countries could have substantially different individual TCPs.[177] Another shortcoming of using tariff data to calculate settlement rate benchmarks is that a country could attempt to influence the level of its future benchmark rate by changing its carriers' tariff rates.

103. We believe it is appropriate to average the individual country TCPs to calculate settlement rate benchmarks to mitigate the effect of these shortcomings of relying on tariff data. As AT&T notes, averaging individual country TCPs mitigates the effect of carriers' inefficient pricing structures on our benchmark calculations by averaging the most inefficient rates with those that are less inefficient. In addition, an average figure is beyond the ability of any one country or carrier to alter significantly, so a carrier would have no incentive to change its tariff rates to affect the level of its benchmark.[178] Telefónica de España argues that this concern "can be readily solved by an FCC decision not to recognize significant increases in the underlying TCPs if it finds that those increases are solely intended to raise the benchmark."[179] Such a solution would put us in the position of determining whether another country's tariff policies are valid and justified. We do not believe that would be an appropriate role for the Commission.

104. We believe, however, that averaging all individual country TCPs to calculate one benchmark for all countries would ignore important differences among countries. Specifically, we are concerned that calculating one benchmark that applies to all countries would disproportionately affect lower income countries and would not adequately take into account the difficulty many lower income countries will encounter in reducing settlement rates to a more cost-based level. As we observed in the *Notice*, the TCPs are generally significantly higher in lower income countries than in upper income countries. If the TCPs of lower income countries were averaged with those of higher income countries to establish one benchmark, the differential between the new benchmark rate and current settlement rates would be much greater for lower income countries than for higher income countries. Indeed, for many higher income countries, there would be little difference between an average benchmark and current settlement rates. Establishing separate benchmarks based on level of

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177 *See, e.g.*, Telefónica del Perú Comments at 12 (noting that Peru's TCP of $0.16 is lower than that of France at $0.175, Germany at $0.198, and Switzerland at $0.206).

178 *See, e.g.*, France Telecom Comments at 11 (agreeing that TCP methodology "could encourage some countries to retain high domestic tariffs in order to justify a high benchmark"); Cable and Wireless Comments, Attachment A at 5 ("use of individual country observations may lead to opportunistic distortions in tariff structures"); United Kingdom Comments at 2 (agrees that an averaging approach could diminish the ability of an individual carrier to affect the level of its benchmark by setting inflated tariffs).

179 Telefónica de España Comments at 56.

economic development would mitigate the impact of averaging on lower income countries while still capturing some of the benefits of averaging.[180]

105. Many commenters urge the Commission to heed in particular the effect of significant reductions in settlements revenues on telecommunications network development in lower income countries trying to develop their infrastructure.[181] We agree with these commenters that calculation and implementation of our benchmarks should take into account the impact on lower income countries of moving to more cost-based settlement rates. As many commenters note, investment in network infrastructure in lower income countries benefits not only the economies of lower income countries, but also the economies of other countries.[182] Poor network development is an infrastructure bottleneck that constrains all levels of economic activity and impedes the development of international commerce and trade.

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[180] The reason the TCPs are generally higher in lower income countries is that the inefficiencies embedded in the underlying tariff data are generally more pronounced in lower income countries. Several commenters argue that the costs of providing international termination service are higher in developing countries. See, e.g., CANTO Comments at 3; Indonesia Reply at 2; TSTT Comments at 4 (economies of scale are lower in developing countries; Telekom Malaysia Comments at 3 (costs are greater where networks have not reached maturity); Pakistan Telecom Comments at 1 (economies of scale are lower in developing countries and cost of equipment is higher because it is all imported); Telefónica del Perú Comments at 15 (incremental cost of terminating traffic in a country like Peru which is in process of updating poor infrastructure is likely to be far higher than in industrialized nations); Sonatel Reply at 1 (costs incurred in developing countries are two or more times higher than in industrialized countries). We are not convinced that there are substantial differences in costs based solely on a country's level of economic development. Level of economic development may have an effect on certain costs, but that effect is not always negative. For example, lower income countries generally have lower labor costs than higher income countries but higher capital costs. The ITU also has expressed skepticism that the costs or providing telecommunications service is higher in developing countries, noting that "an analysis of recent data contradicts the theory about higher operating costs in developing countries." *Direction of Traffic: Trends in International Telephone Tariffs*, ITU/Telegeography (1996) at 13.

[181] *See, e.g.*, GT&T Reply at 13; CANTO Comments at 5; Cable and Wireless Comments at 10-15.

[182] *See, e.g.*, CANTO Comments at 2-3 (noting the negative effect on U.S. consumers of policies that could undermine network development in developing countries); ITJ Comments at 17 ("Clearly the use of settlement payments to develop infrastructure and to increase penetration in lesser-developed correspondent countries ultimately redounds to the benefit of not only their citizens but also of carriers from developed countries."); Cable and Wireless Comments at 12-13; Pakistan Telecom Comments at 2; Telefónica del Perú Comments at 4 (improvements in Peruvian telecommunications infrastructure have directly benefitted U.S. consumers through, for example, an increase in call completion); United Kingdom Comments at 2; Sonatel Reply at 1 (noting the importance of developing a network "which can meet the international standards and thus can better support and serve the interests of international business, United Nations' offices, embassies, etc."); TSTT Comments at 5 ("benefits will redound to the USA" from improvements in developing countries' telecommunications infrastructure).

106. In the *Notice*, we proposed to group countries by level of economic development, using established World Bank and ITU categories based on GNP per capita, for purposes of calculating and implementing our settlement rate benchmarks. Our purpose in using the World Bank and ITU's classification scheme based on GNP per capita was to provide a reasonable indicator of a country's ability to transition to a more cost-based system of settlement rates without undue disruption to its telecommunications network. We believe that the level of development of a country's telecommunications network is an important indicator of that country's ability to transition to a more cost-based system without undue disruption of its network. This is because many carriers with poor telecommunications infrastructure state that they rely on settlement revenues to finance that network development. Thus, a rapid curtailment of settlement revenues could have a negative impact on network development in countries with poor telecommunications infrastructure. We also believe, however, that other social indicators of economic development are relevant to determining the impact of the benchmark settlement rates on a county's telecommunications network. As some commenters point out, a negative impact on a county's overall economic welfare from implementation of the benchmark settlement rates can create an indirect, but substantial, effect on a country's telecommunications network.[183]

107. After reviewing the record, we continue to believe that the categories we proposed in the *Notice* provide a reasonable basis for establishing and implementing settlement rate benchmarks. The World Bank's classification of countries by GNP per capita is an objective, internationally accepted measurement of countries' level of economic development. While, as some commenters point out, there are many other indicators of economic development level, GNP per capita provides an objective and administrable basis for classifying countries. Moreover, we believe that economic development level is generally a good indicator of the level of development of a country's telecommunications network, and as such, provides a reasonable measure for determining a country's ability to transition to more cost-based settlement rates. As the ITU has observed, "[t]here is generally a close relationship between the level of economic development and telecommunications development."[184] In a study of 164 economies comparing level of GDP per capita and teledensity, the ITU found the strength of this relationship to be significant.[185]

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183 *See, e.g.*, TSTT Comments at 3 ("social and economic factors such as unemployment, income distribution and poverty" are relevant indicators of the "level/extent of development of a country's telecommunications infrastructure").

