	Mexico	1017	1.7	...	...	31
Chinese Taipei	1298	0.8	37	33	64	China	935	1.6	...	...	41
Singapore	1254	0.8	36	40	45	Switzerland	894	1.5	...	...	4
Australia	1211	0.8	30	59	32	Singapore	748	1.3	...	...	19
Korea, Rep. of	729	0.5	33	14	44	Korea, Rep.of	469	0.8	...	...	0
Turkey	645	0.4	32	12	80	India	399	0.7	...	...	33
South Africa	629	0.4	21	33	58	Norway	398	0.7	...	...	49
China	618	0.4	31	42	33	Chinese Taipei	396	0.7	...	...	0
Above 15	**142073**	**88.7**	**-**	**-**	**-**	**Above 15**	**42534**	**73.0**	**-**	**-**	**-**
Hong Kong, China a						Singapore b, c					
World	**12425**	**100.0**	**40**	**48**	**34**	**World**	**6547**	**100.0**	**39**	**41**	**52**
European Union (27)	3697	29.8	...	...	...	European Union (27)	1510	23.1	...	...	...
United States	3450	27.8	42	61	37	United States	726	11.1	25	54	4
Singapore	715	5.8	32	57	33	Hong Kong, China	666	10.2	31	29	57
Japan	610	4.9	30	61	43	Japan	351	5.4	57	34	120
Korea, Rep. of	410	3.3	52	123	14	India	139	2.1	...	...	46
Above 5	**8882**	**71.5**	**-**	**-**	**-**	**Above 5**	**3392**	**51.8**	**-**	**-**	**-**
Japan						Russian Fed. of d					
World	**6207**	**100.0**	**12**	**22**	**1**	**World**	**1174**	**100.0**	**63**	**51**	**99**
United States	2594	41.8	16	21	8	European Union (27)	748	63.7	76	61	93
European Union (27)	2366	38.1	...	...	...	Bermuda	172	14.6	...	...	691
Hong Kong, China	471	7.6	-2	-7	-5	United States	94	8.0	43	23	65
Cayman Islands	398	6.4	22	42	70	British Virgin Islands	35	3.0	59	108	77
Singapore	57	0.9	-6	17	25	Switzerland	22	1.8	97	109	35
Above 5	**5886**	**94.8**	**-**	**-**	**-**	**Above 5**	**1072**	**91.2**	**-**	**-**	**-**
Australia e											
World	**856**	**100.0**	**5**	**-1**	**13**						
European Union (27)	281	32.9	...	...	...						
United States	235	27.5	4	-1	11						
Singapore	71	8.3	5	-1	11						
Hong Kong, China	54	6.3	5	-1	13						
Japan	32	3.7	5	-1	11						

	Value	Share	Annual percentage change				Value	Share	Annual percentage change		
	2007	2007	2004-07	2006	2007		2007	2007	2004-07	2006	2007
Above 5	**673**	**78.6**	**-**	**-**	**-**						

a Financial intermediation services are not allocated geographically. In 2007, they accounted for 13 per cent of financial services exports.
b Financial services exports related to foreign exchange trading are not allocated geographically.
c In 2007, ASEAN countries accounted for 10 per cent of financial services exports.
d In 2007, financial services not allocated geographically accounted for 1 per cent of exports.
e In 2007, financial services not allocated geographically accounted for 15 per cent of exports.

Source: WTO

Table 8: Exports of insurance services of selected economies by destination, 2007
(US$ million and percentage)

	Value	Share	Annual percentage change				Value	Share	Annual percentage change		
	2007	2007	2004-07	2006	2007		2007	2007	2004-07	2006	2007
European Union (27)						United States					
World	**40189**	**100.0**	**9**	**40**	**27**	**World**	**10287**	**100.0**	**12**	**33**	**2**
European Union (27)	19930	49.6	3	15	15	European Union (27)	3042	29.6	...	...	...
United States	11612	28.9	21	...	88	Canada	1956	19.0	17	16	-3
Canada	772	1.9	1	-50	91	Japan	1549	15.1	55	38	42
Australia	661	1.6	50	-24	69	Bermuda	968	9.4	16	60	-2
Switzerland	588	1.5	-16	-14	-18	Switzerland	545	5.3	100	162	66
Above 5	**33563**	**83.5**	**-**	**-**	**-**	**Above 5**	**8060**	**78.4**	**-**	**-**	**-**
Japan	528	1.3	17	102	-16	Mexico	293	2.8	21	63	19
South Africa	299	0.7	-1	-12	-1	Australia	213	2.1	0	-21	31
Mexico	285	0.7	18	-8	74	Korea,Rep.of	201	2.0	40	109	38
Norway	273	0.7	-1	111	7	Hong Kong, China	122	1.2	35	-48	-15
Turkey	216	0.5	15	56	7	Chinese Taipei	81	0.8	16	44	3
Singapore	215	0.5	11	100	31	Brazil	73	0.7	10	14	12
Russian Fed.	185	0.5	16	76	5	Singapore	68	0.7	22	5	48
China	149	0.4	30	168	5	Chile	57	0.6	0	24	0
Chile	147	0.4	13	78	13	Israel	49	0.5	1	24	17
Brazil	130	0.3	26	207	14	China	48	0.5	9	39	-9
Above 15	**35990**	**89.6**	**-**	**-**	**-**	**Above 15**	**9265**	**90.1**	**-**	**-**	**-**
Singapore a						Japan					
World	**1697**	**100.0**	**9**	**31**	**7**	**World**	**1343**	**100.0**	**8**	**80**	**-15**
Australia	186	11.0	6	25	-37	European Union (27)	443	33.0	...	...	...
Korea, Rep. of	155	9.1	-3	26	12	United States	373	27.8	20	376	-9
Japan	126	7.5	8	5	-5	China	78	5.8	6	10	16
European Union (27)	98	5.8	...	...	...	Hong Kong, China	51	3.8	-16	14	-44
China	94	5.6	37	64	45	Chinese Taipei	43	3.2	-7	-6	-9
Above 5	**660**	**38.9**	**-**	**-**	**-**	**Above 5**	**988**	**73.5**	**-**	**-**	**-**
Australia b						Hong Kong, China					
World	**599**	**100.0**	**6**	**0**	**13**	**World**	**468**	**100.0**	**4**	**1**	**12**
United States	252	42.1	6	0	13	China	127	27.2	28	57	18
European	114	19.0	...	...	...	Korea, Rep. of	83	17.7	23	-21	80