184 *See* Telecommunications Indicators for the Least Developed Countries, First Edition, 1995, ITU at 4 (*"ITU Telecommunications Indicators"*).

185 *Id.* The ITU found a correlation co-efficient of 0.85, where 1.0 would equal perfect correlation.

108. Some commenters disagree with economic development as a basis for grouping countries on the ground that GNP per capita is not an accurate indicator of the level of development of a country's telecommunications infrastructure.[186] TSTT suggests that teledensity would be a better basis for categorizing countries.[187] For the most part, we disagree with these commenters.[188] As noted above, there is generally a strong correlation between level of economic development and telecommunications development. As such, we believe economic development provides a reasonable lowest common denominator for determining a country's ability to transition to a more cost-based system of settlement rates without undue disruption to its telecommunications network. Moreover, in providing transition periods, we are also concerned about the effect of our benchmark settlement rates on a country's general economic welfare. GNP per capita provides a more general indicator of a country's level of economic development than factors that focus solely on telecommunications infrastructure.

109. Some commenters argue that our proposal to group countries on the basis of economic development level for purposes of calculating and implementing our settlement rate benchmarks violates our MFN obligations under the WTO Basic Telecom Agreement.[189] We disagree with these commenters. MFN is essentially a nondiscrimination rule that requires each WTO Member to treat like services and service suppliers from all other WTO Members similarly.[190] Our MFN obligation does not affect our ability to calculate and implement our settlement rate benchmarks in a manner that recognizes legitimate differences among countries. As discussed above, we group countries by economic development level to provide a reasonable indicator of a country's ability to transition to a more cost-based system of settlement rates without undue disruption to its telecommunications network. Moreover, calculating one benchmark that applies to all countries would disproportionately affect lower income countries. This is because the TCPs are generally significantly higher in lower income countries than in upper income countries. As a result, if the TCPs of lower income

[186] *See, e.g.*, TSTT Comments at 3; France Telecom Comments at 14; Panama Comments at 22.

[187] TSTT Comments at 3.

[188] As discussed below, we agree that GNP per capita may not adequately reflect the level of telecommunications network development, and consequently the ability to transition to more cost-based settlement rates, in the poorest countries.

[189] *See, e.g.*, Japan Comments at 4; EU Comments at 4; GTE Comments at 33; KDD Comments at 25-26; Telefónica de España Reply at 13-14.

[190] Article II of the GATS requires WTO Member countries to accord "service and service suppliers of any other Member treatment no less favorable than that it accords to like services and service suppliers of any other country."

countries were averaged with those of higher income countries to establish one benchmark, the differential between the new benchmark rate and current settlement rates would be much greater for lower income countries than for higher income countries. Thus, carriers in lower income countries would be required to make substantially greater reductions in settlement rates than in upper income countries.

110. We agree generally with commenters who argue that we should maintain separate categories for upper middle and lower middle income countries, rather than combine the two categories as we proposed in the *Notice*.[191] We proposed in the *Notice* to merge the two middle income categories because our method of calculating benchmark rates results in benchmarks that are almost identical for lower middle and upper middle income countries. But as some commenters point out, there are often substantial differences in the level of network development between countries at the high end of the upper middle income category and countries at the bottom end of the lower middle income category.[192] These differences are particularly significant in determining a reasonable transition period for U.S. carriers to negotiate settlement rates within the benchmarks.[193] We will continue to merge the two middle income categories for purposes of calculating a settlement rate benchmark, for the simple reason that our method of calculating the benchmark results in a benchmark that is almost identical for the two categories. However, we will maintain the separate categories for lower middle and upper middle income countries that are set forth in the World Bank and ITU's classification scheme for purposes of the transition periods we adopt in Section II.B.2. of this *Order*.

111. As proposed in the *Notice*, we will base our benchmarks on the simple average of the TCPs for all countries in each category. This results in benchmarks of:

upper income countries	$0.15
upper-middle income countries	$0.19
lower-middle income countries	$0.19

191 *See, e.g.*, COMTELCA Comments at 2; Cable and Wireless Comments, Attachment A at 5; Tricom Comments at 3.

192 *See, e.g.*, GTE Comments at 18; Tricom Comments at 3; TSTT Comments at 3; *see also* AHCIET Comments at 6 (proposal to treat all middle income countries the same disregards the approach stated in the *Accounting Rate Flexibility Order* to adopt policies to reflect conditions in developing countries).

193 The transition periods we adopt for implementation of the benchmark settlement rates are discussed in Section II.B.2., *supra*.

lower income countries	$0.23

112. We will adopt our proposal in the *Notice* to revise and update our benchmarks periodically as necessary. As we stated in the *Notice*, periodic revisions are necessary to avoid the problem in the future of our benchmarks not keeping pace with cost reductions, and to encourage further movement toward cost-based settlement rates.[194] However, if a U.S. carrier has obtained a commitment from a foreign correspondent to reduce its settlement rate to a level at or below the relevant benchmark within a specified timeframe, we will not require the U.S. carrier to achieve further reductions if the relevant benchmark is revised within the timeframe specified by the U.S. carrier and its foreign correspondent. This will ensure that carriers that have committed to achieving settlement rates within the benchmarks are not adversely affected by any revisions to the benchmarks.

113. We sought comment in the *Notice* on whether it would be appropriate to forbear from applying our settlement rate benchmarks where there is effective competition for international services on a route and where substantial progress has been made toward achieving rates that represent the incremental cost of terminating international service.[195] Several commenters argue that such forbearance would be appropriate. The European Union agrees with the Commission's statement in the *Notice* that the most effective way to ensure settlement rates are at cost-based levels is through the development of competitive markets for IMTS. The European Union thus argues that our benchmarks should not be applied to liberalized markets.[196] TNZL argues that there is no need to adopt benchmarks for routes where there is effective competition in the international services market.[197] The United Kingdom also urges that benchmarks not be applied on competitive routes. It states that benchmarks could act as an "upward target for rates in such markets."[198] ABS-CBN states that where non-dominant carriers exist at both ends of a route, the Commission should first

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194 *Notice* at ¶ 28. Deutsche Telekom urges us to revise the settlement rate benchmarks in the future to reflect tariff changes. Deutsche Telekom Comments at 9-10.

195 *Notice* at 69.

196 European Union Reply at 2; *see also* ASETA Comments at 2 (settlement rate negotiations must be conducted "under the principles of free competition").

197 TNZL Comments at 5; *see also* Telefónica de España Comments at 67-69 (the Commission should not apply benchmarks to countries which satisfy the ECO test).

198 United Kingdom Comments at 2.

rely on commercial negotiations, not regulations, to achieve cost-based rates.[199] Americatel and Entel-Chile request that we forbear from applying our benchmarks to the U.S.-Chile route because, they argue, competition in the Chilean long distance and international markets is already vigorous.[200] IDC contends that the "urgency" of our benchmarks proposals is lessened considerably in many upper income countries such as Japan where, it states, settlement rates have been declining steadily.[201]

114. We continue to believe, as we stated in the *Notice*, that the best way to achieve cost-based rates is through effective competition. However, we conclude that we should not forbear from applying our settlement rate benchmarks on any route, including routes where competition has been introduced. While we expect, and experience has shown, that settlement rates on routes where there is effective competition will move toward cost-based levels, it will take time for vigorous competition to create efficient pricing. We thus believe that we cannot rely entirely on the development of competitive markets to reduce settlement rates to more cost-based levels in a timely manner. Also, as Japan notes, the standards for determining where effective competition exists and when substantial progress has been made in negotiating cost-based settlement rates could be difficult to establish objectively.[202] Moreover, we are concerned that a policy which would create an exemption based on the existence of competition in the destination market from our requirement that U.S. carriers negotiate settlement rates within our benchmarks may not be consistent with our MFN obligations under the GATS.[203]

115. We note, however, that in markets where there is fully developed competition, settlement rates will likely be below the benchmarks we adopt in this *Order*. Thus, whether the settlement rate benchmarks should be implemented on those routes would be a moot question. As a practical matter, the benchmarks we adopt here will only affect those markets

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199 ABS-CBN Comments at 1-2. ABS-CBN also argues that our benchmark settlement rate policy will expand our international settlements policy ("ISP") on many routes where it should be relaxed. ABS-CBN submits that where a non-dominant U.S. carrier is corresponding with a non-dominant foreign carrier, regulatory forbearance will best serve the public interest. ABS-CBN Comments at 2. We agree that in many cases involving non-dominant carriers, our ISP may not be necessary. The rules governing flexible settlement arrangements that deviate from the ISP are set forth in our *Accounting Rate Flexibility Order*.

200 Entel-Chile Comments at 1-2; Americatel Comments at 1-2.

201 IDC Comments at 13.

202 Japan Reply at 3.

203 *See* Section II.C.3, *supra*. Some commenters also raise this concern. *See, e.g.*, GTE Comments at 31-32.

where competition has not been introduced or has not yet fully developed. We anticipate that with the increasing market liberalization that will result from implementation of countries' commitments made in the WTO Basic Telecom Agreement, our benchmarks policy will have minimal impact on most WTO Member countries. We disagree with the United Kingdom that, in competitive markets, our benchmark settlement rates will serve as upward targets. We expect that competition will force rates to competitive levels, which would clearly be below the level of the benchmarks. In addition, in competitive markets, we expect to see much greater reliance on alternatives to settlement rates as permitted under our *Accounting Rate Flexibility Order*. These alternatives will help encourage termination rates to drop even closer to costs than the benchmarks we set today.

116. Americatel and Entel-Chile seek confirmation that alternative settlement arrangements approved by the Commission pursuant to the policies adopted in the *Accounting Rate Flexibility Order* are not subject to the benchmarks.[204] ABS-CBN raises a related issue, arguing that our benchmarks policy is inconsistent with our flexibility policy.[205] We disagree that there is an inconsistency between our benchmarks policy and our flexibility policy. Our flexibility policy establishes a more flexible regulatory framework that permits carriers to take their international traffic off the traditional settlement system where effective competitive conditions permit and to negotiate alternatives for terminating international calls that do not comply with the Commission's ISP. The focus of our ISP is on preventing foreign carriers from discriminating among U.S. carriers.[206] By contrast, the goal of our benchmarks policy is to reduce settlement rates where market forces have not led to more cost-based settlement rates. To the extent we may in the future need to consider the application of the two policies in individual circumstances, we will examine those situations at the time they arise, on a case-by-case basis.[207]

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[204] Americatel Comments at 2; Entel-Chile Comments at 2.

[205] ABS-CBN Supplemental Comments at 6-7.

[206] The ISP requires (1) the equal division of accounting rates; (2) nondiscriminatory treatment of U.S. carriers; and (3) proportionate return of inbound traffic. *See Implementation and Scope of the International Settlements Policy for Parallel Routes*, CC Docket No. 85-204, *Report and Order*, 51 Fed. Reg. 4736 (Feb. 7, 1986) (*ISP Order*), *modified in part on recon.*, 2 FCC Rcd 1118 (1987) (*ISP Reconsideration*), *further recon.*, 3 FCC Rcd 1614 (1988). *See also Regulation of International Accounting Rates*, 6 FCC Rcd 3552 (1991), *on recon.*, 7 FCC Rcd 8049 (1992).

[207] We note that in its comments TNZL seeks a modification of the approval process for alternative arrangements pursuant to the *Accounting Rate Flexibility Order*. This issue is not properly raised in this proceeding, however. It is an untimely request for reconsideration of the *Accounting Rate Flexibility Order*. We therefore will not address the merits of TNZL's argument here.

117. KDD notes that under our benchmark proposal, carriers providing service from the United States would have the same benchmark settlement rate as their foreign correspondents, despite the fact that foreign correspondents' benchmarks will vary according to the level of economic development of the country in which the correspondent is located. It concludes that carriers providing service from the United States will therefore be charging their foreign correspondents above-cost rates.[208] CANTO states that Commission acknowledgement that there may be a cost disparity between carriers providing service from the United States and their correspondents in developing countries demonstrates that the symmetrical division of the accounting rate deprives foreign carriers of settlement revenues to which they are entitled under cost-oriented accounting arrangements.[209] Other commenters similarly note that a system of symmetrical settlement rates is inconsistent with our goal of achieving cost-based settlement rates.[210] We agree that in a system where settlement rates are truly cost-based, rates will not be symmetric in all cases. As commenters point out, costs may vary among some countries, although we believe that the variation is minimal in most cases. However, as we have noted, we lack the cost data to determine whether, and to what extent, costs vary from one end of a call to the other. The crux of these commenters' objections is that the Commission should reconsider the 50/50 division of accounting rates required by the ISP. We continue to believe that, in most cases, our ISP is necessary to prevent the "whipsawing" of U.S. carriers by dominant foreign carriers.

118. We decline to adopt AT&T and MCI's proposed alternative approaches to calculating benchmarks. AT&T's proposes to set the upper end of each country's benchmark range at the lower of either that country's TCP or the average of TCPs for countries in the same income category, and MCI proposes to set country-specific benchmarks equal to the lower of a country's TCP or a target rate twenty percent above the mean for all countries in the same economic development category. We believe these proposals are inconsistent with the principle of using averages. We use an average to mitigate the effect of tariff inefficiencies by averaging the most inefficient tariffs with those that are less inefficient. AT&T and MCI's proposals are essentially attempts to guarantee lower settlement rate benchmarks by ignoring the effect of averaging for countries with relatively lower TCPs. We

[208] KDD Comments at 16-18; *see also* ITJ Reply at 1 (concurring with KDD's argument); European Union Reply at 2 (urging the Commission to reconsider the symmetrical division of accounting rates); Cable and Wireless Comments at 21; VSNL Comments at 6.

[209] CANTO Comments at 3; *see also* COMTELCA Comments at 15 (in light of the fact that developing countries' costs are higher, it may be appropriate to implement a system of asymmetric settlements); India Reply at 2 (arguing that accounting rates should be split unequally with developing countries).

[210] VSNL Comments at 6; Telstra Comments at 6; Korea RPOAs Comments at 3-4; GTE Comments at 9; Japan Comments at 4; Portugal Comments at 3-4; GTE Comments at 9; Telstra Comments at 6.

believe that their proposals are theoretically inconsistent with our approach and we decline to adopt them.