	Value	Share	Annual percentage change				Value	Share	Annual percentage change		
	2007	2007	2004-07	2006	2007		2007	2007	2004-07	2006	2007
Union (27)											
New Zealand	60	10.1	6	0	13	Japan	44	9.4	2	50	33
Singapore	28	4.8	5	-1	14	European Union (27)	41	8.8	...	...	...
Japan	19	3.2	6	-1	11	Singapore	32	6.8	13	0	3
Above 5	**474**	**79.1**	**-**	**-**	**-**	**Above 5**	**327**	**69.9**	**-**	**-**	**-**
Korea, Rep. of c						Russian Fed. d					
World	**415**	**100.0**	**44**	**62**	**52**	**World**	**379**	**100.0**	**16**	**17**	**1**
United States	135	32.5	34	-112	...	European Union (27)	150	39.6	13	16	-4
European Union (27)	68	16.4	...	...	...	Kazakhstan	38	10.1	15	-25	37
China	29	6.9	5	1	87	Switzerland	22	5.9	-2	40	-57
Japan	19	4.5	...	4	...	Isle of Man	20	5.4	52	-55	...
						Ukraine	17	4.5	...	5	-14
Above 4	**250**	**60.4**	**-**	**-**	**-**	**Above 5**	**247**	**65.5**	**-**	**-**	**-**

a In 2007, ASEAN countries accounted for 30 per cent of insurance services exports.
b In 2007, insurance services not allocated geographically accounted for 21 per cent of exports.
c In 2007, insurance services not allocated geographically accounted for 17 per cent of exports.
d In 2007, insurance services not allocated geographically accounted for 9 per cent of exports.

Source: WTO

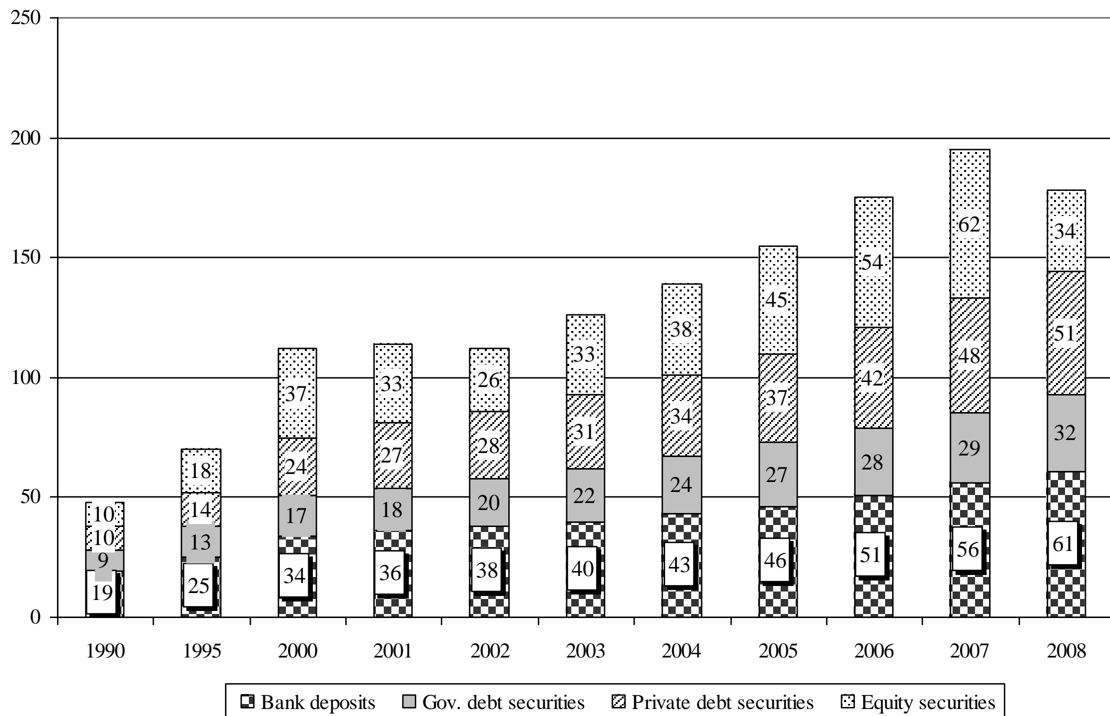
Table 9: Foreign affiliates sales of financial services
(US$ billion)

	2000	2001	2002	2003	2004	2005	2006
US	194.1	193.7	205.4	222.0	229.5	268.4	304.2
Japan	...	9.4	11.3	10.6	14.1	16.2	20.5
Italy	...	...	...	...	...	88.2	94.4
Germany	...	...	...	...	...	203.7	212.1
Canada	29.2	29.1	29.0	25.5	27.9	34.9	44.2
France	64.5	55.1	56.8	...	...	...	...

Notes: 1) Outward sales of majority owned foreign affiliates primarily engaged in services activities (according to ISIC Rev. 3, Financial intermediation, categories 65 to 67); 2) For the United States, non-bank foreign affiliates; 3) For Japan, data exclude affiliates of mother companies active in finance, insurance and real estate; 4) For Canada, data exclude monetary intermediation.

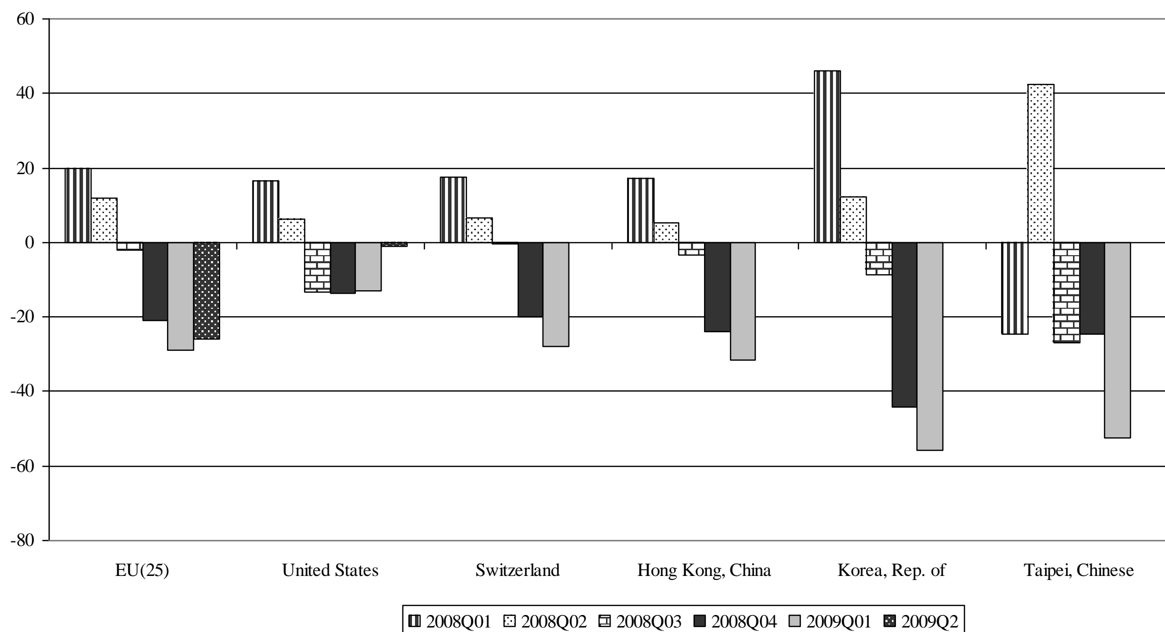
Source: OECD

Chart 9: Global financial assets, 1990-2008
(US$ trillion)



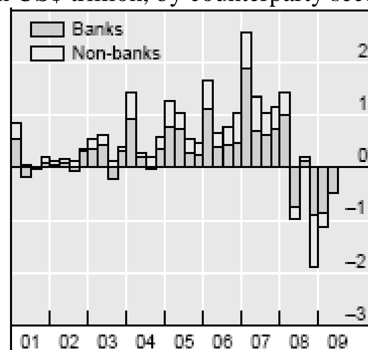
Source: McKinsey Global Institute, "Global Capital Markets: Entering a New Era", September 2009

Chart 10: Exports of financial services of selected leading exporters, Q1 2008 - Q2, 2009