119. We disagree with TNZL and Telefónica de España that we should adopt country-specific benchmarks. They urge us to adopt country-specific benchmarks because, they contend, each country's TCP is a closer proxy for costs than an average. However, the TCPs themselves are not a proxy for costs. Rather, they are based on what we believe is the best available information for assessing the reasonableness of settlement rates in the absence of cost information. Moreover, as discussed above, we believe that averaging is appropriate to mitigate the impact of tariff inefficiencies on our benchmark calculations and to eliminate the incentive of carriers to attempt to influence the level of the benchmark rate that applies to their country by raising tariff prices.

120. In summary, we categorize countries by their level of economic development, as defined by GNP per capita, and adopt a separate settlement rate benchmark for each category. The benchmark for each category is calculated using the average of the TCPs for all countries for which we have data in each category. The country categories and their corresponding benchmark are: $0.15 per minute for high income countries (GNP per capita of $8,956 or more); $0.19 per minute for upper-middle income countries (GNP per capita of $2,896-$8,955); $0.19 per minute for lower-middle income countries (GNP per capita of $726-$2,895); and $0.23 for lower income countries (GNP per capita of less than $726).

3. Safeguard in Cases of Market Distortion

a. The Notice

121. We proposed in the *Notice* to establish a separate benchmark range for each economic development category. We proposed to base the upper end of the ranges on the TCP methodology and for each category, to use an estimate of the incremental cost of terminating international traffic for the lower end of the range. We proposed to use an estimate of the incremental cost for the lower end of the range because it is our goal ultimately to achieve settlement rates that are more closely cost-based than are current settlement rates. We recognized, however, that we do not have sufficient data at this time to calculate a precise estimate of incremental cost. We therefore proposed to use an estimate provided by AT&T of its "average network cost" for termination of inbound international calls as the starting point to derive a preliminary estimate of incremental cost.[211] We also encouraged both U.S. and foreign carriers to submit incremental cost data.

[211] Letter from R. Gerard Salemme, Vice President - Government Affairs, AT&T to Donald Gips, Chief, International Bureau, Federal Communications Commission, December 16, 1996 ("*AT&T December 16 Ex Parte*").

122. AT&T provided an estimate of $0.075 per minute for the costs of the international half-channel, gateway switching, domestic interexchange carrier distribution, and local distribution. To get closer to an estimate of incremental cost, we removed the common costs that we could identify and quantify in AT&T's estimate of average network costs -- the common costs included in the access charges. Removing the access charges from AT&T's $0.075 estimate results in an estimate of $0.06 for the incremental cost of terminating international traffic.[212] We noted that while our estimate is based on the costs of a U.S. carrier, the incremental cost in foreign countries is not likely to vary from our estimate by more than a few cents and likely does not exceed $0.09 per minute.

b. Positions of the Parties

123. Commenters express different views on whether the Commission should use an estimate of TSLRIC for the lower end of the benchmark ranges. Several commenters agree with the Commission that it is appropriate to use an estimate of the TSLRIC of terminating international traffic for the lower end of the benchmark ranges because that is the level to which rates would tend in a competitive market. Frontier agrees with the Commission that "pricing based upon incremental costs is economically efficient and, in a competitive environment, rates would tend to move toward incremental costs."[213] WorldCom notes that "economists generally agree that a forward-looking, incremental costing standard is the best reflection of the actual cost of terminating telecommunications traffic.[214] AT&T fully agrees that reducing settlement rates to a TSLRIC-based level "should be the Commission's overall policy objective." AT&T states that TSLRIC pricing is necessary to encourage efficiency and to prevent competitive distortions in the U.S. IMTS market.[215]

124. Those who disagree with the Commission's proposal generally object to the Commission's conclusion that TSLRIC is the appropriate measure of costs for establishing

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[212] We noted this estimate is greater than incremental cost because it includes some contributions to the common costs of AT&T's network that we cannot identify on the basis of the data provided by AT&T.

[213] Frontier Comments at 2-3; *see also* NTIA Reply at 4-5 ("In a competitive market, settlement rates would naturally move closer to incremental cost"); Alexis de Tocqueville Institute Reply at 5 (in evaluating actual cost data provided by foreign carriers, Commission should "bear in mind the rates that obtain in truly competitive markets as the best proxies for actual incremental cost plus a market-based rate of return").

[214] WorldCom Comments at 6 (noting that five former Chief Economists of the United States Department of Justice, Antitrust Division, support forward-looking costing of local interconnection rates).

[215] AT&T Comments at 21.

cost-based settlement rates. However, some commenters also object specifically to the Commission's estimate of TSLRIC.

125. Many commenters that object to the application of a TSLRIC methodology to determine cost-based settlement rates do so on the grounds that the methodology has not been accepted by all countries. These commenters object to what they see as an attempt by the Commission to impose the TSLRIC methodology on other countries.[216] GTE and Telmex disagree with the economic theory upon which the TSLRIC methodology is based. They oppose the use of a TSLRIC methodology for setting any rates, including settlement rates.[217]

126. Some commenters disagree not only with the use of a TSLRIC costing methodology to determine cost-based settlement rates generally, but also with the Commission's estimate in the *Notice* of the TSLRIC of terminating international traffic. For the most part, these commenters argue that the Commission's reliance on AT&T's estimate of its average network cost to calculate a TSLRIC estimate is inappropriate because other carriers' costs are likely to differ from AT&T's.[218] Some commenters cite to our recent *Access Charge Reform Order* and *Universal Service Order* as confirmation that the Commission lacks a reliable methodology for estimating the TSLRIC of providing international termination service.[219]

127. AT&T, on the other hand, contends that its average cost data provide a reasonable, and in fact, generous estimate for all carriers of the TSLRIC of providing international termination service. This is because, according to AT&T, there are no material

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[216] *See, e.g.*, Chunghwa Telecom Comments at 2; France Telecom Comments at 11; KDD Comments at 12; Philippines Comments at 29-30; Singapore Telecom Comments at 8; Japan Reply at 1.

[217] GTE Reply at 26; Telmex, Indetec Statement at 9; *see also* COMTELCA Comments at 14.

[218] Deutsche Telekom Comments at 10; *see also* HKTI Comments at 28 (AT&T estimates "should be considered with the greatest skepticism"); GTE Reply at 25 (AT&T cost data is not a proper measure of other carriers' costs and "is a particularly poor proxy for the costs faced by operators in developing countries"); Japan Reply at 2-3 (use of AT&T data inappropriate because AT&T economies of scale far exceed any other carrier in the world); CANTO Comments at 3 (the difference in costs for foreign carriers "is far greater than the FCC's estimate of $0.3/minute"); GT&T Reply at 11-12 (carriers in developing countries have higher costs than AT&T); France Telecom Comments at 12; KDD Comments at 13-14 (Commission lacks data necessary to implement TSLRIC methodology); Singapore Telecom Comments at 8 (data necessary to implement TSLRIC methodology do not exist); Telintar Comments at 10 ("AT&T's estimate of its domestic cost structure plainly has no relevance to the costs incurred by carriers in other countries").