Source: WTO

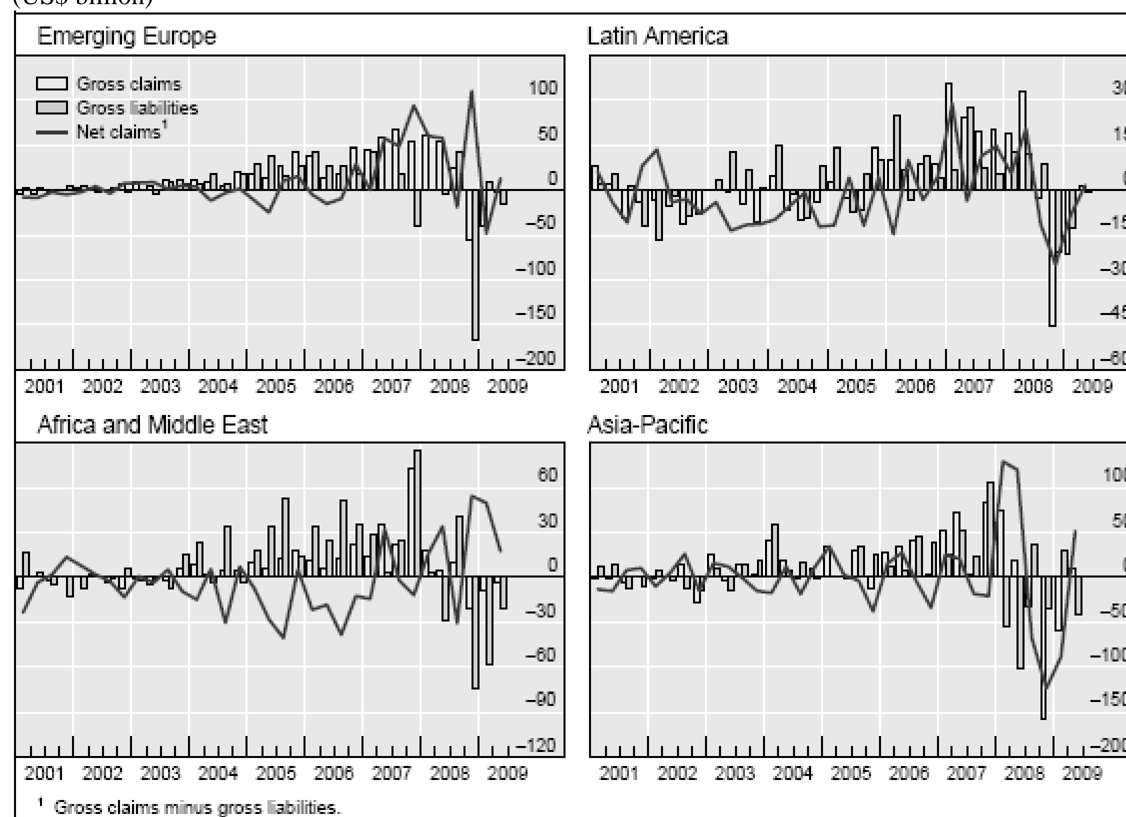
Chart 11: Changes in international bank lending
(in US$ trillion, by counterparty sector)



Notes: BIS reporting banks' cross-border claims (including inter-office claims) in all currencies plus locally booked foreign currency claims on residents of BIS reporting countries.

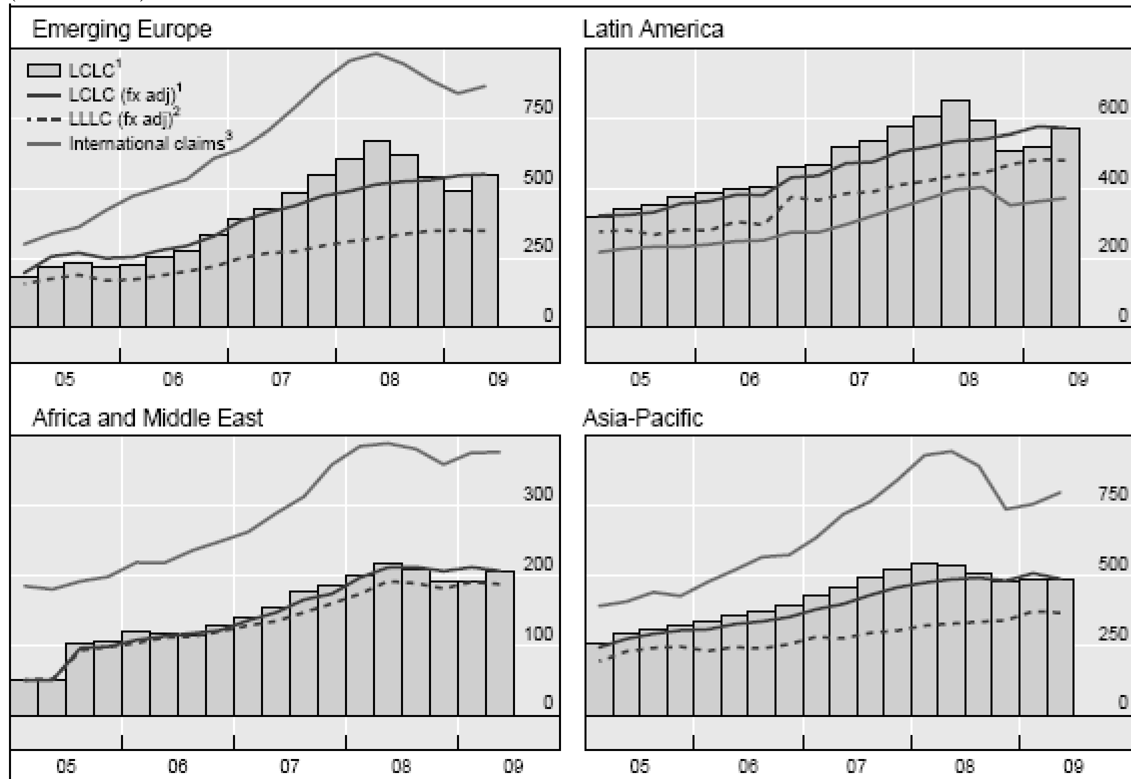
Source: BIS Quarterly Review, December 2009 (Graph 1).