[219] *See KDD June 5 Ex Parte* at 6; *Telefónica de España and Telefónica Larga Distancia de Puerto Rico July 30 Ex Parte* at 2-3.

differences between the costs of U.S. and foreign carriers for the termination of international calls.[220] AT&T argues that to the extent cost differences do exist, they should result in foreign carriers having lower costs than U.S. carriers.[221]

c. Discussion

128. We have stated many times that the most effective way to ensure that consumers pay economically efficient, cost-based rates is through the development of effectively competitive markets.[222] We therefore believe that where markets are not effectively competitive, and we must seek through regulation to ensure that rates are reasonable, we should attempt to the greatest extent possible to duplicate prices that exist in competitive markets. Our goal in this proceeding thus is to establish settlement rate benchmarks that reflect rates that would prevail if the originating and terminating markets for international services were competitive.

129. We believe settlement rates in markets where there is effective competition would tend to the level of total service long run incremental costs, or TSLRIC.[223] In dynamic, competitive markets, firms take action based not on embedded costs, but on the relationship between market-determined prices and forward-looking costs. If market prices exceed forward-looking economic costs, new competitors will enter the market and prices will be driven toward a forward-looking incremental cost level. For services such as international termination services that share some joint and common costs, incremental costs would include

[220] AT&T Comments at 29. AT&T states that for the international transmission component of providing termination service, both U.S. and foreign carriers generally acquire undersea cable capacity under similar consortium cable system agreements and satellite capacity from independent satellite providers. For the international switching component, switching equipment is purchased by both U.S. and foreign carriers from the same equipment providers in a competitive, global market. *Id.*

[221] *Id.* at 28. AT&T states that foreign carriers' satellite transmission costs may be significantly lower than U.S. satellite transmission costs because foreign carriers may purchase directly from Intelsat, while U.S. carriers are required to use Comsat as an intermediary. AT&T further states that vertically integrated foreign carriers that own and operate national networks may experience lower costs for domestic transport and termination than U.S. interexchange companies that must pay access charges to LECs. *Id.* at 29-30.

[222] *See, e.g., Notice* at ¶ 20; *Access Charge Reform Order* at ¶ 263 ("Competitive markets are superior mechanisms for protecting consumers by ensuring that goods and services are provided to consumers in the most efficient manner possible and at prices that reflect the cost of production"). *See also* Coalition for Hemispheric Competitiveness Comments at 7 (competition in local and international communications services is the best method to provide reasonably priced, cost-based telecommunications services).

[223] The term TSLRIC is defined in more detail in Section II.A, *supra.*

a reasonable contribution to forward-looking joint and common costs. Because rates in competitive markets will tend towards the level of forward-looking incremental costs plus a reasonable contribution to joint and common costs, we conclude that an incremental costing methodology is the appropriate basis for determining cost-based settlement rates.

130. We agree, however, with commenters who contend that we do not have the incremental cost data or a costing methodology necessary to calculate a precise estimate of carriers' incremental cost of terminating international traffic. We noted this lack of data in the *Notice*. It was for that reason we proposed to use the TCP methodology to calculate the top end of the benchmark ranges. We nonetheless proposed to use an estimate of the incremental cost of terminating international traffic for the lower end of the benchmarks because it is our goal ultimately to achieve settlement rates at an incremental cost level. We calculated a "preliminary estimate of incremental cost" using data supplied by AT&T as a starting point. In making this preliminary estimate, we sought to generate comments and incremental cost data that would enable us to calculate a more accurate estimate of incremental costs. However, we received no comments that help us with this task.[224] AT&T argues that its average cost data provide a reasonable estimate for all carriers of the TSLRIC of providing international termination service, but it submitted no evidence in its comments on what TSLRIC prices would be.

131. We also agree with commenters that argue we should not adopt a TSLRIC estimate based solely on the data supplied by AT&T. While there is no evidence on the record to show that AT&T's costs differ from other carriers, as some commenters assert,[225] we agree that we need more information before we can adopt a TSLRIC estimate. We therefore decline at this time to adopt a TSLRIC estimate for the low end of the benchmark range. Instead, we will adopt one benchmark rate for each economic development category. This benchmark rate will be based, as discussed in Section II.A, on the TCP methodology.

132. Instead of establishing settlement rate benchmark ranges with the low end based on an estimate of the TSLRIC of providing international termination services, as proposed in the *Notice*, we will adopt a rate that we will enforce as a safeguard when we detect distortion in the U.S. market for IMTS. As discussed in the *Notice*, and in Section II.C. of this *Order*, above-cost settlement rates create certain distortions in the U.S. market for IMTS. However, if settlement rates are at cost-based levels, carriers will not have the ability to engage in market distorting behavior. We thus adopt a "best practice" rate that is closer to a cost-based level than our settlement rate benchmarks that we can apply to prevent market

[224] We encouraged both U.S. and foreign carriers to submit incremental cost data, but received none. *Notice* at ¶ 50.

[225] *See, e.g.*, Deutsche Telekom Comments at 10; France Telecom Comments at 12.

distorting behavior. This rate will be applied only to the extent carriers seek authorization to provide facilities-based service from the United States to affiliated markets and to provide private line resale service, as discussed in Sec. II.C., *infra*. In those cases, the rate will be enforced only if the Commission detects market distortion on the route or routes in question.

133. Because we do not have data to establish an accurate cost-based rate, we will use a market-based rate as a substitute. Rates in competitive markets would tend to an incremental cost level. We thus look to competitive markets to find a rate that can be applied in cases of market distortion in lieu of a TSLRIC estimate. As the Alexis de Tocqueville Institution states, rates that exist "in truly competitive markets [are] the best proxies for actual incremental cost plus a market-based rate of return."[226] We adopt a "best practice" rate that is based on the lowest, commercially viable, settlement rate paid today by U.S. carriers to an overseas carrier from a competitive market. We will revisit this rate in the future, as market conditions warrant. We recognize that there could be instances where this rate does not accurately reflect a carrier's costs of providing international termination service. We will therefore consider, on a case-by-case basis, other factors that may influence the level of the best practices rate as applied to individual carriers. However, the best practice rate we adopt here, as revised in the future, will be a presumptive rate that will apply in cases of market distortion until evidence is presented that other factors should be taken into consideration.

134. As the first step in choosing the current best practices rate, we identify the lowest settlement rate that U.S. carriers pay on average for traffic to any country. The lowest settlement rate that U.S. carriers currently pay on average is with Sweden, at 0.06 SDR ($0.08).[227] The next step in choosing the rate is to determine whether the rate is commercially viable. We conclude that it is. This rate has been in effect since March 1996 and during that time, Sweden has experienced sustainable, vibrant, procompetitive development of its telecommunications industry. We have previously found that Sweden offers effective competitive opportunities ("ECO") for U.S. carriers to offer facilities-based switched and private line services. In making this determination, we found that there are no legal restrictions on competitive entry in Sweden and that the actual conditions, including the terms and conditions of interconnection, competitive safeguards, and the regulatory framework, are

226 Alexis de Tocqueville Institution Reply at 5. The Coalition for Hemispheric Competitiveness urges us to look exclusively to pricing which exists in competitive markets to set benchmarks, rather than using the TCP methodology. Coalition for Hemispheric Competitiveness Comments at 8.

227 We note that U.S. carriers have a growth-based rate of 0.15 SDR and 0.1 SDR (this translates into a settlement rate of $0.105 and $0.07) with British Telecom for service to the United Kingdom. While the rate is structured so that all U.S. carriers currently pay the $0.07 rate, we do not believe it is appropriate to choose only the lower rate in a growth-based rate structure for our best practice rate. We also note that TeleNordia and MCI have reached an agreement for a $0.06 settlement rate. However, that agreement has not yet gone into effect, so there is no evidence that it is a commercially viable rate.

conducive to entry.[228] We also noted the actual entry of multiple facilities-based international carriers into the Swedish market.[229] The vibrant procompetitive development of the Swedish telecommunications sectors indicates that its settlement rate with the United States is economically feasible and sustainable. We thus adopt U.S. carriers' current settlement rate with Sweden, $0.08 cents, as our "best practice" rate to be applied in cases of competitive distortion.

135. We emphasize that the "best practice" rate we adopt in this *Order* will apply only in cases of competitive distortion. We also emphasize that we will consider other factors that may make application of the best practice rate inappropriate for a particular carrier. Finally, we reiterate that, as with our benchmark rates, at such time as we find it necessary to require a carrier or carriers to comply with this rate, any affected carrier that believes such a requirement would prove unjustified may follow the procedures discussed in Section II.A.2 of this *Order* to request an individualized settlement rate determination.

B. Implementation of Benchmarks

136. We are committed to achieving as soon as possible settlement rates that are at or below the benchmarks we adopt in this *Order*. However, we are also cognizant of the adjustment problems a rapid transition to more cost-based settlement rates could cause for U.S. carriers' foreign correspondents. These problems are particularly pronounced for carriers in lower income countries. We therefore adopt a transition schedule for U.S. carriers to negotiate settlement rates within the benchmarks that takes into account the level of economic development of the country in which a foreign carrier is located. We also adopt additional measures to ensure a smooth transition from current settlement rates to our benchmarks for those foreign carriers facing the most severe adjustment problems. We discuss these transition measures and the schedule we adopt below in Section III.B.2.

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[228] Telia North America, Inc., Application for Authority Pursuant to Section 214 of the Communications Act of 1934, as amended, to Acquire and Operate Facilities to Provide International Services Between the United States and Sweden, *Order, Authorization and Certificate*, I-T-C-96-545, DA 97-511 (International Bur., rel. March 11, 1997) (*"Telia NA Order"*).

[229] *Id.* at ¶ 23. *See also* "Modern Telecommunications for Everybody: Green Paper on a revised Swedish telecommunications regulation," Ministry of Transport and Communications (Aug. 15, 1996) at 13-14 (discussing competitive trends in the Swedish market for international services). The Swedish National Post and Telecom Agency does not distinguish between facilities-based and resellers in licensing and does not publish a list of the facilities-based operators providing service in Sweden. Telia NA, however, estimates that there are eleven facilities-based operators in Sweden that either own their own facilities or lease facilities. See *Telia NA Order* at n. 21.

1. Impact of Benchmark Settlement Rates on Developing Countries

a. The Notice

137. In the *Notice*, we acknowledged the argument of some that substantially above-cost settlement rates may be justified because they are used to subsidize network development in lower income countries. We noted, however, that settlement rate reductions would not necessarily result in a significant loss of revenues for foreign carriers, even those with very high settlement rates. This is because, we stated, bringing settlement rates closer to costs will, in the long run, lead to lower calling prices. Lower calling prices, in turn, will stimulate traffic flows. We also noted that the growing capabilities and incentives to bypass the traditional accounting rate system mean that settlement revenues no longer provide secure financing for investment in telecommunications infrastructure. We concluded that open and competitive markets that welcome private capital offer a more reliable and sustainable means to finance infrastructure development than the traditional monopoly-based accounting rate system.

b. Positions of the Parties

138. Many developing countries and their carriers express concern that our settlement rate benchmarks will eliminate an important source of revenue for developing countries' telecommunications markets.[230] These commenters argue that in many developing countries, settlements revenues are used to fund universal service programs and network infrastructure development. For example, the Government of St. Vincent and the Grenadines states that our benchmarks will "effectively cripple" telecommunications network development in its country.[231] Similarly, Telekom Malaysia states that the benchmarks will have "dire economic ramifications" for developing countries.[232] Panama states that it relies on revenues from international operations to attract investors for modernization and development of its telecommunications infrastructure.[233] Telmex similarly argues that a precipitous drop in

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230 *See, e.g.*, India Reply at 2; Pakistan Tel. Reply at 3; Saint Vincent and the Grenadines Comments at 1; Latvia Comments at 1; Suriname Comments at 1.

231 Government of St. Vincent and the Grenadines Comments at 1. *See also* CANTO Comments at 4 (loss of significant settlement revenues "would have a substantial, adverse impact" on telecommunications infrastructures in Caribbean countries).

232 Telekom Malaysia Comments at 3.

233 Panama Comments at 26. *See also* Philippines Comments at 24; CARICOM Reply at 1 (a stream of income, premised on existing settlement rates, was factored into many member country's decisions to modernize their networks).

settlement rates could undermine the procompetitive results that its regulator has achieved to date.[234] CANTO notes that settlement revenues are used as collateral to obtain access to capital and argues that as a result, reduced settlement revenues will have a negative impact on the ability of carriers in developing countries to obtain capital for network development.[235] Some commenters assert an entitlement to maintain excessive settlement rates to fund universal service requirements and network buildout.[236] For example, GT&T asserts that "foreign countries are entitled to support universal service through settlement revenues."[237]

139. MCI, however, states that there is no evidence in the record that above-cost settlement rates result in any increase in infrastructure development or connectivity to the international telecommunications network.[238] The European Union expresses concern about the potential impact of the benchmark settlement rates on developing countries, noting that some countries "have traditionally seen settlements in-payments as a form of foreign aid."[239] However, it notes that as a form of aid, settlement payments are not transparent and do not permit accountability. The European Union suggests the World Bank's adjustment program may be a useful form of assistance as settlements revenues decrease.[240]

234 Telmex Comments at 12; *see also* CANTO Comments at 5 (settlement rate benchmarks would have a detrimental impact on privatization and infrastructure development plans that are premised upon gradual settlement rate reductions). Although classified as an upper income country, Israel also argues that benchmark settlement rates could harm the competitive process underway in that country. *See* Israel Comments at 1-3.

235 CANTO Comments at 4; *see also* Poland Comments at 1 (positive settlements balance is used as a base for obtaining credit for telecommunications development); Sri Lanka Telecom Comments at 1 (equipment purchases have been financed under agreements committing future settlement revenues for payments); COMTELCA Comments at 12.

236 *See, e.g.*, GT&T Reply at 12-16; Telintar Comments at 9; Telmex Comments, Indetec Statement at 8; CANTO Comments at 5; Indonesia Reply at 2; Solomon Islands Comments at 2; Telecom Vanuatu Comments at 2.

237 GT&T Reply at 12. *See also* Solomon Islands Comments at 2 ("we as the Government of the Solomon Islands have a legitimate right to impose a large proportion of the cost of the social telecommunications policy objectives on the international sector"); CANTO Comments at 5; India Reply at 2; Cable and Wireless Comments at 12.