Chart 12: Changes in banks' cross-border positions *vis-à-vis* emerging markets
(US$ billion)



Source: *BIS* Quarterly Review, December 2009 (Graph 3).

Chart 13: Foreign claims by developing region
(US$ billion)



Notes: 1) Local claims in local currency, or local currency claims extended by banks' foreign offices to residents of the host country. The bars show reported claims whereas the solid line tracks claims adjusted for exchange rate movements; 2) Local liabilities in local currency, adjusted for exchange rate movements; 3) International claims comprise cross-border claims in all currencies and local claims in foreign currencies extended by banks' foreign offices to residents of the host country; these claims are not adjusted for exchange rate movements, since no currency breakdown is available.

Source: *BIS* Quarterly Review, December 2009 (Graph 4).

Table 10: Foreign bank ownership, by region

	1995				2005						
	Total bank assets (US$ billions)	**Foreign-controlled total assets (US$ billions)**	**Total foreign asset share (percent)**	**Mean foreign asset share (percent)**	**Total bank assets (US$ billions)**	**Foreign-controlled total assets (US$ billions)**	**Total foreign asset share (percent)**	**Mean foreign asset share (percent)**	**Change in Foreign Assets (US$ billions)**	**Change in Foreign Asset Share (percent)**	**Change in Mean Foreign Share (percent)**
Region (no. of countries)											
All countries (105)	33,169	5,043	15	23	57,165	13,039	23	35	7,996	8	12
North America (2)	4,467	454	10	8	10,242	2,155	21	17	1,701	11	9
Western Europe (19)	16,320	3,755	23	24	31,797	9,142	29	30	5,387	6	6
Eastern Europe (17)	319	80	25	21	632	369	58	49	289	33	28
Latin America (14)	591	108	18	14	1,032	392	38	29	284	20	15
Africa (25)	154	13	8	38	156	12	8	35	-1	-1	-3
Middle East (9)	625	85	14	14	1,194	202	17	17	117	3	3
Central Asia (4)	150	3	2	4	390	9	2	5	6	0	1
East Asia and Oceania (13)	10,543	545	5	6	11,721	758	6	7	213	1	1

Source: IMF (2007).

Table 11: Share of banking assets held by foreign banks with majority ownership, 2006

Country	0%-10%	Country	10%-30%	Country	30%-50%	Country	50%-70%	Country	70%-100%
Algeria	9	Moldova	30	Senegal	48	Rwanda	70	Madagascar	100
Nepal	9	Honduras	29	Congo, Dem. Rep.	47	Côte d'Ivoire	66	Mozambique	100
Guatemala	8	Ukraine	28	Uruguay	44	Tanzania	66	Swaziland	100
Thailand	5	Indonesia	28	Panama	42	Ghana	65	Peru	95
India	5	Cambodia	27	Kenya	41	Burkina Faso	65	Hungary	94
Ecuador	5	Argentina	25	Benin	40	Serbia & Montenegro	65	Albania	93
Azerbaijan	5	Brazil	25	Bolivia	38	Cameroon	63	Lithuania	92
Mauritania	5	Kazakhstan	24	Mauritius	37	Romania	60	Croatia	91
Nigeria	5	Pakistan	23	Burundi	36	Niger	59	Bosnia-Herzegovina	90
Turkey	4	Costa Rica	22	Seychelles	36	Mali	57	Mexico	82
Uzbekistan	1	Malawi	22	Lebanon	34	Angola	53	Macedonia	80
Philippines	1	Tunisia	22	Nicaragua	34	Latvia	52	Uganda	80
South Africa	0	Mongolia	22	Chile	32	Jamaica	51	El Salvador	78
China	0	Sudan	20	Venezuela	32	Zimbabwe	51	Zambia	77
Vietnam	0	Morocco	18	Georgia	32	Namibia	50	Botwana	77
Iran, Islamic Rep.	0	Colombia	18	Armenia	31			Kyrgyzstan	75
Yemen, Rep. of	0	Malaysia	16					Poland	73
Bangladesh	0	Jordan	14					Bulgaria	72
Sri Lanka	0	Russian Federation	13					Paraguay	71
Ethiopia	0	Egypt	12						
Togo	0								

Note: A bank is defined as foreign owned only if 50 percent or more of its shares in a given year are held directly by foreign nationals. Once foreign ownership is determined, the source country is identified as the country of nationality of the largest foreign shareholder(s). The table does not capture the assets of the foreign banks with minority foreign ownership.