238 MCI Reply at 4.

239 European Union Reply at 3.

240 *Id.*

140. AT&T also argues that the settlement rates paid by U.S. carriers to their foreign correspondents should not include any universal service subsidies. AT&T asserts that U.S. carriers should pay only the cost of international termination, not "the cost incurred by foreign carriers to use the domestic network for purely domestic services, or for international calling between the foreign carrier and a country other than the United States."[241] Brazil notes that all countries have subsidized network development and many still do. It states that in light of this fact, it is important to identify the level of subsidy and then work to reduce it to a "fair" level.[242]

141. Some commenters disagree with our statement in the *Notice* that "reductions in the price of international telephone service would significantly stimulate traffic flows, thereby increasing revenues for U.S. and foreign carriers."[243] Telefónica del Perú and COMTELCA argue that elasticities of demand do not remain constant across all cultures and levels of economic development. They contend that the demand for telecommunications services has significantly less price elasticity in developing countries than it does in industrialized countries. As a result, they argue that carriers in developing countries will not see enough of a revenue increase from traffic stimulation to offset the loss they believe they will incur from reductions in settlement rates.[244]

c. Discussion

142. We agree with commenters that the transition to more cost-based settlement rates will be difficult for countries and carriers that currently rely on excessive settlement rates to generate revenues. We disagree, however, that this difficulty should be avoided by allowing U.S. carriers to maintain the status quo in the international accounting rate system.

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241 AT&T Reply at 35 (*citing* Regulation of International Accounting Rates, Phase II, *Order on Reconsideration*, 11 FCC Rcd. 6332, 6335 (1996)).

242 Brazil Reply at 2.

243 *See Notice* at ¶ 10.

244 COMTELCA Comments at 11-12; Telefónica del Perú Comments at 11-12. *See also* HKTI Comments at 16-17 (even if it were true that international services are price elastic in the U.S. market, it does not necessarily follow that international services are similarly elastic in foreign markets where other factors, including demographics and disposable income, come into play).

As discussed in Section I, *supra*, the global telecommunications market is changing in ways that cannot accommodate the outmoded, monopoly-based, accounting rate system.[245]

143. We acknowledge the concerns of many commenters that settlement revenues are necessary to fund network development and universal service requirements. However, we also recognize that settlement revenues are no longer a stable source of funding for network infrastructure development as a result of changes in the global telecommunications market. Thus, to the extent that settlement payments have been used for telecommunications infrastructure development, alternative funding mechanisms, from both public and private sources, must be identified.

144. Because of the changing nature of the international telecommunications market, we believe that open and competitive markets that welcome private capital offer a more reliable and sustainable means to finance infrastructure development than the traditional accounting rate system. There is widespread agreement on this principle. For example, ITU Secretary-General Tarjanne has stated that "[t]here is now overwhelming evidence from developing and developed economies alike to support the contention that competition and private enterprise, tempered by regulation, provide the best recipe for telecommunications development. Procompetitive policies and market mechanisms should be favoured wherever feasible."[246] Moreover, there is ample evidence that allowing additional carriers to compete with an incumbent carrier leads to greater network penetration. For example, a recent study of the implications of competition on universal service and employment shows an increase in network and service availability with the introduction of competition.[247] That study notes that in China, after the announcement of the entry of a second carrier in 1993, network growth skyrocketed to 58.9 percent in one year and the waiting period for new wireline connections dropped for both business and residential customers by as much as 50 percent.[248] In the

[245] As ITU Secretary-General Tarjanne recently stated, "[t]here is clear danger that the existing accounting rate system could collapse, or simply be by-passed, if there is no orderly transition to new systems." Tarjanne May 27 Speech at 2.

[246] Dr. Pekka Tarjanne, Consultation Document on Accounting Rate Reform, Temporary Document 3-E, ITU-T Study Group 3, Geneva, November 11-15, 1996. *See also* Alexis de Tocqueville Institution Reply at 2 ("There is ample evidence that the single-carrier model of telecommunications service is obsolete and that competition-based systems offer the widest array of services at the lowest cost to the broadest possible segment of the public.").

[247] Ben A. Petrazzini, "Competition in Telecoms - Implications for Universal Service and Employment," *Public Policy For The Private Sector*, Note No. 96 (World Bank 1996).

[248] *Id.* at 2.

Philippines, the announcement of competition in 1993 led to a 1,530 percent increase in the annual installation of main lines.[249]

145. We also recognize, as the European Union suggests, that there are other public sources of funding and technical assistance to which countries may turn. The World Bank, for example, has indicated a willingness to strengthen its existing assistance mechanisms. Specifically, the World Bank has stated that it would be prepared to provide assistance at the following three levels within the framework of its Country Assistance Strategy discussion with national governments: (1) advice and assistance in handling the transition to economically rational settlement rates, financed either directly through technical assistance loans or grants, or through the World Bank's *info*Dev Program[250]; (2) assistance in offsetting the macro-economic costs of transition in those countries hardest hit, as part of the World Bank's regular macro adjustment programs; and (3) assistance with network development through loans and guarantees, within the framework of the World Bank's current telecommunications sector policies which promote private investment.[251]

146. Other multilateral lending agencies such as the Inter-American Development Bank and organizations such as the ITU also have programs to provide governments that make a commitment to competition with technical assistance on critical issues such as the establishment of independent regulatory agencies, interconnection policies, tariff rebalancing, and universal service policies.[252] These public sector sources of revenue and assistance provide an important mechanism for easing the transition away from the current international accounting rate system toward a system where prices are more closely related to costs.

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[249] *Id.*

[250] The *info*Dev Program is managed by the World Bank and funded by outside donors. The program is designed to help developing countries benefit from innovations in information technologies and fully participate in the global information society. The program shares worldwide experience with, and disseminates best practices to, governments and key decision makers on the economic and social development potential of communications and information technologies; facilitates contact between relevant parties (governments, non-governmental organizations, private sector, and individuals); and channels policy advice and other technical assistance to governments on privatization, private entry and competition in the communications and information sectors, and on improving the policy, regulatory and business environment for investment.

[251] *See* Informal Expert Group Report at 7.

[252] We note that a significant advantage of the World Bank and other funding programs is that they ensure the funding is used for specifically stated objectives, *i.e.*, infrastructure development. Despite the assertions by many commenters, there is no guarantee that settlement revenues are used for network development.

147. Panama and Mexico concur with the need for competitive reforms and both countries have embarked on steps to introduce competition in their telecommunications markets. They argue, however, that our benchmarks could impede the further development of competition in their markets by restricting an important source of revenue for new entrants.[253] ABS-CBN also argues that "the status quo should be maintained until competitive telecommunication carriers in the Philippines are more firmly established."[254] Bolivia requests the Commission to take into account its needs as it introduces competition.[255] We recognize, as these commenters urge, that the adjustments necessary for the successful introduction of competition cannot be made overnight. Especially difficult is the process of rebalancing rates so that services are priced in accordance with the underlying costs of providing them. For these reasons, we think it is appropriate to adopt a transition period for U.S. carriers to negotiate settlement rates at or below the benchmarks.[256]

148. We disagree with commenters who argue foreign carriers are entitled to require that universal service requirements be financed disproportionately through settlement revenues. As discussed above in response to commenters' claims that the TCP methodology should be adjusted to include an additional universal service component,[257] we believe that universal service subsidies must be nondiscriminatory and transparent. Moreover, the Reference Paper on Procompetitive Regulatory Principles negotiated as part of the WTO Basic Telecom Agreement states that universal service obligations must be "administered in a transparent, non-discriminatory and competitively neutral manner." Hidden subsidies such as those contained in settlement rates and subsidies borne disproportionately by one service, or in the case of settlement rates, by consumers from net payer countries, are not consistent with these principles and cannot be sustained in a competitive global market. We also disagree with those commenters that compare the hidden subsidies in settlement rates to domestic universal service policies in the United States, which rely on explicit and transparent funding

[253] Panama Comments at 26; Mexico Comments at 9-12; *see also* Poland Comments at 2.