Source: World Bank (2008)

Table 12: Market share of foreign insurance companies in selected emerging economies
(per cent)

Market share of (≥ 50%) foreign-owned insurers	Life	Non-Life	Market share of (≥ 50%) foreign-owned insurers	Life	Non-life
Asia			**Eastern Europe**		
South Korea	10	1	Russia	na	na
China*	2	1	Poland	52	41
Chinese Taipei	33	12	Czech Republic	81	89
India	0	0	Hungary	85	89
Hong Kong	87	74	Slovenia*	17	2
Singapore*	58	53	Slovakia	97	96
Malaysia*	81	25			
Thailand*	41	7	**Africa**		
Indonesia*	48	25	South Africa*	0	14
Philippines*	61	29	Morocco	52	28
Vietnam	56	6	Egypt	11	10
Latin America			**Middle East**		
Brazil	32	43	Turkey	12	27
Mexico	75	58	Iran	0	0
Chile	62	63	United Arab Emirates	na	na
Argentina	53	35	Saudi Arabia	na	na
Venezuela	39	50	Lebanon*	≥ 64	≥ 35
Colombia	38	46	Kuwait*	14	14

Notes: The foreign market share is calculated from the total premium volume of companies with a foreign majority stake. Latest available figures are used, which typically refer to 2003 (+2002 data; *2001 data); in India and Iran, foreign insurers are not allowed to hold majority stakes.

Source: SwissRe

Table 13: Tier 1 Capital and Governments' capital injections in the world top 30 banks
(US$ million)

Bank	Country	Tier 1	Tier1 exclu gov cap	Gov. injection
JPMorgan Chase & Co	US	136,104	111,104	25,000
Bank of America Corp	US	120,814	105,814	15,000
HSBC Holdings	UK	95,336	95,336	0
Mitsubishi UFJ Financial Group	Japan	77,218	77,218	0
ICBC	China	74,701	74,701	0
Citigroup	US	118,758	73,758	45,000
Royal Bank of Scotland	UK	101,818	71,923	29,895
Crédit Agricole Group	France	71,681	67,521	4160
Santander Central Hispano	Spain	65,267	65,267	0
Bank of China	China	64,961	64,961	0
China Construction Bank Corporation	China	63,113	63,113	0
Wells Fargo & Co	US	86,397	61,397	25,000
BNP Paribas	France	58,175	54,639	3536
Barclays Banks	UK	54,300	54,300	0
Goldman Sachs	US	62,637	52,637	10,000
Mizuho Financial Group	Japan	48,752	48,752	0
Unicredit	Italy	47,529	47,529	0
Sumitomo Mitsui Financial Group	Japan	46,425	46,425	0
Deutsche Bank	Germany	43,276	43,276	0
Rabobank Group	Netherlands	42,252	42,252	0
Agricultural Bank of China	China	39,998	39,998	0
Société Générale	Sfrance	42,208	39,845	2358
Morgan Stanley	US	48,085	38,085	10,000
Intesa Sanpaolo	Italy	37,681	37,681	0
Crédit Mutuel	France	35,628	33,964	1664
Crédit Suisse Group	Switzerland	32,159	32,159	0
ING bank	Netherlands	44,564	31,161	13,403
Banco Bilbao Vizcaya Argentaria	Spain	31,126	31,126	0
UBS	Switzerland	31,373	26,092	5281
Commerzbank	Germany	31,315	20,858	10,457

Source: The Banker (2009)

Table 14: World top 25 banks

By tier 1 capital			By total assets		
Ranking	**Bank**	**Country**	**Ranking**	**Bank**	**Country**
1	JPMorgan Chase & Co	US	1	Royal Bank of Scotland	UK
2	Bank of America Corp.	US	2	Deutsche Bank	Germany
3	Citigroup	US	3	Barclays Bank	UK
4	Royal Bank of Scotland	UK	4	BNP Paribas	France
5	HSBC Holdings	UK	5	HSBC Holdings	UK
6	Wells Fargo&Co	US	6	Crédit Agricole Group	France
7	Mitsubishi UFJ Financial Group	Japan	7	JPMorgan Chase & Co	US
8	ICBC	China	8	Mitsubishi UFJ Financial Group	Japan
9	Credit Agricole Group	France	9	Citgroup	US
10	Santander Central Hispano	Spain	10	UBS	Switzerland
11	Bank of China	China	11	ING Bank	Netherlands
12	China construction Bank Corp.	China	12	Bank of America Corp	US
13	Goldman Sachs	US	13	Société Générale	France
14	BNP Paribas	France	14	Mizuho Financial Group	Japan
15	Barclay Bank	UK	15	Santander Central Hispano	Spain
16	Mizuho financial Group	Japan	16	UniCredit	Italy
17	Morgan Stanley	US	17	ICBC	China
18	UniCredit	Italy	18	Wells Fargo & Co	US
19	Sumitomo Mitsui Fin. Group	Japan	19	Sumitomo Mitsui Fin. Group	Japan
20	ING Bank	Netherlands	20	China Construction Bank Corp	China
21	Deutsche Bank	Germany	21	Credit Suisse Group	Switzerland
22	Rabobank Group	Netherlands	22	Agricultural Bnk of China	China
23	Société Générale	France	23	Bank of China	China
24	Agricultural Bank of China	China	24	HBOS	UK
25	Intesa Sanpaolo	Italy	25	Dexia	Belgium

Source: The Banker (2009).

Table 15 Financial services - specific commitments by sub-sector, January 2010

Sub-sector	Number of schedules	Percentage share of Members with commitments on financial services (Max = 110)	Percentage share of maximum possible (Max = 139)
All insurance & insurance-related services	**99**		
Direct insurance			
Life	86	78	62
Non-life	90	82	65
Reinsurance	94	85	68
Insurance intermediation	62	56	45
Services auxiliary to insurance	74	67	53
Banking & other financial services	**101**		
Acceptance of deposits	98	97	71
Lending of all types	97	96	70
Financial leasing	83	82	60
Payment & money transmission services	89	88	64
Guarantees and commitments	85	84	61
Trading			
Money Market Instruments	76	75	55
Foreign Exchange	78	77	56
Derivative Products	62	61	45
Exchange Rate and Interest Rate Instruments	65	64	47
Transferable Securities	81	80	58
Other negotiable instruments and financial assets	65	64	47
Underwriting	78	77	56
Money broking	62	61	45
Asset management	78	77	56
Settlement & clearing for financial assets	62	61	45
Advisory & other auxiliary financial services	80	79	58
Provision & transfer of financial information	76	75	55

Note: European Union counted as EU15

Source: WTO

Table 16: Level of market access commitments in banking and other financial services, by mode of supply
(per cent of commitments)

Sector	Mode 1			Mode 2			Mode 3			Mode 4		
	full	partial	unbound	full	partial	unbound	full	partial	unbound	full	partial	unbound
Acceptance of deposits and other repayable funds	28	29	44	41	34	26	18	79	3	8	83	9
Lending of all types	25	36	40	41	36	24	20	74	6	8	81	11
Financial Leasing	25	25	50	42	25	34	16	65	19	9	68	23
All Payment and Money Transmission Services	21	30	50	38	30	33	17	71	12	8	73	19
Guarantees and Commitments	27	28	46	41	30	30	18	65	17	8	72	20
Trading												
Money Market Instruments	27	33	40	49	36	15	24	75	1	11	84	5
Foreign Exchange	24	33	42	46	36	18	22	77	1	10	83	6
Derivative Products	27	35	38	57	32	12	24	74	2	12	85	3
Exchange Rate and Interest Rate Instruments	25	33	41	54	35	11	23	75	2	11	86	3
Transferable Securities	25	38	37	44	40	16	21	78	1	10	85	5
Other negotiable instruments and financial assets	27	35	38	51	37	13	22	77	2	10	84	6
Participation in Issues of all Kinds of Securities	17	27	56	33	29	39	14	62	24	6	67	27
Money Broking	17	18	64	34	18	48	14	47	40	7	50	43
Asset Management	16	29	55	35	30	35	12	64	24	7	66	27
Settlement and Clearing Services for Financial Assets	14	22	64	31	22	47	12	49	40	7	50	43
Advisory and other Auxiliary Financial Services	27	37	37	40	29	32	20	58	22	7	67	26
Provision and Transfer of Financial Information	35	34	32	41	29	31	22	51	27	9	59	32

Notes: Percentages may not add up to 100 per cent due to rounding
Basis of total is selected sub-sector
Does not take account of horizontal limitations
Source: WTO

Table 17: Level of market access commitments in insurance services, by mode of supply
(per cent of commitments)

Sector	Mode 1			Mode 2			Mode 3			Mode 4		
	full	partial	unbound	full	partial	unbound	full	partial	unbound	full	partial	unbound
Life	12	33	56	27	31	42	19	80	1	5	88	7
Non-life	12	58	30	24	52	23	18	80	2	4	88	8
MAT	50	20	30	50	27	23						
Reinsurance and Retrocession	41	39	19	48	32	19	19	69	12	7	77	16
Insurance Intermediation	12	32	56	23	24	53	12	49	38	2	54	44
Services Auxiliary to Insurance	23	32	44	32	26	41	18	57	25	3	65	32

Notes: Percentages may not add up to 100 per cent due to rounding
Basis of total is selected subsector
Does not take account of horizontal limitations
Source: WTO