[254] ABS-CBN Comments at 8; *see also* ABS-CBN Reply at 3-4 (competing carriers receive a small portion of settlement revenues and a reduction would only impair their ability to compete). PTI also requests that the Commission forbear from applying the settlement rate benchmarks on routes where competition is being introduced, such as the U.S.-Portugal route. PTI Comments at 9-10.

[255] Bolivia Comments at 1-2.

[256] We discuss the transition periods we adopt in Section II.B.2., *infra*.

[257] *See* Section II.A, *supra*.

mechanisms.[260] Universal service in the U.S. market is based on and uses end user telecommunications revenues in the United States, not settlements revenues paid by foreign carriers.

149. There is no doubt that reform of the international accounting rate system will require many carriers, especially those in developing countries, to make painful adjustments. However, we believe that the effect of lower settlement rates will be at least partially, if not fully, offset by growth in the market for international services. The current system of inflated accounting rates artificially restricts growth in the global IMTS market. As settlement rates are decreased, international calling prices should decrease. In turn, reduced calling prices for international telephone service should significantly stimulate traffic flows. This would provide increased revenues from two sources: collection revenues from outgoing calls and settlements revenues from incoming calls.[261] We disagree with commenters that express doubt that demand for international services in developing countries is price elastic. As the United Kingdom states, while it may be difficult to calculate reliably the price elasticity of international traffic, it is "clear that such elasticity is present in the market."[262] In fact, there is evidence from both industrialized and developing countries that calling volumes would increase with reductions in IMTS collection rates. In Chile, for example, prices for international calls declined by about 30% after competition was introduced in 1994 and demand grew in one year from about 70 million minutes to 140 million minutes.[263] On the Chile-U.S. route alone, traffic from Chile to the United States increased from 17.3 million

[260] Cable and Wireless Comments at 12. *See also* Solomon Islands Comments at 2 (asserting that it has "a similar right" to cross-subsidize network development as the United States, the United Kingdom, and other industrialized countries). GT&T similarly states that the "FCC is in no position to criticize foreign countries who may wish to impose a heavier universal service obligation upon international traffic when the FCC itself imposed more burdensome universal service obligations upon international traffic than upon intrastate and local traffic." GT&T Reply at 15-16. GT&T is referring in particular to the access charges paid by interexchange carriers.

[261] As explained in the Informal Experts Group Report, any revenue shortfall from accounting rate reform "is mainly a transitional problem. Any potential loss in settlement payments should, over time, be replaced by increased local revenue generation, as national tariffs move toward more efficient levels, as new customers are added, as new services and ways of pricing are developed, and as steps are taken to increase the efficiency of the network." Informal Experts Group Report at 5-6.

[262] United Kingdom Comments at 3.

[263] U.S. Dep't of State, *Response to the Secretary-General's Consultative Document on Accounting Rate Reform*, ITU Telecommunication Standardization Sector Study Group 3, COM 3-15, at 4 (Mar. 1997).

minutes in 1993 to 45.6 million minutes in 1995.[264] Telefónica de España notes that a recent 43 percent reduction in international rates in Argentina has resulted in "more calls being placed to the United States."[265]

150. All players in the global telecommunications market must work together to ensure a smooth transition from the current accounting rate system to a system in which prices are more closely related to costs. Carriers and countries that currently rely on above-cost settlement rates do not deny that reform of the accounting rate system is necessary. At the same time, we cannot deny that reform will require difficult adjustments in many countries, especially lower income countries. We therefore adopt policies that take into account the impact of our settlement rate benchmarks on other countries. We believe that such policies are appropriate and are consistent with our statutory authority. As many commenters point out,[266] it is in the public interest to take measures to ensure that the networks of U.S. carriers' foreign correspondents are not unduly disrupted by the implementation of our benchmark settlement rates.

151. To address the adjustment concerns articulated in the record by many developing countries, we take into account the impact on developing countries of moving to a more cost-based system in calculating and implementing our settlement rate benchmarks. As discussed in Section II.A.2., *supra*, one of the ways in which we take into account the impact of our benchmarks on lower income countries is by establishing separate benchmarks based on countries' level of economic development. As discussed in the next section of this *Order*, we also adopt a transition schedule for U.S. carriers to negotiate settlement rates at or below the benchmarks we adopt here. This schedule will provide additional time for countries and carriers to make the adjustments necessary to transition to a more cost-based system of settlement rates.

2. Transition to Benchmarks

a. The Notice

[264] *See* 1993 Section 43.61 International Telecommunications Data and 1995 Section 43.61 International Telecommunications Data, Industry Analysis Division, Common Carrier Bureau, Federal Communications Commission.

[265] Telefónica de España Reply at 41.

[266] *See, e.g.*, CANTO Comments at 3 (noting the negative effect on U.S. consumers of policies that could undermine network development in developing countries).

152. In the *Notice*, we proposed a transition schedule for U.S. carriers to negotiate settlement rates within the benchmarks. We proposed a transition schedule based on countries' level of economic development because we believe that a U.S. carrier's ability to negotiate a charge that complies with our benchmarks without undue disruption of its or its foreign correspondent's operations diminishes as the level of economic development decreases. We noted, for example, that carriers in many developing countries have significantly distorted rate schedules involving cross-subsidies from users of international services to those using domestic services and that many of these carriers also may have substandard telecommunications infrastructure. We concluded that an immediate shift to cost-oriented settlement rates could create adjustment problems for carriers in these countries while they are trying to rebalance rates and upgrade their network. We further noted that implementation of the benchmarks will require greater reductions in current settlement rates for developing countries than for upper income countries.

153. We proposed a transition schedule that will enable U.S. carriers to achieve rates at or below the benchmarks with all foreign carriers in a four to five year period. Specifically, we proposed to require that U.S. carriers' settlement rates with foreign carriers from high income countries be at or below our benchmarks within one year of the effective date of our order in this proceeding; for upper middle income and lower middle income countries, within two years; and for low income countries, within four years. Alternatively, we requested comment on whether the transition schedule for upper, middle, and lower income countries should be two, three, and five years, respectively, or whether the transition schedule for lower middle income countries should be three years and for upper middle income countries, two years.

154. We also sought comment on whether we should provide an additional period of transition in negotiations with foreign carriers for which annual reductions in the spread between their current settlement rate and their benchmark will exceed a certain percentage, such as twenty-five percent. Alternatively, we sought comment on whether we should provide additional transition time for negotiations with foreign carriers for which transition to the relevant benchmark would entail a loss of greater than a certain percentage of their annual revenue.

155. Finally, we sought comment on whether U.S. carriers should be asked to make reasonable progress in negotiating settlement rates at or below the benchmarks throughout the transition periods. We noted, for example, that carriers could be asked to negotiate a certain percentage reduction annually of the spread between current settlement rates and the relevant benchmark.

b. Positions of the Parties