Table 18: Financial services - summary of specific commitments, 2009

Country	Insurance					Banking and other Financial Services												
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r
Albania	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Angola						1	1		1									3
Antigua and Barbuda			1															1
Argentina	1	1	1			1	1	1	1	1	1	1	1	1	1	1	1	15
Armenia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Australia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Bahrain	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Barbados			1															1
Benin						1	1		1									3
Bolivia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Brazil	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1		15
Brunei Darussalam	1	1	1	1	1												1	6
Bulgaria	1	1	1	1	1	1	1	1	1	1	1	1		1			1	14
Cambodia	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	16
Canada	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Cape Verde	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Chile	1	1	1		1	1	1	1	1	1	1	1		1	1	1		14
China	1	1	1		1	1	1	1	1	1	1					1	1	12
Colombia		1	1	1	1	1	1	1		1	1	1	1			1	1	13
Costa Rica						1	1	1	1								1	5
Côte d'Ivoire	1	1	1	1		1	1		1									7
Croatia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Cuba	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Cyprus	1	1	1			1	1	1	1	1	1							9
Czech Republic	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	16
Dominica			1															1
Dominican Republic	1	1	1		1	1	1	1				1		1				9
Ecuador	1	1	1	1	1	1	1	1	1	1	1			1	1	1	1	15
Egypt	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		16
El Salvador						1					1	1			1	1		5
Estonia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
EC15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
FYR Macedonia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Gabon	1	1	1	1	1		1				1			1		1	1	10
Gambia	1	1				1	1	1	1	1	1	1	1	1	1	1	1	14
Georgia	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	16
Ghana	1	1	1			1	1	1	1	1	1							9
Grenada			1															1
Guatemala			1													1	1	3
Guyana	1	1		1	1	1	1											6
Haiti			1			1	1	1	1	1	1							7
Honduras	1	1	1		1	1	1		1								1	8
Hong Kong, China	1	1	1	1	1	1	1	1	1	1	1	1		1		1	1	15
Hungary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Iceland	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
India		1	1	1		1	1	1	1	1	1	1	1	1		1		13
Indonesia	1	1	1		1	1	1	1	1	1	1	1		1		1		13
Israel	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	16
Jamaica	1	1	1	1	1													5
Japan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Jordan	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	16

Country	Insurance					Banking and other Financial Services												
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r
Kenya	1	1	1		1	1	1		1	1		1		1		1		11
Korea RP	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Kuwait						1	1	1	1	1	1	1	1	1	1	1	1	12
Kyrgyz Republic	1	1	1		1	1	1	1	1	1	1	1		1	1	1	1	15
Latvia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Lesotho	1	1	1			1	1		1	1	1		1					9
Liechtenstein	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Lithuania	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Macao, China	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Malawi						1	1	1	1	1	1	1	1	1	1	1	1	12
Malaysia	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1		15
Malta	1	1	1	1	1	1	1										1	8
Mauritius	1	1	1	1	1	1	1		1	1	1	1			1		1	13
Mexico	1	1	1		1	1	1	1			1	1	1	1		1		12
Moldova	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	16
Mongolia	1	1	1			1			1	1	1	1		1		1	1	11
Morocco	1	1	1			1	1	1	1	1	1	1					1	11
Mozambique						1	1	1	1	1	1	1	1	1	1	1	1	12
Nepal	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
New Zealand	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Nicaragua	1	1	1	1	1	1	1	1	1	1	1							11
Nigeria	1	1	1		1	1	1	1	1	1	1			1	1		1	13
Norway	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Oman	1	1	1	1	1	1	1	1	1	1	1			1	1	1	1	15
Pakistan	1	1	1			1	1	1	1	1	1	1	1	1	1	1	1	15
Panama	1	1	1			1	1	1	1	1	1	1	1	1		1	1	14
Papua New Guinea						1	1	1		1	1							5
Paraguay	1	1	1			1	1									1		6
Peru	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	16
Philippines	1	1	1		1	1	1	1	1	1	1	1	1	1		1	1	15
Poland	1	1	1	1		1	1		1	1	1	1		1		1	1	13
Qatar		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
Romania	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	16
Saint Lucia			1															1
Saint Vinc. & Gren.			1															1
Saudi Arabia	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	16
Senegal	1	1	1	1	1	1	1		1									8
Sierra Leone	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Singapore	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Slovak Republic	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	16
Slovenia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Solomon Islands	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
South Africa	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Sri Lanka	1	1	1			1	1	1	1	1	1	1	1	1	1	1	1	15
Switzerland	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Chinese Taipei	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Thailand	1	1		1	1	1	1	1	1	1	1	1		1		1	1	14
Tonga	1	1	1			1	1	1	1	1	1	1	1	1	1	1	1	15
Trinidad and Tobago			1															1
Tunisia	1	1	1	1	1	1	1	1	1	1	1	1		1		1		14
Turkey	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Ukraine	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17

Country	Insurance					Banking and other Financial Services												
	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r
United Arab Emirates						1	1	1	1	1	1	1	1	1		1	1	11
Uruguay		1			1	1	1	1										5
USA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Venezuela	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Viet Nam	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
Zimbabwe						1	1	1	1	1		1		1		1		8
Total	86	90	94	62	74	98	97	83	89	85	86	78	62	78	62	80	76	

Legends
a. Life
b. Non-life
c. Reinsurance
d. Intermediation
e. Auxiliary Services
f. Acceptance of deposits and other repayable funds
g. Lending of all types
h. Financial Leasing
i. All Payment and Money Transmission Services
j. Guarantees and Commitments
k. Trading for own account or for account of customers
l. Participation in Issues of all Kinds of Securities
m. Money Broking
n. Asset Management
o. Settlement and Clearing Services for Financial Assets
p. Advisory and other Auxiliary Financial Services
q. Provision and Transfer of Financial Information
r. Total Insurance + Banking

Source: WTO